



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: OCTOBER 16, 2018

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: PURCHASE AND INSTALLATION OF REPLACEMENT WATER COOLING TOWER, ABSORPTION/CONDENSER CHILLER AND ASSOCIATED EQUIPMENT FROM TRANE U.S. INC., OF BREA, CALIFORNIA, FOR THE REGIONAL WATER QUALITY CONTROL PLANT ADMINISTRATION/LAB BUILDING HVAC SYSTEM REHABILITATION PROJECT PHASE I IN THE AMOUNT OF \$679,790 UNDER THE U.S. COMMUNITIES COOPERATIVE AGREEMENT RFP NO. 15-JLP-023

ISSUE:

Approve the purchase and installation of a replacement water cooling tower, absorption/condenser chiller and associated equipment from Trane U.S. Inc., of Brea, California, for the Regional Water Quality Control Plant Administration/Lab Building HVAC System Rehabilitation Project Phase I in the amount of \$679,790 under the U.S. Communities Cooperative Agreement RFP No. 15-JLP-023.

RECOMMENDATIONS:

That the City Council:

1. Approve the purchase and installation of a replacement water cooling tower, absorption/condenser chiller and associated equipment from Trane U.S. Inc., of Brea, California for the Regional Water Quality Control Plant Administration/Lab Building HVAC System Rehabilitation Project Phase I in the amount of \$679,790 under the U.S. Communities Cooperative Agreement RFP No. 15-JLP-023 in the amount of \$679,790; and
2. Approve the transfer of \$800,000 from the WQCP Phase I Plant Expansion Account No. 9821323-440301 to the Administration Building HVAC Replacement Account No. 9851723-440301.

BACKGROUND:

In 1995, the Regional Water Quality Control Plant (RWQCP) Administration/Laboratory Building underwent an expansion to include offices for; administration, environmental compliance, engineering, operations, conference rooms, and restrooms. The square footage of the building increased to a total of 17,978 square feet. As part of the expansion a new heating, ventilation, air

conditioning system (HVAC) was installed. The air conditioning (ac) system consisted of a water cooling tower, 150 ton absorption/condenser chiller, pumps, motors and supporting equipment with no secondary redundancy.

Recently, a Survey Analysis Report dated March 27, 2018 and a Draft Preliminary Design Report (PDR), dated July 20, 2018 was prepared by PBS, Inc., to inspect and evaluate the condition of the entire HVAC system of the Administration/Lab Building. The PDR concluded that due to more than 20 years of operation, the HVAC system equipment has reached its service life and that maintenance and repair of the system is no longer cost effective. The PDR report identified three possible replacement options.

DISCUSSION:

The HVAC system for the Administration/Lab Building provides cool air for office personnel working at the RWQCP, which includes a certified EPA water quality testing laboratory. The external building HVAC system equipment is over twenty years old and parts for the absorber/condenser chiller are hard to find or are not manufactured by Trane any longer. Most of the parts for the absorption/condenser chiller are cannibalized from HVAC systems that are no longer in service. Once parts are purchased, they are seldom warrantied. It may take weeks to days to receive a part because they are coming from different parts of the United States.

The system has experienced more frequent failures which have resulted in costly temporary cooling installation until the unit can be repaired. Below are some pictures of the main components. Most failures are occurring during hotter weather when the HVAC system is stressed. During these failures, portable air conditioners and generators have been installed at a cost of about \$11,600 per month. Alternatively for shorter failures, office personnel use several portable evaporative coolers, but the humidity makes the building space uncomfortable. Most recently, in August 2018 the HVAC equipment failed for more than three weeks and since late 2016, the HVAC equipment has not been operational for more than 228 days.



Water Cooling Tower



Corrosion of Water Cooling Tower Fin



150 Ton Absorption/Condenser Chiller



Sealed Vessel (Absorption/Condenser Chiller)

RWQCP staff worked with the Finance Department/Purchasing Division to review the HVAC system situation and a procurement plan for replacement. Since the RWQCP Administration/Lab Building HVAC situation is the same that Riverside Public Utilities recently encountered at Mission Square, Trane U.S. INC. (Trane) was contacted. On August 21, 2018, Trane performed a site visit and prepared a proposal to replace the external HVAC system equipment. The internal building HVAC ductwork and ventilation system was not included and will be replaced at a later date as Phase II.

Trane has an agreement under the U.S. Communities Cooperative Agreement to provide a quote based on the scope of services to replace the external HVAC system equipment. Trane was able to provide pricing in accordance with the U.S. Communities Cooperative Agreement RFP No. 15-JPL-023 in the amount of \$679,790. U.S (see Attachment 1). Communities is a national cooperative purchasing program, providing government procurement resources and solutions to local and state government agencies, school districts (K-12), higher education institutions, and non-profits looking for the best overall supplier government pricing. Through this program, the City is able to access pricing obtained by other public agencies through a competitive procurement process. On August 28, 2018, the City Council approved the purchase of Mission Square Cooling Tower under the U.S. Communities Cooperative Agreement RFP No. 15-JLP-023.

Purchasing Resolution 23256, Section 508 (a) and 702(e) authorizes the City's Purchasing Manager to waive the formal bidding process when Cooperative Purchasing is available and undertaken or when Services can be obtained through Federal, State and/or other public entity pricing contracts or price agreements. In this case, Purchasing has determined that the quote provided by Trane is under the U.S. Communities Cooperative Agreement RFP No. 15-JLP-023 (see attachment 2).

The total cost breakdown is as follows:

DESCRIPTION	Amount
Proposal	\$679,790
Contingencies (10%)	\$67,979
Project Management/Inspection and Staffing Costs	\$52,231
Total	\$800,000

The manufacturing of the proposed 250 ton air-cooled HVAC system equipment has a ten (10) week lead time and includes a factory coating on the cooling coils due to the specific corrosive nature at the WQCP. The equipment is properly sized for the Administration/Lab Building and includes internal redundancy in case of an emergency shutdown of one side of the HVAC system. It is anticipated that the replacement project will take place in the cooler winter months and take about 30 days to complete. Shutdown of the existing HVAC unit will be about one week. Cooling and circulation of air within the Administration/Lab Building will be utilized through the existing portable evaporative coolers.

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

FISCAL IMPACT:

The fiscal impact of this action is \$800,000. Sufficient funding is available in the Sewer Enterprise Fund and will be transferred from the WQCP Phase I Plant Expansion Account No. 9821323-

440301 to the Administration Building HVAC Replacement Account No. 9851723-440301 to complete the project.

Prepared by: Kris Martinez, Public Works Director
Certified as to
availability of funds: Edward Enriquez, Acting Chief Financial Officer/Treasurer
Approved by: Rafael Guzman, Assistant City Manager
Approved as to form: Gary G. Geuss, City Attorney

Attachments:

1. Proposal from Trane
2. US Communities Cooperative Agreement-RFP No. 15-JLP-023