



# AGENDA REPORT

SAN CLEMENTE CITY COUNCIL MEETING  
Meeting Date: November 19, 2013

Agenda Item 6D  
**Approvals:**  
City Manager PLG  
Dept. Head WEC  
Attorney JAG  
Finance AK

**Department:** Public Works / Engineering  
**Prepared By:** Ken Knatz, Principal Civil Engineer CK

**Subject:** *APPROVE FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT FOR MAIN PUMP STATION REHABILITATION & FORCE MAIN CATHODIC PROTECTION, PROJECT NO. 10203 & 12202.*

**Fiscal Impact:** None. The project is within budget.

**Summary:** Staff recommends approval of a first amendment in the amount of \$31,470 to an existing agreement with Pacific Advanced Civil Engineering to prepare plans and specifications for the relocation of the Main Pump Station Force Main.

**Background:** In October 2012 the City Council approved a professional services agreement in the amount of \$92,883 with Pacific Advanced Civil Engineering (PACE) for design and construction engineering services for the Main Pump Station Rehabilitation. The rehabilitation work consists of replacement and upgrades to the variable frequency drives, emergency generator, instrumentation and SCADA monitoring controls. The project will also replace one of the three existing pumps and associated mechanical improvements to optimize energy efficiency of the station. In conjunction with this work, the public bid package included cathodic protection improvements to the pump station's 24-inch ductile iron force main that were designed by Engineering staff. The cathodic protection work involves bonding of the pipeline joints and installation of a test station which allows the metallic pipe to be protected with an electrical current to prevent corrosion. A construction contract in the amount of \$1,086,900 for the pump station rehabilitation and force main work was awarded by the City Council July 2013 to NEWest Construction Company, Inc.

**Discussion:** Pump station construction was anticipated to begin after Labor Day but has been delayed due long lead times on pump station motor control components. As a result, the contractor was directed to move ahead with the cathodic protection improvements since the pump station work will be deferred to the spring to avoid removing the station from service during the rainy season. While performing exploratory investigations to commence cathodic improvements, the contractor discovered that an SDG&E transformer that provides service to the pump station is located over a portion of the force main that is approximately 20 feet deep. The location of the transformer inhibits the contractor from performing the specified work.

A temporary bypass is required to complete the pump station work. In consideration of the critical nature of the force main and a cost of approximately \$100,000 to construct the temporary bypass, it is essential that the force main work be completed

as part of the project. Two alternatives were evaluated to resolve the situation: 1) Relocate the transformer; and 2) Relocate the force main. It was determined the relocation of the force main is the preferred alternative. Although the relocation of the transformer is a viable solution, it maintains difficult and costly excavation conditions which pose additional risk and costs to the City when the force main requires future maintenance. Further, Alternative 1 is estimated to be as costly as the relocation of the force main. Lastly, there is a small window to accomplish the work in the spring outside of the rainy season prior to peak summer months. SDG&E would assume responsibility for the transformer work with reimbursement by the City; completing the project within the spring window would be challenging since the project critical path is not under the City's control.

In moving ahead with the force main relocation, staff requested and received a proposal for the force main relocation from PACE in the amount of \$33,270 for design and construction engineering services. PACE developed a 3-D model during the design of the pump station rehabilitation and is best suited to perform the work since the proposed pump station improvements will tie-in to the force main. The model will be used to evaluate the best alignment to raise the force main within the pump station in order to minimize its depth outside of the station. Staff reviewed PACE's proposal and negotiated a fee of \$31,470. The completed force main relocation plans and specifications will be provided to contractor for pricing through a change order. Staff estimates that cost for the force main work will be approximately \$120,000. Upon completion of design and construction change order pricing, staff will return to the City Council for the required supplemental appropriation to complete the work.

**Recommended****Action:**

STAFF RECOMMENDS THAT the City Council approve and authorize the Mayor to execute a First Amendment to the Professional Services Agreement with Pacific Advanced Civil Engineering in the amount of \$31,470 to prepare plans and specifications for the realignment of the Main Pump Station Force Main, City Project No. 10203 & 12202.

**Attachments:** 1) Scope of Work.

**Notification:** None.

**ATTACHMENT 1**

**Scope of Work for First Amendment to  
Professional Services Agreement for the Main Pump Station Rehabilitation  
& Force Main Cathodic Protection**



**AUTHORIZATION FOR CHANGE ORDER**

<b>TO:</b> <u>City of San Clemente</u>	<b>ATTN:</b> <u>Mr. Ken Knatz, PE</u>
<u>910 Calle Nagocio, Suite 100</u>	<b>DATE:</b> <u>October 17, 2013</u>
<u>San Clemente, CA 92673</u>	<b>PROJECT:</b> <u>Main Pump Station Rehabilitation</u>
<u>Phone (949) 361-6139</u>	<b>C.O. AUTHORIZATION #:</b> <u>1</u>

Based on field observations made by the general contractor during execution of the Catholic Protection Plans prepared by the City, it was discovered that the existing 24" discharge forcemain from the Main Pump Station is installed directly underneath the station's main SCE transformer and service entrance. Therefore, the City is requesting additional design services from PACE to prepare plans which relocate the forcemain outside of the SCE utility corridor. Since PACE is already the Engineer of Record for the Rehabilitation project at Main Pump Station, we are requesting a Change Order to our Main Pump Station contract (Our Job #A173) to prepare the design plans and specifications for this additional work.

**Task 40 – Realignment of 24" Discharge Forcemain** **Fees:**  
**\$ 30,470**

1. PACE shall conduct a thorough site investigation with City Staff to determine the most appropriate alignment for the relocated forcemain, tie-in points and to identify visible obstructions to the proposed alignment.
2. PACE shall utilize the City provided AutoCAD survey data for the area to create the utility base map for the project. PACE will review the map with other, previously received As-built data for accuracy of existing utilities and identify potential conflicts with the proposed forcemain alignment.
3. Based on our site investigation and the base map created for the project, PACE shall prepare 90% plans and specifications for the relocation of the 24" forcemain for submittal, review and approval by the City. This work shall include General Civil, Mechanical and Structural plans and details required. We have not included any electrical or controls and instrumentation work as our preliminary analysis indicates that these services will not be needed.
4. Based on approval of the 90% plans, PACE will incorporate comments received from the City and prepare Final Construction Plans and Specifications for use by the City's contractor.
5. During construction of the improvements, PACE will provide the services of its engineering staff for the review of contractor submittals and RFIs to assist the City in completion of the project.
6. Upon completion of the forcemain realignment and receipt of contractor field redlines, PACE will prepare a set of Final Record Drawings for use by the City.

**Task 00 – Additional Reimbursable/Expenses (T&E)** **\$1,000**

1. To include all additional reproduction, shipping, travel, and other miscellaneous direct project expenses. Reimbursable are invoiced separately at cost plus 10%.

Amount of Compensation: **This Request - Change Order #1:** **\$31,470**

Estimated By: James Matthews, PE - PACE 10/17/13  
Date

**AGREED TO AND ACCEPTED BY:**

By \_\_\_\_\_ Date \_\_\_\_\_  
City of San Clemente

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