FORD ENGINEERING, INC

April 15, 2020

City of Schertz
Engineering
10 Commercial Place, Bld 2
Schertz, TX 78154

Attn: Ms. Kathryn J. Woodlee, PE

Re: City of Schertz – On-Call Civil Engineering Services Agreement
Proposal – Corbett Ground Storage Tank

Ford Engineering, Inc. is pleased to provide this proposal for professional engineering services to the City of Schertz for the design of the ground storage tank and associated pump station at the Corbett Booster Station site located at 12191 Ray Corbett Dr, Schertz, Texas.

FEI's understanding of the scope of work is generally as follows:

The City desires to construct a 3.0 million gallon ground storage tank (GST) with a pump station.

The GST is anticipated to be a prestressed wire wound ground storage with TCEQ mandated accessories: roof vents, manways; drains; sample connections; access ladders; overflows; and liquid level indicators. The GST design will follow American Water Works Association (AWWA) standard D110, "Wire- and Strand-Wound, Circular, Prestressed Concrete Water Tanks". The GST is anticipated to be filled by the SSLGC water transmission line terminating onsite.

The pump station will be designed to fill the onsite elevated storage tank as well as have the capacity to fill the East Live Oak water plant as a redundant source or water. The pumps station is anticipated to include two (2) new variable speed drive (VSD) pumps, valves, piping, and flow meters. A water analysis of the project will include the analysis of the removal of Ware Seguin pumpstation from the system, and the removal of the Deer Haven Tank from the system.

Electrical improvements include a backup generator, switchgear, MCC's, low and medium voltage wiring and SCADA controls to be located in a new building, and lighting are also part of the scope of work. Pumps designed per the Hydraulic Institute and AWWA standards.

Structural improvements for the switchgear of the VSD pumps may include an equipment building, a canopy structure, or the equipment may be housed in the pillar of the composite elevated storage tank.

Additionally, the City would like to install hot box covers for pump valves at this site and others. The location and quantity is to be included in the construction documents as additive alternates.

Services to include:

- Survey (topographical and tree survey)
- Geotechnical study.
- Hydraulic Analysis of the system and Sizing of pumps to meet system curve and demand.
- Design of the layout for pumps, valves, meters, pressure gauges, fittings, and piping for new pump station.
- Design of electrical supply for new pumps, SCADA instrumentation and controls, and lighting for new pump station, switchgear, and controls building
- Sizing of switchgear facilities, conduit and instrumentation for pumps, valves, and meters. Providing an electrical load analysis. Providing heat pump sizing for controls building.
- Structural design of pump station foundation, switchgear foundation and controls building, controls building or canopy over new switchgear.
- Verification of site plan submittal requirements for Schertz Planning Dept.
- No new fencing, no cameras, no parking or gate improvements will be required.
- No chlorine or fluoridation treatment is currently provided at this site. Chemical treatment is not to be include with this project.

Report & Study Phase, Preliminary Design, Final Design, Bid, and Construction Phase Services as described below and as required by the Professional Services Agreement, will be provided with accompanying cost estimates and specifications preparation.

Project Scope

Study and Report Phase:

Survey of the project area will be required to identify improvements made in the recent elevated tank construction and the addition of the SSLGC transmission main and building. FEI will establish horizontal and vertical control for the project.

As geotechnical subconsultant, SCI Engineering, Inc. will provide seven (7) geotechnical samplings. Five samplings, per ACI 372r , with at perimeter borings up to 30-feet deep, and one at the center of the proposed tank location at 60-feet deep. Additionally, one bore at the pump pad and one bore at the equipment structure. Geotechnical engineering report will provide the recommended parameters for the foundation design of the tank and the other structures, identify groundwater, potential soil settlement, PVR, and applicable engineering characteristics for the design of the GST and structures.

The Ford Engineering, Inc. design team will provide the system head curves to pump to the E. Live Oak elevated storage tank and the on-site elevated storage tank. A water analysis of the project will include the analysis of the removal of Ware Seguin

pumpstation from the system. A water network analysis of the project will include the analysis of the removal of Deer Haven tank from the system.

The Ford Engineering, Inc. design team will provide the preliminary design and layout of the new GST and pump station, and size the pumps, valves, meters, and piping to meet the system curve as determined above and meet Schertz production standards. Options of pump curves and configurations will be provided that will meet the determined system curve.

With VSD as a design criteria, the design team will provide options and recommendation for the electrical improvements, including incoming 480V electrical service, options for VFDs, switchboard, generator sizing, SCADA, and building/cooling for the VFDs and other major electrical equipment; Coordinate with local Utility for incoming 480V power to the Pump Station; Run heat load on equipment building with new VFDs; Preliminary equipment selection (assume using packaged air-cooled DX units, wall packs or ground mounted RTU).
The design team will provide options for equipment structures (canopy or enclosed building).

The Ford Engineering Inc. design team will develop a project program including schematic layouts and drawings in sufficient detail to determine the project's feasibility and opinion of probable cost of the various project components

The project site will be reviewed for compliance with current City standards. The drainage report provided with the elevated storage tank construction project will be updated to the City's current drainage criteria of Atlas 14 data.

Preliminary Design Phase

Ford Engineering, Inc. design team will perform additional spot field survey as determined necessary during the Report Phase.

Project Program

Ford Engineering, Inc. design team will prepare plans and supporting documents in sufficient detail for review and comment to identify potential design or construction or operational problems and provide appropriate resolutions, following the project program set forth in the Report Phase. Plans included will be according to the scope of work set forth in the contract and as outlined in the report.

Ford Engineering, Inc. design team will provide an opinion of probable construction cost based on the plan and supporting documents. The OPCC will include the construction items found in the plans and documents prepared as part of this phase.

Hard copy and digital copies of the plans and supporting documents for review and comments will be submitted to the City. All drawings shall be submitted on standard 22x34 unless otherwise requested by Schertz. All comments from review will be addressed and resubmitted to Schertz for approval in a narrative form.

Upon approval, a full copy of the Preliminary plans and supporting documents will be submitted to the necessary public utility companies with a request for review and comment; comments received will be added to the Final Design Phase package.

Final Design:

Project Program

Ford Engineering, Inc. design team will prepare detailed Construction Plans and specifications, instruction to bidders, general provisions, proposal and other documents necessary for the City to advertise for bid. A control narrative for the new pump station will be provided in the specifications.

Ford Engineering, Inc. design team will provide an opinion of probable construction cost based on the plan and supporting documents. The OPCC will include the construction items found in the plans and documents prepared as part of Final Design.

