



City of Emeryville

CALIFORNIA

MEMORANDUM

DATE: March 21, 2017

TO: Carolyn Lehr, City Manager

FROM: Maurice Kaufman, Public Works Director

SUBJECT: Resolution Of The City Council Of The City Of Emeryville Approving The Scope Of Work And Authorizing The City Engineer To Advertise For Public Bids For The Construction Of The Video Detection Traffic Signal Enhancement, Project No. EPW 17-101, CIP No. 15475006; CEQA Determination: Exempt Pursuant To 15301(c)

RECOMMENDATION

Staff recommends that the City Council approve the scope of work and authorize the City Engineer to advertise for public bids for the construction of the Video Detection Traffic Signal Enhancement Project.

BACKGROUND

The Capital Improvement Program (CIP) adopted by the City Council in June 2016 includes funding for the Video Detection Traffic Signal Enhancement Project, CIP No. 15475006. The Project will install video detection at existing City owned traffic signals that have not yet been upgraded to video detection.

DISCUSSION

This project will provide improved detection for bicyclists at City operated traffic signals. Standard loop detectors in the roadway pavement use a magnetic field for detection and will not detect a bicycle with an aluminum or carbon frame. The City receives a lot of complaints from cyclists regarding not being detected by various traffic signals. Upon completion of this project, all critical traffic signals will be converted to video detection. This project will help in achieving goals from the City's Pedestrian and Bicycle Plan.

Another benefit of using video detection is that they enable construction to occur within the travel lanes without concern of damaging the traffic signal's detection system. It is very common that pavement cuts are needed in the vicinity of the standard loop detectors and when this occurs, the traffic signal is not able to operate correctly until the loop detectors are restored. Given all the recent utility work by PG&E, EBMUD, and various developers over the past few years, the City was able to require the installation of video detection cameras at the various traffic signals where construction activities would damage the existing loop detectors. As a result, many of the traffic signals have been equipped with video detection at the expense of others.

The City owns and operates 26 traffic signal systems within the City Limits. Of these signals, 19 are already equipped with video detection. The project scope will be to install video detection cameras and necessary related equipment in locations where loop detectors are still in use and where video detection would be of benefit. Given that the existing video cameras are of different generations of technology, a few existing cameras will be relocated to new locations to extend their usable service life, and some of the oldest cameras will be replaced with cameras of the latest technology.

With the cost savings of re-using cameras that are still serviceable, some older traffic signal equipment will be replaced at intersections where equipment is reaching the end of its usable service life. Additionally, communications equipment will be added to critical intersections in order to help expand on the traffic signal network infrastructure that was installed as part of Alameda County's I-80 Smart Corridor Project. With this equipment, it will be possible to relay traffic information such as vehicular count data and signal timing data back to City Hall to help staff improve mobility within the traffic network. It should be noted that the traffic signals on San Pablo Avenue belong to Caltrans and will not be a part of this project.

Public Works staff is finalizing the plans and specifications for the Video Detection Traffic Signal Enhancement, Project No. EPW 17-101. The work locations are shown on Exhibit "A," Project Overview Map.

During construction, traffic will be minimally affected and the specifications will be written to minimize impacts to the public. Staff is working to bid the project such that construction can be completed Summer 2017.

This project is determined to be exempt under categorical exemption Class 1 Existing Facilities, State CEQA Guidelines Section 15301(c).

FISCAL IMPACT

The Engineer's Estimate for the Video Detection Traffic Signal Enhancement is in the order of \$425,000. The CIP includes an appropriation of \$450,000 in Fiscal Year 2016/17 for this project to cover the cost of the construction contract and contract administration.

CONCLUSION

Staff requests that the City Council authorize the City Engineer to advertise the project for public bids once the City Engineer has reviewed and approved the plans and specifications.

PREPARED BY: Ryan O'Connell, P.E., Senior Civil Engineer – Public Works

**APPROVED AND FORWARDED TO THE
CITY COUNCIL OF THE CITY OF EMERYVILLE:**



Carolyn Lehr, City Manager

ATTACHMENTS

1. Resolution
2. Exhibit "A" to staff report - Project Overview Map