



## Board Report

File #: 2016-0971, File Type: Contract

Agenda Number: 50

**REVISED**  
**CONSTRUCTION COMMITTEE**  
**JANUARY 19, 2017**

**SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT**

**ACTION: AWARD DESIGN/BUILD CONTRACT AND ESTABLISH LIFE-OF- PROJECT BUDGET**

**RECOMMENDATION**

CONSIDER:

- A. ESTABLISHING a Life-of-Project Budget (LOP) Budget of \$2,440,969,299 for the **Westside Purple Line Extension Section 2 Project**;
- B. AUTHORIZING the Chief Executive Officer (CEO) to award a 102-month firm fixed price contract under Request for Proposal (RFP) No. C1120 to Tutor Perini/O & G, a Joint Venture (TPOG), the responsive and responsible Proposer determined to provide Metro with the best value for the final design and construction of the Westside Purple Line Extension Section 2 Project (Project) for a firm fixed price of \$1,376,500,000.00, subject to resolution of protest(s), if any; and
- C. AUTHORIZING the CEO, as part of a one-year pilot, to negotiate and execute project related agreements, including contract modification(s), up to the authorized Life-of-Project Budget for Sections 1 and 2 of the Westside Purple Line Extension Project, to streamline project management of the Project subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency to the Board of Directors. This action would allow the board to see in advance all project-related agreements and change orders.

**ISSUE**

In June 2016, a Full Funding Grant Agreement (FFGA) budget of \$2,410,544,879 (minus finance charges) was established by the Board for the Westside Purple Line Extension Section 2 Project. Within that Board approval action, it was noted that a LOP Budget would be established concurrent with the staff recommended contract award. This approach 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 selected price) is available.

In August 2016, the United States District Court for the Central District of California ruled that the Federal Transit Administration (FTA) must produce a Supplemental Environmental Impact Statement (SEIS) for portions of the Project. In its ruling, the Court declined to vacate the Record of Decision (ROD) for the Westside Purple Line Extension, allowing Metro and FTA to sign an FFGA for the Project. With the signed FFGA in hand, awarding the Design/Build contract at this time allows for preconstruction activities such as final design and utility relocations to occur while staff completes the SEIS, preventing a delay to the Project's schedule.

This report provides a recommendation for award of the contract within the FTA approved Full Funding Grant Agreement (FFGA). TPOG offers the best value to Metro given that the weighted technical results were comparable to the other proposers and the team's firm fixed price proposal is \$452 million less than the second ranked firm. In conjunction with this procurement, the CEO has identified the need to streamline the contract administration process for the Westside Purple Line Extension Section 2 Project and is requesting the authority as part of a one -year pilot, to negotiate and execute any remaining agreements such as professional services agreements, City or utility work orders, and contract modifications within the LOP budget, subject to monthly reporting to the Board, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency. This action would allow the Board to see in advance all project-related agreements and change orders but would allow the staff the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule.

The Metro leadership of the core Westside Purple Line team has a proven track record over a thirty year span, with successful project delivery on the Red line, Gold line and more recently on the successful startup of the Westside Purple Line Segment 1 Design build contract. The Project Manager for Segment 2 has over 20 years of experience in the design and construction of underground structures. His experience includes lead technical and management roles on complex underground construction projects for transit, highway and other heavy civil projects. In addition to the Metro leadership and core project management and support team, the project team will be supplemented in the integrated project management office by key staff from two nationally and internationally recognized consultants/Joint ventures providing engineering and construction management expertise. Additionally, Metro is in the process of procuring additional private sector program management expertise to supplement the Metro team at a strategic level.

As part of the approval process of the FFGA and the TIFIA loan, staff was required to produce a Westside Purple Line Extension Section 2 Project Management Plan (PMP) and sub plans that would ensure that Metro has the capacity and capability to manage and oversee the Project safely, on-time and within budget. As part of the Metro mid-year budget process, to strengthen the existing project management and support team, staff will be including the need for an additional 22 full time Metro staff. These staff will support engineering and construction management, project controls, safety,

quality, environmental compliance, third party coordination, community relations, real estate, vendor/contract management and project labor agreement administration. Furthermore, additional staff may be requested as part of the FY 18 budget and future budget processes, in accordance with the PMP and the needs of the project.

## **BACKGROUND**

The Westside Purple Line Extension Section 2 Project consists of twin-bored tunnels and two underground stations located at Wilshire/Rodeo (City of Beverly Hills) and Century City Constellation (City of Los Angeles). Advanced utility relocation work has begun under pre-award authority that was granted by the Federal Transit Administration in December 2014. The major construction work will be performed under Contract No. C1120 which includes the design and construction of tunnels, stations, systems, and trackwork.

