



Board Report

File #: 2018-0152, File Type: Contract

Agenda Number: 46.

**REVISED  
CONSTRUCTION COMMITTEE  
JUNE 21, 2018**

**SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 3  
PROJECT**

**ACTION: APPROVE RECOMMENDATIONS**

**RECOMMENDATION**

CONSIDER:

- A. ESTABLISHING a Life-of-Project (LOP) Budget of \$1,374,826,466 for the Tunnels portion of the Westside Purple Line Extension Section 3 Project;
- B. AUTHORIZING the Chief Executive Officer (CEO) to award a 49-month firm fixed price Contract No. C1151, subject to the Federal Transit Administration (FTA) approval of a Letter of No Prejudice (LONP), to Frontier-Kemper/Tutor Perini JV, the technically acceptable lowest evaluated price, responsive and responsible Proposer for the final design and construction of the Westside Purple Line Extension Section 3 Project (Project) Tunnels in the amount of \$410,002,000, subject to resolution of protest(s), if any; and
- C. APPROVING the Measure R Cost Management Process and Policy analysis and funding strategy in Attachment D to use up to \$300 million of Measure R funds from the Westside Purple Line Extension line in the Measure R Expenditure Plan and other funds to meet the new total project cost and revenue assumptions in the Long Range Transportation Plan Financial Forecast.

**ISSUE**

In February 2016, the Board authorized staff to begin the necessary steps to advance the project delivery of the Westside Purple Line Extension Section 3 Project as part of the Shovel Ready Program of Projects, which included the advancement of other Measure R Projects. In January 2017, the Board approved the Project contracting delivery approach.

In consideration of advancing the Project, three procurement packages were established to meet the desired project delivery schedule. The first was the Advanced Utility Relocations contract which was awarded in October 2017 under the FTA pre-award authority. The major project work was separated

into two discrete design/build procurements: 1) Tunnels and 2) Stations, Trackwork, Systems and Testing.

The action to award the Tunnels Contract is subject to receiving an LONP from the FTA. An LONP would permit Metro to award the contract and retain eligibility for future federal funding. Metro requested the LONP in September 2017 in order to advance the tunnel work prior to receiving a Full Funding Grant Agreement (FFGA) for the entire project scope. Staff has been working closely with the FTA for the issuance of both the entry into the Engineering phase of the New Starts program and the LONP.

The establishment of the LOP Budget for the Tunnels portion of the Project at the time of contract award is consistent with the recommendations in the Office of the Inspector General (OIG) Construction Management Best Practices Study Report and lessons learned regarding establishing final budgets, when adequate information (such as the recommended price) is available.

## **BACKGROUND**

The Westside Purple Line Extension Section 3 Project consists of approximately 2.59 miles of twin-bored tunnels and two underground stations located at Westwood/UCLA and Westwood/VA Hospital. Advanced utility relocation work has begun under pre-award authority that was granted by the FTA in 2012 upon approval of the Record of Decision. The major design and construction work will be performed under two contracts; C1151 for the twin bore tunnels and C1152 for the stations, trackwork, systems and testing.

The recommended actions to approve an LOP Budget for the first phase of the Project and to award Contract C1151 are consistent with the approval actions taken by the Board in February 2016 and January 2017. The LOP Budget also includes \$11,730,870 of concurrent non-federally eligible project activities. These concurrent activities include the planning/environmental phase of the Project, real estate loss of business goodwill, additional insurance coverage and certain community relations expenses. The funding plan is outlined in Attachment C.

On January 19, 2017, the Board authorized staff to use a design/build contracting delivery approach to complete the final design and construction of the Project and to solicit two contracts for the 2.59 mile dual track heavy rail extension and two new underground stations. The Board authorized the procurement under Public Utilities Code (PUC) Section 130242(a) and Public Contract Code Sections 22160 - 22169 to reduce project costs, expedite project completion and allow for an award to the lowest responsive and responsible bidder, or the negotiation and award of a design/build contract to a responsible proposer whose proposal is determined to be the best value to Metro.

On April 19, 2017, a Request for Qualifications (RFQ)/Request for Proposals (RFP) was issued, using a competitive negotiated procurement process to select a contractor for the design build delivery for Contract No. C1151, Westside Purple Line Extension Section 3 Tunnels Project - Design/Build. The evaluation consisted of a three requisite process: Statement of Qualifications,

Technical Proposals, and Administrative/Price Proposals, which resulted in five firms meeting the requirements of qualification and technical acceptability and subsequently invited to submit administrative/price proposals. Additional details for the procurement process, including the evaluation results, are in Attachment A.

