

ATTACHMENT D

**AUTHORIZATION OF CHANGE IN SERVICES
CITY OF SAN MARCOS, TEXAS**

**PROJECT: Comanche Pump Station Improvements
(Contract #220-227)**

CONSULTANT: Alan Plummer Associates, Inc.

AUTHORIZATION NO.: 1

ORIGINAL CONTRACT DATE: June 12, 2020

AUTHORIZATION DATE:

WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES

A change in service is requested to provide additional services for the development of improvements to the Comanche Pump Station. The City has requested that Plummer proceed with design, bidding, and construction phase services for the improvements recommended in the Preliminary Engineering Report. Specifically, the firm capacity of the Pump Station will be increased from 1,800 gpm to 3,500 gpm. Additionally, the electrical equipment will be upgraded and the improvements will be evaluated for weatherization improvements.

Previous contract amount:	<u>\$ 47,885.00</u>
Net increase/decrease in contract amount:	<u>\$214,815.00</u>
Revised contract amount:	<u>\$262,700.00</u>

Requested by:

By: Stephen J. Coonan

Date: Oct. 12, 2021

Stephen J. Coonan, Principal
Printed name, title

Approved by:

City of San Marcos:

Date: _____

By: _____
Bert Lumbreras, City Manager



PLUMMER

October 12, 2021

Mr. Kirk Abbott, P.E.
Project Engineer
City of San Marcos
610 E. Hopkins Street
San Marcos, Texas 78666

Re: Comanche Pump Station Improvements
Change in Service #1 (220-227)

Dear Mr. Abbott:

Plummer Associates, Inc. (Plummer) is pleased to submit this proposed Change in Service to assist the City of San Marcos with the design, bidding, and construction phase services associated with the Comanche Pump Station Improvement Project.

Plummer proposes to provide these services for a Not-to-Exceed fee of One Hundred Ninety-Nine Thousand Eight Hundred Fifteen Dollars (\$199,815). In addition, the Change-in-Services includes an allowance of \$15,000 to complete the design of as yet undetermined Weatherization improvements; bringing the total change in authorized fee to \$214,815. Separate authorization will be required to utilize the Supplemental Services Budget.

We appreciate the opportunity to work with the City on this project. If you have any questions or need additional information, please contact me at (512) 461-4045.

Sincerely,

ALAN PLUMMER ASSOCIATES, INC.

TBPE Firm Registration No. 13

Stephen J. Coonan, P.E.
Principal

CITY OF SAN MARCOS
COMANCHE PUMP STATION UPGRADE PROJECT
AND WEATHERIZATION STUDY
SCOPE OF SERVICES

PROJECT UNDERSTANDING

Plummer Associates, Inc., (ENGINEER) understands that the City of San Marcos (City) is interested in upgrading the Comanche Pump Station. The upgrade is intended to increase the overall firm capacity of the station from 1,800gpm to 3,500gpm by replacing four (4) existing booster pumps with four new 1,167 gpm pumps. The improvements will include modifications to the discharge piping to accommodate the increased flow. The electrical and instrumentation equipment will also be replaced. In addition, the ability to install Specific Energy Dynamic Pump Optimizer (DPO) will be incorporated into the design. The City is also concerned about the vulnerability of the equipment and would like a weatherization evaluation conducted as part of the design process. Finally, the replacement of the existing generator with a larger unit will also be included with the intent of providing sufficient standby power to operate three pumps under emergency conditions.

The City desires that the ENGINEER prepares the detailed construction drawings and specifications necessary to bid the project and provide overall construction administration for the project. The ENGINEER expects the need to obtain TCEQ approval, however, no other permits are expected to be needed. In regard to the weatherization evaluations, the City desires that the ENGINEER presents a report summarizing the findings.

ENGINEER proposes to provide the City of San Marcos with the following specific tasks.

