



COUNCIL AGENDA: 10/30/18  
FILE: 18-1442  
ITEM: 6.1

# Memorandum

TO: HONORABLE MAYOR  
AND CITY COUNCIL

FROM: John Ristow

SUBJECT: SEE BELOW

DATE: October 25, 2018

Approved

Date

10/26/18

## REPLACEMENT

SUBJECT: MASTER AGREEMENTS WITH MULTIPLE FIRMS FOR ON-CALL  
TRANSPORTATION CONSULTANT SERVICES

## REASON FOR REPLACEMENT

The recommendation section has been amended to include the names of the nine firms and to correct the maximum aggregate compensation amount due to error.

## RECOMMENDATION

Approve Master Agreements with nine firms to provide on-call consultant services in four technical service areas: Traffic Operations, Intelligent Transportation Systems, Traffic Engineering, and Traffic Data Collection for a five-year term ending August 30, 2023; for a maximum aggregate compensation not to exceed \$6,300,000, subject to the appropriation of funds:

- (a) CHS Consulting, Inc.
- (b) Kimley-Horn and Associates, Inc.
- (c) Iteris, Inc.
- (d) Parsons Transportation Group Inc.
- (e) Fehr & Peers
- (f) Hexagon Transportation Consultants, Inc.
- (g) All Traffic Data Services, Inc.
- (h) Innovative Data Acquisitions, LLC
- (i) Traffic Data Service, LLC

## **OUTCOME**

The consultant agreements will support implementation of grant-funded traffic signal retiming and technology projects to enhance traffic flow conditions and accommodate the increasing growth in pedestrian and bicycle travel; development of traffic signal improvement construction documents for high crash intersections and those with more complex, unique intersection operations; and collection of traffic data to support both these efforts and a variety of traffic engineering studies, including those that are State mandated.

## **BACKGROUND**

The Department of Transportation (DOT) is responsible for planning and implementing a wide variety of projects to provide a safe and efficient transportation system for pedestrians, bicyclists, motorists, and transit. DOT oversees the design and placement of traffic signals, operates the City's traffic signal system (currently over 960 signals), and conducts a variety of traffic studies to drive transportation operations decisions.

Master Agreements for on-call consultant services are proposed to augment City resources to support four key technical areas where DOT and the Department of Public Works (DPW) lack the expertise or capacity to address, including traffic engineering work that enables non-traditional signal operations (such as incorporating contraflow or two-way bicycle facilities), technical services to help integrate advanced signal control and sensor technologies (Intelligent Transportation System/ITS), preparing signal improvement construction documents that conform to State standards and processing permits as required with Caltrans or VTA, and providing data collection services for a variety of traffic studies completed by DOT.

### **1. Traffic Operations**

To optimize traffic flow conditions and safety for pedestrians, bicyclists, and motorists, traffic signal timing parameters (green/yellow/red time) must be reviewed and updated periodically. Land use, roadway characteristics and traffic pattern changes generally have the greatest potential to impact traffic flow conditions, and trigger the need to review signal operations.

In accordance with the recently adopted Complete Street Standards and Guidelines and in conjunction with DOT's annual Pavement Program, major roadways are being redesigned with narrower lane widths to calm vehicle speeds, accommodate and enhance bicycle and pedestrian facilities, and provide for enhanced transit operation. The new roadway designs may also include a reconfiguration or reduction of vehicular travel lanes. These redesigned roadways frequently require different timing strategies to optimize safe and efficient travel, and to minimize delay. In the past two years, nearly 210 pavement miles and 72 miles of bike lanes have been installed, with another 112 pavement miles and 51 miles of bike lanes planned for installation in 2019. More than 450 affected traffic signals must be reviewed as a result. At the

current budgeted staffing and resource level, about 125 signals can be reviewed and retimed annually. Consultant resources are required to increase DOT's capacity to update signal timing to optimize traffic signal operations based on roadway characteristic changes, as well as deliver grant funded signal retiming projects, including the 2018 Transportation Fund for Clean Air Signal Retiming Project.

Table 1 highlights the increasing physical changes to the City's transportation network as a result of DOT's effort to balance all modes of travel, including safe and convenient bicycle travel.