## **DISCUSSION**

The recommended action to award the Contract to Frontier-Kemper/Tutor Perini JV is based on a Proposal determined to have met all the requirements set forth in the RFP with a technically acceptable, "Lowest Evaluated Price" selection process. Pursuant to PUC Section 130242(a), the RFP established an evaluation process of technical proposals that met the requirement of technical acceptability, excluding cost/price factors, and the Lowest Evaluated Price.

After a thorough and extensive competitive procurement process, staff recommends Frontier-Kemper/Tutor Perini JV as the contracting team for the final design and construction of the Tunnels.

### *New Total Project Cost*

The \$300 million cost increase for all phases of the project including the tunnels is due to two factors: (1) \$109.1 million of the cost increase is the result of an updated Metro project cost estimate and (2) \$190.9 million is due to the results of the recent FTA Risk Review. The primary cause of the \$109.1 million increase in the Metro cost estimate is the current real estate market conditions for property acquisitions which is \$98.5 million higher than the original estimate. Scope changes reflect a \$50 million increase to improve operation efficiency with two crossovers at the terminal station. In addition, an update to the vehicle procurement cost estimate of \$2 million places the total cost increase at \$150.5 million.

To offset the cost increase, staff evaluated all mitigation measures and identified savings from construction means and methods by eliminating the Sequential Excavation Method (SEM) and replacing it with the open cut excavation method, and securing a commitment from Southern California Edison to provide permanent power for tunneling operations instead of the contractor having to use temporary power. Both of these measures, plus other minor savings from the cost estimate refinement attribute a total cost decrease of \$52.2 million.

With the offset from the mitigation measures, the net cost increase is \$98.3 million. An 11% contingency for unforeseen risk places the total cost increase to the Metro cost estimate at \$109.1 million.

The \$190.9 million additional cost increase for all phases of the project including the tunnels is based upon the results of the recent FTA Risk Review that was conducted by the FTA's Project Management Oversight Contractor. The review was an independent and objective evaluation of the Project and was required by a recent change as part of the FTA's entry to Engineering review process. The current administration has placed more scrutiny and more requirements on transit

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agencies seeking New Starts funding under the Capital Investment Grant (CIG) Program that had not been seen on past Metro New Starts Projects. Metro requested approval to enter in Engineering in April 2017.

At this time, it is prudent for Metro staff to move forward with FTA's proposed recommendation since an additional financial capacity assessment review will be conducted by FTA's Financial Management Oversight Contractor prior to receiving approval to enter the Engineering phase. An approval to enter Engineering is a prerequisite to receiving an LONP.

### **DETERMINATION OF SAFETY IMPACT**

This Board action will not have an impact on established safety standards for Metro's construction projects.

### **FINANCIAL IMPACT**

Cumulative funds required through fiscal year 2019, in the amount of \$268,275,191, are included in Project 865523 Westside Purple Line Extension Section 3 Project, in Cost Center 8510 (Construction Project Management), and Account Number 53101 (Acquisition Building and Structure).

Since this is a multi-year Project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs in future fiscal years.

#### **Impact to Budget**

The sources of funds for the recommended actions are Measure R 35% and Measure M 35%. The approved FY18 and FY19 budgets are designated for the Westside Purple Line Extension Project and do not have an impact to operations funding sources. The Project is not eligible for Propositions A and C funding due to the proposed tunneling element of the Project. No other funds were considered.

#### **Multiyear Impact**

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment C. The project cost, prior to the proposed cost increase, was included and funded in the 2017 Long Range Transportation Plan Financial Forecast. With respect to the \$300 million increase, Attachment D shows the Measure R Cost Management Process and Policy analysis and funding strategy required for cost increases to Measure R Projects. To comply with the Policy of the Metro Board of Directors, Metro staff has evaluated potential offsetting cost reductions, including value engineering, shorter segment, and reductions to other

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projects in the corridor and subregion, and has determined these are not feasible, and that additional Measure R funds required for this Project are available from the projected remaining Measure R 35% Transit funds committed to the Westside Purple Line Extension Sections 1, 2, and 3 collectively. The Measure R ordinance allocates up to \$4 billion for the Westside Subway Extension, and this amount, including allocated interest expense, has not been fully allocated to Westside Purple Line Extension Sections 1, 2, and 3. The allocation of funding for the cost increase may result in the accelerated use of Measure R funds, and the issuance of additional debt, which will require additional interest expense. In addition to Measure R 35%, local agency contributions, and state and federal formula grant funding are projected to be available in the Long Range Transportation Plan Financial Forecast for a portion of the \$300 million cost increase.

