

**Board Report**

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**File #:** 2020-0188, **File Type:** Contract**Agenda Number:** 25.

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**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE  
SEPTEMBER 16, 2021****SUBJECT: ENTERPRISE ASSET MANAGEMENT SYSTEM****ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATIONS****CONSIDER:**

- A. INCREASING the phased Life of Project (LOP) budget for the Enterprise Asset Management (EAM) Project, capital project number 207155, by \$22,950,000 from \$45,800,000 to \$68,750,000 to support Phase 2; and
- B. AUTHORIZING the Chief Executive Officer to award a firm fixed price Contract No. PS75040000 to KPMG LLP for the Enterprise Asset Management System (EAMS) Implementation Services, in the amount of \$36,525,318 for the 36-month base term, and for three options for annual assessments following implementation in the amounts of \$586,974.40 for the first assessment, \$395,138.64 for the second assessment, and \$227,875.28 for the third assessment, for a combined total amount of \$37,735,306.32, subject to the resolution of protest (s), if any.

**ISSUE**

The Maintenance and Materials Management System (M3) is a mission critical system with over 3,200 daily users. M3 is used extensively across Metro for Work Management, Maintenance and Repair of Assets, Material Management, Incident Tracking, and Timekeeping for operational employees. The system is over 15 years old and is no longer supported by the software vendor. M3 does not provide critical functionality now required to meet the federal State of Good Repair (SGR) requirements.

An LOP increase and award of the contract for the Enterprise Asset Management System (EAMS) Implementation Services is required to implement and integrate the new software system, develop the business processes improvements, and migrate Metro staff onto the new EAM solution.

**BACKGROUND**

In November of 2017, the Metro Board of Directors was notified of Metro's assessment of the M3 system and intent to procure a replacement EAM system. As the software is no longer supported or maintained by the vendor, the current M3 System is an antiquated technology application impacting employee productivity, operations, maintenance expenses, federal SGR reporting, and the ability to create data-driven, real-time maintenance strategies.

In July of 2019, the Metro Board of Directors authorized the CEO to award contract PS51755000 to 21Tech LLC for the EAM System Software Acquisition and Software Support Services and established an LOP (Board Report Number 2019-0373) for Phase I. A hybrid solution of the Infor EAM software supplemented by the cloud-based Bentley AssetWise software was selected as the best software solution in the Enterprise Asset Management industry that would meet Metro's requirements. Bentley AssetWise software is an analytical tool that supports rail infrastructure assets throughout their lifecycles.

### **Phase I**

Phase 1 of the EAMS project included (a) software acquisition/licensing, (b) software technical support, (c) development, testing, and documentation for integration between core EAMS software and supporting software applications from Infor and Bentley Systems, (d) technical training aids/documentation to be included in the conduct of training sessions, and (e) development, testing and documentation for selected custom functionality. The software solution has been installed and tested on five environments, including testing, development, production (etc.)

In FY20 and FY21, Metro expended \$13.3 million on the software, hardware, and internal labor for the EAMS system, a critical tool necessary to meet SGR commitments and manage over 521,000 assets. Ultimately, this system will replace our current obsolete 15-year old M3 system, no longer supported by the OEM, and used daily by 3,200 employees.

## **DISCUSSION**

### **Phase 2**

Metro has purchased and installed the EAMS solution as part of Phase 1 and now will be moving into Phase 2, including system implementation, integration, and business process engineering services. Award of this contract will implement the new, modern and fully integrated EAMS with comprehensive functionality, which will also include linear asset management, GIS, and more mobile capability. The services include implementing updated business processes across 14 functional business areas within Metro that with the EAMS software, will result in a more robust and efficient operations (i.e., improved productivity) and more effective asset management while enhancing data quality using industry-accepted asset classification schemes and hierarchy structures; refinement of location hierarchy and location codes; including asset condition scoring readily accessible by management for improved decision making and regulatory reporting. Other services included in Phase 2 include configuring and building interfaces to existing Metro systems, data conversion, testing configuration and interfaces, organizational change management, and delivering a comprehensive training program. The Phase 2 contractor will be responsible to lead Metro in changing and modernizing the current business processes to incorporate industry best practices and improve the degree of business process automation.

The LOP Budget increase includes additional funds needed for the system implementation contract (Phase 2) and the hardware and internal labor resources required to complete the implementation through FY25.

The initial LOP budget request was preliminary prior to finalization of the Phase 2 scope of work and was based on research and general market surveys for a single procurement of software and services. However, there were not many comparable projects of similar size and complexity that had been completed in North America. The procurement was separated with the intention of obtaining the best-in-class software and best-in-class implementer.

The requested LOP budget increase includes an additional \$4.6 million for internal labor and \$1.9 million for software maintenance/licensing due to an extended project timeline from a re-bid of the Phase 2 contract and

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delays from Covid-19. An additional \$16.5 million is needed for the award of the EAMS Implementation Services contracts and the optional assessments. The level of effort for interfaces, configuration, and training/change management required a higher level of effort than initially estimated.

The EAM system will be a critical tool used by 14 Metro business units comprised of 3,200 Metro employees and was selected to meet a comprehensive list of 1,981 functional requirements as set forth in the RFP.

### **DETERMINATION OF SAFETY IMPACT**

The approval of the contract award and LOP increase will have a direct and positive impact on safety, service quality, system reliability, performance, and overall customer satisfaction.

