

**Board Report**

File #: 2016-0554, **File Type:** Contract**Agenda Number:**

**REGULAR BOARD MEETING
OCTOBER 27, 2016****SUBJECT: CONSULTING SERVICES FOR THE A650 HEAVY RAIL VEHICLE (HRV)
OVERHAUL PROGRAM, TECHNICAL AND PROGRAM MANAGEMENT SUPPORT
SERVICES****ACTION: AWARD PROFESSIONAL SERVICES CONTRACT****RECOMMENDATION**

AWARD a cost plus fixed fee contract **for Technical and Program Management Support Services under Contract No. OP3043-3488, to LTK Engineering Services**, in the not-to-exceed amount of \$3,897,599 for a period of 46 months from issuance of a Notice-to-Proceed (NTP) for the **overhaul of 38 Heavy Rail Vehicles** (HRV) which are the base quantity, and for an additional not-to-exceed amount of \$597,238 for a period of 10 additional months for the Option balance of 36 HRVs when funding becomes available, for a total contract value of \$4,494,837.

ISSUE

This action authorizes LTK Engineering Services to support Metro's designated Project Manager, or his/her designee, with the engineering, technical oversight, program management support services of the Rail Vehicle Contractor to ensure performance is consistent with the requirements of the A650 Overhaul Program. Subject to Metro's direction, the Consultant shall apply appropriate engineering, technical and program management support services and resources to facilitate the timely overhaul and delivery of the A650 HRVs and associated deliverables.

DISCUSSION

The Los Angeles County Metropolitan Authority (Metro) operates the Metro Red Line (MRL) with a fleet of 104 Vehicles, consisting of the Original 30 (Base-Buy) HRVs and Newest 74 (Option-Buy) HRVs manufactured by Breda Costruzioni-Ferroviarie between 1992 and 2000. The Original HRVs have an average age of 23.5 years and average mileage of 790,000 miles per vehicle. The Newer 74 HRVs have an average age of 17.6 years with average mileage greater than 1.3 million miles per vehicle.

The Consultant shall provide Metro with expert professional engineering, technical oversight, and program management support services as directed and required by Metro's staff to ensure the Rail

Vehicle Contractor's performance is consistent with the delivery requirements of the Contract. Subject to Metro's direction, the Consultant shall apply appropriate engineering, technical and program management resources to ensure the timely overhaul and delivery of the overhauled Vehicles and associated deliverables.

The scope of services shall include, but not be limited to reviewing and preparation of correspondence in response to technical submissions; provide oversight of the project status; identify any variances from schedule and deliverable requirements and recommend corrective action; assess and report on project performance; support of Project Reviews; document control; oversight of the Rail Vehicle Contractor's supply chain process; performing Buy America audit and reviewing Change Order requests; testing and inspection activity oversight; and other technical and program management support services as directed by Metro.

The Consultant shall provide, on an as needed basis, highly experienced and qualified passenger heavy rail transit engineers and program management staff with demonstrated expertise in all subject areas listed in the Statement of Qualifications for the duration of the Contract.

The Diversity & Economic Opportunity Department (DEOD) has completed its initial evaluation of the Proposer's commitment to meet the twenty percent (20%) Race Conscious Disadvantage Business Enterprise (RC DBE) goal established for this project. LTK Engineering Services exceeded the goal by making a 30.74% DBE commitment and is deemed responsive to the DBE requirements.

DETERMINATION OF SAFETY IMPACT

The approval of this Contract award will have a direct and positive impact to system safety, service quality, system reliability, maintainability and overall customer satisfaction. The A650 Overhaul Program will permit Metro to maintain a "State of Good Repair (SGR)" on the 74 Newest A650 HRVs.

FINANCIAL IMPACT

The planned expenditure of \$760,000 is included in the FY17 budget in cost center 3043, Rail Vehicle Acquisition, Account 50316, Professional and Technical Services, under project number CP206038, Heavy Rail Vehicle Midlife Overhaul Program.

Since this is a multi-year project, the cost center manager, project manager, and Senior Executive Officer, Rail Maintenance and Engineering will ensure that funds are budgeted in future Fiscal Years.

Impact to Budget

The current source of funds for the overhaul program and Consulting Services is Proposition A 35% which are eligible for transit operations. Staff will pursue additional federal funds that may become available through MAP-21 or other federal sources for this project to maximize and conserve the use

of local funding sources before considering debt financing.

ALTERNATIVES CONSIDERED

Staff considered the following alternatives: using in-house Metro resources to perform this work. This approach is not recommended as Metro does not have sufficient resources and Subject Matter Experts available to perform this work. This approach is not recommended for the lack of staff capabilities listed above.

The Board of Directors may choose not to authorize the Contract award for this project; however, this alternative is not recommended by Metro staff because the Overhaul Program is critical in maintaining a SGR on the 74 Newest A650 HRVs and enables the Maintenance department to effectively plan and schedule its work.

