November 2, 2020

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Consultant Selection for Traffic and Intelligent Transportation Systems Engineering Services for the Warner Avenue Regional Traffic Signal Synchronization Program Project

Overview

On May 11, 2020, the Orange County Transportation Authority Board of Directors approved the release of a request for proposals for a consultant to provide traffic and intelligent transportation systems engineering services for the Warner Avenue Regional Traffic Signal Synchronization Program Project. Board of Directors' approval is requested for the selection of the firm to perform the required work.

Recommendations

A. Approve the selection of Iteris, Inc., as the firm to provide traffic and intelligent transportation systems engineering services for the Warner Avenue Regional Traffic Signal Synchronization Program Project.

B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2020 between the Orange County Transportation Authority and Iteris Inc., to provide traffic and intelligent transportation systems engineering services for the Warner Avenue Regional Traffic Signal Synchronization Program Project.

Discussion

The Orange County Transportation Authority (OCTA) was awarded funds from SB 1 (Chapter 5, Statutes of 2017) Solutions for Congested Corridors Program (SCCP) for the Warner Avenue Regional Traffic Signal Synchronization Program (RTSSP) Project. OCTA will lead and administer this multi-agency traffic signal synchronization project. OCTA requires the services of a highly specialized traffic and intelligent transportation systems (ITS) engineering firm to accomplish this project.

The Warner Avenue RTSSP Project will synchronize 42 signalized intersections over approximately 13 miles. The limits of the project are from Pacific Coast Highway to Pullman Street, and the project includes participation by the cities of Fountain Valley, Huntington Beach, and Santa Ana. The project goals are to improve travel times, reduce greenhouse gas emissions, and provide savings to motorists in reduced fuel consumption through new optimized coordinated synchronized traffic signal timing at all intersections along the project limits, consistent with previous countywide signal synchronization goals.

Procurement Approach

This procurement was handled in accordance with OCTA's Board of Directors (Board)-approved procedures for architectural and engineering (A&E) services that conform to both state and federal laws. Proposals are evaluated and ranked in accordance with the qualifications of the firm, staffing and project organization, and work plan. As this is an A&E procurement, price is not an evaluation criterion pursuant to state and federal laws. Evaluation of the proposals was conducted on the basis of overall qualifications to develop a competitive range of offerors. The highest-ranked firm is requested to submit a cost proposal and the final agreement is negotiated. Should negotiations fail with the highest-ranked firm, a cost proposal will be solicited from the second-ranked firm in accordance with Board-approved procurement policies.

The Board authorized the release of Request for Proposals (RFP) 0-2020 on May 11, 2020, which was electronically issued on CAMM NET. The project was advertised on May 11 and 18, 2020, in a newspaper of general circulation. A pre-proposal conference was held on May 21, 2020, with 26 attendees representing ten firms. Three addenda were issued to provide pre-proposal conference information, responses to questions received, and handle administrative issues related to the RFP.

On June 16, 2020, seven proposals were received. An evaluation committee consisting of members from Contracts Administration and Materials Management and Strategic Planning departments, as well as external representatives from the cities of Seal Beach and Huntington Beach met to review all submitted proposals.

The proposals were evaluated based on the following Board-approved evaluation criteria and weightings:

- Qualifications of the Firm 25 percent
- Staffing and Project Organization 40 percent
- Work Plan 35 percent

Several factors were considered in developing the criteria weightings. Qualifications of the firm evaluated the firm's experience in performing work of similar scope and size. Staff assigned the greatest level of importance to staffing and project organization, as the qualifications and availability of the project manager, key task leaders, and staff resources are of most significance to the successful and timely delivery of the project. Likewise, high importance was given to the work plan criterion to emphasize the importance of the team's understanding of the project, project challenges, and the team's approach to implementing the various elements of the scope of work. The technical approach is critical to the successful performance of the project.

The evaluation committee reviewed all proposals based on the evaluation criteria and found the following firms most qualified to perform the required services. The most qualified firms are listed below in alphabetical order:

Firm and Location

Advantec Consulting Engineers (ACE)
Irvine, California

Albert Grover & Associates, Inc. (AGA)
Fullerton, California

Iteris, Inc. (Iteris)
Santa Ana, California

KOA Corporation (KOA)
Orange, California

The evaluation committee interviewed the short-listed firms on August 31 and September 2, 2020. The interviews consisted of a presentation allowing each team to present its qualifications, highlight its proposal, and respond to evaluation committee questions. Firms also highlighted their staffing plans, availability of resources, work plans, and perceived project issues. Each team was asked general questions regarding its approach to the requirements of the scope of work, work plans, management of the projects, coordination with various agencies, experience with similar projects, and the team's solutions in achieving the project's goals.

