



Board Report

File #: 2015-0955, File Type: Contract

Agenda Number: 34.

REVISED
CONSTRUCTION COMMITTEE
JULY 16, 2015

SUBJECT: STAFFING REQUEST FOR ENGINEERING & CONSTRUCTION DEPARTMENT'S TRANSIT PROJECTS

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSTRUCTION COMMITTEE RECOMMENDED (5-0) authorizing the Chief Executive Officer to amend the **FY16 budget to add 33 non-contract full-time equivalent (FTE) positions:**

- A. 18 non-contract FTE positions (with 7 non-contract FTE positions already accounted in the FY 16 budget) by converting new Construction Management Support Services(CMSS)/consultant positions to support Measure R transit projects for Engineering & Construction (E&C) Department;
- B. 2 non-contract FTE positions by converting consultant positions to support Environmental Compliance and Sustainability projects for E&C Department (Refer to Appendix 1);
- C. 3 non-contract FTE positions to support capital transit projects for E&C Department (refer to Appendix 2);
- D. 4 non-contract FTE positions by converting new CMSS/consultant positions to support Measure R transit projects for Program Management Office (Refer to Appendix 3);
- E. 4 non-contract FTE positions by converting new CMSS/consultant positions to support Measure R transit projects for Vendor/Contract Management Department (Refer to Appendix 4); and
- F. 2 non-contract FTE positions to support Measure R transit projects for Countywide Planning and Development Department (Refer to Appendix 6).

It should be noted that the positions A through F are project related positions that can be terminated upon completion of the projects.

ISSUE

In recent quarterly meetings with the Federal Transit Authority (FTA), FTA has expressed repeated concerns over Metro's staffing levels. There were also discussions over Metro's succession planning. With the on-going construction of the three main transit projects, Crenshaw/LAX, Regional Connector and Westside Purple Line Extension Section 1 and initiating preliminary engineering design for Westside Purple Line Extension Section 2 in addition to numerous smaller transit capital and state of repair projects, FY 16 represents a year of tremendous growth for E&C department and all the other supporting departments such as Program Management Office, Vendor/Contract Management, Communications and Countywide Planning and Development who provide critical support to these projects. The total capital budget for these four main transit projects alone in FY 15 is approximately \$710 million with a total current staffing of 201 Metro and CMSS/consultant positions. With a proposed capital budget of \$1.150 billion for the four major transit projects in FY 16 (an increase of approximately 25 percent) the total Metro FTE and CMSS/consultant positions will need to increase from 201 positions to approximately 276 positions as the projects ramp up and come on stream.

For the FY 16 budget process, it was agreed to include 10 non-contract Metro positions as seed positions in order to allow staff to commence recruitment by advertising these positions. It was further agreed that the remaining request for 33 positions will go through a separate process via the Board as a direct response to previous Board motions. Last month, as part of the FY16 Budget, the Board approved 7 out of the 10 non-contract Metro positions for E&C. These Board approved positions are highlighted in Table A.

In order to support the main transit projects currently under construction, E&C and supporting departments are requesting a total of 33 non-contract FTE positions. These new non-contract FTE positions may be terminated upon completion of the projects.

- 23 positions for Engineering & Construction (Refer to Table A).
- 4 non-contract Metro FTEs for Program Management Office.
- 4 non-contract Metro FTEs for Vendor/Contract Management.
- 2 non-contract Metro FTEs for Countywide Planning and Development.

Based on the results of the pilot project and cost benefit analysis performed by E&C on the CMSS/consultant model to determine which functions should be brought in-house, staff has determined that partial conversion of the approximately 28 (of the 33) new staffing positions from private to public sector will save up to \$21 million through the life of project for the main transit projects:

- 18 non-contract Metro FTEs (with 7 non-contract FTE positions already accounted in the FY 16 budget) for Engineering & Construction for the main transit projects.

- 2 non-contract Metro FTEs for Engineering & Construction for Environmental Compliance and Sustainability.
- 4 non-contract Metro FTEs for Program Management Office.
- 4 non-contract Metro FTEs for Vendor/Contract Management.

INTRODUCTION

Metro's construction management and consulting services commonly referred to as construction management support services (CMSS) is a concept that began in the mid 1990's in response to a Board-directed investigation to research more effective and innovative approaches to project delivery. At the same time, the Metro Board approved the adoption of a Joint Project Office now called the Integrated Project Management Office (IPMO). The CMSS concept under the IPMO supplements Metro staff with consultants in managing Metro projects. The consultant staff members are an extension of Metro staff and under the direction of Metro.