NEXT STEPS

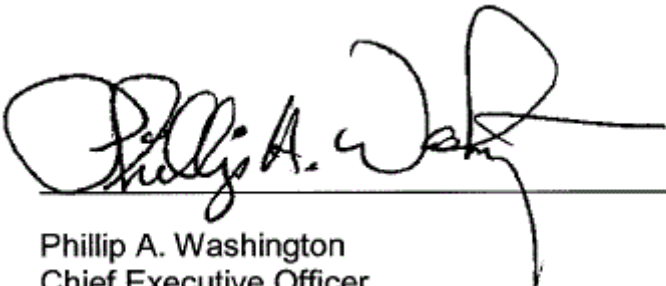
Upon Board approval, a contract will be awarded and a Notice-to-Proceed will be issued to LTK Engineering Services. Metro and LTK Engineering Services will mobilize required resources and SMEs to ensure timely completion of deliverables by the Rail Vehicle Contractor.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Funding/Expenditure Plan

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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**CONSULTING SERVICES FOR THE A650 HEAVY RAIL VEHICLE (HRV)
OVERHAUL PROGRAM, TECHNICAL AND PROGRAM CONTROL SUPPORT
SERVICES / OP30433488**

1.	Contract Number: OP30433488	
2.	Recommended Vendor: LTK Engineering Services	
3.	Type of Procurement (check one): <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.	Procurement Dates:	
	A. Issued: 07.27.15	
	B. Advertised/Publicized: 07.27.15	
	C. Pre-proposal/Pre-Bid Conference: 08.11.15	
	D. Proposals/Bids Due: 09.17.15	
	E. Pre-Qualification Completed: 08.22.16	
	F. Conflict of Interest Form Submitted to Ethics: 08.22.16	
	G. Protest Period End Date: 09.08.16	
5.	Solicitations Picked up/Downloaded: 48	Bids/Proposals Received: 2
6.	Contract Administrator: Wayne Okubo	Telephone Number: (213)922-7466
7.	Project Manager: Cop Tran	Telephone Number: (213)922-3188

A. Procurement Background

This Board Action is to approve Contract No. OP30433488 issued in support of the A650 Heavy Rail Vehicle Overhaul and Critical Component Replacement Program. The recommended consultant shall provide engineering and administrative resources to support Metro's Project Manager in the technical and program management of the overhaul. The intent of the overhaul program is to replace vital systems and components, and to update relevant technology to ensure the continued safety, reliability, availability, and maintainability of the fleet for full revenue service and maintain the fleet's State of Good Repair.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a cost plus fixed fee.

Two amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on August 19, 2015 extended the proposal due date to September 17, 2015;
- Amendment No. 2, issued on July 15, 2016 after receipt of proposals requested Best and Final Offers (BAFOs);

A total of two proposals were received on September 17, 2015. A Pre-Proposal conference was held on August 11, 2015 with a total of 12 attendees.

Uncertainty over the A650 overhaul program caused delays in completing the procurement process for this Technical and Program Management Support contract. The award of this contract is contingent upon proceeding with the overhaul of the A650 fleet. Proposal negotiations were delayed until a determination to continue with the overhaul program was made. After oral presentations were conducted on October 29, 2015 both proposers were advised that Metro would not proceed until the status of the overhaul program was determined. Discussions with the proposers resumed once the decision to continue was made.

B. Evaluation of Proposals/Bids

A Proposal Evaluation Team (PET) consisting of staff from Rail vehicle Acquisition and Rail Fleet Services was convened and conducted a comprehensive technical evaluation of the proposals received.

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

- | | |
|--|------------|
| • Team's Degree of Skill and Experience | 30 percent |
| • Price | 30 percent |
| • Staff Quality and Technical Expertise | 20 percent |
| • Understanding of Work and Appropriateness of Approach for Implementation | 20 percent |

The evaluation criteria are appropriate and consistent with criteria developed for other, similar professional services procurements. Several factors were considered when developing these weights, giving the greatest importance to skill and experience of the firm in performing similar work.

Both of the proposals received were determined to be within the competitive range. The firms are listed below in alphabetical order:

- CH2M HILL, Inc.
- LTK Engineering Services

During the week of September 28, 2015, the evaluation committee met and started the review of the proposals. Proposal clarifications were necessary from both firms with requests sent on October 6, 2015. After clarifications were received and accepted, oral presentations were conducted on October 29, 2015. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the evaluation committee's questions. In general each team's presentation addressed the requirements of the RFP, experience with all aspects of the required tasks, and stressed each firm's commitment to the success of the project. Also highlighted were staffing plans, work plans, and perceived project issues. Each team adequately responded to questions relative to each firm's proposed alternatives and previous experience.