PROJECT MANAGEMENT AND QUALITY CONTROL (PM)

1. Provide project management activities to properly plan the work, sequence, manage, coordinate, schedule, and monitor the scope tasks and completion of the tasks. Conduct internal team coordination as required to accomplish the work.
2. Prepare a project management plan including scope, budget, schedule, communication, project team, and file organization.
3. Provide monthly status updates to the City including the percent complete for scope tasks and the issues, budget status, and schedule. Maintain and update on a monthly basis a decision and project change log as well as the schedule.
4. Conduct QC reviews for the deliverables.
5. Conduct 1 progress meeting per month. Each meeting shall last 30 minutes and shall be held virtually. In person meetings shall be considered an additional service.
6. Coordination meetings with Specific Energy to gather information about DPO and their requirements.

DESIGN PHASE (DE)

1. Detail Construction Drawings

The ENGINEER shall complete detailed construction drawings for the Project. The drawings shall be prepared on 11" x 17" original plan sheets. The construction drawings shall include plan views, profiles, sections, and details necessary to clearly define the intent of the Project and will follow the City Plan Review Checklist as it applies to this project. The ENGINEER will also define the limits of construction, required construction sequencing, environmental

protection requirements, identified contractor staging areas, and traffic control plans, if needed.

The ENGINEER will provide electrical power distribution design, including variable frequency drives for each pump to meet the new electrical loads. Electrical design will incorporate a new diesel standby generator.

The ENGINEER will provide Instrumentation and Control design that will update the current pump station control system with new VFD controls providing integration with the new SCADA system. In addition, ENGINEER will coordinate with Specific Energy for the future installation of their pump management equipment and software.

The ENGINEER shall provide an electronic copy of preliminary construction drawings at 60, 90, and 99 percent complete for City review. Following the City's review and approval, the ENGINEER shall make appropriate revisions and submit one revised final copy of the construction drawings. The 100 percent copy will include signed and sealed drawings and specifications ready for bidding.

The ENGINEER shall provide updated Opinion of Probable Construction Cost (OPCC) at 60, 90, and 99 percent complete to the City. A signed and sealed OPCC will be submitted with the final sealed set of bidding documents.

The ENGINEER will submit a construction contract checklist and bid form with the 100 percent set of drawings and specifications.

2. Construction Specifications and Contract Documents

The ENGINEER shall prepare detailed technical specifications and assist the City in the development of the construction contract documents based on the approved design development documents and any further adjustments authorized by the City in the scope, quality, or budget of the Project. These documents will include technical specifications required for the Project to be accurately bid and efficiently constructed. The City's standard specifications and standard products will be used for items such as piping and valves. The ENGINEER will design and write the technical specification for the unique equipment items within the project scope, namely, the new horizontal centrifugal pumps, electrical gear, and generator. The City shall provide the standard front-end documents for bidding procedures.

The ENGINEER will also submit the bid form for the City's use in bidding the Project. The ENGINEER will submit two copies of draft documents for City review. Following the City's review and approval, the ENGINEER will make the appropriate revisions and submit one revised final copy of the technical specifications.

The ENGINEER will use its best professional judgment to create documents that comply with applicable construction and development codes, local regulations and ordinances and other federal and state regulations which are known or which should reasonable be known to the ENGINEER.

The ENGINEER ensures that no reports, maps, or other documents produced in whole or in part under this Agreement shall be the subject of an application for copyright by or on behalf of the ENGINEER.

3. Electrical Design

The ENGINEER shall prepare detailed technical specifications and detailed construction plans for the electrical portion of the work.

The ENGINEER shall make sure that equipment being replaced will allow for future

installation of a DPO.

4. Permits

The ENGINEER shall assist the City in the submittal of plans, specifications, and engineering report for review by the Texas Commission on Environmental Quality (TCEQ). The ENGINEER anticipates that approval from TCEQ will involve administrative review only. If additional information is needed by TCEQ, the gathering and coordination of the additional information will be considered an additional service.

5. Meetings with Permitting Entities

The ENGINEER shall meet with permitting agencies to discuss the permit application and to respond to questions the permitting agency may have.

Up to two (2) meetings of one hour each are included.

Meetings shall be virtual. In person meetings shall be considered additional services.

