



ACTION

Award Construction Contract for Cathodic Protection System Improvements Project

Summary:

West Basin Municipal Water District (West Basin) delivers recycled water to customers and satellite facilities using a network of over 100 miles of distribution pipelines. Of this distribution system, approximately 44 miles are metallic pipelines equipped with cathodic protection systems. These cathodic protection systems have reached the end of their useful life and need to be replaced and repaired to prevent future corrosion and potential pipe failure. Staff completed a detailed design of the required improvements and administered a solicitation for public works construction. The lowest responsive bidder was T.E. Roberts Incorporated. Staff recommends that the Board authorize the General Manager to enter into an agreement with T. E. Roberts Incorporated for the construction of the Cathodic Protection System Improvements Project in the amount of \$7,949,500, plus a 10% contingency of \$794,950, for a total not-to-exceed contract amount of \$8,744,450.

Background:

As a result of being exposed to soil and water, metallic pipelines are often subject to corrosion. Corrosion can reduce the lifespan of pipelines resulting in premature failure. In order to prevent corrosion from occurring, metallic pipelines are typically equipped with coating systems and/or cathodic protection (CP) systems. The pipelines within West Basin's recycled water distribution system are both coated and equipped with CP systems. These CP systems consist of sacrificial blocks of a specified metal, often referred to as anodes, which are buried and electrically connected to the pipelines. These sacrificial anodes are oxidized, or consumed, over time rather than the pipe material, therefore protecting the pipeline from corrosion.

The District's recycled water distribution system consists of roughly 234,000 linear feet (44.3 miles) of metallic pipelines. This includes ductile iron (39%), welded steel pipe (27%), cement mortar lined and coated (17%), cement mortar lined and tape wrapped (11%), and reinforced concrete cylinder pipe (6%). In 2018, West Basin completed a series of testing on all of these pipelines during the Cathodic Protection System Testing Project (Testing Project). The purpose of the Testing Project was to collect enough actionable field data to produce a clear and concise path for the design of system improvements. The work performed included soil resistivity, electrical continuity, and required electrical current testing, as well as remaining anode life calculations, electrical current density calculations, and a cement-mortar coating assessment.

Following the completion of the Testing Project in 2018, West Basin began the design phase of the subject Cathodic Protection System Improvements Project (Project). The design phase included detailed site investigations of numerous work areas throughout the distribution system. The site investigation also included topographic surveys, utility explorations, and electrical discontinuity testing. A final design package, suitable for public bid, was completed in August

2020. In total, the Project will include system improvements at a minimum of 277 individual locations. The footprint of the project will encompass 12 different cities & jurisdictions including the cities of Carson, El Segundo, Gardena, Hawthorne, Inglewood, Lawndale, Los Angeles, Manhattan Beach, Redondo Beach, Hermosa Beach, Torrance, as well as the County of Los Angeles. The following is a summary of the proposed improvements:

- 131 New CP Test Stations
- 241 New Vertical Anode Beds
- 21 Single Anode Installations
- At a minimum, 36 Discontinuous Joint Repairs
- In total, 1611 Magnesium Anodes to be Installed

A “Request for Bids” (RFB) was issued on Monday, September 28, 2020, via West Basin’s bid advertisement system, “The Network”. The RFB was transmitted to 704 vendors of which 9 attended the mandatory pre-bid meeting on Wednesday, October 8, 2020.

Two bids were received on Thursday, November 5, 2020, and reviewed by West Basin staff to determine the lowest responsive bidder. A summary of the bids received is presented below in Table A.

Table A: Bid Summary

Company	Location	Bid Price
T. E. Roberts Incorporated	Orange, CA	\$7,949,500
W. A. Rasic Construction Company Inc.	Long Beach, CA	\$8,234,000

The lowest responsive bidder was T. E. Roberts Incorporated with a bid amount of \$7,949,500. The Engineer’s estimate of probable construction cost was \$7,900,000. The contract time is 365 calendar days.

Benefit to West Basin:

The Project will ensure that the metallic pipelines currently within West Basin’s recycled water distribution system are protected from corrosion for the next 25 years.

Strategic Business Plan Implementation:

Goal 1: Water Reliability – West Basin is committed to innovative planning and investments to provide water supply reliability and drought protection.

Goal 4: Sound Financial & Resources Management – West Basin is committed to efficient business operations, financial planning and asset management.

Fiscal Impact:

Funds for the Recycled Water Distribution System Cathodic Protection System Improvements Project are included in the Fiscal Year (FY) 2020-21 Capital Improvement Program Budget.

Environmental Compliance:

Not applicable.

Committee History:

This item will be reviewed by the Engineering and Operations Committee on November 12, 2020.

Recommendation:

That the Board authorize the General Manager to enter into an agreement with T. E. Roberts Incorporated for the construction of the Cathodic Protection System Improvements Project in the amount of \$7,949,500, plus a 10% contingency of \$794,950, for a total not-to-exceed contract amount of \$8,744,450.

List of Attachments

A - CP PROJECT MAP

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