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JULY 21, 2014

TO: BOARD OF DIRECTORS

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**SUBJECT: WESTSIDE PURPLE LINE EXTENSION FINANCIAL POLICY
IMPACTS AND COMPARATIVE COST VARIANCE DETAIL**

ISSUE

At its July 17, 2014 meeting, the Metro Construction Committee directed staff to provide a written report addressing the financial policy impacts and comparative cost variance detail of the proposed \$288.2 million cost increase for the Westside Purple Line Extension Section 1 Life-of-Project budget.

BACKGROUND

This report provides a discussion of the financial policy impacts of the Westside Purple Line Extension Section 1 cost variance, comparative cost variance detail, and cost control efforts to date. We are providing additional information on the fiscal responsibility policy analysis (Attachment A) and the cost comparisons to other recent projects (Attachment B). Attachment C is the original Construction Committee staff report attachment intended to address our cost management process. Together, this information responds to the Construction Committee request.

Cost Increases Require Cost Reductions within the Same Subregion

Measure R allotted \$4,074 million for the Westside Subway, but the Long Range Transportation Plan (LRTP) forecasted that only \$3,285.8 million of that would be needed. The full amount was not needed due to New Starts funding assumptions and lower, pre-bid opening cost estimates. We now need \$288.2 million more of the Subway allotment funds to address higher, post bid-opening costs. This will reduce the amount available for an assumed future substitute project in the Westside and Central Area sub-regions, as explained below.

When the full allotment of a Measure R project's fund are not needed, State law and the ordinance both require that a substitute project be provided to the same sub-region by the end of the tax. The original LRTP allotment of only \$3,285.8 million to the Subway project would have left \$788.2 million for such a substitute project. We had assumed this would occur in the third decade of the Long Range Plan (FY 2030 or beyond). In light of the Westside Subway Section 1 cost increase of \$288.2 million, the cost increase will now require that the substitute project be reduced by \$288.2 million, from \$788.2 million to \$500 million.

This substitute project reduction is consistent with the Measure R Cost Management Process and Policy, which also requires that a corridor or sub-region reduce costs to pay for cost increases. Please see Attachment C for a full discussion of the operation of that policy with respect to the Westside Purple Line Extension Section 1 project.

Measure R Fiscal Responsibility Policy

We propose to pay for the Westside Subway Section 1 cost increase of \$288 million directly from Measure R or, if necessary, incur additional Measure R bond debt to cover the cost increase. Such additional Measure R indebtedness is restricted by the Measure R Fiscal Responsibility Policy adopted by the Board in May 2011 (and amended in April 2012). Our review of the status of Measure R borrowing to date (including all planned borrowing) indicates that the additional borrowing to make these funds available for the Westside Subway Section 1 project is entirely within the policy cap established by the Metro Board of Directors. Attachment A to this report provides supplemental information on our analysis of this policy compliance determination.

Cost Control Efforts

During the development of the Preliminary Engineering for the Request for Proposal (RFP) documents, staff conducted Value Engineering (VE) Workshops utilizing a VE Panel of transit industry professionals with participation including the FTA's Project Management Oversight Consultant (PMOC). The VE items believed to have the potential of yielding the largest cost savings were incorporated into the Advanced Preliminary Engineering (PE) designs in 2012. These items included the reduction of underground station footprint sizes and station depths. Station room layouts and other architectural elements were standardized to reduce design, construction, operations and maintenance costs. The cross-over ventilation extended plenum design which is not required as part of the normal ventilation design, was included as an option to supplement ventilation during periodic track maintenance work. The Project Team also analyzed constructability issues and various construction sequencing scenarios to reduce risks and the overall durations for tunneling and cut-and-cover underground construction.

Comparative Cost Variance Detail

Attachment B provides comparisons between Crenshaw/Regional Connector/Westside Purple Line award values and project budgets. Recent studies and analyses have shown that the major reason for the variance between the budget estimates and the bids was the significant size and complexity of Metro's transportation project delivery program. These two factors (size and complexity) alone appear to have created a unique market in which only a relatively small number of design-build construction contractors can effectively participate.

The limitation of the number of contractors is due to many factors, but appears to be the result of construction services supply and demand issues. These issues appear to stem from improving economic conditions throughout the country, which has resulted in more demand for construction services, and a shortage of qualified design-build contractors who have the resources to finance and build Metro's projects. The few qualified design-build contractors who are left after the impact of the Great Recession now have the opportunity to cover all of their costs and include greater allowances in their bids and still be competitive and get new work.

NEXT STEPS

The Metro Board of Directors is scheduled to consider the original staff recommendation for the budget and award of the Westside Purple Line Extension Section 1 project on July 24, 2014.

ATTACHMENT

- A. Measure R Fiscal Responsibility Policy Debt Service Cap Analysis;
- B. Comparisons Between Crenshaw/Regional Connector/Westside Purple Line Award Values and Project Budgets; and,
- C. Measure R Cost Management Process and Policy Analysis (from original Construction Committee report).