Ford Engineering, Inc. design team will furnish hard copy and digital sets of Final Design plans, specifications, and supporting bid documents for review and comment. All Final Design Phase Drawings will be submitted on standard 22x34 unless otherwise requested by the City.

Ford Engineering, Inc. design team will resubmit and address all comments and respond to said comments in a narrative form.

Permitting

Ford Engineering will prepare and submit for permitting with the City and TCEQ, as needed.

Bid Phase

FEI will provide the City with bid documents, addenda, and responses to the bidders questions. FEI will attend a pre-submittal meeting, review submitted bids, and provide a bid tabulation and recommendation for award.

Construction Phase

Our design team will attend a pre-construction conference with the City and selected contractor.

During construction, Ford Engineering, Inc. will provide limited RPR services, per Exhibit D of the engineering services contract, with the exception of work described under 11.b. It is anticipated that a representative of Ford Engineering, Inc. will be onsite twice a month to observe for general conformance to the plans. FEI anticipates the following services:

- Review schedules, shop drawings, sample submittals, and schedule of values
- Attend monthly progress meeting
- Review pay applications and schedules and provide recommendations to the City.

- Response to RFIs from contractor and provide clarification as needed. Should any field alteration or change orders arise, FEI will draft change orders, directives, provide appropriate estimates and obtain back up documentation from the contractor
- Participate in the start-up of the pumps, review O&M manuals
- Provide Determination of Required Special Inspections Section 1704
- Upon completion of the project, FEI will assist in the preparation of punch-list items and the review of the final construction.

It is understood that the City will provide 3rd party special inspections and material testing, and those services are not included in this proposal.

Design Phases

It is anticipated that compete design of the project from the notice to proceed to the preparation of bid documents will require approximately 32 work weeks.
Study and Report – 10 weeks
Preliminary Design Phase – 12 weeks
Final Design Phase – 10 work weeks
Bid Phase – 4 work weeks
Construction Phase – 24 calendar months

Engineering Fee

Compensation for these services will be in the amount of **$466,265.00** which will cover all costs associated with the scope described above, as further detailed in the attached Project Work Plan and Fee Proposal Breakdowns.

Additional services and significant changes will be compensated for as provided by Schedule of Fees in the agreement for Engineering Services between the City of Schertz and Ford Engineering, Inc. dated October 9, 2019.

Fees payable to permitting agencies will be the responsibility of the City.

Should there be any questions or if further information is needed, please do not hesitate to call us at 210-590-4777.

Sincerely,
FORD ENGINEERING INC.

Mark B Hill

Mark B Hill, P.E.

Encl: Project Work Plan and Fee Proposal Breakdown– Ford Engineering, Inc.

PROJECT WORK PLAN AND FEE PROPOSAL BREAKDOWN

Project: **Corbett Ground Storage Tank**
Prime Consultant: **Ford Engineering, Inc.**
Proposal Date: **4/15/2021**
Prepared By: **Mark B Hill**

TASK CODE AND DESCRIPTION	Principal $200.00 HOURS	Sr. Project Manager $165.00 HOURS	Project Engineer $150.00 HOURS	EIT $100.00 HOURS	Admin/Clerical $65.00 HOURS	RPLS $165.00 HOURS	Survey Tech $85.00 HOURS	Survey Crew - 2 man $145.00 HOURS	TASK HOURS	TASK / PHASE FEE
Study and Report Phase	2	27	163	122	2	2	6	24	**348**	**$45,955.00**
01. Project Management and General Items										
01.010. Project Mgmt	2				2				4	$530.00
									-	
									-	
03. Topographic Surveying / Base Mapping									-	
03.010. Establish Primary Project Control						1	2	4	7	$915.00
03.040. Survey Topographic Features						0	2	16	18	$2,490.00
03.070. Survey Quality Level C Locates						1	2	4	7	$915.00
03.120. Develop Existing Conditions Model		1	4	16					21	$2,365.00
									-	
05. Drainage Design									-	
05.010. Update Drainage Discharge to Current Standards									-	
05.010.030. Calculate Design Discharges			1	2					3	$350.00
05.030. Prepare Storm Water Report		1	2	8					11	$1,265.00
									-	-
06. Geotech Engineering Sample and Study									-	
06.010. See attached									-	-
									-	
07. Pump Design									-	
07.010. Hydraulic Analysis (system curve preparation)		4	32						36	$5,460.00
07.020. Pump and Motor Sizing (provide 3 options)		4	40						44	$6,660.00
07.030. Mechanical layout for pump station (3 options)		4	16	32					52	$6,260.00
									-	
09. Civil Site Design									-	
09.010. Project Site Plans (with 3 options)		2	16	40					58	$6,730.00
									-	-
10. Environmental and Regulatory Coordination									-	
10.020. SWPPP		1		8					9	$965.00
									-	
11. Cost Estimating		2	24	8					34	$4,730.00

TASK CODE AND DESCRIPTION	Principal $200.00 HOURS	Sr. Project Manager $165.00 HOURS	Project Engineer $150.00 HOURS	EIT $100.00 HOURS	Admin/Clerical $65.00 HOURS	RPLS $165.00 HOURS	Survey Tech $85.00 HOURS	Survey Crew - 2 man $145.00 HOURS	TASK HOURS	TASK / PHASE FEE
11.010. Prepare Cost Estimate									-	-
									-	-
15. Communications									-	
15.010. Report Preparation		4	24	8					36	$5,060.00
15.020. Report Review with City Staff		4	4						8	$1,260.00
Preliminary Design	4	46	260	256	2	0	0	0	**568**	**$73,120.00**
01. Project Management and General Items										
01.010. Project Mgmt	2	2			2				6	$860.00
01.040. Design Review Meeting			4	4					8	$1,000.00
01.050. Prepare Meeting Minutes			4	4					8	$1,000.00
01.060. Project Schedule (Includes Construction)			4						4	$600.00
01.070.0 Specifications Preparation		8	24						32	$4,920.00
01.070. QA/QC Review of Plan Set	2	8							10	$1,720.00
07. Pump Station Design										
07.010. Hydraulic Analysis (system curve preparation)		2	16						18	$2,730.00
07.020. Pump and Motor Sizing		2	8						10	$1,530.00
07.030. Mechanical layout for pump station		2	24	40					66	$7,930.00
07.040. Pump Details		2	24	40					66	$7,930.00
09. Other Plans										
09.010. Project Site Plans		4	16	24					44	$5,460.00
09.020. Grading Plan		1	16	24					41	$4,965.00
09.030. Civil Details		2	24	40					66	$7,930.00
09.040. Tank Plan		2	24	40					66	$7,930.00
09.050. Tank Details		1	16	24					41	$4,965.00
									-	-
10. Environmental and Regulatory Coordination									-	
10.010. General Environmental Coordination			4						4	$600.00
11. Cost Estimating									-	-
11.010. Prepare Cost Estimate		2	24	8					34	$4,730.00
									-	-
15. Communications										
15.010. Plans Submittal		4	24	8					36	$5,060.00
15.020. Plan Review with City Staff		4	4						8	$1,260.00
Final Design	4	40	154	152	2	0	0	0	**352**	**$45,830.00**
01. Project Management and General Items										
01.010. Project Mgmt	2	2			2				6	$860.00