### **ALTERNATIVES CONSIDERED**

The Board may choose to not move forward with the contract award and adopting an LOP Budget for the first Project phase. This is not recommended as this is an adopted project within the Long Range Transportation Plan, and not moving forward with the recommendations will delay the schedule, increase the cost of the Project, and jeopardize \$1.3 billion in New Starts funding from the FTA, as well as jeopardize completion of the Westside Purple Line Extension Section 3 Project by 2026.

### **NEXT STEPS**

Upon approval by the Board and the receipt of an LONP, Metro will issue a Notice-of-Award, execute a contract with the recommended Design/Build Contractor and once bonds, insurance, and project labor agreement requirements are met; issue a Contract Notice-to-Proceed.

### **ATTACHMENTS**

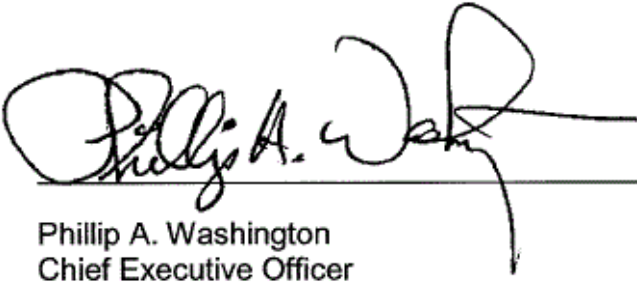
- Attachment A - Procurement Summary
- Attachment B - DEOD Summary - REVISED
- Attachment C - Funding/Expenditure Plan
- Attachment D - Measure R Cost Management Process and Policy Analysis

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Phillip A. Washington  
Chief Executive Officer

## PROCUREMENT SUMMARY

WESTSIDE PURPLE LINE EXTENSION SECTION 3 PROJECT –  
DESIGN/BUILD CONTRACT / C1151

1.	<b>Contract Number:</b> C40403C1151	
2.	<b>Recommended Vendor:</b> Frontier-Kemper/Tutor Perini JV	
3.	<b>Type of Procurement (check one):</b> <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP–A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	<b>Procurement Dates:</b>	
	<b>A. Issued:</b> 4-19-2017	
	<b>B. Advertised/Publicized:</b> 4-19-2017	
	<b>C. Pre-Proposal Conference:</b> 4-25-2017	
	<b>D. Proposals Due:</b> 04-06-2018	
	<b>E. Pre-Qualification Completed:</b> 4-23-2018	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> 4-6-2018	
	<b>G. Protest Period End Date:</b> 6-27-2018	
5.	<b>Solicitations Picked up:</b> 52	<b>Bids/Proposals Received:</b> 4
6.	<b>Contract Administrator:</b> Albert Soliz	<b>Telephone Number:</b> 213-418-3110
7.	<b>Project Manager:</b> Michael McKenna	<b>Telephone Number:</b> 213-312-3132

**A. Procurement Background**

This Board Action is to approve the award of a contract for the design-build entity which offered a proposal determined to have met all the requirements set forth in the Request for Qualifications (RFQ)/Request for Proposals (RFP), with the Lowest Evaluated Price, for the Westside Purple Line Extension Section 3 Tunnels Project (Project), Contract No. C40403C1151. This Contract will extend the twin bored tunnels for the heavy rail subway Purple Line Extension approximately 2.59 miles from the future Century City Constellation Station. The Project alignment travels westerly beneath the City of Los Angeles, Caltrans I-405, Los Angeles County, and the Veterans Administration Hospital. Board approval of the Contract award is subject to resolution of any properly submitted protest(s) and the Federal Transit Administration (FTA) approval of a Letter of No Prejudice (LONP).

The Work under this Contract includes, but is not limited to, furnishing all management, coordination, professional services, labor, equipment, materials and other services to perform the final design and construction of twin bored tunnels for the Project. The contract type is a firm fixed price.

The RFQ/RFP was issued on April 19, 2017, followed by a pre-proposal conference that was held on April 25, 2017, in the Board Room with representatives of approximately 260 firms in attendance. A networking event followed the conference for the subcontracting community and joint venture firms.