BIDDING AND CONSTRUCTION PHASE SERVICES (CO)

1. Bidding Assistance

The ENGINEER shall assist the City in the issuance of addenda (it is assumed that no more than one addendum will be needed) following City's prior approval. The ENGINEER shall assist the City in conducting a pre-bid conference and answer questions of prospective or potential bidders and City's staff and make all necessary clarifications and interpretations of the construction contract documents in the form of addenda, as appropriate.

The ENGINEER shall assist the City in obtaining bids, tabulating bids, and in awarding the contract for construction following the City's approval of the construction contract documents.

The ENGINEER shall assist the City in reviewing the Statement of Bidder's Qualifications, financial statements of bidders, lists of bidders' proposed subcontractors, and all other documents required to be submitted with the bids.

The ENGINEER shall make a written recommendation to the City regarding the award of the contract.

The ENGINEER shall provide a conformed set of construction documents, including both drawings and specifications. One hard copy of the drawings, printed on 22" x 34" format and one hard copy of the drawings printed on 11" x 17" format will be provided.

2. Electrical Services

The ENGINEER shall perform two (2) site visits during construction services.

The ENGINEER shall review all required samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests for conformance with the project manual and drawings.

3. Attend Pre-Construction Meeting

ENGINEER shall attend a pre-construction conference and a job-site conference scheduled and arranged by the City.

4. Periodic Site Visits

ENGINEER will make periodic site visits to determine, in general, if the work is proceeding in accordance with the project manual and drawings. It is anticipated that the frequency of these visits will not exceed twice every week while significant construction activities are taking place. It is anticipated that up to sixteen visits may be required.

5. Attend Monthly Construction Meetings

ENGINEER will attend construction status meetings as necessary and requested by the City. It is anticipated that the frequency of ENGINEER's attendance at these meetings will not exceed once per month. It is anticipated that up to four meetings may be required.

6. Review Shop Drawings

ENGINEER shall review all required samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests for conformance with the project manual and drawings. ENGINEER shall be responsible for review of the initial 25 submittals and one re-submittal for each item. Subsequent resubmittals will only be reviewed as an additional service.

7. Request for Information/Change Orders

ENGINEER shall assist the City in responding to requests for information in order to clarify the intent of the project manual and drawings (up to 3 Requests for Information are included). ENGINEER shall prepare information needed to support the City's preparation of routine Change Orders necessary to complete the construction in a manner to meet the project objectives (up to 2 Change Orders are included). The ENGINEER will review the completed Change Order prepared by the City prior to sending it to the Contractor. Change Orders required as a result of a change in the scope of the project or a change in conditions will only be provided as an additional service.

8. Review Monthly Contractor Pay Estimates

ENGINEER shall review the monthly pay requests submitted by the Contractor for general conformance with the contract documents. ENGINEER's review will be based on information submitted by the Contractor and the City's inspector, as well as the ENGINEER's periodic site visits.

9. Final Walk-Through

ENGINEER shall participate in a walk-through of the project upon receipt of notification from the contractor that the construction is completed. ENGINEER shall provide input to the City so that the City can prepare a list of items observed that need corrective actions. Following the completion of the corrective actions, ENGINEER shall accompany representatives of the City on a final walk-through of the project. After determining that the corrective actions have been completed, ENGINEER shall recommend acceptance of the project and approval of the contractor's final payment. ENGINEER shall also send a letter to TCEQ indicating that the construction has been completed in general accordance with the approved plans and specifications.

10. Record Drawings

ENGINEER shall prepare a record set of drawings based on compiled change orders and drawings of field changes provided by the contractor. The record drawings will be submitted in accordance with the City's GIS format and checklist. ENGINEER shall submit to City a Certificate of Completion, signed and sealed by a Professional Engineer at the conclusion of the record drawing review.

WEATHERIZATION EVALUATION (WE)

The ENGINEER will study the existing conditions at the Comanche Pump Station and Tank site and provide weatherization recommendations. An estimate on the design efforts and an Opinion of Probable Construction Cost will also be provided in a Technical Memorandum.

