



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: OCTOBER 22, 2018

ITEM NO: 10

SUBJECT: BID NO. RPU-7597 FOR THE CONSTRUCTION OF THE IOWA AVENUE TRANSMISSION MAIN REPLACEMENT PROJECT – 1,240 FEET OF NEW POTABLE WATER PIPELINE – WITH TRAUTWEIN CONSTRUCTION, INC., IN THE AMOUNT OF \$1,639,242 INCLUDING A 10% OR \$163,924 CHANGE ORDER AUTHORITY AND WORK ORDER NO. 1903811 IN THE AMOUNT OF \$2,140,000

ISSUES:

Award Bid No. RPU-7597 to Trautwein Construction, Inc., for the construction of the Iowa Avenue Transmission Main Replacement Project in the amount of \$1,639,242 including a 10% or \$163,924 change order authority and approve the capital expenditure for Work Order No. 1903811 in the amount of \$2,140,000.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Award Bid No. RPU-7597 to Trautwein Construction, Inc., of Riverside, California, in the amount of \$1,639,242 for the construction of the Iowa Avenue Transmission Main Replacement Project;
2. Authorize change order authority for the Trautwein Construction, Inc. Construction Contract in the amount of 10% or \$163,924 for Bid No. RPU-7597; and
3. Approve the capital expenditure for Work Order No. 1903811 in the amount of \$2,140,000 which includes all design, construction, paving, contract administration, inspection and construction change order authority costs for the Iowa Avenue Transmission Main Replacement Project.

BACKGROUND:

The San Bernardino Transmission Main (SBTM) is a critical pipeline for Riverside Public Utilities (RPU), as it delivers about 40% of the City's water supply each year. This pipeline begins near Baseline Street in San Bernardino and terminates at the Linden/Evans Reservoir Complex. The SBTM is roughly 12 miles in length and ranges in size from 30 to 54 inches in diameter. The original 1920's era SBTM was constructed of concrete pipe. Over the years, many segments of the original pipeline have been replaced with Cement Mortar Lined and Coated (CML&C) steel pipe.

A concrete segment of the SBTM began leaking in February 2018. This segment is on Iowa Avenue between Palmyrita and Columbia Avenues which, for the purpose of this report, will be identified as the Iowa Avenue Transmission Main. Each piece of concrete pipeline is typically strong; however, the joints are fragile. Repairing this pipeline is challenging since repairs in one area (usually at joints) tend to disturb

the joints of the adjoining pieces of pipe. It is not uncommon for the pipeline to be repaired two or three more times after the first event.

Several attempts were made to repair the leak, including an internal inspection and repair. Despite these attempts, the pipeline continues to leak. Staff has continued monitoring the leak and maintaining the pavement at the location of the leaking pipe segment. Over time, this leak could cause significant damage to the road. Considering the importance of the pipeline, staff tries to restrict work on the pipeline to cooler periods.

DISCUSSION:

The proposed work includes the construction of approximately 1,240 linear feet of 48-inch CML&C steel pipe, along with all necessary fittings and appurtenances; the re-purposing of the non-operable Industrial Booster Pump Station as a metering vault with all related incidental work and appurtenances; and the abandonment of approximately 1,230 linear feet of existing 42-inch concrete pipeline. The work also includes trench resurfacing in accordance with Riverside Public Works Department (PW) standards.

A shutdown of the SBTM is scheduled for early spring 2019 when temperatures are expected to be cool. Work within Iowa Avenue will occur during nighttime hours to minimize inconveniences to the public and will lessen disruptions to nearby businesses. Staff has reached out to the major customers within the project area and will continue to provide updates to customers as the work progresses. The work will not affect service to RPU water customers.

RPU Bid No. RPU-7597 was posted on the City's Online Bid System on August 31, 2018, a pre-bid conference was held on September 6, 2018, and bids were opened on September 20, 2018. Four construction contractors submitted bids. Staff evaluated the bids and deemed Trautwein Construction, Inc. to be the lowest responsive and responsible bidder.

The bids are summarized in the table below:

Rank	Vendors	City Location	Bid Total
1.	Trautwein Construction, Inc.	Riverside, CA	\$1,639,242
2.	Weka, Inc.	Highland, CA	\$1,869,445
3.	C.P. Construction Co, Inc.	Ontario, CA	\$2,491,650
4.	T.E. Roberts, Inc.	Orange, CA	\$3,001,110

**Engineer's Construction Cost Estimate: \$1,616,000*

The standard change order authority provided in Purchasing Resolution No. 23256 is 10% of the bid amount, not-to-exceed \$150,000. Due to the size of the pipeline, the potential presence of unknown underground utilities in Iowa Avenue and the difficulty of nighttime work, staff recommends approving change order authority in the amount of 10% of the bid amount (\$163,924). This will help provide better mitigation against any complications that may arise during construction, and ensure the project can still proceed on schedule.

The project breakdown is as follows:

Project Breakdown:	
Engineering Performed By:	RPU Engineering Staff
Construction Performed By:	Trautwein Construction, Inc.
Anticipated Start Date:	November 2018
Anticipated Duration:	4 Months
Coordination Required With:	<ul style="list-style-type: none"> ▪ RPU Water Field Forces ▪ RPU Water Operations ▪ Public Works Department ▪ Nearby Businesses
Reimbursements:	None

The total capital expenditure for Work Order No. 1903811 is estimated to be \$2,140,000 as summarized in the following table:

Task Description (Performed By)	Total	Percent of Total
Design (Internal Staff)	\$46,726	2.2%
Structural Analysis (Informal Procurement – Tetra Tech, Inc.)	\$5,108	0.2%
Construction (Formal Procurement – Trautwein Construction, Inc.)	\$1,639,242	76.6%
Construction Change Order Authority	\$163,924	7.7%
City Forces Construction Support (Internal Staff, Informal Procurement, if needed)	\$60,000	2.8%
Engineering Support, Construction Management and Inspection (Internal Staff, Informal Procurement, if needed)	\$195,000	9.1%
Geotechnical and Materials Testing (Informal Procurement – Vendor To Be Determined)	\$30,000	1.4%
Work Order Total	\$2,140,000	100.0%

The table identifies the parties expected to perform various portions of the project. Should there be a need to seek additional services using the formal procurement process, such items will be brought before the Board for consideration and action.

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

The Iowa Avenue Transmission Main project was unexpected and has required staff to reprioritize projects to ensure the timely replacement of the pipeline. Funding for this project will come from the current year's Recycled Water Facilities Account. Funds within the Recycled Water Facilities Account were to reimburse Public Works Department for the portion of the pump station at the Regional Water Quality Control Plant utilized to provide recycled water to the Utility. Public Works Department has agreed to receive reimbursement for the pump station over the next five years. These future payments to Public Works will be funded from the transmission and/or distribution pipeline replacement accounts.

FISCAL IMPACT:

The total fiscal impact for this project is \$2,140,000. Sufficient funds are available in the Public Utilities' Water Transmission Main Account No. 6230100-470735.

Prepared by: Michael L. Plinski, Interim Utilities Assistant General Manager/Water
Approved by: Todd L. Jorgenson, Interim Utilities General Manager
Approved by: Al Zelinka, FAICP, City Manager
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Laura M. Nomura, Utilities Assistant General Manager/Finance & Administration

Attachments:

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

Attachment 1: Project Site Map