### **FINANCIAL IMPACT**

Adoption of Recommendation A will increase the LOP budget from \$45,800,000 to \$68,750,000 for this project in Cost Center 9210 - Information Management, Capital Project 207155 - Enterprise Asset Management System Replacement (EAMS Project). The additional LOP budget will cover expenditures through FY25.

The funding of \$10,644,594 for the EAM System Implementation Services is included in the FY22 budget under account 50316, in Cost Center 9210 in Project 207155 - Enterprise Asset Management System Replacement (EAMS Project).

Since this is a multi-year contract, the project manager and cost center manager will be accountable for budgeting the cost in future fiscal years. Additionally, an annual review of availability of funds, project progress and potential areas of project scope reduction will be performed within the EAMS governance structure prior to proceeding each fiscal year.

#### **Impact to Budget**

The initial source of funds for Capital Project 207155 Enterprise Asset Management System is TDA-4 which is a State Funding Source and is bus and rail eligible.

### **Equity Platform Section**

The EAM system will enable Metro to improve asset management and planning throughout the agency, improve FTA/NTD reporting as well as enhance predictive and preventative maintenance and inspections required for regulatory compliance. As a result of better capital planning and improved maintenance of our assets, Metro will provide a safer and more reliable transit system for all. Improved analytics, tracking and reporting provided by the new EAM system will also help ensure that Metro's assets are equally maintained regardless of service area or community.

All roll-out schedule has not been finalized however a priority will be given to business units with assets utilized and relied on by Equity Focused Communities to ensure there are no negative impacts to marginalized groups that will ultimately receive the output of this system.

This was an open solicitation and included a Small Business Enterprise (SBE) goal of 17%, a Disabled Veteran Business Enterprise (DVBE) goal of 3% For the system implementation services contract, the Contractor has made a 34.02% SBE commitment and a 3.00% DVBE commitment.

### **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

Recommendation supports strategic plan goal #1) to provide high-quality mobility options that enable people to spend less time traveling and #5) to provide responsive, accountable and trustworthy governance within the Metro organization.

### **ALTERNATIVES CONSIDERED**

The alternative is not to approve the LOP increase or award the Contract for the EAMS System which will risk our ability to implement the system needed to meet federal State of Good Repair requirements and will result in the continued use of the M3 software which is not supported and does not optimize maintenance and operational activities. Additionally, \$13.3 million has already been expended on the software acquisition including licensing, installation, internal labor, software maintenance and release management.

### **NEXT STEPS**

Upon approval by the Board, staff will execute Contract No. PS75040000 with KPMG LLP to implement the new EAMS.

Metro has purchased Bentley AssetWise, a gold-standard software for linear asset management, as part of the new EAMS solution. AssetWise is a railway decision support system that enables proactive management for linear railway assets. Bentley Systems, Inc. is the sole software publisher and implementer of its proprietary, closed-source software products. Negotiations with Bentley Systems are ongoing and will be concluded in the immediate future. Staff is proceeding with the contract award for System Implementation services to KPMG to minimize project delays. Staff will return to the Board to request approval for the implementation services for the Bentley AssetWise portion of the software solution. The expected cost for Bentley is included in the LOP budget increase request and will be part of the annual review of funding and project progress.

### **ATTACHMENTS**

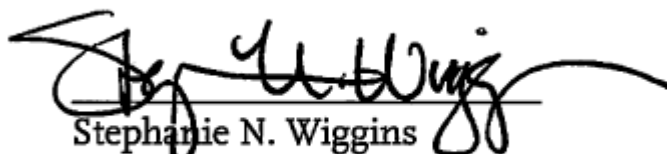
Attachment A - Procurement Summary

Attachment B - DEOD Summary

Attachment C - Phase 1 EAMS Board Report (2019-0373)

Prepared by: Amy Romero, Senior Director, Central Maintenance, (213) 922-5709

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108  
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051  
Bryan Sastokas, Chief Information Technology Officer, (213) 922-5510  
Kenneth Hernandez, Chief Risk, Safety and Asset Management Officer, (213) 922-2990



Stephanie N. Wiggins  
Chief Executive Officer

## PROCUREMENT SUMMARY

**ENTERPRISE ASSET MANAGEMENT SYSTEM IMPLEMENTATION  
SERVICES/PS75040000**

1.	<b>Contract Number: PS75040000</b>	
2.	<b>Recommended Vendor:</b> KPMG LLP	
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> March 19, 2021	
	<b>B. Advertised/Publicized:</b> March 19, 2021	
	<b>C. Pre-Proposal Conference:</b> March 29, 2021	
	<b>D. Proposals Due:</b> April 29, 2021	
	<b>E. Pre-Qualification Completed:</b> August 30, 2021	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> July 29, 2021	
	<b>G. Protest Period End Date:</b> September 20, 2021	
5.	<b>Solicitations Picked up/Downloaded:</b> 195	<b>Bids/Proposals Received:</b> 2
6.	<b>Contract Administrator:</b> Ana Rodriguez	<b>Telephone Number:</b> (213) 922-1076
7.	<b>Project Manager:</b> Amy Romero	<b>Telephone Number:</b> (213) 922-5709

**A. Procurement Background**

This Board Action is to approve Contract No. PS75040000 for the system implementation services for the new Enterprise Asset Management System (EAMS) that shall replace Metro's existing legacy system, the Maintenance and Material Management System (M3). Board approval of contract award is subject to the resolution of any properly submitted protest.

