



City of Culver City

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Staff Report

File #: 16-178, **Version:** 1

Item #: C-7.

CC - Approval of Professional Services Agreements with (1) McCain Inc. for the Adaptive Traffic Control System (ATCS) Project, PL-005 in an Amount Not-to-Exceed \$2,016,885 (\$1,831,885 Base Cost with a 10% Contingency of \$185,000); and 2) Advantec Consulting Engineers for System Manager and Construction Management and Inspection Services in an Amount Not-to-Exceed \$160,420.

Meeting Date: 09/12/2016

Contact Person/Dept: Hong Wang, Public Works/Engineering
Phone Number: 310.253.5604

Fiscal Impact: Yes ☒ No ☐

General Fund: Yes ☒ No ☐

Public Hearing: ☐ **Action Item:** ☐ **Attachments:** ☐

Commission Action Required: Yes ☐ No ☒ **Date:**

Public Notification: (E-Mail) Meetings and Agendas - City Council (09/07/2016); McCain Inc., Rhythm Engineering (09/07/2016);

Department Approval: Charles D. Herbertson (08/29/16)

RECOMMENDATION

Staff recommends the City Council approve professional services agreements with (1) McCain Inc. for the Adaptive Traffic Control System (ATCS) Project, PL-005 in an amount not-to-exceed \$2,016,885 (\$1,831,885 base cost with a 10% contingency of \$185,000); and (2) Advantec Consulting Engineers for system manager and construction management and inspection services for PL-005 in an amount not-to-exceed \$160,420.

BACKGROUND

Culver City is one of the main transportation hubs in the region with major arterial streets such as Washington Boulevard, Culver Boulevard, Sepulveda Boulevard, Jefferson Boulevard, and Slauson Avenue. It is also in close proximity to major freeways, I-10 to the north and I-405 to the west. Currently, the City is experiencing traffic congestion due to increased regional and local traffic. Regional traffic originates from vehicles using local arterial streets to access surrounding areas as well as to bypass the congested freeway network. Local arterials are among the busiest in the region,

with major routes ranging from 30,000 to 65,000 vehicles per day. The City controls traffic flow with a system of 106 signalized intersections connected to a central traffic system.

The City was awarded funding by Los Angeles County Metropolitan Transportation Authority (Metro) in the category of Signal Synchronization for an Adaptive Traffic Control System (Project) as part of the 2011 Metro Call for Projects competitive process. The grant funds are programmed in Fiscal Years 15-16. The Project includes upgrading the current central Traffic Control System (TCS) to an Adaptive Traffic Control System (ATCS), replacement of 90 existing Type 170 signal controllers with Type 2070 controllers, installation of additional vehicle detectors, and upgrading of the communications network and equipment.

The Project will improve mobility and safety of the major arterial streets that run through the City by upgrading the current central TCS to ATCS. The ATCS will dynamically control all signalized intersections in the City in real-time. Adaptive mode operations for arterial roadway network optimization will improve mobility at all times and directly benefit motorists, goods delivery, as well as transit providers and users. In addition, the ATCS will allow for more automated operations and enhanced overall performance of the traffic control system.

With staff's input, the ATCS system functional specifications and the Request for Proposals (RFP) for the Project were developed by Advantec Consulting Engineers, which was hired through an RFP process from the City's approved on-call traffic engineering firms. On March 28, 2016 the City Council approved an additional funding request and the release of an RFP (the March 28th staff report is included as Attachment 1).

DISCUSSION

On May 12, 2016, two proposals were received from Rhythm Engineering and McCain, Inc. Following receipt of the proposals, staff formed a committee comprised of Advantec (the City's engineering consultant), and the City's Senior Civil Engineer, City's consultant Traffic Engineer, and Traffic Management Analyst (Committee) to evaluate the responses. After reviewing all the proposals, the Committee selected McCain Inc. as the top ranked firm.

Founded in 1987, McCain Inc., manufactures and supplies innovative traffic management products including advanced transportation controllers (ATC), cabinets, local firmware, central management software, and adaptive systems. The Committee reviewed their references and subsequently requested additional information. After several negotiation meetings to clarify the scope of work and fee schedules, the Committee recommends the City Council approve a professional services agreement with McCain, Inc. as the most qualified firm to undertake the Project.

McCain will replace all existing traffic signal controllers and upgrade communication systems, install system detection loops at major traffic corridors, separate advance detection loops by each lane at 18 key intersections, and design and implement the citywide ATCS system. Once the ATCS is completed, it will be able to adjust signal timing according to traffic demand and volume changes in real-time along the 11 major corridors. This will include the ability to recognize the onset of peak periods, the direction of heaviest flow, and detect unexpected changes in traffic demand as a result of incidents on arterials or the adjacent freeways.

Due to limited staff and expertise available, staff recommends the continued retention of Advantec Consulting Engineers to assist the City with implementing the ATCS Project by providing system management, construction management and inspection. Pursuant to Section 3.07.085.A of the Culver City Municipal Code, the Advantec Consulting Engineers agreement may be approved without complying with formal bidding procedures provided competitive quotations are obtained, when practical, as determined by the City Manager. In this instance, the City Manager determined competitive quotations were not practical, as Advantec Consulting Engineers assisted the City in the development of the RFP for the Project and its assigned staff are knowledgeable and experienced with the implementation ATCS.

The 'before and after' studies to evaluate the benefits of the ATCS on each of the major corridors as required by the grant application will be performed by a third party independent firm.

As future funding becomes available, additional detection upgrades at other less critical intersections will be installed to provide data necessary to refine the ATCS system.

The project is expected to be completed by December 31, 2017.

FISCAL ANALYSIS

Proposed Project Budget:	Amount
Metro LA County Prop C (42380000.730100.PL005)	\$ 1,180,048
City's required match and additional contribution (42080000.730100.PL005)	\$ 880,000
Traffic Signal Replacement/Upgrade (42080000.730100.PZ429)	\$ 200,000
Total:	\$ 2,260,048

Estimated Expenditures:

Function Description/ RFP Development	\$ 45,030
ATCS Contract (McCain)	\$1,831,885
ATCS Construction Contingency	\$ 185,000
System Manager/Construction Management/Inspection	\$ 160,420
<u>3rd Party Before and After Studies</u>	<u>\$ 35,000</u>
Total:	\$2,257,335

ATTACHMENTS

1. March 28, 2016 City Council staff report

MOTION

That the City Council:

1. Approve a professional services agreement with McCain Inc. for the Adaptive Traffic Control System (ATCS) Project, PL-005 in an amount not-to-exceed \$1,831,885; and;
2. Authorize the Public Works Director/City Engineer to approve amendments to the agreement with McCain, Inc. in an amount not to-exceed \$185,000 for unforeseen conditions or extra work; and
3. Approve a professional services agreement with Advantec Consulting Engineers in an amount not to-exceed \$160,420 for system manager and construction management and inspection services for PL-005; and
4. Authorize the City Attorney to review/prepare the necessary documents; and
5. Authorize the City Manager to execute such documents on behalf of the City.