Measure R Fiscal Responsibility Policy Debt Service Cap Analysis

Excerpt from Policy adopted in May 2011 and amended in April 2012:

“Cap Measure R Debt Service (Excluding Principal) to LRTP Levels

Measure R debt service (excluding principal) to be repaid from the contingency funds may not exceed the levels forecasted to be necessary in the Long Range Transportation Plan, except to allow for 30/10, America Fast Forward, and similar financing which may involve issuing debt and/or taking out loans greater than contemplated in the 2009 LRTP. 30/10, America Fast Forward, and other similar financing must not adversely impact second and third decade Measure R projects. The Long Range Transportation Plan itself was adopted using an overly optimistic sales tax forecast prior to our understanding of the impact of the worldwide economic recession. For this reason, the Measure R debt service policy cap will be measured against the LRTP financial model published in April 2010.

This policy applies to net bond interest costs after adding Measure R interest earnings and exempting interest costs for the 2010 Build America Bond(BABs)/tax exempt bond package.”

Table 1: Summary of Measure R 35% Transit Debt Service Cap (Excluding Principal)					
Bond Interest	Amended Policy Cap (April 2012)	Forecasted Interest in SRTP*	SRTP Above/(Below) Policy Cap	Forecasted Interest (July 2014)	July Above/(Below) Policy Cap
Interest Expense	\$ 1,355.8	\$ 878.7	\$ (477.1)	\$ 923.8	\$ (432.0)

Notes: The increase in the forecast above, from \$878.7 M to \$923.8 M, includes a debt service decrease of approximately \$100 million due to favorable rates achieved at closing for the Westside Subway TIFIA loan. Other planned borrowing costs increased to support the Westside Purple Line Extension cost increase. The net change is a \$45.1 million increase.

The policy applies to Measure R debt service, excluding principal (i.e. interest and issuance costs). Interest earnings are credited and 2010 Build America Bond debt service, excluding principal, is exempted. Debt service excluding principal may not exceed levels in 2009 LRTP, as adjusted for the worldwide economic recession in April of 2010.

Table 2: Comparisons Between Crenshaw/Regional Connector/Westside Purple Line Award Values and Project Budgets

11-Jul-14

Budgets and Adjustments	Crenshaw	Regional Connector	Westside Purple Line Section 1
Budget Prior to Award	\$1,762,900,000	\$1,399,470,333	\$2,485,709,309
Inc to Budget For Base Work	\$160,100,000	\$60,537,634	\$288,170,284
Inc to Budget For Adtl Scope	\$135,000,000	\$0	\$0
Total Combined Budget	\$2,058,000,000	\$1,460,007,967	\$2,773,879,593
% Increase after Award	16.7%	4.3%	11.6%

Other Scope Included w/ Award	Crenshaw	Regional Connector	Westside Purple Line Section 1
Options	\$135,000,000 (Leimert and Hindry stations)		
Concurrent Non-FFGA Funded Activities	\$4,252,000 (LAWA scope of work)	\$39,991,168 (included in base work)	

Other Scope Additional Budget Not Added at the time of Award	Crenshaw	Regional Connector	Westside Purple Line Section 1
Options		\$25,250,000 (from Project Contingency)	\$3,150,000 (from Project Contingency)
Yard and Shops	\$145,800,000 (51% cost allocation for Southwestern Yard)		

Notes: Metro was able to incorporate the findings of these studies and analyses into its final estimates (Engineer's Estimates) for its Regional Connector and Purple Line Extension Projects. Consequently, Metro's Engineer's Estimates for those two projects were comparable to the bids received from the contractors. Unfortunately, Metro was not aware of the impact of the unique market conditions that it was creating for itself when it was developing the budget estimates for its Crenshaw /LAX, Regional Connector and Purple Line Extension Projects and for the Engineer's Estimate for its Crenshaw/LAX Project. It should also be noted that Metro usually has to develop and "lock in" budget estimates for its major rail transit projects over a year before awarding contracts to design and build them due to federal funding requirements under the New Starts and TIFIA programs.

WESTSIDE PURPLE LINE EXTENSION PROJECT, SECTION 1

Measure R Cost Management Process and Policy Analysis

Introduction

The Measure R Cost Management Process and Policy (the Policy) was adopted by the Metro Board of Directors in March 2011. The intent of the Policy is to inform the Metro Board of Directors regarding potential cost increases to Measure R-funded projects and the strategies available to close any funding gaps. The Westside Purple Line Extension (Westside Subway Extension) Section 1 Project warrants such an analysis due to a \$288 million cost increase described in the report accompanying this analysis. However, the Measure R funds targeted to all three Westside Subway sections to date amounts to \$3,285.8 million (out of a total Measure R commitment of \$4,074 million). The remaining \$788.2 million is available to address cost increases on this project, as described in the "Other Cost Reductions in the Same Subregion" section of this analysis. We are recommending this solution to the cost increase issue.