TASK CODE AND DESCRIPTION	Principal $200.00 HOURS	Sr. Project Manager $165.00 HOURS	Project Engineer $150.00 HOURS	EIT $100.00 HOURS	Admin/Clerical $65.00 HOURS	RPLS $165.00 HOURS	Survey Tech $85.00 HOURS	Survey Crew - 2 man $145.00 HOURS	TASK HOURS	TASK / PHASE FEE
01.040. Design Review Meeting			4	4					8	$1,000.00
01.050. Prepare Meeting Minutes			4	4					8	$1,000.00
01.060. Project Schedule (Includes Construction)			4						4	$600.00
01.070. Specification Preparation		8	24						32	$4,920.00
01.080. QA/QC Review of Plan Set	2	8							10	$1,720.00
07. Pump Station Design										
07.010. Hydraulic Analysis (system curve preparation)		1	2						3	$465.00
07.020. Pump and Motor Sizing		1	2						3	$465.00
07.030. Mechanical layout for pump station		1	8	16					25	$2,965.00
07.040. Pump Details		1	8	16					25	$2,965.00
09. Other Plans										
09.010. Project Site Plans		4	16	24					44	$5,460.00
09.020. Grading Plan		1	16	24					41	$4,965.00
09.030. Civil Details		1	2	16					19	$2,065.00
09.040. Tank Plan		1	2	16					19	$2,065.00
09.050. Tank Details		1	2	8					11	$1,265.00
									-	-
10. Regulatory Coordination/Environmental									-	
10.010. General Environmental Coordination			4						4	$600.00
10.020. City Permitting			4	8					12	$1,400.00
11. Cost Estimating									-	-
11.010. Prepare Cost Estimate		2	24	8					34	$4,730.00
									-	-
15. Communications										
15.010. Final Report Preparation		4	24	8					36	$5,060.00
15.020. Final Review with City Staff		4	4						8	$1,260.00
Bid Phase	0	14		16	2	0	0	0	62	**$8,540.00**
12. Bid Phase										
12.010. Submit 100% Plans		1	4	16					21	$2,365.00
12.020. Final Project Bid Documents		1	4						5	$765.00
12.030. Finalize Constructability Review		8	4						12	$1,920.00
12.040. Review Utility Conflict Report and Address Pending Items		1	2						3	$465.00
12.050. Attend 100% Review Meeting/Precon walkthrough			4						4	$600.00
12.080. Attend Pre-Bid Meeting		2	2						4	$630.00
12.090. Respond to Contractor Questions			4						4	$600.00
12.100. Prepare and Distribute Necessary Addenda			4						4	$600.00
12.110. Prepare Bid Tabulation and Letter of Recommendation		1	2		2				5	$595.00

TASK CODE AND DESCRIPTION	Principal $200.00 HOURS	Sr. Project Manager $165.00 HOURS	Project Engineer $150.00 HOURS	EIT $100.00 HOURS	Admin/Clerical $65.00 HOURS	RPLS $165.00 HOURS	Survey Tech $85.00 HOURS	Survey Crew - 2 man $145.00 HOURS	TASK HOURS	TASK / PHASE FEE
Construction Phase	0	0	74	160	0	1	1	4	240	$27,930.00
13. Construction Management										
13.010. Reestablish Project Control						1	1	4	6	$830.00
13.020. Pre Construction Meeting			2						2	$300.00
13.030. Review Contractor Pay Estimates			12	32					44	$5,000.00
13.050. Review Shop Drawings			4	24					28	$3,000.00
13.060. Respond to RFI's			8						8	$1,200.00
13.070. Project Site Visits & Reports (1 visits per month - 18 months)			12	48					60	$6,600.00
13.080. Participate in Construction Progress Meetings and Prepare Meeting Minutes (Coincide Witl			24	48					72	$8,400.00
13.090. Project Startup			8	8					16	$2,000.00
13.100. Final Walkthrough and Punchlist Review			4						4	$600.00
Project Closeout	0	0		8	1	0	0	0	11	$1,165.00
									-	-
14. Project Closeout										
14.010. Prepare Record Drawings			2	8	1				11	$1,165.00
Subconsultants										
Subconsultant - Freese and Nichols - Electrical/Structural/Instrumentation										$255,725.00
Subconstultant - SCI Engineering Inc., Geotechnical										$8,000.00
TOTAL BASE FEE WITH HOUR BREAKDOWN	**10**	**127**	**651**	**714**	**9**	**3**	**7**	**28**	**661**	**$466,265.00**

SCI ENGINEERING, INC.
EARTH • SCIENCE • SOLUTIONS
GEOTECHNICAL
ENVIRONMENTAL
NATURAL RESOURCES
CULTURAL RESOURCES
CONSTRUCTION SERVICES

March 24, 2021

Mr. Mark B. Hill, P.E.
Ford Engineering, Inc.
10927 Wye Drive, Ste. 104
San Antonio, Texas 78217

RE: Revised Geotechnical Exploration Proposal
Corbett Elevated Tank Project
Schertz, Texas
SCI No. 2021-0327.10, Task 100

Dear Mr. Hill:

At your request, SCI Engineering, Inc. (SCI) is providing this revised Geotechnical Exploration proposal for the above-referenced project. The purpose of our geotechnical services will be to explore the subsurface conditions and develop design and construction recommendations for the foundations and earth-related phases of the project.

PROJECT DESCRIPTION

SCI understands that a new ground storage tank and pump station are currently being planned for a site located at 12191 Ray Corbett Drive in Schertz, Texas. The site is currently undeveloped, relatively level, agricultural land.