Based on the evaluation of written proposals and information obtained during the interviews, staff recommends Iteris as the firm to provide traffic and ITS engineering services for the Warner Avenue RTSSP Project. This firm ranked highest amongst the proposing firms based on the team's relevant experience in

traffic and ITS engineering services. Iteris' proposed team is comprised of qualified key personnel with relevant and recent experience in traffic signal synchronization and ITS projects. The firm demonstrated an understanding of the project requirements and presented a comprehensive work plan addressing key issues that are critical to the success of the project. The following is a summary of the proposal evaluation results.

Qualifications of Firm

Iteris specializes in transportation planning, engineering, and technology services since 1987. The firm has 450 employees and 19 offices across the United States, including an office in the City of Santa Ana. Iteris has experience in traffic engineering and design, ITS, transportation planning, initial impact studies, transportation modeling, systems engineering, and other transportation technologies both nationally and internationally. Iteris has extensive experience in performing services of similar scope and magnitude. Recent and relevant projects include: OCTA's Project P corridors – Bristol Street, Brookhurst Street, Katella Avenue, Main Street, and Pacific Coast Highway RTSSP projects. The City of Irvine's projects include Culver Avenue, MacArthur Boulevard, and Von Karman Avenue RTSSP projects. Additionally, Iteris has completed numerous RTSSP projects with the cities of Anaheim, Buena Park, Mission Viejo, and Santa Ana.

KOA was founded in 1987 and provides traffic engineering, civil engineering, as well as ITS-related and transportation planning services. KOA has a project office in the City of Orange and various other locations in California, with more than 114 staff members. KOA specializes in traffic engineering projects. Recent and similar projects in signal timing optimization and related services include: OCTA's Traffic Signal Synchronization Master Plan, Los Angeles County Department of Public Works Traffic Signal Synchronization Projects (TSSP), City of Azusa Traffic Management Systems Engineering, City of Coachella TSSP, in addition to various TSSP projects with the cites of Beverly Hills, Inglewood, Long Beach, and Whitter.

AGA is a multi-disciplinary engineering firm specializing in municipal and transportation engineering services. The firm was founded in 1993 and has relevant experience with traffic engineering, traffic signal synchronization, transportation planning, project management, monitoring and operational controls of traffic signal systems, and ITS-related services. AGA has an office in the City of Fullerton with 19 employees. AGA has provided services to local agencies in Southern California for traffic engineering and ITS projects.

Recent and relevant projects for OCTA and other agencies in Orange County include: Orange County Traffic Signal Coordination Program, Tustin Avenue/ Rose Drive, Bolsa Avenue/First Street RTSSP, Adams Avenue RTSSP, and Antonio Parkway TSSP.

ACE specializes in multimodal transportation planning, engineering, and technology services since 1998. The firm has 35 employees and six offices, including an office in City of Irvine. ACE has demonstrated experience in traffic engineering, traffic studies, transportation planning and engineering, complete streets, smart cities, traffic signal timing, traffic coordination and operations, ITS, and automated transportation technologies. Recent and similar projects include: OCTA's traffic engineering and ITS RTSSP for Los Alisos and Garden Grove Boulevard, Irvine Boulevard RTSSP, San Clemente Camino Vera Cruz Corridor TSSP, Fairview Road Traffic Signal Synchronization (TSS) Plan, Citywide Traffic Message Center (TMC) and ITS Improvements, other regional TSS programs, and work for the Coachella Valley Association of Governments.

Staffing and Project Organization

The short-listed firms proposed qualified project managers, key personnel, and subconsultants with extensive knowledge in traffic engineering and ITS services.

Iteris' proposed project team demonstrated experience in transportation engineering, transportation planning, ITS, and traffic engineering. The project manager has 30 years of experience in the industry with transportation systems and analysis, planning and design, traffic engineering, and signal timing design and implementation. The senior advisor and quality assurance/ quality control (QA/QC) manager has over 20 years of experience in leadership on numerous mobility projects internationally, with focus in the application of technologies, including the development, design, and implementation of subsystems of arterial, highway, and transit signal systems upgrades, fiber optic communication networks, and freeway traffic management systems. Iteris' senior project engineer has extensive experience in the field of transportation engineering, signal operations, managing and designing traffic engineering and ITS projects for numerous agencies, and has successfully delivered plans, specifications, and estimate packages for using a platform-based approach signal timing coordination.