The RFQ/RFP implemented a three-requisite negotiated procurement pursuant to

California Public Utilities Code Section 130242(a) and the Metro's Acquisition Policy to select the entity for a design-build delivery consisting of Statement of Qualifications, Technical Proposals, and Administrative/Price Proposals.

A firm fixed price contract would be awarded to the responsive and responsible proposer offering a Proposal determined by LACMTA to have met all the requirements set forth in the RFP, with the Lowest Evaluated Price.

The Statement of Qualifications (SOQ) from interested entities were due by May 26, 2017. Entities determined to have meet the requirements of pre-qualification were eligible to submit a Technical Proposal.

The Technical Proposals were due by November 13, 2017, and were evaluated on the basis of meeting or exceeding the acceptability standards for non-cost factors set forth in the solicitation documents and determined to be technically acceptable. Technical discussions were conducted from December 4, 2017 through December 15, 2017, with each entity presenting their Technical Proposal and responding to questions prepared by the Proposal Evaluation Team (PET). Entities determined to be technically acceptable were asked to submit an Administrative/Price Proposal.

Administrative/Price Proposals were due by April 6, 2017, and evaluated for responsiveness for the administrative aspects, price reasonableness and realism for the Price Proposal.

During the course of the procurement, entities submitted approximately 260 technical and commercial questions, which were recorded, reviewed and answered by Metro staff. Formal written responses were issued to the pre-qualified entities and 52 other plan holders.

Twelve amendments were issued during the solicitation and evaluation process:

- Amendment No. 1, issued on May 8, 2017, clarified the due date for questions concerning the RFQ;
- Amendment No. 2, issued on July 25, 2017, announced, for the benefit of the subcontracting community, the five firms pre-qualified to submit technical proposals;
- Amendment No. 3, issued on August 17, 2017, clarified technical submittal requirements, provided additional and revised Project Definition Documents;
- Amendment No. 4, issued on September 5, 2017, provided clarification on technical submittal requirements;
- Amendment No. 5, issued on September 28, 2017, revised the due date for Technical Proposals, work completion schedule, and right-of-way, and provided additional and revised Project Definition Documents;
- Amendment No. 6, issued on October 10, 2017, provided electronic schedule template files;
- Amendment No. 7, issued on October 18, 2017, revised the Schedule of Quantities and Pricing Form, provided additional and revised Project Definition Documents;
- Amendment No. 8, issued on December 6, 2017, extended the Administrative/Price Proposal due date to February 28, 2018;
- Amendment No. 9, issued on January 8, 2018, revised the work completion schedule, right-of-way, Schedule of Quantities and Pricing Form, and provided



- additional and revised Project Definition Documents;
- Amendment No. 10, issued on January 31, 2018, revised the Administrative/Price Proposal due date to March 28, 2018;
  - Amendment No. 11, issued on March 2, 2018, provided a bid bond form, clarified insurance requirements and revised the Schedule of Quantities and Prices Form;
  - Amendment No. 12, issued on March 8, 2018, revised the Administrative/Price Proposal due date to April 6, 2018.

## **B. Evaluation of Statements of Qualification**

Statements of Qualification were received by the May 26, 2017, due date from the five Respondents identified below:

- Barnard Obayashi SELI JV; a joint venture between Barnard Construction Company, Inc., SELI USA, Inc. and Obayashi Corporation.
- Frontier-Kemper/Tutor Perini JV; a joint venture between Frontier-Kemper Constructors, Inc. and Tutor Perini Corporation.
- Healy Dragados PL3T JV; a joint venture between S.A. Healy Company and Dragados USA, Inc.
- Shea Traylor JV; a joint venture between J. F. Shea Construction, Inc. and Traylor Bros., Inc.
- Walsh+STRABAG JV; a joint venture between Walsh Construction Company II, LLC and STRABAG Corp

Each SOQ was reviewed and evaluated in accordance with the criteria specified in the RFQ to determine which Respondents were qualified in accordance with the criteria set forth in the RFQ. The evaluation of SOQs did not rank the Respondents, but established firms/teams meeting the minimum qualifications to provide a proposal.

Each of the five Respondents was determined to have met the minimum qualifications and were invited to submit a Technical Proposal.

## **C. Evaluation of Technical Proposals**

Four Technical Proposals were received by the November 13, 2017, due date from the following Proposers:

- Barnard Obayashi SELI JV
- Frontier-Kemper/Tutor Perini JV
- Healy Dragados PL3T JV
- Shea Traylor JV

A Proposal Evaluation Team (PET) consisting of a Metro tunnel engineer, a Metro geotechnical engineer and a Metropolitan Water District tunnel engineer conducted a comprehensive evaluation of the proposals submitted. The team was supported by four subject matter experts (SME) who reviewed selected portions of each proposal and prepared written reports to the PET according to their respective area of expertise. The PET considered the SMEs' input as part of their evaluation of each proposal.