The Request for Proposals (RFP) was issued on March 19, 2021 in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price. The RFP was issued with an SBE goal of 17%, a DVBE goal of 3%, and a Contracting Outreach and Mentoring Plan (COMP) requirement to mentor two firms, one SBE, and one DVBE.

One amendment was issued during the solicitation phase of this RFP:

- Amendment No. 1 was issued on March 29, 2021 to update links in the document and update the COMP requirements in the DEOD Instructions to Proposers, Evaluation Criteria, and Submittal Requirements

A virtual pre-proposal conference was held on March 29, 2021 and was attended by 94 participants representing 43 firms. There were 50 questions submitted and responses were released prior to the proposal due date.

A total of 195 firms downloaded the RFP and were included on the plan holders list. A total of two proposals were received by the due date of April 29, 2021 from the following firms:

- Accenture LLP
- KPMG LLP

## **B. Evaluation of Proposals**

A Proposal Evaluation Team (PET) consisting of staff from Metro's Operations Department, Information and Technology Services Department, Vendor/Contract Management Department, and Risk, Safety, and Asset Management Department was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria as outlined in the RFP.

• Minimum Requirements and Qualifications	Pass/Fail
• Experience, Qualifications, and Past Performance	14 percent
• Implementation Strategy and Understanding of Software Solution	13 percent
• Project Management, Methodology and Approach	22 percent
• Project Schedule, Labor Resources, and Deliverables	15 percent
• Project Team Organization/Staffing and Key Personnel	12 percent
• Contract Outreach and Mentoring Plan	4 percent
• Price Proposal	20 percent

Several factors were considered when developing the evaluation criteria for this solicitation, giving the greatest importance to the Project Management, Methodology, and Approach.

The PET began its independent evaluation of the proposals on April 30, 2021 and all proposers were determined to have met the minimum requirements and qualifications identified in the RFP. Both proposers and their respective teams were interviewed by the PET during the week of May 15, 2021. During the interviews, proposers were asked to discuss their proposed team, project approach and delivery method, their knowledge of the EAM solution and their plan for interfaces, data migration, and performance/load testing.

The PET finalized their scores in June of 2021. The final scoring determined KPMG LLP (KPMG) to be the highest ranked firm.

During June and July of 2021, Metro engaged KPMG in further discussions on items such as implementation schedule, reporting requirements, functional and technical requirement clarifications, deliverables, price proposal, and payment schedule.

Additionally, KPMG submitted exceptions to the contract terms and conditions that needed to be discussed and resolved with KPMG's legal counsel and County Counsel. All matters were successfully resolved between Metro and KPMG in July of 2021.

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

#### **KPMG LLP (KPMG)**

As the proposed Prime Contractor, KPMG brings their experience managing large, complex, technology-driven business transformation projects that have included end-to-end asset lifecycle management, business analysis, and organizational change management. KPMG has assembled a team of qualified subcontractor firms consisting of: Stratum Consulting Partners, Inc., a Metro-certified SBE who possesses considerable experience in the Infor EAM product line and its associated tools; DXC Technology, a global technology firm that will leverage its experience in the recent implementation of the Infor EAM software at New York Metropolitan Transportation Authority; Knowledge Architects, a Metro-certified SBE who will provide insight into operational procedures within asset management and support training delivery; Axsium Group a specialized firm dedicated to Workforce Management (WFM) implementations, with WFM being a critical component of Metro's new EAMS for employee timekeeping; DVBE Technology Group, a DVBE-certified firm that will support project management and coordination; and DataHouse Consulting, Inc. who will provide technical support for the enterprise architecture, EAMS technology infrastructure, data migrations, and legacy system integrations.

The team brings together many years of experience and expertise that will be an asset for an implementation of the breadth and scope of Metro's EAMS implementation. The team presented a detailed implementation plan that demonstrated their knowledge of the software solution, addressed implementation challenges and opportunities, and demonstrated their understanding of Metro's objectives.

#### **Accenture LLP (Accenture)**

Accenture LLP is a multinational professional services firm that provides strategy, consulting, digital, technology and operations consulting services across a number of industries. Accenture employs over half-a-million people worldwide in over 200 locations in 51 countries. Accenture's team has experience in large-scale software implementations and with transit agencies. Past clients include Metrolinx in Toronto, Ontario, Canada, New York City Transit, Massachusetts Bay Transit Authority (MBTA), Swiss Federal Railways (SBB), Metrolink, and FirstGroup America in the United Kingdom.

A summary of the PET scores is provided below.