Based on the information provided, the pre-stressed, wire-wound, concrete, ground storage tank will be 100 feet in diameter, with a capacity of 3.0 million gallons. We anticipate the tank's slab foundation will be supported on deep foundations, such as drilled piers. The pump station is proposed northwest of the proposed tank, with an approximate 900-square-foot footprint. Additionally, a structure is planned to house the switch gear. Grading plans were not available at the time of this proposal; however, we anticipate that minor grading will be required under the storage tank and pump station footprints.

Structural loads were not available at the time of this proposal; however, we anticipate that the tank will be heavily loaded, on the order of 20 to 25 kips per linear foot, around its perimeter.

SCOPE OF SERVICES

As requested, a total of seven boring will be performed for this field investigation, which will be located in the field using a handheld global positioning system. The ground surface elevation at the boring location will be interpolated using the most recent topographic plan made available to us, if more accurate data is required, we recommend that a surveyor be retained to acquire the ground surface elevation.

We will then explore the subsurface conditions by drilling one boring at the center of the tank's footprint to a depth of 60 feet and four borings around the tank's perimeter to a depth of 30 feet. If auger refusal is encountered within the tank borings prior to achieving the target depths, the borings will be advanced using rock core methods. We will also drill one boring at the pump station and one at switch gear house to a

depth of 20 feet, unless auger refusal terminates drilling at a shallower depth. The boring will be sampled with either undisturbed Shelby Tube or Standard Penetration Test (SPT) samples at 2-foot intervals in the upper 10 feet and at 5-foot intervals thereafter. **A geotechnical engineer or geologist will log the boring and provide direction for sampling.** The borehole will be backfilled with soil cuttings.

Upon completion of the field exploration, the samples will be transported to our laboratory for classification and characterization. We will measure the moisture content of each cohesive sample. Hand penetrometer values, which provide an indication of strength, will be obtained for each apparently intact cohesive sample. Atterberg limits tests will be performed on selected samples to aid in classification and assess the volume change characteristics of the subgrade soils. Natural density tests, and/or unconfined compression tests to provide additional strength information, will be performed on selected Shelby tube samples. Unconfined compression tests will be performed on select rock core samples as well.

The results of the field exploration and laboratory testing will be analyzed by our Geotechnical Engineer. Our findings and recommendations, along with supporting data, will be presented in a formal report, which will address each of the following:

- Foundation design parameters, including allowable end-bearing, skin friction, and uplift resistance;
- Allowable bearing pressures and depths for shallow, slab-on-grade and spread footing, foundation support;
- Recommended parameters for the lateral analysis of the piers (SCI can also provide LPILE analysis once the pier configurations are selected; however, this service is outside of our currently proposed scope);
- Seismic coefficients for building design according to the appropriate International Building Code;
- Allowable bearing pressures and depths for shallow, slab-on-grade and spread footing, foundation support;
- Anticipated settlement based on general soil characteristics;
- Shrink/swell potential of subgrade soils;
- Slab design criteria;
- General location, description, and disposition of existing fill materials, if encountered;
- Influence of groundwater and/or bedrock, if encountered, on design and construction;
- Structural fill considerations, including the suitability of on-site soils for use and engineering criteria for placement, and;
- Site development and geotechnical construction recommendations.

COST AND SCHEDULE

We will provide the above-mentioned services for a lump-sum fee of **$7,800.00. If bedrock is encountered within the tank borings, an additional fee of $75.00 per foot of rock core will be applied to achieve their target depths.** We will schedule the fieldwork following your verbal authorization of this proposal, and should be able to start drilling the site, weather permitting, about a week thereafter. We anticipate that the exploration will be completed in one day; however, we cannot mobilize the drill rig unless formal authorization has been received. Laboratory testing and report preparation will require approximately two to three weeks following the field exploration; however, verbal findings should be available within a few days after completion of the drilling.

Our estimated schedule assumes SCI personnel will be allowed access to the site within five working days from formal authorization. While SCI feels this estimated timeframe is sufficient to complete our proposed scope, factors beyond our control related to current events (i.e. quarantines, government restrictions to movement, large scale impact to SCI or subcontractor workforce) may impact this schedule. If such an issue arises, SCI will notify you as soon as possible.

Conditions and Considerations

- The above fee is based on a maximum of 220 feet of soil drilling. If the encountered subsurface conditions indicate that more than the planned total of soil drilling would be beneficial, and you authorize additional exploration, it would be provided for $25.00 per foot for soil drilling and $75.00 per foot for rock coring. No costs associated with permits are included in this proposal.

- Our fee, which is valid for up to 90 days from the date of this proposal, does not include out-of-scope services that might be added during the course of our work; nor does it include additional services that might be requested following completion of our report, such as attendance at project meetings; subsequent consultation; or review, signing, and sealing of project plans. Such services will be provided in accordance with the enclosed *Acceptance of Proposal for Professional Services*, and billed at our then-current hourly rates, or as otherwise agreed.

- This proposal assumes that you will provide site access authorization, including access to the proposed boring locations for a conventional, rubber-tired, truck mounted drill rig. No clearing, grading, or other removal of site obstacles, has been included in this proposal.

- We will contact the Texas 811 One-Call system to have the locations of public utilities marked; however, privately owned, below-grade, utility lines within the project area are the responsibility of the owner. We shall only be responsible for utilities brought to our attention prior to drilling. **SCI can provide a private utility locate for an addition fee of $1,000.00, if necessary.**

CLIENT RESPONSIBILITIES AND AUTHORIZATION

If the work order outlined herein is acceptable, please provide formal authorization to proceed by completing, signing, and returning the enclosed *Acceptance of Proposal for Professional Services* sheet. This sheet provides important information regarding report distribution and invoicing. Formal authorization is necessary prior to initiation of the activities outlined herein. SCI services will be performed for the signatory of the enclosed form. Written consent must be provided by SCI should anyone other than the client (signatory) wish to excerpt, or rely on, the results of our activities. The enclosed *General Terms and Conditions* will also apply to any future services you authorize for this project.

We appreciate the opportunity to be of service to you on this project. Please call if you have any questions; if you would like to discuss the above scope or schedule in any way; or if you would like us to address environmental services, archaeological or wetlands issues, or construction testing and observation.

Respectfully,

Sandeep K. Malla
Staff Engineer, E.I.T.