Each of the proposals were evaluated for responsiveness and on the non-cost/price technical information submitted to determine whether the proposal met the requirements of being technically acceptable based on the following major evaluation criteria:

- Proposer's Skill and Experience

- Management Approach
- Organizational Structure
- Project Implementation Plan
- Design Approach
- Construction Approach
- Project Schedule
- Safety Record
- Quality Assurance/Quality Control
- Technical Approach

Each proposer was provided the opportunity to engage in oral presentations of their Technical Proposals to highlight their written proposal, enhance the PET’s understanding of the Proposal and facilitate the evaluation process.

Each of the four proposals were determined to be technically acceptable and invited to submit an Administrative/Price Proposal.

#### **D. Cost/Price Analysis**

Four Administrative/Price Proposals were received by the March 23, 2018, due date from each of the firms whose Technical Proposals were determined to be technically acceptable.

The Administrative portions were evaluated for responsiveness and responsibility, including past performance, financial resources, Disadvantaged Business Enterprise (DBE) contract goals, record of integrity and business ethics, and fitness and capacity to perform the proposed work in a satisfactory manner.

A pricing evaluation was conducted by Contract Administration staff for price realism and reasonableness as provided in the RFP.

The price of the recommended award is determined to be fair and reasonable based on adequate price competition and comparison to the Independent Cost Estimate (ICE) which was submitted concurrently with the Administrative/Price Proposals.

<b>Proposer Name</b>	<b>Total Price Proposal<sup>1</sup></b>	<b>Total Independent Cost Estimate<sup>2</sup></b>	<b>Award Amount<sup>3</sup></b>	<b>ICE Award Amount</b>
Barnard Obayashi SELI JV	\$698,125,600	\$588,860,671	\$ 654,353,000	\$539,821,207
Frontier-Kemper/Tutor Perini JV	\$440,692,000		\$ 410,002,000	
Healy Dragados PL3T JV	\$549,900,000		\$ 518,509,500	
Shea Traylor JV	\$614,609,500		\$ 562,487,500	
<b>Note 1: The Total Price Proposal includes the Base Work, Provisional Sums, Unit Prices, Delay Compensation, and Life Cycle Costs.</b> <b>Note 2: The Independent Cost Estimate (ICE) amounts are submitted before the due date and opened concurrently with the other Proposals.</b> <b>Note 3: The Award Price includes Base Work and Provisional Sums only.</b>				

## **E. Background of Recommended Contractor**

Frontier-Kemper/Tutor Perini, JV is a fully integrated joint venture between Frontier-Kemper Constructors, Inc. (Frontier-Kemper), the Managing Partner, and Tutor Perini Corporation (Tutor Perini).

Tutor Perini is advertised as one of the nation's largest public works contractors, headquartered in Los Angeles and ranked 9<sup>th</sup> on the Engineering News-Record's (ENR) Top 400 Contractors list for 2017, and is ranked 2<sup>nd</sup> among companies with a headquarters in California for general construction, transportation, construction, and heavy construction. Tutor Perini has performed work on very large projects in the City of Los Angeles, throughout California, and the United States, including projects for LACMTA's underground system. Tutor Perini's experience includes the BART Extension to San Francisco International Airport line and track; the AirTrain at JFK International Airport, and Metro's Red Line.

Frontier-Kemper Constructors, Inc. was acquired by Tutor Perini in June 2011 as a wholly-owned subsidiary. Frontier-Kemper's recent experience in driving bored tunnels includes work in New York, Washington State and LACMTA's Gold Line Eastside Extension tunnels.

STV Incorporated (STV) is the lead engineering firm for the joint venture and currently ranked 8<sup>th</sup> in ENR's Top 25 in Mass Transit and Rail category. STV has worked with Tutor Perini on D-B transportation projects around the nation since 1997.

## DEOD SUMMARY

WESTSIDE PURPLE LINE EXTENSION SECTION 3 PROJECT DESIGN BUILD /  
C1151**A. (1) Small Business Participation - Design**

The Diversity and Economic Opportunity Department (DEOD) established an 11% Disadvantaged Business Enterprise (DBE) goal for Design. Frontier-Kemper/Tutor Perini Joint Venture (JV) exceeded the goal by making an 11.19% DBE commitment.

