

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: MARCH 25, 2019

ITEM NO: 5

SUBJECT: BID NO. RPU-7602 FOR CANYON CREST AREA 2 CABLE REJUVENATION PROJECT WITH SOUTHERN CONTRACTING COMPANY FOR \$496,666.65 AND WORK ORDER NO. 1724058 FOR \$746,000

ISSUES:

Award Bid No. RPU-7602 to Southern Contracting Company of San Marcos, California, for the Canyon Crest Area 2 Cable Rejuvenation Project, in the amount of \$496,666.65; and approve Work Order No. 1724058 in the amount of \$746,000.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Award Bid No. RPU-7602 for the Canyon Crest Area 2 Cable Rejuvenation Project to Southern Contracting Company, of San Marcos, California, in the amount of \$496,666.65; and
2. Approve Work Order No. 1724058 in the amount of \$746,000 for work associated with the Canyon Crest Area 2 Cable Rejuvenation Project.

BACKGROUND:

On June 25, 2018, the Board of Public Utilities (Board) received the Planned Routine Electric and Water Capital Projects Over \$500,000 in Fiscal Year 2018/19 report. The report provides an overview of the routine infrastructure projects and highlights the importance of these capital improvement projects. Discussion of these projects provided context and familiarity to streamline Board approval of individual project actions throughout the fiscal year.

One of the projects discussed was the planned replacement of obsolete High Molecular Weight Polyethylene (HMPE) Cable-In-Conduit (CIC) in the Canyon Crest residential service area to improve system capacity and reliability as recommended in the Electric System Master Plan (ESMP). This area has experienced the highest incidence of underground cable failures, over the past 10 years, and was prioritized for cable replacement to enhance electric system reliability.

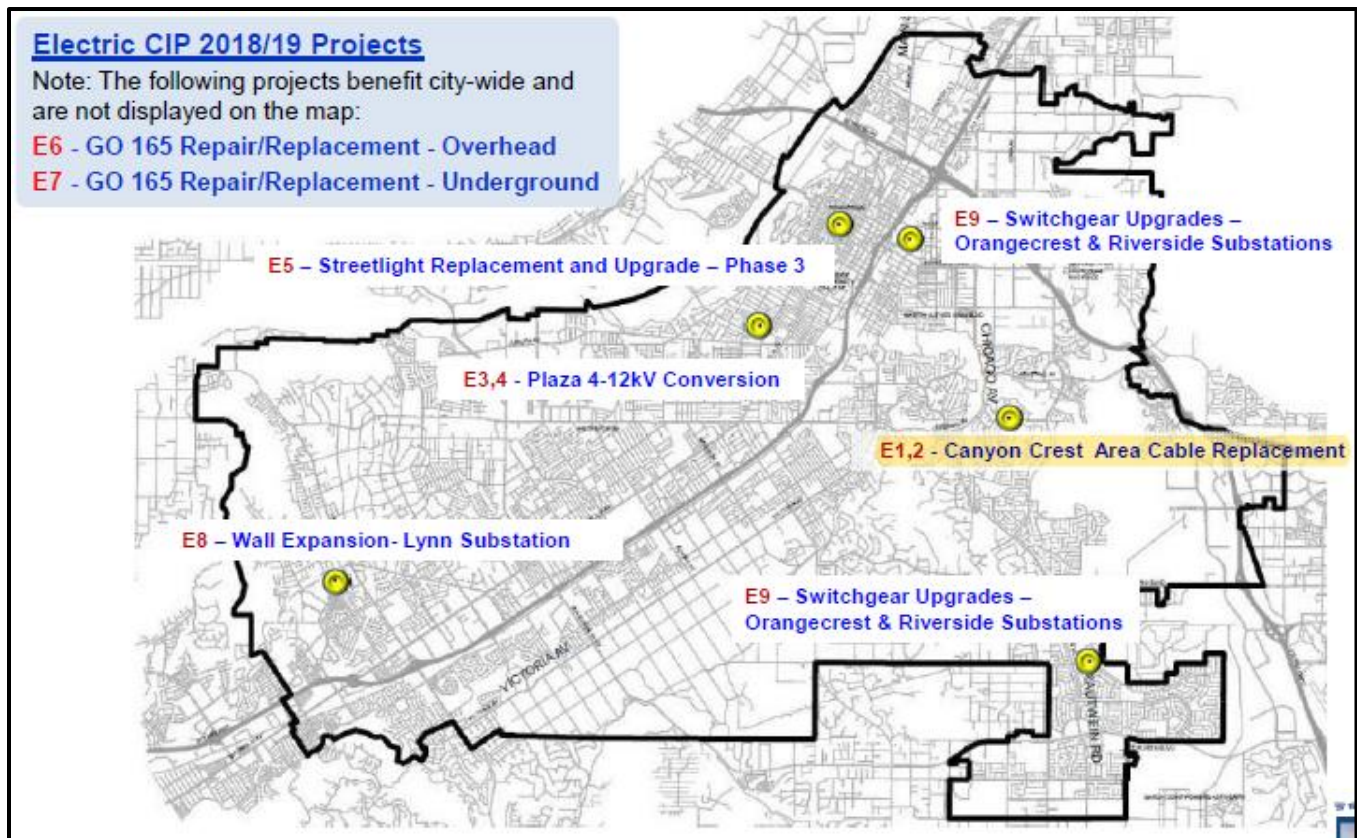
In 2016, as part of the cable replacement program, RPU completed a cable rejuvenation pilot project that tested and treated underground electrical cable to extend its useful life. Cable rejuvenation technology has been successfully used by other utilities as a substitute of cable replacement, which is less intrusive and more cost efficient.