The project team consists of specialists and leaders in transportation planning, civil and traffic engineering, signal synchronization projects, and advanced transportation management systems integrators. Iteris' key personnel include task leaders and support staff experienced in ITS, traffic engineering, operations, maintenance and monitoring, systems communications, traffic data collection, traffic management centers, and signal improvements.

Iteris' support team includes the ITS and signal infrastructure and installation experience of Siemens Mobility (Siemens), which is proposed to play a key role in the areas of equipment implementation, utility coordination, electrical integration, and construction. Availability of Siemens staff and resources is critical to the project goals, team collaboration, successful delivery, and implementation of the project. Iteris' project team has successfully worked together for many years on numerous traffic engineering and ITS projects, and demonstrated experience working on numerous projects of similar size and scope. Roles for assigned staff were clearly defined.

KOA's proposed project team has experienced and qualified personnel. The proposed project manager has 12 years of experience managing traffic and civil engineering projects throughout Southern California and performed similar tasks for various cities and agencies in Los Angeles County. The QA/QC manager has 38 years of experience in transportation planning and traffic design on highway, transit, and bicycle projects. These projects include design for traffic signals, street lighting, signing, and striping and worksite traffic control. The signal timing task leader has more than 28 years of experience in transportation and planning, roadway design, traffic design, and transportation modeling and studies. The key personnel have successfully worked together on similar projects and are experienced in ITS, traffic engineering, operation maintenance and monitoring, systems communications, traffic data collection, signal improvements, and demonstrated knowledge on recent relevant projects in signal synchronization, signal improvement, communication design, and equipment implementation and installation. KOA's tasks leaders and support staff have experience working together on signal timing optimization, traffic signal master plans, and various signal and ITS projects.

AGA's proposed team is experienced in traffic engineering operational projects for traffic signal timing and coordination, utilizing the firm's in-house traffic management systems. The proposed project manager has over 25 years of experience in traffic and transportation, and has managed over 11 different traffic engineering, traffic signal synchronization, and ITS projects for OCTA since 1998. AGA's proposed QA/QC manager has been extensively involved in ITS design, signal coordination planning, and traffic signal design. AGA's senior transportation engineers have been instrumental in developing hundreds of signal timing plans throughout Orange County under OCTA's TSSP. AGA's key personnel and support staff have experience in traffic operations and transportation engineering services, including traffic signal timing, operational analysis, traffic signal and communication design, and systems engineering for ITS. AGA's proposed team has worked together successfully implementing numerous transportation signal timing and synchronization projects.

ACE proposed an experienced project team with knowledge and relevance in transportation engineering, transportation planning, and traffic engineering. The proposed project manager has 20 years of experience as project manager and operations task leader in traffic operations and traffic engineering and conducting and managing traffic signal synchronization and ITS projects. ACE's proposed task leader has 29 years of experience in the field of ITS engineering, transportation planning and design, and traffic engineering services. The project team consists of a senior advisor with over 30 years of experience in traffic engineering and transportation planning. The task leaders and support team consist of transportation planners, civil and traffic engineers, and signal synchronization and traffic coordinators. ACE's key personnel are experienced in ITS, traffic engineering, traffic safety, operations, maintenance and monitoring, systems communications, data collection, and TMC and signal improvements. The project team and key support staff have worked together on recent projects of similar size and scope.

Work Plan

The work plans of all four short-listed firms met the scope of work requirements of the RFP, and each firm effectively discussed its approach to the project.

Iteris' work plan conveyed an understanding of the project's key requirements, project challenges, and proposed solutions. The work plan discussed the approach to specific tasks to be accomplished, details of each intersection, and the proposed recommendations of traffic signal equipment to improve synchronization. Iteris' team demonstrated awareness, addressed challenges, and suggested solutions due to the coronavirus (COVID-19) impacts on traffic patterns, and the potential effects of schools, parks, residences, retail shops, restaurants, and industrial areas. The work plan identified ITS and communications upgrades, fiber optic communication improvements, and traffic signal upgrades for enhancements of the signal timing and synchronization throughout each intersection. Iteris' proposed project approach discussed the current COVID-19 traffic patterns and proposed the Clear Guide smart mobility platform advanced technologies as a solution to provide real-time monitoring of traffic flow, and the firm conducted travel time studies and field observations to identify possible problems. In the interview, Iteris demonstrated understanding of the work plan, described the design, implementation, operation, and monitoring phases of the project, and presented improvements to signal timing and intersection solutions.