<b>1</b>	<b>Firm</b>	<b>Average Score</b>	<b>Factor Weight</b>	<b>Weighted Average Score</b>	<b>Rank</b>
<b>2</b>	<b>KPMG LLP</b>				
<b>3</b>	Experience, Qualifications, and Past Performance	86.84	14.00%	12.16	
<b>4</b>	Implementation Strategy and Understanding of Software Solution	87.50	13.00%	11.38	
<b>5</b>	Project Management, Methodology and Approach	84.25	22.00%	18.54	
<b>6</b>	Project Schedule, Labor Resources, and Deliverables	84.57	15.00%	12.69	
<b>7</b>	Project Team Organization/Staffing and Key Personnel	88.57	12.00%	10.63	
<b>8</b>	Contract Outreach and Mentoring Plan	50.00	4.00%	2.00	
<b>9</b>	Price Proposal	100.00	20.00%	20.00	
<b>10</b>	<b>Total</b>		<b>100.00%</b>	<b>87.40</b>	<b>1</b>
<b>11</b>	<b>Accenture LLP</b>				
<b>12</b>	Experience, Qualifications, and Past Performance	62.81	14.00%	8.79	
<b>13</b>	Implementation Strategy and Understanding of Software Solution	63.04	13.00%	8.19	
<b>14</b>	Project Management, Methodology and Approach	70.16	22.00%	15.44	
<b>15</b>	Project Schedule, Labor Resources, and Deliverables	60.57	15.00%	9.09	
<b>16</b>	Project Team Organization/Staffing and Key Personnel	52.14	12.00%	6.26	
<b>17</b>	Contract Outreach and Mentoring Plan	75.00	4.00%	3.00	
<b>18</b>	Price Proposal	85.76	20.00%	17.15	
<b>19</b>	<b>Total</b>		<b>100.00%</b>	<b>67.92</b>	<b>2</b>



### **C. Cost/Price Analysis**

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate (ICE), price analysis, technical evaluation, clarifications, and negotiations.

Below are the originally proposed amounts inclusive of four optional tasks. Upon review of price proposals, one optional task related to additional training was determined not to be feasible. During negotiations, Metro made the decision not to proceed with that option which resulted in a significant cost reduction. Furthermore, additional reductions were realized through clarifications and discussions on the appropriate level of effort that would be required from the Contractor to perform the required tasks and deliverables.

	<b>Proposer Name</b>	<b>Proposal Amount</b>	<b>Metro ICE</b>	<b>Negotiated amount</b>
1.	KPMG LLP	\$45,934,161.32	\$38,400,000.00	<b>\$37,735,306.32</b>
2.	Accenture LLP	\$53,561,992.00		

### **D. Background on Recommended Contractor**

KPMG LLP is a United States member firm of the KPMG International Limited (KPMG International) organization. KPMG International operates in 146 countries and territories and employs 227,000 people worldwide and was formed in 1987. KPMG has provided services for many state, local, and federal government organizations, and transportation agencies such as the Chicago Transit Authority (CTA), Dallas Area Rapid Transit (DART), Washington Metropolitan Area Transit Authority (WMATA), Capital Metropolitan Transportation Authority (CapMetro), the California Department of Transportation, the Bay Area Toll Authority, the Colorado Department of Transportation, New Jersey Transit, and many more.

## DEOD SUMMARY

## ENTERPRISE ASSET MANAGEMENT SYSTEM / PS75040000

**A. Small Business Participation**

The Diversity and Economic Opportunity Department (DEOD) established a 17% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this solicitation. KPMG exceeded the goal by making a 34.02% SBE and 3% DVBE commitment.

<b>Small Business Goal</b>	<b>17% SBE 3% DVBE</b>	<b>Small Business Commitment</b>	<b>34.02% SBE 3% DVBE</b>
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	<b>SBE Subcontractors</b>	<b>% Committed</b>
1.	Stratum Consulting Partners, Inc.	29.71%
2.	Knowledge Architects, LLC	4.31%
	<b>Total SBE Commitment</b>	<b>34.02%</b>

	<b>DVBE Subcontractors</b>	<b>% Committed</b>
1.	DVBE Technology Group	3%
	<b>Total DVBE Commitment</b>	<b>3%</b>

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

To be responsive, Proposers were required to submit a Contracting Outreach and Mentoring Plan (COMP) including strategies to mentor for protégé development one (1) SBE firm and one (1) DVBE firm for Mentor-Protégé development. KMPG proposed to mentor the following (3) protégé's: Stratum Consulting Partners, Inc. (SBE), Knowledge Architects, LLC (SBE), and DVBE Technology Group (DVBE).

**C. Living Wage and Service Contract Worker Retention Policy Applicability**

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

**D. Prevailing Wage Applicability**

Prevailing wage is not applicable to this contract.

**E. Project Labor Agreement/Construction Careers Policy**

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.



## Board Report

File #: 2019-0373, File Type: Contract

Agenda Number: 25.

### OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE JULY 18, 2019

**SUBJECT: ENTERPRISE ASSET MANAGEMENT SYSTEM**

**ACTION: APPROVE RECOMMENDATIONS**

#### **RECOMMENDATION**

CONSIDER:

- A. ESTABLISHING a Life of Project (LOP) Budget for the Enterprise Asset Management (EAM) Project, capital project number 207155, in the amount of \$45,800,000;
- B. AUTHORIZING the Chief Executive Officer to award a 37-month, firm fixed price Contract No. PS51755000 to 21Tech LLC, in the amount of \$10,205,207 for the Enterprise Asset Management System Software Acquisition and Software Support Services, subject to the resolution of any properly submitted protest(s), if any; and
- C. APPROVING Contract Modification Authority specific to Contract No. PS51755000 in the amount of \$2,041,041 or 20% of the total contract value, to cover the costs of any unforeseen services or license fees that may be necessary to complete this phase of the project.

#### **ISSUE**

The Maintenance and Materials Management System (M3) is a mission critical system with over 3,200 daily users. M3 is used extensively across Metro for Work Management, Maintenance and Repair of Assets, Material Management, Incident Tracking, and Timekeeping for operational employees. The 15 years old system is no longer supported by the software vendor. In addition, it does not comply with some of the critical functionality now required for meeting the Federal "Moving Ahead for Progress in the 21st Century Act" (MAP 21 State of Good Repair) requirements.