Shawnna L. Erter, P.E., D. GE, F, ASCE
Vice President

SKM/CJC/SKE/hmm

Enclosures
Acceptance of Proposal for Professional Services
General Terms and Conditions

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SCI ENGINEERING, INC.
9330 Corporate Drive, Suite 610
Selma, Texas 78154
210-660-SCIE (7243)
www.sciengineering.com

ACCEPTANCE OF PROPOSAL FOR PROFESSIONAL SERVICES

Project Name: Corbett Elevated Tank Project – Geotechnical Exploration

Project Number: 2021-0327.10, Task 100 / SKM

Date: March 24, 2021

Fee: Please indicate your selection by placing a check mark in the appropriate box below:

Geotechnical Exploration & Report Preparation	$7,800.00 ☐
Rock Coring to Achieve Target Depths in Tank Borings	$75.00 per foot ☐
Private Utility Locate	$1,000.00 ☐

Please provide formal authorization to proceed by completing, signing, and returning this form. The attached terms and conditions will apply to the services outlined in the accompanying proposal.

Accepted By:

Name and Title: _____ Address: _____

Signature: _____ City, State, Zip: _____

Company Name: _____ Telephone: _____

Date: _____ Email: _____

Party responsible for payment: (if different than Accepted By)

Name and Title: _____ Address: _____

Signature: _____ City, State, Zip: _____

Company Name: _____ Telephone: _____

Date: _____ Email: _____

Report Distribution (Note: Additional printed report copies after final submittal will be billed at $25.00 each)

Company and Contact Name:	Address (Printed) or Email (Electronic):	No. Printed Reports

NOTICE TO OWNER: **(FOR SITES IN MISSOURI ONLY)**

FAILURE OF THIS CONTRACTOR TO PAY THOSE PERSONS SUPPLYING MATERIAL OR SERVICES TO COMPLETE THIS CONTRACT CAN RESULT IN THE FILING OF A MECHANIC'S LIEN ON THE PROPERTY WHICH IS THE SUBJECT OF THIS CONTRACT PURSUANT TO CHAPTER 429.RSMo. TO AVOID THIS RESULT YOU MAY ASK THIS CONTRACTOR FOR "LIEN WAIVERS" FROM ALL PERSONS SUPPLYING MATERIAL OR SERVICES FOR THE WORK DESCRIBED IN THIS CONTRACT. FAILURE TO SECURE LIEN WAIVERS MAY RESULT IN YOU PAYING FOR LABOR AND MATERIAL TWICE.

SCI ENGINEERING, INC.
9330 Corporate Drive, Suite 610
Selma, Texas 78154
210-660-SCIE (7243)
www.sciengineering.com

GENERAL TERMS AND CONDITIONS

1. **ACCEPTANCE OF AGREEMENT** The terms and conditions of the agreement between the client and SCI ENGINEERING, INC. (hereinafter called SCI) are detailed below and have been established to allocate risks between both. For the purposes of convenience, the client may choose to orally authorize our service, in which case the client agrees that the verbal agreement constitutes formal acceptance of the terms and conditions detailed below. Subsequent to an agreement by both parties to perform the services, modifications to the terms and conditions are prohibited.

2. **SITE ENTRY** You, the Client, will provide for right of entry of SCI or employees of firms working under the direction of SCI, and all necessary equipment, in order to perform the work. Although SCI will exercise reasonable care in performing its services, the Client understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not part of this agreement. The client agrees, to the fullest extent permitted by law, to indemnify and hold harmless SCI and its subconsultants against any damages, liabilities, or costs, arising or allegedly arising from procedures associated with testing or investigative activities to the fullest extent permitted by law. If you desire or require us to restore the site to its former condition, upon written request, we will perform such additional work as is necessary and you agree to pay all costs incurred.

3. **SUBSURFACE STRUCTURES OR UTILITIES** The Client will furnish to SCI information identifying the type and location of utility lines and other man-made objects beneath the site's surface. SCI will take reasonable precautions to avoid damaging these man-made objects. You agree to waive any claim against SCI, and to defend, indemnify and hold SCI harmless from any claim or liability for injury or loss allegedly arising from SCI's damaging underground utilities or other man-made objects that were not called to SCI's attention, or which were not properly located on plans furnished to SCI.

4. **SAMPLES** Soil, rock, water, or other samples obtained from the project site are your property. SCI shall preserve such samples for no longer than thirty (30) calendar days after the issuance of any document that includes the data obtained from them, unless other mutually agreed arrangements are documented.

Concrete test specimens will be discarded after testing. If project specification strengths are met, "hold" cylinders will be discarded at that time.

If in SCI's opinion any of the samples collected may be affected by regulated contaminants, SCI shall package such samples in accordance with applicable law and client shall arrange for lawful disposal procedures. SCI shall not, under this agreement, arrange for or be responsible for the disposal of substances affected by regulated contaminants. Furthermore, unless detailed in a specific work scope, SCI is not responsible for any soil cuttings or produced groundwater generated for the purpose of sample collection that may be affected by regulated contaminants that are left at a job site and were generated for the collection of soil and groundwater samples. SCI will, at the client's request, help the client identify appropriate alternatives for the off-site treatment, storage, or disposal of these materials, for additional fees.

5. **GENERAL LIABILITY AND LIMITATION** SCI agrees to hold you harmless and to indemnify you on account of any liability due to bodily injury or property damage to the extent directly caused by our negligent operational acts, but such hold harmless and indemnity will be limited to that covered by our comprehensive general liability insurance. At your request, SCI will provide certificates evidencing such coverage and will purchase additional limits of liability that you may require as a separate cost item to be borne by you.

You shall not be liable to SCI and SCI shall not be liable to you for any consequential damages incurred by either due to the fault of the other, regardless of the nature of this fault, or whether it was committed by you or SCI, their employees, agents, or subcontractors. Consequential damages include, but are not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation or any other consequential damage that any party may have incurred from any cause of action, including, but not limited to negligence, strict liability, breach of contract, or breach of warranty.

6. **SHARED RISK ALLOCATION** The Client and SCI agree to allocate certain of the risks so that, to the fullest extent permitted by law, SCI's total aggregate liability to the Client is limited to $50,000.00 for any and all injuries, damages, claims, losses, expenses, or claim expenses (including attorney's and expert witness' fees) arising out of this AGREEMENT from any cause or causes. Such causes include, but are not limited to, SCI's negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent, misrepresentation, or other acts giving rise to liability based upon contract, tort, or statute. Higher limits may be available upon request and additional negotiated fee.

Limitations on liability, waivers and indemnities in this Agreement are business understandings between the parties and shall apply to all legal theories of recovery, including breach of contract or warranty, breach of fiduciary duty, tort (including negligence), strict or statutory liability, or any other cause of action. You agree that you will not seek damages in excess of the contractually agreed-upon limitation directly or indirectly through suits against other parties who may join the Consultant as third-party defendant. None of the insurance or indemnity obligations under this agreement shall be deemed to be with a waiver of this limitation of liability provision.