**Table 1:**

<b>Year</b>	<b>Pavement Miles</b>	<b>Traffic Signals Affected</b>	<b>New On-Street Bike Lane Miles</b>	<b>Total Network Bike Miles</b>
2017	110	148	35	285
2018	99	166	37	322
2019 (Projected)	112	175	51	373

In addition to the above retiming program, consultant support is necessary to analyze traffic operations within the Downtown area to evaluate existing traffic patterns, model bicycle green wave timing, and review transit signal priority on light rail and bus rapid transit corridors. High-density growth in Downtown San Jose, a focus on bicycle and pedestrian priority, and transit improvements in the last few years have created different traffic patterns, which emphasizes the need to update the signal timing plans and modify signals to incorporate sensors or technology solutions to enhance intersection safety and operations.

## **2. Intelligent Transportation Systems (ITS)**

In order to support the efficient operations of our roadways, ITS technology solutions are essential to improving and expanding on the capability of our existing roadway network. This includes elements such as the deployment of traffic sensors to remotely relay information about the performance of our roadways back to the city's Traffic Management Center, upgrade of existing equipment and firmware to allow expanded signal control and traffic surveillance capabilities, expansion of the city's signal communications network to provide better coverage and performance, development of data analytics capabilities, and implementation of improved control systems to better support transit and emergency vehicle operations.

## **3. Traffic Engineering Services**

There is a significant project workload related to planned infrastructure improvements within the next several years to support City mobility and traffic safety goals. DOT and DPW staff will be working to deliver several large-scale grant-funded projects involving traffic signal and other civil improvements. Included are One Bay Area Grant projects along Tully Rd, McKee Rd, and West San Carlos St; and a Highway Safety Improvement Program grant project along McLaughlin Av.

With City staff focused on the delivery for these obligated grant projects, consultant services are required to provide additional resources to support the completion of other critical projects. Some of these projects include improvements at signalized intersections to support Better Bikeways Phase II and the redesign of various high-crash Caltrans ramp locations that are operated and maintained by the City. Consultant technical expertise and resources are needed to prepare construction bid packages that conform to State standard, and prepare and process encroachment permits and traffic control plans.

Table 2 identifies the intersections that consultants will evaluate for improvements as part of these services.

**Table 2:**

Better Bikeways Phase II	Caltrans High-Crash Ramp Locations
<ul style="list-style-type: none"><li>• 4<sup>th</sup> St./San Fernando St</li><li>• 10<sup>th</sup> St./San Fernando St</li><li>• 4<sup>th</sup> St./San Salvador St</li><li>• 7<sup>th</sup> St./San Salvador St</li><li>• 10<sup>th</sup> St./San Salvador St</li><li>• 4<sup>th</sup> St./Paseo de San Antonio</li></ul>	<ul style="list-style-type: none"><li>• King Rd/I-680</li><li>• Moorpark Av/I-280</li><li>• Branham Ln/SR-85</li><li>• Samaritan Dr/SR-85</li></ul>

#### **4. Traffic Data Collection**

DOT utilizes traffic data to support a variety of traffic engineering studies including those that are State mandated and to drive decisions associated with the installation or modification of traffic control devices and the operation and enhancement of the transportation system for all roadway users – pedestrians, bicyclists, transit, and motorists. DOT staff positions previously dedicated to collecting traffic data were eliminated as part of the necessary budget balancing efforts associated with the 2011-2012 Adopted Budget.

#### **ANALYSIS**

On December 15, 2017, the City advertised a Request for Qualifications (RFQ) through the City's e-procurement system, seeking a wide selection of qualified firms to provide on-call consultant services in four technical service areas: Traffic Operations, Intelligent Transportation Systems (ITS), Traffic Engineering, and Traffic Data Collection. A total of 14 firms submitted a Statement of Qualifications (SOQ) by the submittal deadline of January 19, 2018. A review panel consisting of DOT staff knowledgeable in each service area analyzed each firm's SOQ and assigned rating points based on the technical evaluation criteria set forth in the RFQ. The technical evaluation criteria were divided into four sections – company profile, project team, work samples, and project approach, to determine the consultant's experience, expertise, and qualifications for similar work. Additional points were also awarded to proposers that were a Local and/or Small Business Enterprise. The overall ranking for each firm in the four technical service areas is summarized in Table 3.