This Contract is for the acquisition of the core Enterprise Asset Management System (EAMS) software as well as the installation and demonstration of its initial/provisional acceptance by Metro. The Contractor is also responsible for the integration of third-party software proposed as part of their solution.

The LOP Budget includes the purchase of software and related support services (Phase 1), a Contract for a Systems Implementation, Integration and Business Process Services Provider (Phase

2) and the hardware and internal resources required to complete the three-year project.

Approval of the LOP Budget, award of the Contract for Phase 1, and Contract Modification Authority will allow Metro to replace the current legacy-based M3 system and provide a scalable technology to support Metro's expanding transit services with the tools needs to comply with MAP 21 State of Good Repair.

## **BACKGROUND**

In November of 2017, the Metro Board of Directors was notified of Metro's assessment of the M3 system and intent to proceed with the procurement of a replacement EAM system. As the software is no longer supported or maintained by the vendor, the current EAM (M3) system is an aging technology application impacting employee productivity, operations, maintenance expenses, and the ability to create data-driven maintenance strategies.

Metro intends to replace the current M3 system with a modern Commercial Off-the-Shelf (COTS) EAMS solution that includes:

- Implementing a new, modern transportation asset management software solution with comprehensive functionality including linear asset management, GIS, and mobility features.
- Implementing updated business processes across all functional areas that, when coupled with the EAMS software, will result in more efficient operations (i.e., improved productivity) and more effective asset management while enhancing data quality using industry-accepted asset classification schemes and hierarchy structures; refinement of location hierarchy and location codes; including asset condition scoring readily accessible by management for improved decision making and regulatory reporting.

## **DISCUSSION**

Staff is requesting approval for a LOP of \$45,800,000 be established to replace the current M3 System and implement business process improvement relating to the new system. The LOP will include the contract for software and services (Contract No. PS51755000), internal labor, hardware needed to support the system and contracting with a Business Systems Implementation and Integration Service provider to determine and implement a comprehensive EAMS solution using the selected EAMS software and to develop and prepare improved standard operational processes based on industry best practices.

The Phase 1 Contractor's primary focus is to deliver and install the proposed core EAMS software and provide support for the software during the contracted term which will cover some or all of the overall EAM Program timeline. Per Metro's requirements, the Contractor will provide (a) software acquisition/licensing, (b) software technical support, (c) development, testing and documentation for interfaces between core EAMS software and the proposed third party software (TPS), (d) technical training aids/documentation to be included in the conduct of training sessions, and (e) development, testing and documentation for selected custom functionality (by Metro Task Order, if applicable).

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## **DETERMINATION OF SAFETY IMPACT**

The approval of this capital project and contract award will have a direct and positive impact to safety, service quality, system reliability, performance, and overall customer satisfaction.

## **FINANCIAL IMPACT**

Adoption of Recommendation will establish an LOP budget of \$45.8 million for this project in Cost Center 9210 - Information Management, Capital Project 207155 - Enterprise Asset Management System Replacement (EAMS Project).

The \$4,200,000 for EAM Software Acquisition and Software Support Services is included in the FY20 budget under several accounts in Cost Center 9210 in Project 207155 - Enterprise Asset Management System Replacement (EAMS Project).

Since this is a multi-year contract, the project manager and cost center manager will be accountable for budgeting the cost in future fiscal years.

### **Impact to Budget**

The initial source of funds for Capital Project 207155 Enterprise Asset Management System is TDA-4 for which is a State Funding Source.

## **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

Recommendation supports strategic plan goal #1) to provide high-quality mobility options that enable people to spend less time traveling and #5) to provide responsive, accountable and trustworthy governance within the Metro organization.

## **ALTERNATIVES CONSIDERED**

The alternative is not to approve the LOP or award the Contract for the EAMS System risking our ability to meet Federal MAP 21 State of Good Repair requirements and resulting in the continued use of the M3 software which is not supported and does not optimize maintenance and operational activities.

## **NEXT STEPS**

Upon approval by the Board, Staff will execute Contract No. PS51755000 with 21Tech LLC for the EAMS Software Acquisition and Software Support Services and will release a Request for Proposals (RFP) for Phase 2 of the EAM Project for the System Implementation, Integration and Business Process Services.

## **ATTACHMENTS**

Attachment A - Procurement Summary  
Attachment B - DEOD Summary  
Attachment C - Capital Project 207155

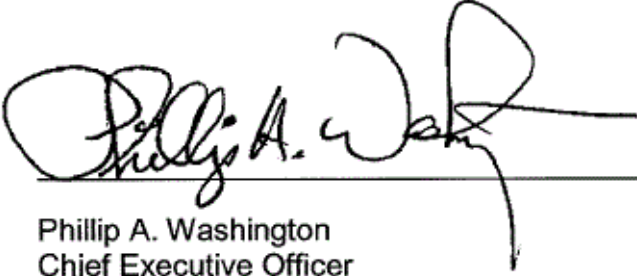
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Vijay Khawani, Chief Risk, Safety and Asset Management Officer (Interim), (213) 922-4035



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Phillip A. Washington  
Chief Executive Officer