The recommended action to approve the LOP Budget is consistent with the approval action taken by the Board in June 2016 and the recent FTA approval of the Westside Purple Line Extension Section 2 Project FFGA and the Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan from the United States Department of Transportation. The LOP Budget also includes \$30,424,420 of concurrent non-FFGA project activities. These concurrent activities include the planning/environmental phase of the Project, real estate loss of business goodwill, additional insurance coverage for Measure R Projects, certain community relations expenses, and public artwork. As of October 1, 2015, the Fixing America's Surface Transportation (FAST) Act prohibits federal transit funding for art elements of a transit project. The full funding plan is outlined in Attachment C.

On January 22, 2015, the Board authorized staff to use a design/build contracting delivery approach to complete the final design and construction of the Westside Purple Line Extension Section 2 Project and to solicit a contract for the 2.59 mile dual track heavy rail extension and two new underground stations. The Board authorized the procurement under Public Contract Code Section 20209.5 et seq., which allows for the negotiation and award of a design/build contract to a responsible proposer whose proposal is determined to be the best value to Metro.

A Request for Qualifications (RFQ)/Request for Proposals (RFP) two-step negotiated procurement was implemented for this design/build delivery approach. An open procurement was advertised on September 14, 2015, which culminated with three firms meeting the RFQ requirements and subsequently invited to submit proposals in response to the second phase of the solicitation, the RFP. Additional details for the procurement process, including the evaluation results, are in Attachment A.

## **DISCUSSION**

The recommended action to award the contract to the most advantageous proposer, TPOG, is based on a "Best Value" selection process. In accordance with Public Contract Code (PCC) 20209.5 - 20209.14, and its succeeding legislation, California Public Contract Code (PCC) § 22160-22169

---

(effective January 2015), the RFP defined Best Value as a value determined by objective criteria and may include, but is not limited to price, features, functions, life-cycle costs, and other criteria deemed appropriate by Metro; and the Best Value Proposal as the most advantageous Proposal to Metro when evaluated in accordance with the Evaluation Criteria defined in the RFP.

The Source Selection Plan and Request for Proposal (RFP) established the weighted value assigned to the major evaluation criteria:

- Project Management 45%
- Technical Approach 20%
- Price 35%
  - *Subtotal* 100%
- A Prompt Payment to Subcontractors Initiative 5% (bonus scoring)
  - Total 105%

After a thorough and extensive competitive procurement process, Staff recommends TPOG as the contracting team for the final design and construction of the Westside Purple Line Extension Section 2 project.

#### Request for Best And Final Offer (BAFO)

The FTA Best Practices Manual points out that “BAFOs are revised proposals that extinguish the prior proposals”. The BAFOs may increase or decrease their original amount and make any other changes to the proposal unless specifically prohibited by the request for BAFO. Once a Proposer has submitted its BAFO, Metro does not have the luxury of picking between the original and subsequent proposals. New BAFO proposals are the only proposals that may then be considered and could require another round of evaluations and discussions if in the best interest of the Agency.

Unlike the mega project design-build procurements for Crenshaw/LAX, Regional Connector, and Westside Purple Line Extension Section 1, after discussions with Proposers were completed, there was no indication that a BAFO would result in lower pricing or other benefits for the Agency nor was it necessary to accommodate changes to the Scope of Work. There was reason to believe that prices might in fact increase given details that arose during Proposers’ respective discussions on issues within their proposals. The conclusion about the inefficacy of a BAFO was later supported by increased pricing submitted by two proposers, whereas the lowest price Proposer did not increase their price.

BAFOs may be sought at the discretion of the Contracting Officer after discussions/ negotiations have been completed with proposers in the competitive range. BAFOs are requested when it is determined necessary because (1) the nature of those discussions/negotiations has a significant or material impact on the proposals submitted; (2) the discussions/negotiations have resulted in a material change to the Scope of Work or other specifications; or (3) the Contracting Officer has

determined additional requirements are necessary. None of the above requisites existed for this solicitation to necessitate a request for BAFOs.

### Supporting Effective Project Management

The Westside Purple Line Section 2, like many Metro projects, is a fast-moving, challenging and uniquely complex design-build project. Quick decision-making is required to take advantage of cost and scheduling opportunities and to keep the Project moving. A slow change order process is not consistent with the needs of a large, design/build project. There are limited project management resources, so the more time that project managers work on process-related activities, the less time they have solving problems. No process or too much process likely results in confusion, inefficiencies, and in some cases, conflicts. Part of the current process is the requirement to receive Board of Directors approval for changes above a specified threshold.

On a large mega-project, the thresholds requiring approval are easily exceeded. The need to bring a contract modification to the Board for approval can add two months to the schedule when contractors could have started the work immediately. This time can be critical to project schedules and risks exposure to extended overhead payments due the contractor, should the project be delayed.