The cable rejuvenation process injects a special fluid into the cable to strengthen weak points and achieve service life extension. The process rejuvenates underground distribution cable by filling voids in the cable's

insulation layer and eliminating water contamination. This alternative method complements RPU's ongoing cable replacement effort. When applied to suitable cable, this process improves reliability, and defers cable replacement for twenty additional years. Deferring the invasive civil construction needed to replace CIC systems saves both time and money, while dramatically reducing customer impact.

The integrity of the cable is tested as part of the process to assure it is a good candidate for the rejuvenation injection process. Cables with severely deteriorated conductors or insulation may not be suitable for treatment. Cables determined to be unsuitable for treatment will be prioritized for conventional cable replacement at a later date.

This project will test and treat existing aging underground electrical distribution cables to extend their service life and improve the electric service to customers in the area. Replacement of aged underground infrastructure was identified as part of the Utility 2.0 Electric Infrastructure Road Map.



Canyon Crest Area 2 Cable Rejuvenation

The project will upgrade electric distribution facilities west of Sycamore Canyon Boulevard, south of Le Conte Drive, north of Central Avenue, and east of Chicago Avenue. The scope of work includes testing approximately 17,789 feet of single-phase primary cable CIC and subsequent injection/rejuvenation of passing cable, as well as minor General Order 165 repairs and upgrades of related electrical distribution facilities. Intermittent electric service disruptions will be coordinated during construction and advanced outage notifications will be issued to minimize the impact to customers.

DISCUSSION:

Bid No. RPU-7602 for the Canyon Crest Area 2 Cable Rejuvenation Project was posted on the City's Online Bid System on October 15, 2018 and closed November 27, 2018. Two (2) vendors submitted bids for the project. Staff evaluated the bids and deemed Southern Contracting Company of San Marcos, California, to be the lowest responsive and responsible bidder. The bid was above the engineer's estimated amount of \$397,949.60 because of higher labor cost for rejuvenation, since the rejuvenation

pilot project, as well as additional scope added during the bidding process.

Vendors	City Location	Bid Amount	Rank
Southern Contracting Company	San Marcos, CA	\$496,666.65	1
E.E. Electric, Inc.	Mira Loma, CA	\$603,056.15	2
➤ <i>Engineer's Estimate</i>		\$397,949.60	

The project and fiscal breakdown is proposed as follows:

Project and Fiscal Breakdown		
Work Type	Performed By:	Amount (\$)
Project Management and Engineering	RPU Engineering and Operations	\$39,416.93
Civil Construction:	Southern Contracting Co.	\$496,666.65
Electrical Work	RPU Field Forces	\$76,309.31
Design		\$83,940.44
Construction Contingency – Contract (10%)		\$49,666.67
Work Order Total:		\$746,000
Anticipated Start Date:		March 2019
Anticipated Duration:		12 weeks

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23256.

Canyon Crest neighborhoods contain the greatest concentration of high failure rate HMPE/CIC underground cable within the RPU electric system and are designated high priority for infrastructure upgrades and replacement based upon recent comprehensive engineering analysis. The reduction of the total amount for Work Order 1810532, Freeman Switchgear and Transformer Upgrade Project within the Substation Transformer Addition Account, provides sufficient funding for this cable rejuvenation project to be approved and commence construction in the current fiscal year.

FISCAL IMPACT:

The total fiscal impact is \$746,000. Following the transfer of \$746,000 funding from the Substation Transformer Addition Account, sufficient funding will be available in the Public Utilities Cable Replacement Account No. 6130100-470635.

Prepared by: George R. Hanson, Utilities Assistant General Manager/Energy Delivery
 Approved by: Todd M. Corbin, Utilities General Manager
 Approved by: Al Zelinka, FAICP, City Manager
 Approved as to form: Gary G. Geuss, City Attorney

Certifies availability of funds: Aileen Ma, Interim Utilities Assistant General Manager/Finance & Administration

Attachments:

1. Project Site Map
2. Bid Award Recommendation
3. Presentation