<b>Small Business Goal</b>	<b>11% DBE</b>	<b>Small Business Commitment</b>	<b>11.19% DBE</b>
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	<b>DBE Subcontractors</b>	<b>Ethnicity</b>	<b>% Committed</b>
1.	Coast Surveying	Hispanic American	0.33%
2.	<del>GC Tech</del> Lin Consulting	<del>African American</del> -Asian Pacific American	8.60%
3.	V&A Inc.	Hispanic American	2.26%
<b>Total Commitment</b>			<b>11.19%</b>

**A. (2) Small Business Participation - Construction**

DEOD established a 17% DBE goal for Construction. Frontier-Kemper/Tutor Perini JV exceeded the goal by making a 17.10% DBE commitment. To be responsive to DBE requirements, Frontier-Kemper/Tutor Perini JV was required to identify all known DBE subcontractors at the time of proposal. Frontier-Kemper/Tutor Perini JV identified seven (7) known DBE firms as noted below, with commitments totaling 13.27%. ~~In addition, Frontier-Kemper/Tutor Perini JV is required to submit a DBE Contracting Plan within sixty (60) days after Notice to Proceed (NTP), identifying construction opportunities to meet its DBE commitment of 17.10%. Frontier-Kemper/Tutor Perini JV must update the Contracting Plan monthly as contract work is bid and awarded to DBE firms.~~

Frontier-Kemper/Tutor Perini JV made a 9.45% commitment to G&C Equipment Corporation (G&C), a DBE supplier. On June 19, 2018, the CUCP notified DEOD that G&C no longer meets the eligibility standard to be certified as a DBE. Pursuant to 49 Code of Federal Regulations Part 26.87(j)(1), G&C's participation cannot be counted toward the DBE contract commitment. Frontier-Kemper/Tutor Perini JV is still expected to meet its 17.10% DBE commitment for Construction, and is required to identify DBE firm(s) to replace the value of work originally committed to G&C by July 20, 2018.

After Notice to Proceed (NTP), additional DBE subcontracting opportunities must be updated monthly as contract work is bid and awarded.

<b>Small Business Goal</b>	<b>17% DBE</b>	<b>Small Business Commitment</b>	<b>17.10% DBE</b>
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	<b>DBE Subcontractors</b>	<b>Ethnicity</b>	<b>% Committed</b>
1.	Analysis & Solutions Consultations	African American	1.70%
2.	Arellano Associates	Hispanic American	0.01%
3.	<del>G &amp; C Equipment Corporation</del>	<del>African American</del>	9.45%
4.	Lucas Builders, Inc.	Subcontinent Asian American	0.75%
5.	Modern Times, Inc.	Hispanic American	0.05%
6.	Pre-Con Products	Hispanic American	0.13%
7.	Valverde Construction, Inc.	Hispanic American	1.18%
8.	To Be Determined at Time of Final Design	TBD	<b>3.83%</b>
<b>Total Commitment</b>			<b>17.10%</b>

**B. Contracting Outreach and Mentoring Plan (COMP)**

Frontier-Kemper/Tutor Perini JV is also required to submit a DBE COMP within sixty (60) days after Notice to Proceed (NTP). The COMP must include strategies to mentor DBE firms for protégé development.

**C. Project Labor Agreement/Construction Careers Policy (PLA/CCP)**

The PLA/CCP requires that contractors commit to meet the following targeted hiring goals for select construction contracts over 2.5 million dollars:

Federally Funded Projects		
Extremely / Economically Disadvantaged Worker Goal	Apprentice Worker Goal	Disadvantaged Worker Goal
40%	20%	10%

**D. Prevailing Wage Applicability**

Prevailing Wage requirements are applicable to this project. DEOD will monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

**E. Living Wage Service Contract Worker Retention Policy Applicability**

The Living Wage / Service Contract Worker Retention Policy is not applicable to this design/build contract.