As mentioned in the most recent Los Angeles Construction Market Analysis Update received by the Board in September 2015, contractors have indicated that delays in processing changes to be a significant risk when working on Metro projects. As a result they have had to include contingencies in their proposals to address this risk. This delay also puts DBEs subs at risk of not receiving timely payment for work performed.

The cost to the Crenshaw and Regional Connector projects for schedule delays ranges from \$3.3 to \$5 million per month for a total of \$6.6 million to \$10 million for a 2 month delay. Much of this delay could have been avoided if Board approval was not required prior to implementing a change.

Therefore, staff is proposing CEO authority to execute project related agreements, including change orders up to the LOP Budget. Any change that results in a LOP Budget increase would still require Board approval, which is the most critical aspect of managing projects. This approach is consistent with other transit agencies including San Jose, Seattle, and Denver.

In addition, staff would continue to report on the project budget, project labor agreement and small business/disadvantaged business compliance as part of the monthly updates to the Construction Committee and the detailed monthly reports that are issued to all stakeholders including the Board.

The benefits of this action are:

- Provides staff with the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and project schedule
- Still requires approval for any action requiring a LOP Budget increase

- Keeps the big picture focus on overall project budget management as opposed to detailed change orders
- Consistent with industry best practices for time sensitive, effective project management

In addition, Metro has or is in the process of implementing a number of construction best practices that would improve our ability to deliver projects on time and within budget. Examples include:

- Regular monthly reviews of the project status, together with a formal Annual Program Evaluation to continually assess project status for Board reporting.
- Implement a robust risk assessment process commencing early in the project development process and periodically through the project life to allow staff to identify risks/issues to facilitate early mitigation.
- Implement improved partnering processes at all levels from Chief Executive Officer on down to improve communication and facilitate timely resolution. Focus would be on avoiding or resolving disputes.
- Initiate a process to control potentially disruptive betterments, third party or Metro generated changes.
- To continuously provide adequate staff to manage the project, consistent with the approved Project Management Plans.

## **DETERMINATION OF SAFETY IMPACT**

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

## **FINANCIAL IMPACT**

Funds required in fiscal year 2017 for this board action are included in Project 865522 Westside Purple Line Extension Section 2 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 years.

### **Impact to Budget**

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment C. The recommended LOP Budget was assumed in the Long Range Transportation Plan for the Westside Purple Line Extension Section 2 Project and does not have an impact to operations funding sources. With respect to the \$30,424,420 of Concurrent Non-FFGA Project Activities, Attachment D shows the Measure R Cost Management Process and Policy analysis required for cost increases to Measure R projects. To comply with the Policy of the Metro Board of Directors, additional Measure R funds required for this Project will be from the projected remaining Measure R 35% Transit funds committed to the Westside Purple Line

Extension Section 1, 2, and 3 collectively.

This Project is not eligible for Propositions A and C funding due to the proposed tunneling element of the Project.

### **ALTERNATIVES CONSIDERED**

The Board may choose to not move forward with the contract award and adopting a LOP Budget. 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 \$1.5 billion in grants and loans from the US Department of Transportation, as well as jeopardize completion of the Westside Purple Line Extension by 2024.

The Board may also choose to not move forward with authorizing the CEO to negotiate and execute project related agreements, including contract modifications, up to the authorized Life-of-Project Budget. This is not recommended because of the risks associated with potential schedule delays related to the approval process for project related agreements.

### **NEXT STEPS**

Upon approval by the Board, 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.

Based on the Court's ruling, the SEIS will be a limited scope document, providing additional detail and assessment of the Project. A Draft SEIS will be released for public comments in writing and at a public hearing in early 2017. Metro staff anticipates the Final SEIS will be published in late summer 2017, prior to the start of major construction, which is scheduled to begin after January 2018.

### **ATTACHMENTS**

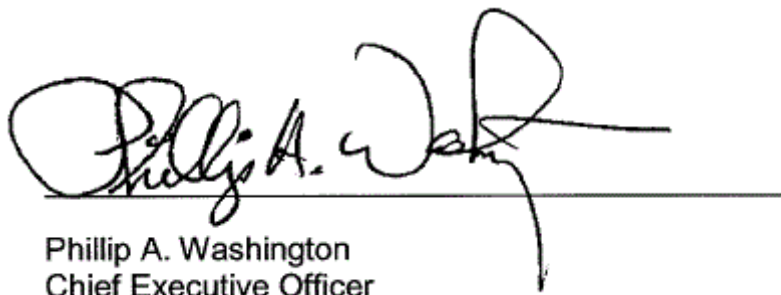
- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Funding/Expenditure Plan
- Attachment D - Measure R Cost Management Process and Policy Analysis

Prepared by:

Michael McKenna, Deputy Executive Officer, Project Management (213) 312-3132  
Rick Wilson, Deputy Executive Officer, Program Control (213) 312-3108  
Kenneth Stewart, Director, Contract Administration (213) 922-7687

Reviewed by:

Richard Clarke, Chief Program Management Officer, (213) 922-7557  
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051  
Stephanie Wiggins, Deputy Chief Executive Officer, (213)922-1023  
Phillip A. Washington, Chief Executive Officer, (213) 922-7555



Phillip A. Washington  
Chief Executive Officer



## PROCUREMENT SUMMARY

WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT – DESIGN/BUILD  
CONTRACT NO. C1120

1.	<b>Contract Number:</b> C1120	
2.	<b>Recommended Vendor:</b> Tutor Perini/O & G, a Joint Venture	
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> 9-14-2015	
	<b>B. Advertised/Publicized:</b> 9-11-2015	
	<b>C. Pre-Proposal Conference:</b> 10-6-2015	
	<b>D. Proposals Due:</b> 06-01-2016	
	<b>E. Pre-Qualification Completed:</b> 12-4-2015	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> 6-8-2016	
	<b>G. Protest Period End Date:</b> 1/27/2017	
5.	<b>Solicitations Picked up:</b> 114	<b>Bids/Proposals Received:</b> 3
6.	<b>Contract Administrator:</b> Kenneth Stewart	<b>Telephone Number:</b> 213-922-7687
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 design-build “Best Value” procurement issued in support of the Westside Purple Line Extension Section 2 Project. Contract No. C1120 will extend the existing heavy rail subway Purple Line approximately 2.55 miles from the future terminus at Wilshire/La Cienega and will include two new stations: Wilshire/Rodeo and Century City Constellation. The Section 2 alignment travels westerly beneath the City of Beverly Hills and Century City area of the City of Los Angeles. Board approval of the contract award is subject to resolution of any properly submitted protest(s).

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, Stations, Trackwork, Utilities and Systems of the Westside Purple Line Extension Section 2 Project. The contract type is a firm fixed price.

A Request For Qualifications (RFQ)/Request for Proposals (RFP) was issued on September 14, 2015. A pre-proposal conference was held on October 6, 2015, in the Board Room with representatives of approximately 200 firms in attendance. A networking event was held for the subcontracting community immediately after the conference.

The RFQ/RFP implemented a two-step negotiated procurement in accordance with California Public Contract Code § 22160-22169 and in accordance with Metro’s Acquisition Policy. The first phase of the procurement was a request for Statement of Qualifications (SOQ). A prequalification evaluation team evaluated the SOQs. Three responsive SOQs were received on October 30, 2015.

The three firms met the RFQ requirements, were designated as prequalified parties, and were invited to submit proposals in response to the second phase of the solicitation, the RFP.

The prequalified firms submitted technical and commercial questions which were recorded and reviewed by Metro staff. Formal written answers to approximately 600 questions were provided to the prequalified firms and the other 111 planholders.

Thirteen amendments were issued during the solicitation and evaluation process:

- Amendment No. 1, issued on October 7, 2015, extended the due date for SOQ questions by one week and adjusted the number of electronic/hard copies required;
- Amendment No. 2, issued on October 19, 2015, extended the SOQ due date by one week and made clarifications to various requirements;
- Amendment No. 3, issued on November 2, 2015, updated DBE listings and forms, updated General Requirements and provided technical documentation;
- Amendment No. 4, issued on November 10, 2015, extended the period of time for Proposers to perform DBE outreach events;
- Amendment No. 5, issued on December 4, 2015, announced the three firms pre-qualified to submit proposals for the benefit of the subcontracting community;
- Amendment No. 6, issued on December 10, 2015, provided additional and revised technical documents including requirements, drawings and design criteria;
- Amendment No. 7, issued on February 1, 2016, clarified contract language;
- Amendment No. 8, issued on February 4, 2016, clarified campaign contribution language, easement and right of way availability, the schedule of quantities and prices, and provided new and revised technical documentation;
- Amendment No. 9, issued on February 23, 2016, provided new and revised technical specifications and drawings;
- Amendment No. 10, issued on March 9, 2016, updated the DBE listing and introduced new subcontractor payment language;
- Amendment No. 11, issued on March 23, 2016, clarified Good Faith Efforts language, removed the DBE Tiered Program requirement disapproved by the FTA, updated DBE forms, clarified organizational document requirements, revised Provisional Sum definitions, and clarified technical document labelling and special inspections language;
- Amendment No. 12, issued on April 13, 2016, extended the proposal due date to June 1, 2016, revised the standard payment to subcontractor language and added an optional prompt payments to subcontractors initiative along with updated submittal language and evaluation criteria, clarified permitting language, added rail system related appendices, and provided a schedule template reference document;
- Amendment No. 13, issued on October 6, 2016, clarified Schedule of Quantities and Prices- Schedule D-Delay Compensation unit rate definitions and requirements and requested extension of the validity period of proposals an additional 90 days to February 26, 2017.