The scope of the CMSS contract includes a variety of project management and construction management staffing disciplines that may be required during the course of construction. The consultants provide an extension of staff to various Metro Departments represented in the project team or supported by the project team - example Departments are Engineering and Construction, Program Management Office, Vendor/Contract Management, Communications, Enterprise Risk and Safety, and Countywide Planning and Development.

The vast majority of CMSS/consultant staff (used as an extension of Metro staff) are utilized on the main transit projects presently underway - Crenshaw/LAX, Regional Connector, Westside Section 1, with Westside Section 2 imminent. However, consultants are used to a lesser extent to supplement Metro staff for other project areas - Highways, Regional Rail, Capital and Environmental. The need for, and the pattern of usage, varies by project type and is dependent upon the specific needs of the various projects. On a typical transit project, the CMSS/consultant staff comprises of approximately 50 percent of the total staffing with the remaining 50 percent staffed by Metro personnel.

DISCUSSION

In response to several board motions, staff examined the cost of outsourcing construction management and consulting services and completed a pilot project study and a preliminary cost benefit analysis. The key goals and objectives of the pilot project study and preliminary cost benefit analysis were to:

- a. Deliver transportation infrastructure projects safely, on time, and within budget;

- b. Manage resources effectively and efficiently resulting in tangible cost savings;
- c. Build bench strength in the Metro work force and create a succession plan for the future; and
- d. Support Metro's commitment to Disadvantaged Business Enterprise (DBE) and Small Business Enterprise (SBE)

Due to the voter-approved Measure R program, Metro is undertaking one of the largest capital improvement programs in the nation which is an unprecedented challenge for project delivery. The successful project delivery of these transit projects is highly dependent on providing sufficient staffing resources in order to lower cost, exercise fiscal responsibility, enhance our safety-conscious culture and increase quality and efficiency.

Staffing Assumptions

The staffing assumptions used in the staffing analysis, pilot project study and cost benefit analysis consisted of the following:

1. All existing CMSS/consultant and Disadvantage Business Enterprise (DBE) and Small Business Enterprise (SBE) positions in FY 15 shall remain.
2. Highly specialized technical areas of expertise (tunneling resident engineer, noise/vibration engineer, land surveyor, etc.) shall remain as consultants.
3. In order to address peak fluctuations in the work including construction work that requires swing and night shifts, staff shall continue to use CMSS/consultant positions on an as-needed basis.
4. To honor Metro's commitment to DBE and SBE, existing CMSS/consultant positions in these categories shall remain as consultants.
5. The new non-contract Metro positions may be terminated upon completion of the projects.

Staffing Analysis

In preparation for the Metro FY16 budget process that establishes the Metro headcount for each subsequent fiscal year, staff assessed the project work for the coming year and, based on the projected annual capital expenditure per project, the project team established the overall staffing requirements consistent with the overall project management plans submitted to the Federal Transit Administration (FTA) for each project. From this capital budget information, the overall total monthly staffing requirements are estimated for each project using a variety of scenarios dependent on assumed levels of future capital funding. The staffing is broken down by Metro department(s) and divided between the public and private sector. The monthly staffing requirements are reviewed to ascertain the optimal split between public sector and private sector which is typically a 50/50 ratio. Additionally, staff considered a number of potential funding scenarios for potential longer term

projects to assist in providing an understanding of what the staffing requirements might be over an extended period of time.

In order to adequately staff the main transit projects for the first six months of FY16 and effectuate a cost savings of at least 25 percent, staff is requesting a total of 33 new non-contract Metro positions for the first six month of FY 16 to support Measure R transit and capital projects of which 28 CMSS/consultant positions will be converted to new Metro non-contract positions:

1. 23 non-contract positions for Engineering & Construction of which 20 non-contract positions are CMSS/consultant conversions.
 - a. 18 non-contract positions are CMSS/consultant conversions for the main transit projects.
 - b. 2 non-contract positions are consultant conversions for Environmental Compliance and Sustainability.
2. 4 non-contract positions for Program Management Office; all 4 positions are CMSS/consultant conversions.
3. 2 non-contract positions for Countywide Planning and Development.
4. 4 non-contract positions for Vendor/Contract Management; all 4 positions are CMSS/consultant conversions.

Most of the new staffing proposed for E&C for the first six months of FY16 to support two of the main transit projects, Crenshaw/LAX and Regional Connector, approximately 82 percent which is equivalent to 23 of the 28 positions. Approximately 18 percent of new staffing (equivalent to 5 positions of the 28 positions) proposed for E&C for the first 5 months of FY16 support Westside Purple Line Extension Section 1.

