



Staff Report

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**File #:** 23-0654

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**REQUEST FOR CITY COUNCIL ACTION**

**DATE:** 08/16/2023

**TO:** Honorable Mayor and City Council Members

**FROM:** Public Works Department

**SUBJECT:**  
PROFESSIONAL SERVICES AGREEMENT WITH ADVANTEC CONSULTING ENGINEER, INC, FOR DESIGN SERVICES FOR CITYWIDE TRAFFIC SIGNAL OPTIMIZATION PROJECT, REQUEST FOR PROPOSALS NO. 23-075YL, FOR A TERM OF EIGHT MONTHS, AUGUST 16, 2023, THROUGH APRIL 30, 2024, IN THE AMOUNT OF \$216,440

**EXECUTIVE SUMMARY:**

This staff report asks the City Council to approve the Professional Services Agreement with Advantec Consulting Engineers, Inc., in the amount of \$216,440 for the design and engineering services for the Citywide Traffic Signal Optimization Project. The project will design for the deployment of advanced traffic signal technologies that will result in more efficient traffic detection and optimized operation of signalized intersections along twelve of the city's major arterial corridors.

**RECOMMENDED ACTION:**

**That the City Council:**

- a. Approve the Professional Services Agreement with Advantec Consulting Engineers, Inc., for a term of eight months from August 16, 2023, through April 30, 2024, in the amount of \$216,440.
- b. Award Request for Proposals 23-075YL for design and engineering services for the Citywide Traffic Signal Optimization Capital Improvement Project No. ST-2022-03.
- c. Authorize the City Manager, or his designee, to execute a Professional Services Agreement with Advantec Consulting Engineers, Inc., in the amount of \$216,440, including any non-substantive extensions, change orders, purchase orders, and amendments up to the amount authorized by Corona Municipal Code [3.08.070\(I\)](#), which is equivalent to 10% or \$21,644.

**BACKGROUND & HISTORY:**

The City of Corona has been awarded American Rescue Plan Act (ARPA) federal funding to be used for the Traffic Signal Optimization with Artificial Intelligence and Advanced Cameras project. The overall goal of the project is to deploy advanced technologies that will result in more efficient traffic detection and optimized operation of signalized intersections on the City's major arterial corridors. This goal will be accomplished using advanced high-definition hybrid camera/radar sensors, high-resolution traffic data acquisition, and advanced traffic algorithms capable of adapting to changes in traffic conditions. The proposed technology is required to be fully compatible with the City's existing investments in the current Advanced Traffic Management System.

The project encompasses over one hundred signalized intersections on the City's major arterial roadway network. These arterial streets include Green River Road, Foothill Parkway, Main Street, Sixth Street, Lincoln Avenue, Ontario Avenue, Magnolia Avenue, McKinley Street, Hidden Valley Parkway, Serfas Club Drive, River Road, and Temescal Canyon Road. The majority of these traffic signal locations are networked to the City's Advanced Traffic Management System (ATMS) located in the City's Traffic Management Center at City Hall. The traffic signal network is almost exclusively comprised of fiber optic cabling allowing high-speed, reliable communication to a majority of the City's signal infrastructure.

The required improvements at the associated intersections are comprised of installing pre-configured upgraded vehicle detection, traffic signal computing hardware, and networking hardware. These new devices will be compatible with and configured to interface with the City's ATMS investment for high-resolution traffic data collection and adaptive traffic signal control. The upgraded detection technology will utilize a hybrid system of high-definition cameras combined with radar technology. The network switches shall be industrial-grade, hardened ethernet switches capable of 100mbps/1Gbps fiber optic communications compatible with the City's Network Monitoring System.

Additionally, software upgrades to the City's ATMS will be required to utilize the adaptive signal control technology, which includes additional software modules and licensing. Furthermore, a third-party roadway information data dashboard will be required as a baseline to verify any realized improvements in traffic flow. As a starting point for Adaptive Signal Control, traffic data collection and synchronization efforts must be completed.

**ANALYSIS:**

The Purchasing Division issued Request for Proposals (RFP) 23-075YL on May 30, 2023, pursuant to Corona Municipal Code [3.08.110](#). A total of 143 prospective vendors were notified of the RFP opportunity. There were a total of 40 prospective bidders, and six (6) firms submitted proposals for evaluation by the July 6, 2023, deadline. The following is a summary of the proposal evaluation results:

<b>Firm</b>	<b>Location</b>	<b>Evaluation Ranking</b>
Advantec Consulting Engineers, Inc.	Irvine, CA	1
Iteris Inc	Santa Ana, CA	2
Kimley-Horn & Associates	Orange, CA	3
KOA Corporation	Ontario, CA	4
AGA Engineers	Fullerton, CA	5
TJKM	Pleasanton, CA	6

Proposals were evaluated on six criteria as outlined in the Request for Proposals. These criteria were: Completion of Response, Relevant Experience and Qualified Personnel, Project Experience in the City of Corona, Availability and Level of Commitment, Approach and Scope of Work, and Project Schedule and Delivery. Costs are not a part of the evaluation criteria nor are the cost proposals of the non-selected firms opened in order to comply with federal procurement guidelines.

Based on the proposal evaluation analysis, Advantec Consulting Engineers, Inc., team possesses the skills, experience, and staffing necessary to successfully execute the scope of work for this project. The project manager proposed for this project has successfully completed projects of similar nature, size, and complexity and will be supported by internal staff and by specialty firms with a similar record of success and experience. Staff recommends awarding the contract to Advantec Consulting Engineers, Inc.

**FINANCIAL IMPACT:**

With the approval of the recommended actions, funding for the project is available in the Capital Improvement Project Budget as follows:

The estimated cost for design and engineering services is outlined as follows:

Consultant.....	\$216,440
Contingency.....	\$21,644
<b>Total Costs.....</b>	<b>\$238,084</b>

**ENVIRONMENTAL ANALYSIS:**

These actions are exempt from the California Environmental Quality Action (CEQA), as the actions are not a "project" as defined by CEQA (PRC Section 21065 and CEQA Guidelines Section 15378), guidelines which define a "project" as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or reasonable foreseeable indirect physical change in the environment, and that is an activity directly undertaken by any public agency including public works construction and related activities. These actions involve the approval of a professional services agreement. Therefore, no environmental analysis is required at this time. After approval of the recommended actions herein, staff will proceed with the design and environmental document phase of this project. Any applicable documentation will be prepared and filed at that

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time.

**PREPARED BY:** AARON COX, SENIOR ENGINEER - TRAFFIC

**REVIEWED BY:** SAVAT KHAMPHOU, PUBLIC WORKS DIRECTOR

**Attachments:**

1. Exhibit 1 - Professional Services Agreement