## PROCUREMENT SUMMARY

**ENTERPRISE ASSET MANAGEMENT SYSTEM  
SOFTWARE ACQUISITION AND SOFTWARE SUPPORT SERVICES/PS51755000**

1.	<b>Contract Number: PS51755000</b>	
2.	<b>Recommended Vendor:</b> 21Tech LLC	
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> August 23, 2018	
	<b>B. Advertised/Publicized:</b> August 23, 2018	
	<b>C. Pre-Proposal Conference:</b> September 5, 2018	
	<b>D. Proposals Due:</b> November 1, 2018	
	<b>E. Pre-Qualification Completed:</b> March 29, 2019	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> November 7, 2018	
	<b>G. Protest Period End Date:</b> July 22, 2019	
5.	<b>Solicitations Picked up/Downloaded:</b> 127	<b>Bids/Proposals Received:</b> 7
6.	<b>Contract Administrator:</b> Ana Rodriguez and Manchi Yi	<b>Telephone Number:</b> (213) 922-1076
7.	<b>Project Manager:</b> Amy Romero	<b>Telephone Number:</b> (213) 922-5709

**A. Procurement Background**

This Board Action is to approve Contract No. PS51755000 to 21Tech LLC to provide a Commercial Off-the-Shelf (COTS) Enterprise Asset Management System (EAMS) software solution. Board approval of contract award is subject to the resolution of any properly submitted protest.

Request for Proposals (RFP) No. PS51755 was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

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

- Amendment No. 1 was issued on August 30, 2018 to provide proposers an option to participate in the pre-proposal conference via conference call;
- Amendment No. 2 was issued on September 6, 2018 to extend the proposal due date to October 25, 2018;
- Amendment No. 3 was issued on September 21, 2018 to provide answers to formally submitted questions;
- Amendment No. 4 was issued on October 3, 2018 to provide Attachment D (report samples) in a zip file.
- Amendment No. 5 was issued on October 9, 2018 to provide Attachment C (report samples) in a different file format.
- Amendment No. 6 was issued on October 19, 2018 to extend the proposal due date to November 1, 2018.



A pre-proposal conference was held on September 5, 2018 and was attended by 41 participants representing 27 firms. There were 210 questions submitted and responses were released prior to the proposal due date.

A total of 127 firms downloaded the RFP and were included on the plan holders list. A total of seven proposals were received by the due date of November 1, 2018.

## **B. Evaluation of Proposals**

A Proposal Evaluation Team (PET) consisting of staff from Metro's Operations Department, Information and Technology Services Department, Vendor/Contract Management Department, Asset Management Department and Accounting Department was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on a three-step evaluation criteria as outlined in the RFP. In order to be considered technically qualified to perform the services, the Proposers had to meet the Minimum Requirements on a pass/fail basis. The pass/fail requirements were that the Proposer had to demonstrate that they had implemented an Enterprise Asset Management (EAM) solution at one of the 25 largest public transit authorities with bus and rail operations or an international public transit agency of similar size. In Step 2 and Step 3, the proposals were evaluated based on the criteria outlined in the RFP and were worth a total of 150 points combined. The amount of points for each criteria are listed below and have been converted to percentages.

Step 1: Minimum Requirements	Pass/Fail
Step 2: Evaluation Criteria (100 points)	66.67 percent
• Ability to Meet Software Requirements (45 points)	30.00 percent
• Project Management Plan and Timeline (15 points)	10.00 percent
• Proposer Qualification and Reference Checks (15 points)	10.00 percent
• Technical Proposal Cost and Total Cost of Ownership (25 points)	16.67 percent
Step 3: Demonstrations (50 points)	33.33 percent
Total (150 points)	100 percent

Several factors were considered when developing the evaluation criteria for this solicitation, giving the greatest importance to Step 2 which awarded the most points based on the Proposer's demonstrated ability to meet Metro's technical requirements for the system.

The PET began its independent evaluation of the proposals on November 6, 2019. Of the seven proposals received, three proposals were determined not to meet the minimum pass/fail requirements and were eliminated from further consideration. The remaining four firms' proposals were then evaluated based on the Step 2 evaluation criteria. All four remaining firms were determined to be within the competitive range

and were invited to participate in the Step 3, Demonstrations, evaluation phase. The firms that were in the competitive range are listed below in alphabetical order:

- 21 Tech LLC
- Interloc Solutions, Inc.
- International Business Machines Corp.
- Trapeze Software Group Inc.

Demonstration scripts were provided to each firm approximately three weeks prior to their scheduled demonstration date. Firms were required to demonstrate how their proposed core EAMS software's functionality met Metro's requirements. The demonstrations began on January 14, 2019 and concluded on February 7, 2019.

The PET finalized their scores in February of 2019. The final scoring determined 21Tech LLC to be the highest ranked firm and Metro engaged in further technical discussions and negotiations from March 2019 through June 2019.

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

##### **21 Tech LLC (21Tech)**

21Tech is a California based firm that specializes in public sector EAM software deployments and integrations. The core software solution proposed is Infor EAM. 21Tech's experience with the Infor EAM product includes work for clients such as the San Francisco Municipal Transportation Agency, the San Francisco Department of Public Works, the Kansas City Transit Authority, the San Antonio VIA, the Toronto Metrolinx, and the Quebec RTC. For this project, 21Tech assembled a team of subcontractors that included Infor Public Sector, Inc., Bentley Systems, Inc., Accenture LLP, Knowledge Architects LLC, and Cognetic Technologies.