Discussions were held with both firms during the week of July 11, 2016. Each firm had adjusted the labor hour base in their initial price proposal by reducing the total hours for some of the labor categories. Best and Final Offers (BAFOs) were requested on July 15, 2016 and both firms were explicitly instructed to use the labor categories and hours provided by Metro on their BAFOs. Metro's BAFO request also contained a division of the work into base and option elements. This segmenting of the work follows the same base and option breakdown applied on the actual vehicle overhaul program. The Option for these services must be exercised by Metro no later than 12 months after Notice to Proceed.

BAFOs were received from both firms and evaluated by the PET. Each proposer made changes to their team, either based on discussions or out of their own best interests. LTK's organization was strengthened by the changes reflected in its BAFO.

LTK proposed a new Senior Schedule Analyst who strengthened the team's skill, quality, technical expertise, and experience based on the scheduler's education and experience background. LTK proposed a new Systems Integrator Engineer who's well rounded background and systems integration experience improves LTK's team in the critical area of system integration. The firm also moved its originally propose Systems Integrator Engineer to the Senior Electrical Engineer role. This move enhances the quality and experience of the engineering team proposed by LTK.

LTK submitted a comprehensive technical proposal that provided a clear implementation approach and a concise plan that addressed design, qualification, production, inspection, and testing phases of the overhaul. The proposal also included "lessons learned" from prior engagements that utilized a similar overhaul approach.

Qualifications Summary of Firms Within the Competitive Range:

LTK

LTK is headquartered in Ambler, PA with regional offices in Los Angeles, Atlanta, Boston, Chicago, Dallas, Denver, Houston, Minneapolis, Newark, New York, Petaluma, Portland, San Francisco, Seattle, and Washington, D.C. LTK has assisted in the design, procurement, rehabilitation, inspection and acceptance testing of over 26,000 passenger railcars operating in North America. LTK has an estimated 360 employees which includes 290 engineers and technicians with expertise in rail vehicle systems planning, engineering, and economic analyses. LTK has provided various engineering, technical, and management services in support of other transit agencies as well as Metro on the P3010 vehicle acquisition project.

CH2M HILL

CH2M HILL has over 30 years of experience in providing vehicle engineering and program management services. CH2M has supported both procurement and overhaul of rail vehicles, managing more than 110 projects totaling more than 13,300 vehicles, working to resolve the range of design, production, testing, and delivery issues that can arise. CH2M HILL has provided various engineering, technical, and management services in support of other transit agencies as well as Metro on the specification development for the A650 overhaul project.

The PET evaluated the proposals and assessed strengths, weaknesses, and associated risks of each proposal utilizing the evaluation criteria factors and sub-factors defined in the RFP. LTK Engineering Services was determined to be the PET's highest rated firm.

Although LTK's final price offer was higher than CH2MHill's price, LTK provided Metro with the "Best Value" for critical technical elements in System Integration, System Engineering, Quality Assurance Engineering and greater availability of key personnel. **These technical advantages in team and individual skill, experience, approach and availability provide Metro with the highest degree of probability of program success.**

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	LTK				
3	Team's Degree of skill and Experience	83.33	30.00%	25.00	
4	Price	92.44	30.00%	27.73	
5	Staff Quality and Technical Expertise	80.00	20.00%	16.00	
6	Understanding of Work and Appropriateness of Approach for Implementation	85.00	20.00%	17.00	
7	Total		100.00%	85.73	1
8	CH2M HILL				
9	Team's Degree of skill and Experience	70.00	30.00%	21.00	
10	Price	100.00	30.00%	30.00	
11	Staff Quality and Technical Expertise	66.67	20.00%	13.33	
12	Understanding of Work and Appropriateness of Approach for Implementation	70.00	20.00%	14.00	
13	Total		100.00%	78.33	2

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate competition, MAS audit findings, an Independent Cost Estimate, cost analysis, technical evaluation, fact finding, and negotiations. Metro has negotiated fixed billing rates for direct labor, overhead rates, and a fixed fee based on the total estimated cost for each Task Order. The pricing for each Task Order will use the Contract defined fixed direct labor rates, overhead rates, other direct costs (ODC) plus a portion of the negotiated fixed fee to establish a lump sum price.

	Proposer Name	Proposal Amount	Metro ICE	Negotiated or NTE amount	
1.	LTK	\$4,368,578	\$6,235,300	Base	\$3,897,599
				Option	\$ 597,238
2.	CH2M HILL	\$3,969,582	\$6,235,300	Base	\$3,576,485
				Option	\$ 578,602

D. Background on Recommended Contractor

The recommended firm, LTK Engineering Services, located in Los Angeles, California, has been in business for 32 years and is an experienced rail vehicle consultant in North America. LTK specializes in rail vehicle and systems engineering with a pool of resources with expertise in rail vehicle procurement, engineering, and component systems. LTK has supported transit car procurements in Los Angeles, Boston, New York City, New Jersey, Philadelphia, and Washington, DC.

