

AGENDA REPORT

Agenda Item Approvals: City Manager Dept. Head Attorney

SAN CLEMENTE CITY COUNCIL MEETING Meeting Date: May 21, 2019

Finance,

Department:

Utilities

Prepared By:

David Rebensdorf, Utilities Director 1)2

Subject:

APPROVAL OF A SECOND AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH TRUSSELL TECHNOLOGIES, INC. FOR WATER RECLAMATION PLANT (WRP)

EFFICIENCY STUDY, PROJECT No. 39202.

Fiscal Impact: Yes. There is sufficient funding for the total proposed \$33,644 expenditure from the remaining project budgets within the Sewer Fund Depreciation Reserve. An expenditure in the amount of \$13,990 is recommended from for the WRP Gas Flare Rehabilitation Project, Account Number 054-476-45300-000-17203 and \$19,654 is recommended from the Sewer System Rehabilitation Project, Account Number 054-476-43420-000-24200.

Summary:

Staff recommends the City Council approve the Second Amendment to the Professional Services Agreement with Trussell Technologies, Inc. to provide operational and design support services for the Gas Flare Rehabilitation and Digester process equipment at the WRP.

Discussion:

Two Digesters consisting of large diameter concrete tanks and associated Boilers and Gas Flare were constructed in the early 1990's to provide for sludge processing as part of the sewage treatment process at the City's WRP. Gas produced by the Digesters is used by the Boilers to provide heating for the Digesters and the Gas Flare burns unused methane gas as part of the solid waste treatment process. Boilers and the Gas Flare are at the end of their useful life and are currently under design by MBF Consulting.

To ensure the Boiler and Gas Flare design meets potential future plant operational improvements for solid waste through the operation of both Digesters in tandem, Trussell is being recommended to evaluate the Boiler and Gas Flare design. In addition, City staff requires Standard Operating Procedures to take the active Digester offline to clean and rehabilitate along with startup for the second Digester. Staff requested a proposal from Trussell and negotiated their scope of work. Staff is recommending Trussell based on their operational knowledge of the WRP and historical data obtained as part of their ongoing WRP Efficiency Study.

Recommended

Action:

STAFF RECOMMENDS THAT the City Council approve and authorize the Mayor to execute Amendment No. 2 to Contract C18-62 by and between the City of San Clemente and Trussell Technologies, Inc. providing engineering services for the Water Reclamation Plant Efficiency Study, Project No. 39202. This amendment increases the contract from \$212,664 to an amount not to exceed \$246,308 (an increase of \$33,644).

- Attachments: 1. Location Map.
 - 2. Second Amendment to the Professional Services Agreement.

Notification:

None.

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Attachment 1 PROJECT LOCATION MARBLEHEAD COASTAL MARBLEHEAD SAN CLEMENTE WATER RECLAMATION PLANT NOT TO SCALE **LOCATION MAP** City of San Clemente



Ohana\CAD\Location Plan (Admin Report).dwg Thursday, September 20, 2018 11:25:08 AM

380 Avenida Pico San Clemente, CA 92673 WRP Efficiency Study

Attachment 2

SECOND AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT FOR WATER RECLAMATION PLANT EFFICIENCY STUDY PROJECT NO. 39202

This Second Amendment to Professional Services Agreement for Water
Reclamation Plant Efficiency Study (this "Second Amendment") is made and entered into
on this day of, 20, by and between the CITY OF SAN CLEMENTE, a
California municipal corporation ("City"), and Trussell Technologies, Inc. ("Contractor").

RECITALS:

- A. City and Contractor entered into that certain Professional Services
 Agreement for Water Reclamation Plant Efficiency Study (the "Agreement")
 on November 7, 2018.
- B. City and Contractor entered into First Amendment to Agreement on March 5, 2019.
- C. City and Contractor desire to amend the Agreement in the manner provided herein.

COVENANTS:

Section 1: 3.1 Payment Schedule of the Agreement is hereby amended by increasing the not to exceed amount from Two Hundred Twelve Thousand Six Hundred Sixty Four Dollars (\$212,664) to Two Hundred Forty Six Thousand Three Hundred Eight (\$246,308). In addition to the services to be performed by Consultant as referenced in Exhibit A to the Agreement, Consultant shall also provide for those services described in Exhibit "A" to this Second Amendment, which exhibit is attached hereto and incorporated herein by this reference.