##### **Trapeze Software Group, Inc. (Trapeze)**

Trapeze is headquartered in Canada and is dedicated to public transit software solutions. With over 1,600 implementations across 15 countries worldwide, their clients include the Chicago Transit Authority, the Regional Transit District of Denver, and the Metropolitan Atlanta Rapid Transit Authority.

##### **International Business Machines Corporation (IBM)**

IBM is a globally integrated company based in New York that has been in business for over 100 years. Their proposed software solution, Maximo, is currently in production in agencies such as Amtrak, the Washington Metropolitan Area Transit Authority, and the San Francisco Bay Area Rapid Transit.

##### **Interloc Solutions, Inc. (Interloc)**

Interloc Solutions is based in Folsom, California and has been in business for approximately 14 years. As an IBM Gold Partner, Interloc focuses their work on the

IBM Maximo product. Interloc has provided services to agencies such as Amtrak, BART, and most-recently, the Dallas Area Rapid Transit.

The following table summarizes the PET's ranking and scores.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	<b>21 Tech LLC –Hybrid *</b>				
3	Ability to Meet Software Requirements	92.78	30.00%	27.83	
4	Project Management Plan and Timeline	91.00	10.00%	9.10	
5	Proposer Qualification and Reference Checks	84.33	10.00%	8.43	
6	Technical Proposal Cost and Total Cost of Ownership	73.08	16.67%	12.18	
7	Demonstration Score	70.66	33.33%	23.55	
8	<b>Total</b>		<b>100.00%</b>	<b>81.09</b>	<b>1</b>
9	<b>21 Tech LLC –Cloud *</b>				
10	Ability to Meet Software Requirements	92.78	30.00%	27.83	
11	Project Management Plan and Timeline	91.00	10.00%	9.10	
12	Proposer Qualification and Reference Checks	84.33	10.00%	8.43	
13	Technical Proposal Cost and Total Cost of Ownership	55.61	16.67%	9.27	
14	Demonstration Score	71.08	33.33%	23.69	
15	<b>Total</b>		<b>100.00%</b>	<b>78.32</b>	<b>2</b>
16	<b>Trapeze Software Group - Cloud</b>				
17	Ability to Meet Software Requirements	87.60	30.00%	26.28	
18	Project Management Plan and Timeline	82.00	10.00%	8.20	
19	Proposer Qualification and Reference Checks	85.33	10.00%	8.53	
20	Technical Proposal Cost and Total Cost of Ownership	41.46	16.67%	6.91	
21	Demonstration Score	48.54	33.33%	16.18	
22	<b>Total</b>		<b>100.00%</b>	<b>66.10</b>	<b>3</b>
23	<b>IBM –Cloud *</b>				
24	Ability to Meet Software Requirements	86.59	30.00%	25.98	
25	Project Management Plan and Timeline	40.53	10.00%	4.05	
26	Proposer Qualification and Reference Checks	44.00	10.00%	4.40	
27	Technical Proposal Cost and Total Cost of Ownership	83.91	16.67%	13.99	
28	Demonstration Score	41.16	33.33%	13.72	
29	<b>Total</b>		<b>100.00%</b>	<b>62.14</b>	<b>4</b>
30	<b>IBM –On Prem *</b>				
31	Ability to Meet Software Requirements	86.59	30.00%	25.98	
32	Project Management Plan and Timeline	40.53	10.00%	4.05	
33	Proposer Qualification and Reference Checks	44.00	10.00%	4.40	
34	Technical Proposal Cost and Total Cost of Ownership	60.13	16.67%	10.02	
35	Demonstration Score	41.16	33.33%	13.72	
36	<b>Total</b>		<b>100.00%</b>	<b>58.17</b>	<b>5</b>

<b>37</b>	<b>Interloc Solution, Inc. –Cloud</b>				
<b>38</b>	Ability to Meet Software Requirements	79.14	30.00%	23.74	
<b>39</b>	Project Management Plan and Timeline	46.00	10.00%	4.60	
<b>40</b>	Proposer Qualification and Reference Checks	46.27	10.00%	4.63	
<b>41</b>	Technical Proposal Cost and Total Cost of Ownership	43.03	16.67%	7.17	
<b>42</b>	Demonstration Score	50.10	33.33%	16.70	
<b>43</b>	<b>Total</b>		<b>100.00%</b>	<b>56.84</b>	<b>6</b>

\*Firm provided separate proposals for different deployment solutions

### **C. Cost/Price Analysis**

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate, adequate price competition, cost analysis, technical evaluation, fact finding, clarifications and negotiations.

The negotiated amount of the Contract is reflective of Metro's discussions with the Proposer. The original Statement of Work requested that the proposers provide license pricing for a limited number of users and provide options and recommendations on when would be the best time to implement enterprise-wide licensing, if that was an option. During discussions, Metro determined that it would be in its best interest to secure enterprise-wide licensing for the core EAM software. The negotiated amount reflects the additional amount for the enterprise-wide licenses.