The intent is to fully staff the Crenshaw/LAX and Regional Connector Transit Corridor projects so that these new non-contract Metro positions will gradually phase into staffing for Westside Purple Line Extension Sections 1 and 2 by the end of 2017 once the Crenshaw/LAX and Regional Connector Transit Corridor projects start to ramp down. This will mean that Westside Purple Line Section 1 will have a heavier reliance on CMSS/consultant staff for FY 16 and FY17 compared with Crenshaw/LAX and Regional Connector Transit Corridor projects. Staff carefully and conscientiously determined the appropriate staffing levels to ensure that all these new non-contract Metro positions will have work for the next 10 years or more.

Furthermore, attrition plays a significant influence in the staffing analysis of 23 new non-contract E&C positions in FY16. Currently, there are a total of 127 existing staffing positions for Transit in E&C. In the next five to ten years, it is estimated that approximately 44 percent (56 out of 127) of the existing E&C staff in Transit are expected to retire.

There are significant tangible benefits in converting CMSS/consultant functions to new Metro positions such as:

- Providing a cost savings for the life of the project as the average cost of consultants is significantly more than the average cost of Metro positions.
- Preserving the intellectual, political and commercial capital of the organization by maintaining a trained and experienced work force.
- Creating flexibility, career advancement and build a succession plan for the organization.

As for the five (out of 33) new non-contract Metro positions that are not CMSS/consultant conversions, there is a strong business case to use in-house Metro personnel versus consultant positions to support the four main transit corridor projects and the capital improvement projects.

Based on our preliminary calculations, the potential annual cost savings of using five in-house Metro personnel in lieu of CMSS/consultant positions is approximately \$447,000 with up to \$3.1 million in potential savings for the life of projects as outlined in Table A-1.

Pilot Project Study

The pilot project study was initiated in November 2014 for the Crenshaw/LAX Transit Corridor project. For the pilot project study, staff transitioned certain new CMSS/consultant positions with non-contract Metro positions by either using existing “vacant” and/or “borrowed” Metro positions. A total of seven new CMSS/consultant positions were converted to non-contract Metro positions with annual cost savings of approximately \$1.27 million (with a 10 percent discount factor applied to account for market conditions). Two of the seven positions, specifically the Sr. Community Relations Officer and Community Relations Officers, were “borrowed” positions provided by Human Resources Department on a temporary basis only. Therefore, in order to make these two “borrowed” positions permanent, they are included as part of the seven non-contract positions CMSS/consultant conversions under Communications.

As shown in Table B, the total annual cost for these seven positions under the CMSS/consultant contract is approximately \$3.2 million. By converting these seven CMSS/consultant positions to new Metro positions, the total cost for these seven new Metro functions was reduced to \$1.8 million. Since these seven positions were recruited within the mid-point salary ranges of Metro’s pay scale, a 10 percent (in lieu of 30 percent) discount was applied against the cost savings of \$1.4 million to account for current market conditions and salary variations which yielded a total potential cost savings of approximately \$1.27 million.

Cost Benefit Analysis

Due to the successful results of the pilot project study, staff performed a cost benefit analysis that

identified the capital budget, monthly costs and staffing needs of all individual projects underway, including those that may be undertaken in the next five to ten years. In addition, total costs and total staffing needs were compiled over that period. The projected staffing numbers and costs were compared against industry norms and compared to the details provided to and approved by the FTA as part of Full Funding Grant Agreement related submittals for the respective projects.

The cost benefit analysis focused on the four main transit corridor projects such as Crenshaw/LAX, Regional Connector, and Westside Purple Line Extension Sections 1 and 2 and Environmental Compliance and Sustainability division. Based on the staffing assumptions described above, the results of the analysis indicate that a potential cost savings of \$21 million can be achieved by converting 28 new CMSS/consultant positions to new non-contract Metro positions. Refer to Table C and Table C-1.

- 18 positions for Engineering & Construction for the main transit projects.
- 2 positions for Engineering & Construction for Environmental Compliance & Sustainability.
- 4 non-contract Metro FTEs for Program Management Office.
- 4 non-contract Metro FTEs for Vendor/Contract Management.

The total projected budgeted value of the CMSS/consultant contracts for the main transit projects and Environmental Compliance and Sustainability is approximately \$282 million. Refer to the Table D below. The total cost for approximately 28 CMSS/consultant positions for the life of projects for the four main transit projects including Environmental Compliance & Sustainability is approximately \$73 million. By converting these 28 CMSS/consultant positions to non-contract Metro positions, the total cost for these Metro functions is reduced to approximately \$43 million. This results in a potential cost savings of \$30 million. However, by applying a 30 percent discount against \$30 million to account for market conditions, salary variations, and other staffing considerations, the total potential cost savings is approximately \$21 million.