KOA's proposed work plan demonstrated an understanding of the project's key requirements, challenges, and applied recommendations and solutions. The work plan discussed the firm's proactive project management approach including specifics on the tasks to be performed and identified potential constraints. KOA proposed signal synchronization timing to be performed at each intersection, and suggested traffic signal upgrade recommendations. KOA demonstrated knowledge and its research of the corridor, and a thorough understanding of the project by identifying the traffic conditions, pedestrian and school activity, as well as signal synchronization timing and delays. KOA addressed the COVID-19 traffic impacts, and anticipated challenges and strategies. KOA's work plan proposed examples of signal equipment upgrades, traffic signal solutions, TMC improvements, as well as systems equipment and value-added components of performance measures. During the interview, the project team demonstrated their knowledge related to traffic synchronization projects and presented specific details of the project's challenges.

The work plan for AGA demonstrated an understanding of project requirements and challenges. The work plan discussed corridor traffic signal timing strategy and recommendations for modified traffic signal equipment improvements. AGA demonstrated knowledge of the corridor and understanding of the current traffic signal synchronization and potential impacts. AGA's work plan proposed a field review and incorporation of the latest technologies for signal traffic enhancements. The workplan discussed traffic performance operation monitoring, heavy traffic volumes, and pedestrian traffic challenges. The firm demonstrated understanding of traffic conditions and signal synchronization timing and delays. AGA discussed possible corridor issues and proposed solutions for traffic signal optimization and signal timing analysis implementation during the interview.

The work plan for ACE conveyed a clear project understanding including project management approach, QA/QC methods, proposed equipment and communication upgrades, and infrastructure signal improvements. The firm's work plan demonstrated knowledge of the traffic signal analysis and implementation plans, upgrades to equipment to improve synchronization, and identification of traffic conditions and solutions. ACE's work plan conveyed an understanding of the existing traffic conditions, specific corridor characteristics, and proposed solutions and improvements at each intersection. The work plan described reviewing existing transportation infrastructures, traffic patterns, impact studies, and corridor enhancements. The interview demonstrated their understanding of issues, proposed solutions, and equipment upgrades to improve signal synchronization; however, the interview responses lacked detail.

Procurement Summary

Based on the evaluation of the written proposals, team qualifications, and information obtained during the interviews, the evaluation committee recommends the selection of Iteris as the top-ranked firm to provide traffic and ITS engineering services for the Warner Avenue RTSSP Project. Iteris demonstrated an understanding of the project requirements and submitted a comprehensive work plan addressing key issues and proposed improvements. Iteris presented a thorough interview highlighting the firm's availability of staff and resources, which is critical to the successful delivery of the project.

Fiscal Impact

The project is included in OCTA's Fiscal Year 2020-21 Budget, Strategic Planning Division, Account 0017-7519-SPF32-P57. Staff has secured funds in the amount of $4,092,124 (80 percent) from the SCCP. Measure M2 will provide $818,425 (16 percent). The local agencies will provide $204,451 (four percent) of the total project cost in matching funds.

Summary

Staff is recommending the Board of Directors authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2020 with Iteris, Inc., to provide traffic and intelligent transportation systems engineering services for the Warner Avenue Regional Traffic Signal Synchronization Program Project.

Attachments

A. Review of Proposals, Request for Proposals 0-2020 Consultant Services for Traffic and Intelligent Transportation Systems Engineering Services for Warner Avenue Regional Traffic Signal Synchronization Program Project
B. Proposal Evaluation Criteria Matrix - (Short-Listed Firms), Request for Proposals 0-2020 Consultant Services for Traffic Engineering and Intelligent Transportation Systems Services for Warner Avenue Regional Traffic Signal Synchronization Program Project
C. Contract History for the Past Two Years, Request for Proposals 0-2020, Consultant Services for Traffic Engineering and Intelligent Transportation Systems Services for Warner Avenue Regional Traffic Signal Synchronization Program Project

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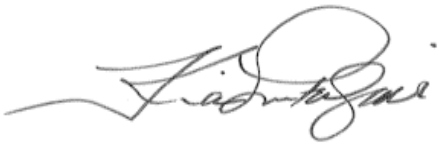

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