SUPPLEMENTAL SERVICES (SS)

The design effort necessary to complete the design efforts for the Weatherization Improvements is not known at this time, and will not be known until after the Weatherization Evaluation is completed. Accordingly, a Supplemental Services Budget of \$15,000 will be included in the Contract. Use of this budget would require the development of a specific scope of services and fee proposal. A separate written authorization from the City is required to utilize this budget.

PROJECT SCHEDULE

The 90% construction drawings and specifications will be completed within five (5) months and one (1) week from the receipt of a notice-to-proceed. The final construction drawings and specifications will be completed within three (3) weeks of the receipt of comments. The Bidding and Construction Phase services are anticipated to last sixteen (16) months and three (3) weeks. The overall engineering contract time is expected to last twenty-two (22) months and three (3) weeks. Most of the construction time will be submittals and long lead items which will not require monthly update meetings while waiting on equipment.

COMPENSATION

Compensation shall be on a Time and Materials basis with a Not-to-Exceed Maximum. This compensation is divided among Basic Services, Reimbursable Expenses and Subconsultant Expenses and invoices will reflect costs incurred based on hourly rates and reimbursable expenses on the various tasks as defined below. Invoices will include appropriate backup.

Project Management and Quality Control	\$ 21,280
Design Phase Services	\$ 127,670
Bidding and Construction Phase Services	\$ 41,615
Weatherization Evaluation	\$ 5,250
Reimbursable Expenses	\$ 1,500
Subconsultant Expenses	<u>\$ 2,500</u>
Not-to-Exceed	\$ 199,815
Supplemental Services	\$ 15,000
Total Authorization	\$ 214,815

ASSUMPTIONS

- Engineer will not perform any surveying work inside of the Pump Station.
- Engineer will not perform any structural design.
- Specific Energy Proposal is not included in this scope of work and is presented for reference only, although the scope does include design services to make the facility ready to receive and utilize the Specific Energy equipment.

City of San Marcos
Comanche Pump Station Upgrade Project and Weatherization Study
Project No. 1

Level 2 (Phase) No. and Description Level 3 (Task) No. and Description	Principal (hrs)	Sr. Proj Mgr (hrs)	Proj Mgr (hrs)	Proj Engr (hrs)	EIT (hrs)	Technician (hrs)	Clerical (hrs)	QC (hrs)	Total Labor		Percent of Total Fee
									Hours	Fee (\$\$\$)	
Comanche Pump Station Upgrade Project and Weatherization	0	45	222	373	262	332	0	18	1,252	\$ 195,815	100.0%
PM Project Management and Quality Control	0	0	46	38	12	0	0	18	114	\$ 21,280	10.9%
1 Project Management Activities			16						16	\$ 3,440	
2 Invoices, Schedule, Files, etc.			16	12					28	\$ 5,180	2.6%
3 Monthly Update to Client				12	6				18	\$ 2,520	1.3%
4 QC Reviews								18	18	\$ 4,320	2.2%
5 Meetings (12 Progress Meetings/30 minutes each)			6	6	6				18	\$ 2,940	1.5%
6 Coordination meeting with Specific Energy			8	8					16	\$ 2,880	1.5%
DE Design Phase Services	0	32	100	202	200	320	0	0	854	\$ 127,670	65.2%
1 Detailed Construction Drawings		4	24	54	65	160			307	\$ 44,000	22.5%
2 Construction Specifications and Contract Documents		4	24	54	65				147	\$ 22,400	11.4%
3 Electrical Design		24	42	84	65	160			375	\$ 57,020	29.1%
4 Permits			8	8	4				20	\$ 3,400	1.7%
5 Meetings with Permitting Entities (2 Meetings)			2	2	1				5	\$ 850	0.4%
CO Bidding and Construction Phase Services	0	12	62	121	48	12	0	0	255	\$ 41,615	21.3%
1 Bidding Assistance			16	20	6				42	\$ 7,120	3.6%
2 Electrical Services		12	20	28	14				74	\$ 13,060	6.7%
3 Attend Pre-Construction Meeting			4	4					8	\$ 1,440	0.7%
4 Periodic Site Visits				6	6				12	\$ 1,650	0.8%
5 Attend Monthly Construction Meetings			12	12					24	\$ 4,320	2.2%
6 Review Shop Drawings			2	25	12				39	\$ 5,615	2.9%
7 Request for Information/Change Orders			1	6	6				13	\$ 1,865	1.0%
8 Review Monthly Contractor Pay Estimates			2	8	4				14	\$ 2,110	1.1%
9 Final Walk-Through			4	4					8	\$ 1,440	0.7%
10 Record Drawings			1	8		12			21	\$ 2,995	1.5%
WE Weatherization Evaluation	0	1	14	12	2	0	0	0	29	\$ 5,250	2.7%
1 Engineering Evaluation			4	8	2				14	\$ 2,280	1.2%
2 Electrical Evaluation		1	8						9	\$ 1,960	1.0%
3 Memo			2	4					6	\$ 1,010	0.5%
TOTAL LABOR	0	45	222	373	262	332	0	18	1,252	\$ 195,815	100.0%
Total Labor Hours											
Total Labor Amount										\$ 195,815	100.0%
Labor Rates per Hour	\$305	\$240	\$215	\$145	\$130	\$135	\$120	\$240			
Total Amounts by Labor Category	\$ -	\$ 10,800	\$ 47,730	\$ 54,085	\$ 34,060	\$ 44,820	\$ -	\$ 4,320		\$ 195,815	
Labor Category Percent of Total Labor	0.0%	5.5%	24.4%	27.6%	17.4%	22.9%	0.0%	2.2%			100.0%
TOTAL EXPENSES (see breakdown below)											
Total Subconsultants										\$ 2,500	
Total Reimbursables										\$ 1,500	
Total Expenses										\$ 4,000	
GRAND TOTAL - Comanche Pump Station Upgrade Project and Weatherization Study										\$ 199,815	