The cost benefit analysis has to be tempered by a number of staffing considerations including but not be limited to, actual market conditions (and associated salaries) for professional staff, availability of staff with approximate qualifications and experience, staffing procurement lead-in times, SBE/DBE, flexibility of using consultant staff on as-needed basis, long term human resource costs related to Metro staff benefits such as pension, obligations, etc.

| TABLE E- PROJECT NAME | CMSS/CONSULTANTS | ESTIMATED CONTRACT VALUE (Life of Project) |
|---------------------------------------|---|--|
| Crenshaw/LAX Transit Corridor Project | Stantec, PMA, CRSS & Hill International | \$67 million |

| | | |
|---|--|--------------|
| Regional Connector Transit Corridor Project | Arcadis, CPVJ, Hill International | \$45 million |
| Westside Purple Line Extension Section 1 | Westside Extension Support team, J.V. & Hill International | \$69 million |
| Westside Purple Line Extension Section 2 | TBD* | \$63 million |
| Environmental Compliance and Sustainability | Arcadis | \$38 million |
| TOTAL | \$282 million | |

*CMSS contracts have not yet been awarded to Westside Purple Line Extension Section2.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards.

FINANCIAL IMPACTS

The following funds are included in the FY 16 budget for this action:

- Project no. 865512 and 860003 Crenshaw/LAX Transit Corridor Project in Cost Centers 6810, 6940, 7160, 8110, 8410, 8420, 8510 and 8610.
- Project no. 860228 Regional Connector Transit Corridor Project in Cost Centers 6810, 6940, 7160, 8110, 8410, 8420, 8510 and 8610.
- Project no. 865518 Westside Purple Line Extension Section 1 in Cost Centers 8010 and 8510.

The conversion of the CMSS/Consultant positions to new Metro non-contract positions effectuates a cost savings of up to \$21 million throughout the life of project for the main transit projects including Environmental Compliance and Sustainability. This potential cost savings incurred will be reallocated to project contingency. Since this is a multi-year project, the Executive Director of Engineering and Construction will be responsible for allocating the costs in future years.

ALTERNATIVES CONSIDERED

The Board may choose not to authorize the conversion of CMSS/Consultant positions to non-contract FTEs. This is not recommended since the impacts of insufficient staffing at appropriate levels include:

- Heavier reliance on CMSS/consultant positions.
- Loss of potential cost savings of up to \$21 million for these positions for life of project.
- Inability to preserve the intellectual and commercial capital of the organization.
- Inability to cross-train in the most effective and efficient manner to provide a wider diversity of

skills and create flexibility in the workforce.

- Inability to create a succession plan for the future.

Furthermore, if the five non-contract Metro positions listed in Table A-1 are not approved by the Board, staff will have to outsource and use CMSS/consultant positions with a loss of potential cost savings of up to \$3.1 million for life of projects.

NEXT STEPS

1. Staff will submit their FY 16 CMSS Contract budget to the Board for approval in July 2015.
2. Staff will report back by December 2015 on the actual number of non-contract Metro positions hired and placed on the projects. This report will include the cost impacts effectuated by the conversion of positions affecting the CMSS, Metro Admin and Contingency line items by project.

ATTACHMENTS

- A. Table A Engineering & Construction FY16 Staffing
- A-1 Table A-1 Potential Cost Savings of 9 Metro FTEs
- B. Table B - Pilot Project Study
- C. Table C - Cost Benefit Analysis
- D. Table C-1 -FY16 CMSS/Consultant Conversion Cost Savings
- E. Appendix 1 - Environmental Compliance & Sustainability
- F. Appendix 2 - Transit Capital Projects
- G. Appendix 3 - Program Management Office
- H. Appendix 4 - Vendor/Contract Management
- I. Appendix 6 - Countywide Planning and Development

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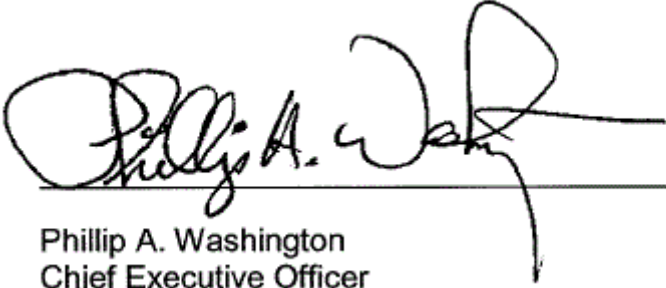
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