**FUNDING/EXPENDITURE PLAN**  
**WESTSIDE PURPLE LINE EXTENSION SECTION 3 PROJECT**  
**PHASE I**  
(DOLLARS IN MILLIONS)

Capital Project 865523	Prior	FY18	FY19	FY20	FY21	FY22	Total	% of Total
Uses of Funds								
Guideway & Track Elements	-	-	14.4	113.2	111.5	123.5	362.6	26.4%
Stations, Stops, Terminals, Intermodal	-	-	-	2.8	2.8	0.9	6.4	0.5%
Sitework & Special Conditions	0.2	3.8	19.7	79.8	43.7	40.2	187.3	13.6%
ROW, Land, Existing Improvements	0.0	0.1	131.3	258.3	74.8	1.3	465.9	33.9%
Professional Services	33.0	16.2	40.0	50.1	37.0	36.1	212.3	15.4%
Unallocated Contingency	-	-	7.0	8.2	73.3	40.1	128.6	9.4%
Phase I LOP Budget Subtotal	33.2	20.1	212.4	512.3	343.1	242.1	1,363.1	99.1%
Sitework & Special Conditions (Additional Insurance Coverage)	-	-	-	-	6.0	-	6.0	0.4%
ROW, Land, Existing Improvements	-	-	0.5	0.5	-	-	1.0	0.1%
Professional Services	0.0	0.0	1.0	1.0	1.0	0.6	3.6	0.3%
Planning/Environmental	0.2	0.7	0.3	-	-	-	1.1	0.1%
Concurrent Non-Federal Subtotal	0.2	0.7	1.8	1.5	7.0	0.6	11.7	0.9%
Total Phase I LOP Budget*	33.3	20.8	214.1	513.8	350.1	242.6	1,374.8	100.0%
Source of Funds**								
Section 5309 New Starts	-	-	88.0	76.1	59.6	60.2	283.8	20.6%
Capital Grant Receipt Revenue Bonds	-	-	-	-	86.2	135.0	221.1	16.1%
Measure R - Transit Capital (35%)	23.3	15.2	-	109.0	65.1	-	212.6	15.5%
Repayment of Capital Project Loans (Fund 3562)	10.0	-	-	-	-	-	10.0	0.7%
Measure M -Transit Construction (35%)	-	5.6	126.2	328.7	139.3	47.5	647.3	47.1%
Total Phase I LOP Budget Funding	33.3	20.8	214.1	513.8	350.1	242.6	1,374.8	100.0%

\*Does not include finance costs.

\*\*Timing of funding sources is subject to change.

**MEASURE R COST MANAGEMENT PROCESS AND POLICY ANALYSIS**  
**WESTSIDE PURPLE LINE EXTENSION SECTION 3 PROJECT**

**Introduction**

The Measure R Cost Management Process and Policy (the Policy) was adopted by the Metro Board of Directors in March 2011. The Policy caps Measure R project funding at the amounts in the Measure R Expenditure Plan. 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. A comparable process and policy for Measure M projects is part of the Board-adopted Measure M Final Guidelines.

The Westside Purple Line Extension Section 3 Project warrants such an analysis due to a \$300 million cost increase. The Measure R funds assumed for the Westside Purple Line Extension Section 3 Project to date amount to \$667 million (out of a total Measure R commitment of \$4,074 million for all three sections). At this time, we estimate that \$132 million of Measure R 35% would remain at the completion of the three sections. We propose using \$132 million to address the cost increase as shown in the “Other Cost Reductions within the Same Transit Corridor” step.

The balance of funding needed for the cost increase would come from additional local agency contributions, and state Regional Improvement Program and federal Surface Transportation Block Grant Program (STBGP) and Congestion Mitigation Air Quality (CMAQ) grant funds. The grant funds are allocated to Metro by formula and are eligible for use on the project. The grant funds could be made available within the financial constraints of the Long Range Transportation Plan Financial Forecast using debt financing for other projects.

**Measure R Cost Management Policy Summary**

The adopted Policy stipulates the following:

If a project cost increase occurs, 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 will be measured against the 2009 Long Range Transportation Plan (LRTP) as adjusted by subsequent actions on cost estimates taken by the LACMTA Board of Directors.



With certain exceptions, 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 subregion; and finally,
- 6) Countywide transit or highway cost reductions and/or other funds will be sought using pre-established priorities.

The policy was amended in January 2015 to establish Regional Facility Areas at Ports, airports and Union Station; and states that any:

*“...capital project cost increases to Measure R funded projects within the boundaries of these facilities are exempt from the corridor and subregional cost reductions. Cost increases regarding these projects will be addressed from the regional programs share.”*

The Westside Purple Line Extension Section 3 Project does not fall within a Regional Facility Area.