Three proposals were received on June 1, 2016, from the following firms:

1. Skanska-Obayashi a Joint Venture
2. Tutor Perini/O & G, a Joint Venture
3. Walsh Strabag Joint Venture

## **B. Evaluation of Proposals**

A Proposal Evaluation Team (PET) consisting of staff from Metro Project Engineering, Metro Project Management, Metro Rail Wayside Systems, and the City of Los Angeles Bureau of Engineering conducted a comprehensive evaluation of the proposals received. The team was supported by 17 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 and score of each proposal.

The PET performed a detailed evaluation of all three proposals in accordance with the factors and sub-factors set forth in the RFP to assign a score and ranking. The evaluation considered all technical and price factors defined in the RFP and Source Selection Plan.

The proposals were evaluated based on the following major evaluation criteria and weights

- |   |                           |
|---|---------------------------|
| • Project Management                            | 45 percent                |
| • Technical Approach                            | 20 percent                |
| • Price   | 35 percent                |
| • A Prompt Payment to Subcontractors Initiative | 5 percent (bonus scoring) |

The Proposers could opt for the prompt payment initiative, noted above, that requires the prime contractor to pay its first tier subcontractors for work completed prior to submitting its monthly billing to Metro. This triggers the cascading of earlier payments where each subcontractor must make payment to their subcontractors of undisputed amounts within 7 days of having received payment. In return, Metro provides terms of Net 21 days payment of undisputed amounts to the Contractor.

Each Proposer received written Requests for Clarification regarding topics such as work experience, safety documentation, Disadvantaged Business Entity (DBE) forms, design cost reporting, subcontractor work scopes and registrations, and organizational documents.

Each proposing team was invited to make an oral presentation to the PET for the purpose of clarifying their proposal and demonstrating their understanding of Metro's requirements, thus allowing the PET to refine technical scoring. The presentation meeting format, the amount of time allowed, and general questions asked were standardized.

The Contract Administrator and Project Manager held separate discussions with each Proposer between August 4, 2016, and August 11, 2016, to address potential deficiencies, understand concerns about risk, and review assumptions taken in relation to the price proposal. Two of the Proposers, after discussions were held, submitted a revised proposal at a higher price.

Discussions confirmed the Proposers' understanding of the scope and appropriate approaches and plans to complete the scope of work. No material change to the Scope of Work was discovered that would necessitate a request for Best and Final Offers.

Each of the three proposals were responsive to the requirements of the RFP, including evidence of bonding capability, insurability, current contract licenses, appropriate and duly notarized joint venture agreements, as well as disclosure of litigation.

All three Proposers were determined to be within the competitive range so that all aspects of their offerings could be fully explored and understood.

## **Summary of Firms within the Competitive Range**

### **Tutor Perini/O & G, a Joint Venture**

Tutor Perini/O & G, JV is a joint venture made up of Tutor Perini Corporation of Sylmar, California and O & G Industries of Torrington, Connecticut, with Frontier Kemper as a tunneling subcontractor. Tutor Perini maintains a large nationwide presence building infrastructure in large metropolitan areas and has built railways and stations for Metro including multiple portions of Metro's Red Line Project. O & G Industries has delivered many important public projects on the East Coast.

### **Skanska-Obayashi a Joint Venture**

Skanska-Obayashi JV is a joint venture between Skanska USA Civil West California District Inc. of Riverside, California and Obayashi Corporation of Burlingame, California. Skanska's experience includes building Metro's Foothill Gold Line and the Expo 2 Line. Skanska is currently a joint venture member building the Regional Connector Project and the Westside Purple Line Section 1 Project. Obayashi is a large, multinational construction firm maintaining offices and executing large construction projects, including those with tunnels, throughout the world.

### **Walsh Strabag Joint Venture**

Walsh Strabag JV is a joint venture between Walsh Construction II, LLC of Chicago, Illinois and Strabag Corp of Wilmington, Delaware. Walsh is a very large privately held construction company with regional offices covering North America. It has executed transit projects in several large metropolitan areas throughout the United States. Walsh is currently a joint venture member building the Crenshaw/LAX Project. Strabag is a large, multinational construction firm maintaining offices and executing large projects throughout the world including a special tunneling division.

## **Evaluation Outcome**

Based on a thorough evaluation of all proposals, as performed and determined by the Proposal Evaluation Team, the Tutor Perini/O & G, a Joint Venture proposal offers the "Best Value" and is the most advantageous to Metro.