SUBCONSULTANT EXPENSES

Code	Description	Budget (\$\$)	Markup	Fee (\$\$\$)
CA	Architect Consultant	\$ -	1.00	\$ -
CC	Civil Engr Consultant	\$ -	1.00	\$ -
CE	Electrical Consultant Comanche PS	\$ -	1.00	\$ -
CE	Geotechnical Services	\$ -	1.00	\$ -
CM	Mechanical Consultant	\$ -	1.00	\$ -
CO	Other Consultant	\$ -	1.00	\$ -
CS	Structural Consultant	\$ -	1.00	\$ -
CY	Surveying Consultant	\$ 2,500	1.00	\$ 2,500
C1		\$ -	1.00	\$ -
C2		\$ -	1.00	\$ -
C3		\$ -	1.00	\$ -
C4		\$ -	1.00	\$ -
C5		\$ -	1.00	\$ -
C6		\$ -	1.00	\$ -
TOTAL SUBCONSULTANT EXPENSES		\$ 2,500		\$ 2,500

REIMBURSABLE EXPENSES

Code	Description	Budget (\$\$)	Markup	Fee (\$\$\$)
RA	Laboratory Analysis	\$ -	1.00	\$ -
RC	Technology	\$ -	1.00	\$ -
RH	Historical	\$ -	1.00	\$ -
RI	In-House Reproduction	\$ 500	1.00	\$ 500
RL	Long Distance Telephone	\$ -	1.00	\$ -
RM	Employee Mileage	\$ 1,000	1.00	\$ 1,000
RO	Other Expenses	\$ -	1.00	\$ -
RP	Purchased Services	\$ -	1.00	\$ -
RR	Reproduction	\$ -	1.00	\$ -
RS	Shipping, Delivery, Postage	\$ -	1.00	\$ -
RT	Travel, Meals, Lodging	\$ -	1.00	\$ -
RU	Telecommunications	\$ -	1.00	\$ -
R1		\$ -	1.15	\$ -
R2		\$ -	1.15	\$ -
TOTAL REIMBURSABLE EXPENSES		\$ 1,500		\$ 1,500