### **Value Engineering and/or Scope Reductions**

Major operational benefits have been achieved in combination with a reduction in the length of cut and cover sections, west of the Westwood/UCLA Station. The design now places the two crossovers required for a terminal station adjacent to the Westwood/VA Station platform, improving Metro’s operational ability to reverse trains quickly. Previously, the eastern crossover was separated from the station and placed on the General Services Administration property, requiring a large open cut construction excavation and staging area and a longer combined station and crossover excavation. Crossover lengths have been further reduced through a design unique to Section 3 in which the special trackwork of the crossovers is partially located within the larger diameter tunnels, thereby reducing the amount of open cut excavation. The combined result is a reduction in the open cut construction length from 1,454 feet to 904 feet.

Cost and schedule benefits have been achieved through the standardization of construction methods of the Westwood/VA Station western crossover and adoption of Metro standard module components. The western crossover was planned to be constructed using the Sequential Excavation Method (SEM). This method requires specialized construction techniques and monitoring to ensure a safe excavation and allows for only a single level of use, at track level, compared to the stacked double levels of open cut construction, allowing ancillary equipment to be placed above the trackwork. Progress would be slow for SEM construction, due to a large cavern span and multiple headings, and carries some additional construction safety risks. The current design has been revised to include the use of open cut excavation, using Metro standard modules elements, with full restoration of landscaped areas at completion.

Through frequent coordination with Southern California Edison (SCE), the Project has provided significant cost, schedule and construction benefits by removing the need for large scale, temporary alternative power supplies for construction and avoided the need for a permanent major substation. Instead, SCE will upgrade their existing local substation as part of their regular upgrade service which will serve Metro for both temporary and permanent power. Metro will be required only to provide the conduits from the substation to the construction sites.

The special seismic section for the tunnel crossing of the Santa Monica Fault includes steel tunnel lining segments to support the tunnel in the event of an earthquake along the fault in this area. Extensive geotechnical investigations have resulted in better definition of the fault zone and estimated fault offset. This has allowed a reduction in the length of the special seismic section by approximately 40 percent from previous estimates.

Further reductions in scope would likely substantially delay the Project or result in a project not consistent with the approved Environmental Impact Statement/Environmental Impact Report (EIS/EIR). As a result, we recommend moving to the next step.

### **New Local Agency Funding Resources**

While the passage of Measure M brings new revenue to the agency, the Westside Purple Line Extension Section 3 Project plans to use all \$994.3 million of Measure M funds allocated to the project in the Expenditure Plan (excluding finance charges).

The local agency contribution for the project is 3% of the total cost, and 3% of the \$300 million cost increase, or \$9 million is assumed paid from this source. Measure M includes additional city local return and Multi-Year Subregional Program (MSP) funding for the Westside Subregion, and these sources could be used to fund the increase to the local agency contribution. MSP funds could be used in addition to the local agency contribution, but this is not currently assumed given the procedural and time requirements of programming these funds by Metro and the subregion.

### **Shorter Segmentation**

While shorter segmentation is possible for the Westside Purple Line Extension, we recommend against this step for several reasons. The only Section which could be shortened is Section 3. This would require eliminating the Westwood/VA Station and moving the terminus to the Westwood/UCLA Station. Eliminating the Westwood/VA Station would require a supplemental EIS/EIR due to significant project changes. As a result, there would be significant impacts to the project schedule and possibly increased costs to the Project. We do not recommend shorter segmentation.

### **Other Cost Reductions within the Same Transit Corridor**

The Westside Purple Line Extension will be constructed in three sections. Sections 1 and 2 are already under construction and there are no reductions that can be

moved from either section to Section 3. Value engineering studies may be undertaken by the future two Design/Builders, but the results of those studies will not be available in the timeframe necessary for this action.

### **Other Cost Reductions within the Same Subregion**

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

### **Countywide Transit Cost Reductions and/or Other Funds**

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

The current financial model update has identified up to \$132 million in Measure R 35% assigned to the Westside Purple Line Extension in the Measure R Expenditure Plan as potentially available. Allocating \$132 million from this source now to Section 3 to meet the cost overrun will result in no Measure R funding remaining for the project.

The balance of funding for the \$300 million cost increase, or \$167 million, is comprised of local agency contributions, state Regional Improvement Program and federal Surface Transportation Block Grant Program (STBGP) and Congestion Mitigation Air Quality (CMAQ) grant funds. Metro currently expects these formula grant funds to be available in the future, and would allocate a portion of the future apportionments to the project. These grant funds are allocated to other uses in the Long Range Transportation Plan Financial Forecast (as of June 2018), but can be made available for Section 3 using additional debt financing.