

City of Hesperia

STAFF REPORT



DATE: July 16, 2019

TO: Mayor and Council Members

FROM: Nils Bentsen, City Manager

BY: Michael Blay, Assistant City Manager
Tina Souza, Senior Management Analyst

SUBJECT: Agreements and Equipment for the Main Street Traffic Signal Synchronization Project – Phase II, C.O. 7133 and the Main/Mariposa Signal Relocation Project, C.O. No. 7156

RECOMMENDED ACTION

It is recommended that the City Council 1) approve a Professional Services Agreement (PSA) with Urban Systems Associates, Inc. in the amount of \$577,600, plus a 10% contingency in the amount of \$57,760, for a total contract amount of \$635,360, 2) authorize the purchase of equipment from Trafficware in the amount of \$103,316, 3) authorize the purchase of equipment from Rhythm Engineering in the amount of \$320,202, 4) adopt Resolution No. 2019-039 appropriating \$280,327 to Fund 204, 5) adopt Resolution No. 2019-040 approving the Memorandum of Understanding (MOU) between the City and Caltrans District 8; and 6) authorize the City Manager to execute the PSA and MOU.

BACKGROUND

The Mojave Desert Air Quality Management District (MDAQMD) has established the Mobile Source Emission Reduction Competitive Bidding Program to award funds to local governments and other agencies or institutions capable of effectively utilizing funds to reduce mobile emissions.

On September 1, 2015, the City Council adopted Resolution No. 2015-041 accepting a grant award from MDAQMD in the amount of \$246,200 for the installation of an adaptive traffic control system on Main Street from "I" Avenue to Eleventh Avenue (Phase I). The project is complete with the exception of modification to the "G" Avenue controller cabinet, which will be performed during installation of Phase II.

The City was awarded additional grant funds from MDAQMD in the amount of \$484,482 for Phase II from Escondido Avenue to Mesa Linda Street, which was accepted by City Council under Resolution No. 2017-030 on June 6, 2017.

The goal of the adaptive system is to reduce commute times and harmful vehicle emissions, and improve quality of life for Hesperia residents by utilizing the latest signal timing technology, coordination, and communication technology available for monitoring and optimizing traffic along the Main Street corridor.

ISSUES/ANALYSIS

The In-Sync system recognizes traffic at, and between intersections to adjust the cycle lengths and phases of the traffic signals depending on the real time traffic at the intersections. Phase I and Phase II provide installation of the system in the most congested areas of the Main Street Corridor. The goal is to eventually implement the system along the entire corridor.

Urban Systems Associates, Inc. (Urban) was contracted as the traffic engineer to provide the professional services related to various stages of the Phase I project such as the required traffic studies, programming equipment and coordination and installation of the equipment needed for the adaptive traffic control system for the project. For consistency with Phase I, and because Urban Systems Associates, Inc. has expertise related to the In-Sync Real-time Adaptive Traffic Control System by Rhythm Engineering, its equipment and software, as well as in-depth knowledge of the City's existing equipment, communications for the traffic control system, and the structure and operation of Phase I, staff recommends that the Mayor and Council Members approve the PSA with Urban Systems Associates, Inc. as a sole source in the amount of \$577,600, plus a 10% contingency in the amount of \$57,760, for a total PSA amount of \$635,360.

Installation of the traffic control system requires coordination with Caltrans, as there are two signals under Caltrans operations within this section of the Main Street corridor. The signals at the I-15 northbound off-ramp and the I-15 southbound off-ramp are controlled and operated by Caltrans District 8. An MOU between the City and Caltrans Division 8 is required to authorize the installation of the equipment and identify the rolls of each agency as it relates to the system installation, operations, maintenance, and repair. Staff recommends that the Mayor and Council Members approve the MOU between the City and Caltrans District 8.

The traffic signal on the southwest corner of Main Street and Mariposa Road is in need of relocation and replacement as it has been hit on numerous occasions compromising its integrity. Although the Main Street and Mariposa Road Traffic Signal Relocation Project, C.O. 7156 is identified as a separate project from the traffic signal synchronization, the relocation will occur as part of the synchronization project under Urban's PSA. If the relocation were to be performed after installation of the traffic control system, all the adaptive equipment would have to be removed and relocated to the new signal pole, the new wire pulled for the equipment would have to be re-pulled to the new pole location and separate encroachment permits would be required from Caltrans. Much of the same efforts of installation would be duplicated which is not cost effective or timely.

The timing of the project is such that, the Fiscal Year 2019-20 Capital Improvement Budget was prepared prior to receipt of the proposals from the consulting firm and equipment suppliers and was prepared based on available information of the project at that time. During the traffic engineer's review of this section of the corridor, it was determined that existing equipment at two of the intersections will not support the adaptive traffic control equipment resulting in the need to upgrade the equipment. The remaining intersections will require additional cabinetry and the likely installation of new wire. The City's aged equipment has resulted in unanticipated additional costs. Staff is requesting that the Mayor and Council Members appropriate additional funds for completion of the project.

FISCAL IMPACT

Funding for the project is budgeted in the approved Fiscal Year 2019-2020 Capital Improvement Program (CIP) in the amount of \$819,184. Funding for the project will require amending the Fiscal Year 2019-2020 CIP Budget by appropriating \$280,327 in Measure I Renewal Fund 204. A breakdown of expenditures is as follows:

Urban Systems Associates, Inc.	\$635,360
Trafficware Equipment	103,316
Rhythm Adaptive Traffic Control Equipment	320,202
Other Miscellaneous Services & Equipment	<u>40,633</u>
Total Estimated Construction Costs (Including Mariposa Signal Relocation)	\$1,099,511

ALTERNATIVE(S)

1. Provide alternative direction to staff.

ATTACHMENT(S)

2. Urban Systems Associates, Inc. Cost Proposal
3. Trafficware Quote
4. Rhythm Engineering Quote
5. Resolution No. 2019-039
6. Resolution No. 2019-040
7. Exhibit A - MOU