Tutor Perini/O & G, a Joint Venture demonstrated strengths with readily available key personnel, an innovative approach to moving material underground, their Contracting Outreach and Mentor Protégé plan and the joint venture partners' history of working together. While the other two Proposers' weighted scores for Project Management and Technical Approach were minimally higher, the difference in the technical capability found in their proposals was not great enough to justify the significantly higher prices proposed. The Tutor Perini/O & G proposal is determined technically comparable at an award price that is approximately \$452 million lower than the next lowest proposal.

The final scores and ranking of the proposals is summarized in the table below.

### Final Evaluation Scoring

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	<b>Tutor Perini/O &amp; G, JV</b>				
3	Project Management	71.47	45.00%	32.16	
4	Technical Approach	73.10	20.00%	14.62	
5	Price	100.00	35.00%	35.00	
6	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
7	<b>Total</b>		<b>105.00%</b>	<b>86.78</b>	<b>1</b>
8	<b>Skanska-Obayashi, JV</b>				
9	Project Management	76.31	45.00%	34.34	
10	Technical Approach	77.15	20.00%	15.43	
11	Price	68.31	35.00%	23.91	
12	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
13	<b>Total</b>		<b>105.00%</b>	<b>78.68</b>	<b>2</b>
14	<b>Walsh Strabag JV</b>				
15	Project Management	73.44	45.00%	33.05	
16	Technical Approach	79.05	20.00%	15.81	
17	Price	65.23	35.00%	22.83	
18	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
19	<b>Total</b>		<b>105.00%</b>	<b>76.70</b>	<b>3</b>

All Scores rounded to the second decimal.

\*All Proposers received full credit.

### C. Cost/Price Analysis

A line by line proposal pricing evaluation was performed, with certain line items of each proposal being identified as of interest. The line items of interest were different for each Proposer. The respective line items were addressed during the commercial and technical discussions with Proposers.

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 which was submitted concurrently with the proposals.

Proposer Name	Total Price Proposal <sup>1</sup>	Total ICE <sup>2</sup> Price Proposal	Award Price <sup>3</sup>	ICE Award Price <sup>3</sup>
Tutor Perini/O & G, JV	\$1,453,622,111	\$1,343,780,007	\$1,376,500,000	\$1,234,711,573
Skanska-Obayashi, JV	\$1,947,004,375		\$1,828,934,700	
Walsh Strabag JV	\$2,324,627,678		\$2,018,569,899	

Note<sup>1</sup>: The Total Price Proposal includes the Base Work, Provisional Sums, Unit Prices, Delay Compensation, and Life Cycle Costs.

Note<sup>2</sup>: The Independent Cost Estimate (ICE) amounts are submitted before the due date and opened concurrently with the other Proposals.

Note<sup>3</sup>: The Award Price includes Base Work and Provisional Sums only.

### D. Background of Recommended Contractor

Tutor Perini/O & G, JV is a fully integrated joint venture between Tutor Perini Corporation (Tutor Perini), the Managing Partner with 75% equity, and O & G Industries, Inc. (O & G) with 25% equity.

Tutor Perini is advertised as the largest publicly traded civil works contractor that is headquartered in California and was ranked 14th of Engineering News-Record (ENR)'s Top 400 Contractors list for 2015. 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.

O & G Industries, Inc. is a privately held company. O & G has been ranked as the 210<sup>th</sup> of the country's top 400 construction companies and is one of the larger heavy/civil contractors in the northeastern United States. O & G has worked with Tutor Perini on large projects in the past. Locally, Tutor Perini and O & G delivered the D-B Alameda Corridor Project in south Los Angeles.

STV Incorporated (STV) is the lead engineering firm. STV has worked with Tutor Perini on D-B transportation projects around the nation since 1997.

## DEOD SUMMARY

WESTSIDE PURPLE LINE EXTENSION  
SECTION 2 PROJECT / C1120**A. (1) Small Business Participation - Design**

The Diversity and Economic Opportunity Department (DEOD) established a 25% Disadvantaged Business Enterprise (DBE) goal for Design. Tutor Perini/O & G, JV exceeded the goal with a 25.31% DBE commitment.

<b>SMALL BUSINESS GOAL</b>	<b>DBE 25%</b>	<b>SMALL BUSINESS COMMITMENT</b>	<b>DBE 25.31%</b>
----------------------------	----------------	----------------------------------	-------------------