Section 2: Except as expressly amended by this Second Amendment, the remaining portions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to be duly executed on the respective dates set forth opposite their signatures.

CITY OF SAN CLEMENTE

	Ву:	
ATTEST:	Its:	2000
CITY CLERK of the City of San Clemente, California	Dated:, 20	
APPROVED AS TO FORM: BEST BEST & KRIEGER By: City Attorney		
APPROVED AS TO AVAILABILITY OF FUNDING		
By:Finance Authorization	Trussell Technologies, Inc. ("CONTRACTOR") Contractor's License Number	
	By:	
	Dated:, 20	

EXHIBIT A



April 5, 2018

Brandon Howard **City of San Clemente** 380 E Avenida Pico San Clemente, CA 92672

Subject: Scope of Work Amendment for Project No. 39202 - Digester Commissioning Standard Operating Procedure and Boiler/Gas Burner Design Criteria Support

Dear Brandon,

We are pleased to submit this proposed scope and budget to the City of San Clemente for your consideration. The attached proposal details the work that would be completed to develop a standard operating procedure (SOP) to commission and decommission the anaerobic digesters at the Water Reclamation Plant (WRP) and support the design efforts for the waste gas burner and boiler replacement project. Please contact me if you have any questions or would like to discuss this further.

Sincerely,

R. Shane Trussell, Ph.D., P.E., BCEE

Trussell Technologies, Inc.

Enclosure: Scope of Work, Schedule, and Budget

Scope of Work

Task 1 - Anaerobic Digester SOP

Trussell Technologies will work with operations staff to develop an SOP for commissioning and decommissioning the anaerobic digesters at the WRP. The SOP will be used to commission the second digester that is ready to be put in service and decommission the digester currently in use so it can be rehabilitated. Trussell Technologies will review the as-builts and instrumentation diagrams for the digesters then meet with operations staff to go through the details of the digester configuration (e.g., piping, valving, controls) and take pictures that will be included in the SOP. Trussell Technologies will then develop an SOP that will provide a step by step breakdown for the operations staff to follow when bringing digesters in or out of service.

Task 2 - Design Criteria Support for Gas Burner and Boiler Replacement Project

Trussell Technologies will support the design of the waste gas burner and digester boiler replacements by utilizing operational data to develop design criteria that ensure the replacement equipment is adequately sized. The current boiler and heat exchanger are unable to maintain digester temperature above 95°F; therefore, Trussell Technologies will review the replacement design and communicate with the designer to ensure existing bottlenecks are properly addressed. Trussell Technologies will review relevant drawings and operational data (e.g., biogas production) related to the boiler and gas burner processes to ensure the capacity, piping, and equipment is properly specified. Trussell Technologies will summarize the operational data and design criteria and provide the information and recommendations to the City. Lastly, Trussell Technologies will review the completed project plans and specifications prior to going out to bid.

Schedule

Trussell Technologies will complete the work described in this scope of work within three (3) months of written notice-to-proceed.

Budget

The estimated budget is \$33,644 based on time and materials and is detailed in Table 1.



Table 1: Project Amendment Budget Breakdown

Task No. Initials Hourly Billing Rate	(1) 14 (1) 14 (1) 14 (1) 15 (Trusse	II Techn	ologies	ODC's		
	PE III \$255	SE III \$165	Eng I \$115	Mileage		Total	
1	Anaerobic Digester SOP					\$	19,654
1.1	Review Drawings and Instrumentation		8	16		\$	3,160
1.2	Site Visit to Take Pictures and Go Through Digester Details with Ops Staff		4	4	\$ 80	\$	1,204
1.3	Communication and Discussion with Operations Staff		8	4		\$	1,780
1.4	Prepare a Draft SOP	4	24	48		\$	10,500
1.5	Finalize SOP	2	4	16		\$	3,010
2	Design Criteria Support for Gas Burner and Bioler Replacement Project					\$	13,990
2.1	Review Existing Equipment Design		4	8		\$	1,580
2.2	Historical Process Data Analysis		4	24		\$	3,420
2.3	Communication with City and Designer	2	8	4		\$	2,290
2.4	Design Criteria Analysis Summary	2	8	12		\$	3,210
2.5	Review Design Documents	4	8	10		\$	3,490
	TOTAL	14	80	146	\$ 80	\$	33,644

PE III Principal Engineer III
SE III Senior Engineer III
Eng 1 Engineer 1
*A 5% markup is applied to Mileage for the Total