Table 3:

RANK	TECHNICAL SERVICE AREA			
	Traffic Operations	ITS	Traffic Engineering	Traffic Data Collection
1	Kimley-Horn and Associates, Inc	Parson Transportation Group, Inc.	Kimley-Horn and Associates, Inc.	All Traffic Data Services, Inc.
2	Iteris, Inc.	CHS Consulting, Inc.	Fehr & Peers	Traffic Data Services, LLC
3	CHS Consulting, Inc	Iteris, Inc. & Kimley-Horn and Associates, Inc. <i>(Tie)</i>	CHS Consulting, Inc. & Hexagon Transportation Consultants, Inc. <i>(Tie)</i>	Innovation Data Acquisitions, LLC
4	TJKM	Fehr & Peers	Mott MacDonald, LLC	Hexagon Transportation Consultants, Inc.
5	Mott MacDonald, LLC	Traffic Patterns	W-Trans	-
6	Fehr & Peers	-	TJKM	-
7	DKS Associates	-	Iteris, Inc.	-
8	Traffic Patterns	-	DKS Associates	-
9	-	-	Traffic Patterns	-

Staff recommends awarding a Master Agreement for on-call services to the top three highest scoring firms in each technical service area to optimize the ability for DOT to complete multiple concurrent traffic studies and projects in a timely manner. A total of nine (9) Master Agreements are proposed. Table 4 below identifies the service areas that would be included in the agreements, along with the maximum compensation, for each of the nine firms. A majority of these firms are a Local and/or Small Business Enterprise.

Table 4:

	Firm	Services	Maximum Compensation
1	CHS Consulting, Inc.	Operations, ITS, Engineering	\$1,000,000
2	Kimley-Horn and Associates, Inc.	Operations, ITS, Engineering	\$1,500,000
3	Iteris, Inc.	Operations, ITS	\$1,000,000
4	Parsons Transportation Group Inc.	ITS	\$300,000
5	Fehr & Peers	Engineering	\$500,000
6	Hexagon Transportation Consultants, Inc.	Engineering	\$500,000
7	All Traffic Data Services, Inc.	Data Collection	\$500,000
8	Innovative Data Acquisitions, LLC	Data Collection	\$500,000
9	Traffic Data Service, LLC	Data Collection	\$500,000

The Notice of Intended Award was distributed to all participating consultants on April 6, 2018. The RFQ process included a 10-day protest period that commenced when consultants received the City's Notice of Intended Award. No protests were received.

### **EVALUATION AND FOLLOW-UP**

This memorandum will not require any follow-up actions from staff.

### **PUBLIC OUTREACH**

This memorandum will be posted on the City's website for the October 30, 2018 City Council meeting.

### **COORDINATION**

This memorandum has been coordinated with the City Attorney's Office, the Departments of Public Works; Planning, Building, and Code Enforcement; Finance - Risk and Insurance; the City Manager's Budget Office; and the Association of Engineers and Architects.

### **COMMISSION RECOMMENDATION/INPUT**

There was no commission recommendation on this action at this time.

### **FISCAL/POLICY ALIGNMENT**

These agreements support the City's Transportation and Aviation City Service Area (CSA) outcomes to "Provide a Transportation System that Enhances Community Livability", "Providing Safe and Secure Transportation" and that, "Travelers Have a Positive, Reliable and Efficient Experience".

### **COST SUMMARY/IMPLICATIONS**

No funding is needed to approve these Master Agreements. Funding sources will be identified in the service orders issued to the consultants as detailed scopes are defined, and cost and schedules are negotiated, subject to the appropriation of funds.

HONORABLE MAYOR AND CITY COUNCIL

October 25, 2018

**Subject: Master Agreements with Multiple Firms for On-Call Transportation Consultant Services**

Page 7

**CEQA**

Not a Project, File No. PP17-002, Consultant services for design, study, inspection or other professional services with no commitment to future action. These are Master Agreements for consultant services with no binding commitment to a course of action that will result in a physical change to the environment.

/s/

JOHN RISTOW

Acting Director of Transportation

For questions, please contact Lily Lim-Tsao, DOT Division Manager, at (408) 975-3269.