	<b>DBE Subcontractors</b>	<b>Ethnicity</b>	<b>% Committed</b>
1	Arellano Associates LLC	Hispanic American	0.26%
2	Coast Surveying, Inc.	Hispanic American	0.52%
3	Cornerstone Studios, Inc.	Asian Pacific American	0.53%
4	PacRim Engineering, Inc.	Asian Pacific American	4.21%
5	DR Consultants & Designers	Hispanic American	2.55%
6	Epic Land Solutions	Caucasian Female	TBD
7	Exeltech Consulting, Inc.	Subcontinent Asian American	2.69%
8	Fariba Consulting	Other	1.18%
9	GC Tech, Inc.	African American	0.96%
10	Lin Consulting, Inc.	Asian Pacific American	2.46%
11	NBA Engineering, Inc.	Caucasian Female	2.10%
12	Paleo Solutions, Inc.	Caucasian Female	0.02%
13	Ted Tokio Tanaka Architect	Asian Pacific American	5.24%
14	YEI Engineers, Inc.	Asian Pacific American	1.63%
15	Electrical Building Systems, Inc.	Hispanic American	0.96%
		<b>Total Commitment</b>	<b>25.31%</b>

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

DEOD established a 17% DBE goal for Construction. Tutor Perini/O & G, JV made a 17% DBE commitment. To be responsive to DBE requirements, Tutor Perini/O & G, JV was required to identify all known DBE subcontractors at the time of proposal. Tutor Perini/O & G, JV listed seven (7) known DBE firms as noted below, with commitments totaling 8.27%. In addition, Tutor Perini/O & G, JV was required to submit a DBE Contracting Plan identifying construction opportunities to meet its DBE commitment throughout the Construction phase of the project. Tutor Perini/O & G, JV is required to update the Contracting Plan monthly as contract work is bid and awarded to DBE firms. DEOD reviewed and approved the Contracting Plan submitted by Tutor Perini/O & G, JV which included a 17% DBE commitment for Construction and identified scopes of work for DBE subcontracting opportunities.

<b>SMALL BUSINESS GOAL</b>	<b>DBE 17%</b>	<b>SMALL BUSINESS COMMITMENT</b>	<b>DBE 17%</b>
	<b>DBE Subcontractors</b>	<b>Ethnicity</b>	<b>% Committed</b>
1	Analysis & Solutions Consultants	African American	0.58%
2	Chaudhary & Associates, Inc. (2 <sup>nd</sup> Tier)	Asian Pacific American	0.02%
3	Jet Drilling (2 <sup>nd</sup> Tier)	Hispanic American	0.12%
4	J. Hernandez Consulting	Hispanic American	0.01%
5	G & C Equipment Corporation (Supplier – 60%)	African American	3.72%
6	Martinez Steel Corporation	Hispanic American	2.51%
7	Valverde Construction, Inc.	Hispanic American	1.31%
8	To Be Determined at Time of Final Design	TBD	8.73%
		<b>Total Commitment</b>	<b>17%</b>

**C. Contracting Outreach and Mentoring Plan**

To be responsive to DBE requirements, Tutor Perini/O & G, JV was required to submit a DBE Contracting Outreach and Mentoring Plan (COMP), which included the minimum requirement to apply 25% of the total DBE commitment dollars for



Design and 15% of the DBE commitment dollars for Construction for participation in the mentor protégé program.

**D. 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: This contract is subject to the USDOT Pilot Local Hire Initiative.

Community / Local Area Worker Goal	Apprentice Worker Goal	Disadvantaged Worker Goal
40%	20%	10%

**E. 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).

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

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

**FUNDING/EXPENDITURE PLAN  
WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT**

(DOLLARS IN MILLIONS)