7. **INVOICES** You will make all payments in accordance with SCI's invoices, and payment is due upon receipt of invoice. A fee of 1½ percent per month will be payable on any amounts not paid within thirty (30) days, payment thereafter to be applied first to accrued interest and then to your unpaid amount. You agree to pay invoices under these terms and to bear collection fees, court costs, or any other reasonable expense involved in the collection of amounts not paid.

8. **HAZARDOUS MATERIALS; NOTIFICATION OF AND DISCOVERY OF** When hazardous materials are known, assumed, or suspected to exist at a site, SCI is required to take appropriate precautions to protect the health and safety of its personnel, to comply with applicable laws and regulations, and to follow procedures that SCI deems prudent to help minimize physical risks to employees and the public. You warrant that you have provided to SCI all available information about type and location of known and suspected hazardous materials on, under, or adjacent to the project site.

The discovery of unanticipated hazardous or suspected hazardous materials will constitute a changed condition mandating termination of services if SCI and you are unable to renegotiate the scope of service in a timely manner. SCI will notify you as soon as practically possible should SCI encounter unanticipated hazardous or suspected hazardous materials.

The discovery of unanticipated hazardous or suspected hazardous materials may make it necessary for SCI to take measures that in SCI's professional opinion are needed to help preserve and protect the health and safety of SCI's personnel and of the public, and/or to preserve and protect the environment. As a condition precedent to the provision of service for this project, you agree to compensate SCI for the additional fees and costs associated with any such measures and further agree to defend, indemnify, and hold harmless from any claim or liability for injury or loss arising from SCI's encountering unanticipated hazardous or suspected hazardous materials.

9. **CONTAMINATION OF AN AQUIFER** Unavoidable contamination of soil or groundwater may occur during subsurface exploration, as when drilling or sampling tools penetrate a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading contaminants. Because subsurface exploration is an essential aspect of the services that SCI will provide on your behalf, you shall indemnify, defend, and hold SCI harmless from any claim or liability for injury or loss which may arise as a result of contamination allegedly caused by subsurface exploration to the fullest extent permitted by law.

10. **SITE SAFETY** With respect to project site safety, SCI shall be responsible only for the on-site activities of its employees and subcontractors, and this responsibility shall not be construed to relieve you or the general contractor from your obligation to maintain a safe project site. Neither the professional activities of SCI, nor the presence of SCI's employees or subcontractors shall be construed to imply that SCI has any responsibility for any methods of work performance, procedures, superintendence, sequencing of operations, or safety in, on, or about the project site other than SCI's and SCI's subconsultants. You agree that the general contractor is responsible for project site safety, and warrant that this intent shall be made evident in your agreement with the general contractor.

11. **CONSTRUCTION COST ESTIMATES** An opinion of construction cost prepared by SCI represents our judgment as a design professional and is supplied for your general guidance only. Since we have no control over the cost of labor and material, nor over competitive bidding or market conditions, we do not guarantee the accuracy of our opinion as compared to other sources, such as, contractor bids of actual cost to the owner.

12. **DEFECTS IN SERVICE** You and your personnel, contractors, and subcontractors shall promptly report to SCI any defects or suspected defects in SCI's work, in order that SCI may take prompt effective measures which in SCI's opinion will minimize the consequences of any such defect.

13. **TERMINATION** Any or all services being provided for you by SCI under these General Terms and Conditions or under separate contract may be terminated by either party upon seven (7) days prior written notice. In the event of termination, SCI shall be compensated by you for all services performed up to and including the termination date, including reimbursable expenses.

14. **FORCE MAJEURE** Any delays or failure of performance by SCI shall not constitute a default under this Agreement, if such delays or failures of performance are caused by occurrences beyond the reasonable control of SCI. Performance under this Agreement shall resume promptly once the cause or delay or failure ceases and SCI's schedule for performance shall be extended to the extent of such delay. Each party shall take reasonable steps to mitigate the impact of any such delay or failure

15. **ENVIRONMENTAL SITE ASSESSMENT** An Environmental Site Assessment is conducted to render an opinion about the possibility of regulated contaminants being present on, in, or beneath the site specifically at the time services were conducted. Client understands that no matter how thorough an Environmental Site Assessment is, SCI cannot know or state factually that a site is unaffected by reportable quantities of regulated contaminants. Furthermore, even if SCI believes that reportable quantities are not present, the client bears the risk that such contaminants may be present or may migrate to the site after the study is complete. Likewise, the client agrees to hold SCI harmless from any claim or liability for injury or loss arising from the unanticipated discovery of hazardous materials or suspected hazardous materials to the fullest extent permitted by law.

15. **FAILURE TO FOLLOW RECOMMENDATIONS** SCI disclaims any and all responsibility and liability for problems that may occur during implementation of SCI's plans, specifications, or recommendations when SCI is not retained to observe such implementation.

17. **ALTERATION OF INSTRUMENTS OF SERVICE** Client agrees that designs, plans, specifications, reports, proposals, and similar documents prepared by SCI are instruments of professional service, and as such, they may not under any circumstances be altered by any party except SCI. Client warrants that SCI's instruments of service will be used only and exactly as submitted by SCI. Accordingly, Client shall waive any claim against SCI and shall, to the fullest extent permitted by law, indemnify, defend, and hold SCI harmless of any claim or liability for injury or loss arising from unauthorized alteration of SCI's instruments of service.

18. **MOLD DISCLAIMER** The services performed by SCI, unless specifically addressed in our scope of services, are not intended to take into account indoor amplification of mold. SCI's services may comment on depth to groundwater and site drainage, but in no instance is this to be interpreted that we were specifically intending to reduce moisture contents and/or humidity measurements within the structure as they may relate to mold. Client understands our services, unless specifically expressed in our work scope, are in no way intended to address the potential for mold infestation, and, as such, agrees to indemnify and hold SCI harmless from any claim alleging that SCI's services caused or aggravated a mold infestation to the fullest extent permitted by law.

