

MEMORANDUM

TO: CITY COUNCIL

FROM: GEOFF ENGLISH, DIRECTOR OF PUBLIC WORKS *GE*

SUBJECT: CONSIDERATION OF PURCHASE OF IN-PAVEMENT REPLACEMENT LIGHTS FOR EAST BRANCH CROSSWALKS

DATE: MARCH 24, 2015

RECOMMENDATION:

It is recommended the City Council approve the purchase of twenty-eight solar powered, radio controlled light units from Silicon Constellations in the amount of \$30,800.59.

IMPACT TO FINANCIAL AND PERSONNEL RESOURCES:

\$31,000 in Gas Tax funds were previously allocated by the City Council for this purchase with the Mid-Year Budget. Minor staff time was expended to secure the quotation and prepare the staff report. City staff will spend approximately two (2) full-days with a three (3) staff crew to complete the light replacement work.

BACKGROUND:

A majority of the work on the East Branch Streetscape project was completed in 2009. The East Branch Streetscape project included the installation of crosswalks at the intersections of East Branch Street and Bridge Street and East Branch Street and Short Street. The crosswalk portion of the project included the installation of solar-powered, radio-controlled, in-pavement flashing lighting systems.

The type of crosswalk warning system utilized allowed for the installation without trenching through the asphalt and sidewalk to install electrical conduit. In addition, the push-button used to activate the lights can be moved or relocated without retrenching, which was a desirable feature during the design phase of the East Branch Streetscape process.

ANALYSIS OF ISSUES:

There are fourteen individual solar powered, radio controlled light fixtures at each of the lighted crosswalks in the Village. Each light fixture has a bulb on both sides of the unit. Of the total twenty-eight light units, only eight light units are fully functioning. The other twenty light units have one or both bulbs burnt out, requiring replacement. The manufacturer's warranty covers light replacement for five (5) years. We are outside of the warranty coverage period.

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The in-pavement crosswalk warning light systems at Short Street and Bridge Street in the Village are a pedestrian safety enhancement feature and receive a significant amount of use due to the high pedestrian traffic volume. Staff is recommending replacement of this specific, proprietary replacement light units because, although costly, it is the most cost effective option to retain an in-pavement lighting system.

The two primary options for pedestrian warning lights are the following:

- Solar powered rapid-flashing beacon lights on pedestrian signs on the side of the road. These pedestrian warning systems are less expensive to install and replace, but do not have the in-pavement light feature. Installation of four new rapid-flashing beacon lights pedestrian signs of this style is estimated to be approximately \$15,000.

The City has installed several of these rapid-flashing beacon light systems on several mid-block crosswalks in Arroyo Grande. They are less attractive and may not be as suitable to compliment the Village streetscape theme.

- Hard-wired in-pavement lighting systems are available and the individual lights units may be purchased at a lower replacement cost, however trenching would be necessary to install electrical wire and conduit to provide power to the lights. In addition, the systems would need to be connected to an electricity supply involving additional trenching and electrical connections. Lee Wilson Electric, our traffic signal maintenance company provided a preliminary installation quote of \$25,000 to \$30,000 for each location.

Staff does recommend looking at alternative options for in-pavement, flashing lighting systems prior to the end of the five-year warranty period and prior to the next resurfacing project for East Branch Street.

ADVANTAGES:

The solar powered, radio controlled light units from Silicon Constellations can be installed without trenching through the asphalt and sidewalk to install electrical conduit. In addition, the push-button to activate the lights can be moved or relocated without retrenching, which was a desirable feature during the design phase of the East Branch Streetscape process. Replacement lights are also easy to install with minimal investment of staff resources and would be the quickest and least costly alternative for replacement at this time.

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DISADVANTAGES:

This proprietary replacement light unit system is costly in the long-term when compared with other in-pavement lighting system.

ENVIRONMENTAL REVIEW:

No environmental review is required for this administrative action.

ALTERNATIVES:

The following alternatives are provided for the City Council's consideration:

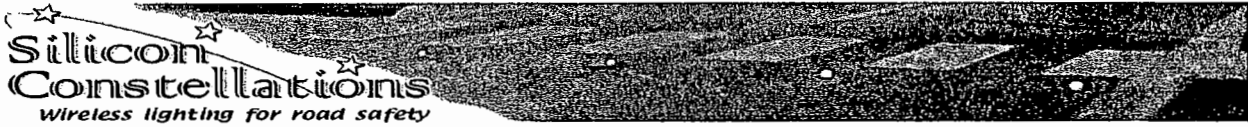
1. Approve the purchase recommended;
2. Do not approve the purchase;
3. Direct staff to pursue a different pedestrian crossing warning light system;
or
4. Provide direction to staff.

PUBLIC NOTIFICATION AND COMMENTS:

The Agenda was posted in front of City Hall on Thursday, March 19, 2015. The Agenda and staff report were posted on the City's website on Friday, March 20th, 2015.

Attachment:

1. Quote Form- Silicon Constellations



| City of Arroyo Grande | | | |
|-----------------------|-------------------------|---------------|-------------------|
| Date Created: | February 24, 2015 | Date Issued: | February 24, 2015 |
| Client & Address: | City of Arroyo Grande | | |
| Crosswalk Location: | E Branch St @ Bridge St | | |
| Crosswalk Location: | E Branch St @ Short St | | |
| Client Contact: | Ron Simpson | Contact Info: | Ph: 805.473.5470 |
| Quotation Number: | 022415-01A | Validity: | 60 days |

| Total Equipment to be delivered by Silicon Constellations | |
|---|----------|
| Product | Quantity |
| LumiStar XB IRWL | 28 |
| Tamper Proof Security Screw | 56 |
| Tamper Proof Bit | 1 |
| Installation Instructions | 1 |

| Equipment Summary | |
|-----------------------------------|-------------------|
| Equipment Total | 32,900.00 |
| <i>Existing Customer Discount</i> | <i>(4,422.60)</i> |
| | - |
| Subtotal | 28,477.40 |
| Sales Tax 8% | 2,278.19 |
| | - |
| Freight | 45.00 |
| Total | 30,800.59 |

Warranty: Silicon Constellations, Inc. offers a **5-year** warranty on all parts.

Payment: Our standard terms are 30 days net upon shipment of the system, based upon credit approval. Please send checks to Silicon Constellations, Inc., 2980 Scott Blvd., Santa Clara, CA 95054.

| | |
|------------------------|-------------------|
| Authorizing Signature: | Date: |
| Printed Name: | Purchase Order #: |

Note: Signing implies acceptance of above terms, conditions, and deliverables.

On behalf of the entire Silicon Constellations team, we look forward to working with you on this project.

Best regards,

Craig Martin
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 Cell: (408) 406-3022
craig@siliconconstellations.com