LTK has provided engineering expertise for over 20 years to Metro's vehicle procurement projects that include program management for the Blue Line and Green Line Light Rail Vehicles (LRVs). LTK was also selected to provide engineering support for the recent acquisition of the P3010 LRV.

DEOD SUMMARY

**CONSULTING SERVICES FOR THE A650 HEAVY RAIL VEHICLE (HRV)
OVERHAUL PROGRAM, TECHNICAL AND PROGRAM CONTROL SUPPORT
SERVICES / OP30433488**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 20% Disadvantaged Business Enterprise (DBE) goal for this solicitation. LTK Engineering Services exceeded the goal by making a 30.74% DBE commitment.

Small Business Goal	20% DBE	Small Business Commitment	30.74% DBE
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	DBE Subcontractors	Ethnicity	% Committed
1.	Virginkar & Associates	Sub-Continent Asian American	18.35%
2.	Ramos Consulting Services	Hispanic American	12.39%
	Total Commitment		30.74%

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this contract.

ATTACHMENT B - Funds Uses and Sources Tables

	From Inception to Date (ITD) thru FY15 Jun	7/1/15 - 6/30/16	7/1/16 - 6/30/17	7/1/17 - 6/30/18	7/1/18 - 6/30/19	7/1/19 - 6/30/20	7/1/20 - 6/30/21			
		FY16	FY17	FY18	FY19	FY20	FY21	Total	% of Project	
1	Use of Funds									
2	Overhaul 38 Option-Buy Vehicles	\$0	\$4,946,536	\$8,656,439	\$11,954,129	\$15,664,032	\$0	\$41,221,136	79.1%	
3	Professional Services	\$744,000	\$320,000	\$760,000	\$870,000	\$880,000	\$890,000	\$0	\$4,464,000	8.6%
4	MTA Administration	\$500,000	\$422,000	\$420,000	\$420,000	\$400,000	\$420,000	\$0	\$2,582,000	5.0%
5	Contingency		\$0	\$0	\$0	\$0	\$3,822,864	\$3,822,864	7.3%	
6	Base Order Summary	\$1,244,000	\$742,000	\$6,126,536	\$9,946,439	\$13,234,129	\$16,974,032	\$3,822,864	\$52,090,000	100.0%
7	Overhaul 38 Option-Buy Vehicles (Increase Requested)						\$13,500,000	\$13,500,000	20.6%	
8	Total Base Order Summary	\$1,744,000	\$1,164,000	\$6,546,536	\$10,366,439	\$13,634,129	\$17,394,032	\$21,145,728	\$65,590,000	100.0%
9	Overhaul 36 Option-Buy Vehicles (Increase Requested)	\$0	\$0	\$0	\$0	\$0	\$18,272,000	\$18,272,000	86.7%	
10	Professional Services (Increase Requested)	\$0	\$0	\$0	\$0	\$0	\$800,000	\$800,000	3.8%	
11	MTA Administration (Increase Requested)	\$0	\$0	\$0	\$0	\$0	\$600,000	\$600,000	2.8%	
12	Contingency (Increase Requested)	\$0	\$0	\$0	\$0	\$0	\$1,400,000	\$1,400,000	6.6%	
13	Option Order Summary	\$0	\$0	\$0	\$0	\$0	\$21,072,000	\$21,072,000	100.0%	
14	Overhaul 74 Option-Buy Vehicles	\$0	\$0	\$4,946,536	\$8,656,439	\$11,954,129	\$15,664,032	\$31,772,000	\$72,993,136	84%
15	Professional Services	\$744,000	\$320,000	\$760,000	\$870,000	\$880,000	\$890,000	\$800,000	\$5,264,000	6%
16	MTA Administration	\$500,000	\$422,000	\$420,000	\$420,000	\$400,000	\$420,000	\$600,000	\$3,182,000	4%
17	Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$5,222,864	\$5,222,864	6%
18	Total Order Summary Total	\$1,244,000	\$742,000	\$6,126,536	\$9,946,439	\$13,234,129	\$16,974,032	\$38,394,864	\$86,662,000	100.0%
19	Sources of Funds	FY16	FY17	FY18	FY19	FY20	FY21	Total Sources	%	
20	Measure R 2% (206038)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	Cap and Trade: Other State & Federal sources (206038)*		\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22										
23	* Future Local, State & Federal Funds to be identified as they become available.									
24	Total Funding Sources	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

* Staff will pursue additional funding sources to supplement Project 206038 budget which may become available through MAP-21 or other federal sources for this project and also utilize other State and Local funding sources as opportunities arise such as Cap and Trade or other new sources.