19. **OTHER PROVISIONS** You agree that this contract is entered into by the parties for the sole benefit of the parties to the contract, and that nothing in the contract shall be construed to create a right or benefit for any third party.

a. You agree that any and all limitations of SCI's liability and indemnifications by you shall include and extend to those individuals and entities SCI retains for performance of the services under this Agreement, including but not limited to SCI's officers, directors, and employees and their heirs and assigns, and SCI's subconsultants.

b. In an effort to resolve any conflicts that arise during or following completion of the project, you and SCI agree that all disputes between us arising out of or related to this Agreement shall be submitted to non-binding mediation as a condition precedent to institution of any formal legal proceeding, unless the parties mutually agree otherwise in writing.

c. THE PARTIES TO THIS CONTRACT HEREBY AGREE TO SUBMIT ANY SUCH DISPUTE TO THE CIRCUIT COURT OF ST. CHARLES COUNTY, STATE OF MISSOURI.

d. Test borings and test pits are an accepted and informative means of subsurface exploration. However, in the nature of things, they cannot indicate with absolute certainty the nature of the subsurface conditions between and sample locations of the exploration and below the termination of the borings or pits. Therefore, a report based on test borings, test pits, or other exploration method cannot ascertain the nature of the subsurface conditions between and beyond the specific sample locations. If conditions different than are indicated in our report come to your attention after you receive the report, it is recommended that you contact SCI immediately to inform SCI completely of what you have discovered and to authorize further evaluation, if appropriate.

e. Any recommendations provided in any correspondence, reports, plans, etc. from SCI are for the exclusive use of our client and are specific to the project covered by this contract. Recommendations provided by SCI are not meant to supersede more stringent requirements of local ordinances.

Important Information about This

Geotechnical Engineering Proposal

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Participate in Development of the Subsurface Exploration Plan

Geotechnical engineering begins with the creation of an effective subsurface exploration plan. This proposal starts the process by presenting an initial plan. While that plan may consider the unique physical attributes of the site and the improvements you have in mind, it probably does not consider your unique goals, objectives, and risk management preferences. Subsurface exploration plans that are finalized without considering such factors presuppose that clients' needs are unimportant, or that all clients have the same needs. *Avoid the problems that can stem from such assumptions* by finalizing the plan and other scope elements directly with the geotechnical engineer you feel is best qualified for the project, along with the other project professionals whose plans are affected by the geotechnical engineer's findings and recommendations. If you have been told that this step is unnecessary; that client preferences do not influence the scope of geotechnical engineering service or that someone else can articulate your needs as well as you, you have been told wrong. No one else can discuss your geotechnical options better than an experienced geotechnical engineer, and no one else can provide the input you can. Thus, while you certainly are at liberty to accept a proposed scope "as is," recognize that it could be a unilateral scope developed without direct client/engineer discussion; that authorizing a unilateral scope will force the geotechnical engineer to accept all assumptions it contains; that assumptions create risk. *Manage your risk. Get involved.*

Expect the Unexpected

The nature of geotechnical engineering is such that planning needs to *anticipate the unexpected.* During the design phase of a project, more or deeper borings may be required, additional tests may become necessary, or someone associated with your organization may request a service that was not included in the final scope. During the construction phase, additional services may be needed to respond quickly to unanticipated conditions. In the past, geotechnical engineers commonly did whatever was required to oblige their clients' representatives and safeguard their clients' interests, taking it on faith that their clients wanted them to do so. But some, evidently, did not, and refused to pay for legitimate extras on the ground that the engineer proceeded without proper authorization, or failed to submit notice in a timely manner, or failed to provide proper documentation. *What are your preferences? Who is permitted to authorize additional geotechnical services on your project? What type of documentation do you require? To whom should it be sent? When? How?* By addressing these and similar issues sooner rather than later, you and your geotechnical engineer will be prepared for the unexpected, to help prevent molehills from growing into mountains.

Have Realistic Expectations; Apply Appropriate Preventives

The recommendations included in a geotechnical engineering report are *not final,* because they are based on opinions that can be verified only during construction. For that reason, most geotechnical engineering proposals offer the construction observation services that permit the geotechnical engineer of record to confirm that subsurface conditions are what they were expected to be, or to modify recommendations when actual conditions were not anticipated. *An offer to provide construction observation is an offer to better manage your risk.* Clients who do not take advantage of such an offer; clients who retain a second firm to observe construction, can create a high-risk "Catch-22" situation for themselves. *The geotechnical engineer of record cannot assume responsibility or liability for a report's recommendations when another firm performs the services needed to evaluate the recommendations' adequacy.* The second firm is also likely to disavow liability for the recommendations, because of the substantial and possibly uninsurable risk of assuming responsibility for services it did not perform. Recognize, too, that no firm other than the geotechnical engineer of record can possibly have as intimate an understanding of your project's geotechnical issues. As such, reliance on a second firm to perform construction observation can elevate risk still more, because its personnel may not

have the wherewithal to recognize subtle, but sometimes critically important unanticipated conditions, or to respond to them in a manner consistent with your goals, objectives, and risk management preferences.

Realize That Geoenvironmental Issues Have Not Been Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. *Geoenvironmental services are not being offered in this proposal. The report that results will not relate any geoenvironmental findings, conclusions, or recommendations.* Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may be addressed as part of the geotechnical engineering study described in this proposal, the geotechnical engineer who would lead this project ***is not*** a mold prevention consultant; ***none of the services being offered have been designed or proposed for the purpose of mold prevention.***

Have the Geotechnical Engineer Work with Other Design Professionals and Constructors

Other design team members' misinterpretation of a geotechnical engineering report has resulted in costly problems. Manage that risk by having your geotechnical engineer confer with appropriate members of the design team before finalizing the scope of geotechnical service (as suggested above), and, again, after submitting the report. *Also retain your geotechnical engineer to review pertinent elements of the design team members' plans and specifications.*

Reduce the risk of unanticipated conditions claims that can occur when constructors misinterpret or misunderstand the purposes of a geotechnical engineering report. Use appropriate language in your contract documents. Retain your geotechnical engineer to participate in prebid and preconstruction conferences, and to perform construction observation.

Read Responsibility Provisions Closely

Clients, design professionals, and constructors who do not recognize that geotechnical engineering is far less exact than other engineering disciplines can develop unrealistic expectations. Unrealistic expectations can lead to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their proposals. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks, thus to encourage more effective scopes of service. *Read this proposal's provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit to everyone involved with a construction project. Confer with an ASFE member geotechnical engineer for more information. Confirm a firm's membership in ASFE by contacting ASFE directly or at its website.

ASFE
THE BEST PEOPLE ON EARTH
8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

IIGEP06045.0M

AGREEMENT
BETWEEN ENGINEER AND
CONSULTANT FOR PROFESSIONAL
SERVICES

THIS IS AN AGREEMENT effective as of _____ ("Effective Date") between

Ford Engineering, Inc. ("Engineer") and

Freese and Nichols, Inc. ("Consultant").