Capital Project 865522	Prior	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Total	% of Total
<b>Uses of Funds</b>														
Construction	0.2	81.9	106.6	218.7	267.8	237.0	228.2	156.9	78.3	24.2	-	-	1,400.0	57.4%
Right-of-Way	80.7	50.6	95.8	185.4	7.0	-	-	-	-	-	-	-	419.4	17.2%
Vehicles	-	-	-	-	-	-	42.0	-	-	-	-	-	42.0	1.7%
Professional Services	46.4	24.0	44.5	36.7	31.0	29.8	30.5	29.5	25.6	23.4	52.2	-	373.5	15.3%
Project Contingency	-	16.9	25.0	23.0	24.5	25.9	33.3	14.8	7.4	1.5	3.3	-	175.7	7.2%
<b>FFGA Subtotal*</b>	<b>127.2</b>	<b>173.4</b>	<b>271.9</b>	<b>463.8</b>	<b>330.2</b>	<b>292.7</b>	<b>334.1</b>	<b>201.3</b>	<b>111.3</b>	<b>49.1</b>	<b>55.5</b>	<b>-</b>	<b>2,410.5</b>	<b>98.8%</b>
Concurrent Non-FFGA Project Activities	0.0	8.5	7.3	5.8	3.8	0.3	0.1	0.1	-	-	-	-	26.1	1.1%
Planning/Environmental	0.5	2.6	1.2	-	-	-	-	-	-	-	-	-	4.3	0.2%
<b>Non-FFGA Subtotal</b>	<b>0.5</b>	<b>11.2</b>	<b>8.5</b>	<b>5.8</b>	<b>3.8</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>30.4</b>	<b>1.2%</b>
<b>Total Project Cost</b>	<b>127.7</b>	<b>184.5</b>	<b>280.4</b>	<b>469.7</b>	<b>334.1</b>	<b>293.1</b>	<b>334.3</b>	<b>201.4</b>	<b>111.3</b>	<b>49.1</b>	<b>55.5</b>	<b>-</b>	<b>2,441.0</b>	<b>100.0%</b>
<b>Sources of Funds**</b>														
Federal 5309 New Starts	58.0	30.0	128.3	183.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.0	1,187.0	48.6%
Federal TIFIA Loan Proceeds (Repaid with Measure R 35%)	-	146.0	61.0	100.0	-	-	-	-	-	-	-	-	307.0	12.6%
Measure R 35%	14.9	8.5	78.1	156.0	178.1	149.1	208.3	101.4	11.3	(50.9)	(44.5)	(87.0)	723.2	29.6%
Repayment of Capital Project Loans	54.8	-	-	-	-	-	-	-	-	-	-	-	54.8	2.2%
Federal CMAQ	-	-	13.0	30.0	56.0	44.0	26.0	-	-	-	-	-	169.0	6.9%
<b>Total Project Funding</b>	<b>127.7</b>	<b>184.5</b>	<b>280.4</b>	<b>469.7</b>	<b>334.1</b>	<b>293.1</b>	<b>334.3</b>	<b>201.4</b>	<b>111.3</b>	<b>49.1</b>	<b>55.5</b>	<b>-</b>	<b>2,441.0</b>	<b>100.0%</b>

\*Does not include \$88.7 in finance costs.

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

**MEASURE R COST MANAGEMENT PROCESS AND POLICY ANALYSIS**  
**WESTSIDE PURPLE LINE EXTENSION SECTION 2 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.

The Westside Purple Line Extension Section 2 Project warrants such an analysis due to a \$30.4 million cost increase. The Measure R funds assumed for the Westside Purple Line Extension Section 2 Project to date amount to \$999.8 million (out of a total Measure R commitment of \$4,074 million for all three sections). At this time, we estimate that \$286.4 million of Measure R 35% would remain at the completion of the three sections. We propose using \$30.4 million of the \$286.4 million to address the cost increase as shown in the "Other Cost Reductions within the Same Transit Corridor" step.

**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 sub-region; and finally,

- 6) Countywide transit and 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 2 Project does not fall within a Regional Facility Area.

### **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 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.

In 2014, an operational analysis was performed and the operational infrastructure was evaluated to determine the impacts if scope items were not constructed or purchased. The resulting operational impacts are as follows:

- Not constructing the track crossover, east of the Wilshire/Rodeo Station, will increase passenger wait times between trains when one track is out of service between Wilshire/La Cienega and Century City/Constellation stations.
- Not constructing tunnel/systems/track for the tailtrack west of the Century City/Constellation Station will not provide for storage of trains for routine operations, special events or vehicle maintenance issues. However, the station will still provide the minimum operational requirements for a temporary terminus to be located at the Century City/Constellation Station.
- Reducing the heavy rail vehicles to be acquired for the WPLE Section 2 Project from 20 to 10 will require either: 1) increases in the passenger wait times or 2) operation of shorter trains.

The impact of the crossover and tailtrack elimination has been determined to be reasonably acceptable for the operation of WPLE Section 2.

Further reductions in scope would likely substantially delay the project or result in a project not consistent with the Locally Preferred Alternative. As a result, we recommend moving to the next step.

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

Similarly, the \$1,187 million New Starts Full Funding Grant Agreement (FFGA) states that all cost increases are to be borne by the project sponsor, not the Federal Transit Administration. Accordingly, we are assuming that no additional New Starts funds can be made available to cover the cost increase.

While the passage of Measure M brings new revenue to the agency, the Westside Purple Line Extension Project Section 2 Project is not part of the expenditure plan and thus is not eligible for Measure M funds.

### **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 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 Purple Line Extension will be constructed in three sections. Section 1 is already under construction and there are no reductions that can be moved from Section 2 to Section 3. As we enter into advanced preliminary engineering for Section 3, we will be considering further value engineering studies. The results of these studies will not be available in the timeframe necessary for this action.

The current financial model update has identified up to \$286.4 million in Measure R 35% assigned to the Westside Purple Line Extension as potentially available<sup>1</sup>. Allocating \$30.4 million from this source now to Section 2 to meet the cost overrun will result in \$256.0 million remaining.

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

---

<sup>1</sup> Section 7(1)(d)(4) of the Measure R Ordinance allows any unused Measure R be credited to the Transit Capital Subfund and expended for Capital Projects located within the same subregion as the project so completed.

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 or other funds.