	<b>Proposer Name</b>	<b>Proposal Amount</b>	<b>Metro ICE</b>	<b>Negotiated Amount</b>
1.	21 Tech LLC –Hybrid *	\$8,983,563	\$10,498,000	<b>\$10,205,207</b>
2.	21 Tech LLC –Cloud *	\$9,051,423		
3.	Trapeze Software Group –Cloud	\$13,530,151		
4.	IBM –Cloud *	\$5,627,000		
5.	IBM –On-Prem *	\$11,041,000		
6.	Interloc Solutions, Inc. –Cloud	\$12,394,000		

\*Firm provided separate proposals for different deployment solutions

### **D. Background on Recommended Contractor**

The recommended firm, 21Tech LLC is located in Los Altos, California and has been in business for 22 years. 21Tech is a premier Infor EAM Transit certified partner and has completed large-scale Infor EAM implementations and upgrades across the country. 21Tech's proposed solution of the core Infor EAM system, supplemented by Bentley's AssetWise suite of products, demonstrated the functionality that Metro requires across the Agency.

## DEOD SUMMARY

**ENTERPRISE ASSET MANAGEMENT SYSTEM  
SOFTWARE ACQUISITION AND SOFTWARE SUPPORT SERVICES/PS51755000**

**A. Small Business Participation**

The Diversity and Economic Opportunity Department (DEOD) established a 10% Small Business Enterprise (SBE)/Disabled Veterans Business Enterprise (DVBE) goal for this solicitation. 21 Tech, LLC exceeded the goals with a 24.59% SBE commitment and a 3.11% DVBE commitment.

<b>Small Business Goal</b>	<b>7% SBE 3% DVBE</b>	<b>Small Business Commitment</b>	<b>24.59% SBE 3.11% DVBE</b>
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	<b>SBE Subcontractors</b>	<b>% Committed</b>
1.	Knowledge Architect, LLC	24.59%
	<b>Total SBE Commitment</b>	<b>24.59%</b>

	<b>DVBE Subcontractors</b>	<b>% Committed</b>
1.	Cognetic Technologies	3.11%
	<b>Total DVBE Commitment</b>	<b>3.11%</b>

**B. Living Wage and Service Contract Worker Retention Policy Applicability**

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) 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. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.

**ATTACHMENT C- CAPITAL PROJECT 207155- LOP REQUEST**

<b>Use of Funds</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>Total</b>
COMPUTER SUPPLIES		\$600,000	\$600,000	\$100,000		\$1,300,000
SOFTWARE		\$1,000,000	\$1,100,000	\$1,100,000		\$3,200,000
SERV PROF AND TECH SERVICE	\$1,400,000	\$4,735,750	\$17,595,532	\$10,495,284	\$1,894,813	\$36,121,379
LABOR COSTS	\$600,000	\$964,250	\$1,177,468	\$1,203,716	\$1,233,187	\$5,178,621
<b>Total</b>	<b>\$2,000,000</b>	<b>\$7,300,000</b>	<b>\$20,473,000</b>	<b>\$12,899,000</b>	<b>\$3,128,000</b>	<b>\$45,800,000</b>

# Enterprise Asset Management System (EAMS)

LOP Budget Increase & Implementation  
Services Contract Award





# Introduction

## Objective:

Replace the over 15-year-old asset management system (M3) with a modern Enterprise Asset Management System (EAMS) that improves efficiency, data accuracy, reporting capabilities and Metro's ability to provide safe and reliable transportation.

## Background:

- M3 does not provide critical functionality now required to meet the federal State of Good Repair (SGR) requirements
- In 2017, Metro Board of Directors was notified of the intent to replace an existing maintenance management system with a new EAM system
- In 2019, the Metro Board of Directors approved Phase 1 of the project
  - Award of a contract for software and initial LOP request of \$45.8 million
  - \$13.3 million expended in FY20 and FY21 on software, hardware and internal labor.

## Next Steps:

- Phase 2 – EAMS implementation



# Recommendations

- A. Approve Life of Project (LOP) budget increase of \$22.9 million from \$45.8 million to \$68.7 million.
  
- B. Authorize the CEO to award
  - A firm fixed price contract to KPMG LLP for implementation of the Enterprise Asset Management System (EAMS) in the amount of \$36.5 million
  - Three options for annual assessments for \$587K, \$395K, and \$228K for a total of \$37.7 million

DEOD Goal (Recommendation B):

KPMG exceeded the Small Business Enterprise (SBE) goal of 17% with a commitment of 34.02% and meets the Disabled Veteran Business Enterprise (DVBE) goal of 3% for this solicitation.

# LOP Budget Increase

- The recommendation to increase the LOP budget is required in order to complete the project
- Initial LOP budget estimates were based on research and general market surveys but Metro's implementation is unique and complex
- LOP budget request was preliminary prior to finalization of the Phase 2 scope (similar to a design build approach)
  - Procurement separated in two phases to ensure best-in class software and implementation services obtained
  - Higher effort needed for interfaces, configuration, and training/change management
- LOP budget also includes an estimated \$3.45 mil for the implementation services for Bentley AssetWise
  - Software needed for managing linear railway assets
  - In negotiations and will return to the board for approval



# LOP Budget Increase

	Initial LOP Budget	Increase
Internal Labor	\$5,248,042	\$4,550,000
Software	\$8,205,991	\$0
Maint/ Licensing	\$1,800,000	\$1,890,000
Hardware	\$1,450,000	\$0
Misc	\$754,525	\$0
Implementation Services	\$28,341,442	\$15,300,012
Annual Assessments		\$1,209,988
<i>Total</i>	<i>\$45,800,000</i>	<i>\$22,950,000</i>

\* An annual review of availability of funds, project progress and potential areas for project scope reduction will be performed each fiscal year

# Project Timeline

## Proposed Project Timeline for EAMS Project