Measure R Cost Management Policy Summary

The adopted final Measure R Unified Cost Management Process and Policy stipulates the following:

"If increases in cost estimates occur, the LACMTA Board of Directors 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 LACMTA Board of Directors. 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."

We followed the six steps prescribed by the policy to address the funding gap and developed the following plan of action:

Value Engineering and/or Scope Reductions

During the development of the Preliminary Engineering for the Request for Proposal (RFP) documents, staff conducted Value Engineering (VE) Workshops utilizing a VE Panel of transit industry professionals with participation including the FTA's Project Management Oversight Consultant (PMOC). The VE items believed to have the potential of yielding the largest cost savings were incorporated into the Advanced Preliminary Engineering (PE) designs in 2012. These items included the reduction of underground station footprint sizes and station depths. Station room layouts and other architectural elements were standardized to reduce design, construction, operations and maintenance costs. The cross-over ventilation extended plenum design which is not required as part of the normal ventilation design, was included as an option to supplement ventilation during periodic track maintenance work. The Project Team also analyzed constructability issues and various construction sequencing scenarios to reduce risks and the overall durations for tunneling and cut-and-cover underground construction.

New Local Agency Funding Resources

Per Note G in the Measure R Expenditure Plan, local agencies are expected to contribute an amount equal to three percent of total costs for transit projects. Metro and the City of Los Angeles agreed to a 3% contribution amount in April of 2014. That agreement states the following with respect to cost increases and betterments:

"The parties understand the City's Westside Subway Extension Section 1 Share will not increase even if the final LACMTA adopted life-of-project budget for the Westside Subway Extension Section 1 project exceeds \$2,509,100,000."

and

"Any Project betterments for each Project shall be paid by the City separate and apart from this Agreement and shall be defined in and paid pursuant to the Master Cooperative Agreement, dated January 21, 2003 ("MCA")."

Pursuant to the agreement above, we are not assuming any additional commitment from the City of Los Angeles for the project as these are not betterments as defined in the MCA.

Similarly, the \$1.25 billion New Starts Full Funding Grant Agreement executed between the FTA and Metro on May 21, 2014 states that all cost increases are to be borne by the project sponsor, not the Federal Transit Administration. Pursuant to that agreement, we are assuming that no additional New Starts funds can be made available to cover the cost increase.

Shorter Segmentation

While shorter segmentation is possible for the Westside Subway Extension, we recommend against this step for several reasons. Section 1 was extended to Wilshire/La Cienega due to engineering constraints at the initial Section 1 terminus at Wilshire/Fairfax. Shortening Section 1 would likely result in further cost increases to the project and require deferral of other projects. The only Section which could be shortened is Section 3. This would require eliminating the Veteran Affairs Station and moving the terminus to Westwood. In addition to higher real estate prices in Westwood, eliminating the Veteran Affairs station would require LACMTA to prepare a supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) due to significant project changes. As a result, there may be significant project delays and increased costs to the project. We do not recommend shorter segmentation.

Other Cost Reductions within the Same Transit Corridor

The Westside Subway Extension corridor had included the Wilshire Bus Rapid Transit project. This project was bifurcated into two parts, one is a limited peak hour only version of BRT that is already funded with federal grants and the other was a more robust BRT with dedicated lanes and ride improvements. This second Wilshire BRT project was already eliminated from the LRTP to deal with prior cost increases.

Other Cost Reductions within the Same Subregion

As of March 13, 2014, the Long Range Plan Financial Forecast update prepared in support of the Short Range Transportation Plan (also on the July 2014 agenda for approval), the Measure R funds targeted to all three Westside Subway sections amounted to \$3,285.8 million (out of a total Measure R commitment of \$4,074 million). The remaining \$788.2 million is described in the supporting Financial Forecast for the Short Range Plan as a "Subregional payback for Westside Purple Line Extension" that was scheduled to occur in the third decade of the Long Range Plan (FY 2030 and beyond).

We believe we can pay for the Westside Subway Section 1 cost increase of \$288 million directly from Measure R or, if necessary, incur additional bond debt to cover the cost increase. Such additional indebtedness is restricted by the Measure R Contingency Policy adopted by the Board in May 2011 (and amended in April 2012). Our review of the status of Measure R borrowing to date (including all planned borrowing) indicates that the additional borrowing to make these funds available for the Westside Subway Section 1 project is entirely within the policy cap established by the Metro Board of Directors.

Countywide Transit Cost Reductions and/or Other Funds

This cost increase does not require any countywide cost reductions or other funds.

2009 LRTP - Transit Corridors

Map 1: 2009 LRTP – Subregions and Transit Corridors



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