A. Engineer has entered into an agreement ("Prime Agreement") dated _____ with

City of Schertz, Texas ("Owner")

Which provides for Engineer to perform and furnish professional services in connection with the Project described therein. A copy of the Prime Agreement (excluding compensation and other confidential information) is incorporated as Attachment 1 to this Agreement. The Project described in the Prime Agreement is summarized as follows:

Corbett Site Pump Station and Ground Storage Tank

B. Engineer hereby retains Consultant to provide services under this Agreement generally described as follows:

Engineering services hereinafter set forth in connection with the design and development of the Corbett Site Pump Station and Ground Storage Tank Project that are identified on a Design Phase basis as set forth on **Exhibit I** hereto. Each percentage for which a "Design Phase" is completed in accordance with **Exhibit I** shall be referred to herein as a "Phase". **Freese and Nichols, Inc.** shall provide expert professional engineering services for each Phase assigned and shall facilitate the exchange of design information to engineer for the coordination of each Phase.

("Consultant's Services").

C. Consultant is an independent contractor, and is not an employee or partner of, or a joint-venture with Engineer.

Engineer and Consultant further agree as follows:

ARTICLE 1 – SERVICES OF CONSULTANT

1.1 *Scope*

A. Consultant shall provide, or cause to be provided, Consultant's Services the basic consultation services described in detail in paragraph 1, Basic Services of **Exhibit I** " Description of Basic Consulting Services and Related Matters" within the time periods stipulated herein.

B. All of Consultant's communication to or with Owner or Engineer's other independent professional associates and consultant will be through or with the knowledge of Engineer.

C. To the extent the terms of the Prime Agreement apply to Consultant's Services, the Consultant assumes toward Engineer all the same obligations, duties, and responsibilities that Engineer has assumed toward the Owner. If there is an inconsistency between the Prime Agreement and this Agreement, this Agreement's terms and conditions shall govern; provided, however, that if the Prime Agreement states that a specific provision must be included in any subagreement, or that a specific provision cannot be waived in a subagreement, then the provision as set forth in the Prime Agreement shall govern.

1.2 *Records Retention*

A. Consultant shall maintain on file in legible form, for a period of ten years following completion or termination of its services, or for a longer time if required by the Prime Agreement, all Documents, records (including cost records), and design calculations related to Consultant's Services or pertinent to Consultant's performance under this Agreement. Consultant shall provide a electronic copy of all studies, design analyses and completed product to Engineer during each phase of work and retain as described.

ARTICLE 2 – ENGINEER'S RESPONSIBILITIES

2.1 *General*

A. Engineer shall have the responsibilities set forth herein and in Exhibit II.

B. Engineer shall pay Consultant as set forth in Exhibit I.

C. Engineer shall furnish to Consultant information relevant to Consultant's Services as such information becomes available.

D. Engineer shall be the general administrator and coordinator of the professional services for the Project, and shall facilitate the exchange of information among Engineer's Consultants, as necessary for the coordination of their respective services.

E. Engineer shall be responsible for, and Consultant may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Engineer to Consultant pursuant to this Agreement. Consultant may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

ARTICLE 3 – SCHEDULE FOR RENDERING SERVICES

3.1 *Commencement*

A. Consultant is authorized to begin rendering services as of the Effective Date.

3.2 *Time for Completion*

A. Consultant shall complete its obligations within a reasonable time, and shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services under the Prime Agreement. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.

B. If, through no fault of Engineer or Consultant, such periods of time or dates are changed, or the orderly and continuous progress of Consultant's Services is impaired, or Consultant's Services are delayed or suspended, then Engineer shall request that Owner modify the Prime Agreement's completion and compensation terms to an extent that would allow Engineer to adjust equitably the time for completion of Consultant's Services, and the rates and amounts of Consultant's compensation. Engineer shall adjust the time for completion of Consultant's Services and the rates and amounts of Consultant's compensation under the provisions of this paragraph only to the extent to which Owner has modified the corresponding terms of the Prime Agreement.

C. If Engineer authorizes changes in the scope, extent, or character of Consultant's Services, then Engineer shall adjust equitably the time for completion of Consultant's Services, and the rates and amounts of Consultant's compensation.

D. Engineer shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Consultant's performance of its services.

E. If Consultant fails, through its own fault, to complete the performance of Consultant's Services within the time set forth, as duly adjusted, then Engineer shall be entitled to recover from Consultant any actual damages incurred by Engineer as a result of Consultant's failure to timely complete performance of Consultant's Services.

ARTICLE 4 – PAYMENTS TO CONSULTANT

4.1 *Method of Payment*

ENGINEER shall pay CONSULTANT for Basic Services rendered under Article 1 as more particularly described in paragraph 1 of Exhibit I "Description of Basic Subcontractor Services and Related Matters" with compensation computed as indicated in Exhibit II "Project Fee Summary".

4.2 *Future Adjustment*

If the general scope, extent or character of This Part of the Project is changed materially through no fault of CONSULTANT, the amount of compensation provided for herein shall be subject to equitable adjustment, provided ENGINEER receives a commensurate adjustment under the Prime Agreement.

4.3 *Times of Payment*

Payments to CONSULTANT shall be made in accordance with this paragraph 4.03

4.3.1 CONSULTANT shall submit monthly statements for Basic and Additional Services rendered per Exhibit A. If ENGINEER objects to any statement submitted by CONSULTANT, ENGINEER shall so advise CONSULTANT giving reasons therefore. "Payment of any invoice by ENGINEER, or submitted of invoice to OWNER by ENGINEER, shall not imply approval or acceptance of the services by the ENGINEER."

4.3.2 ENGINEER shall bill OWNER monthly on account of CONSULTANT's services and expenses and shall pay CONSULTANT within ten (10) days of the time ENGINEER receives payment from OWNER on account thereof. It is intended that payments to CONSULTANT will be made as ENGINEER is paid by OWNER under the Prime Agreement and that ENGINEER shall exert reasonable and diligent efforts to collect prompt payment from OWNER.

4.4 *Reproductions and Information*

4.4.1 CONSULTANT shall at CONSULTANT'S expense furnish ENGINEER copies of all progress reproductions and information required by ENGINEER for performance of ENGINEER's services under the Prime Agreement for review of CONSULTANT's services while in progress.

4.4.2 ENGINEER shall at ENGINEER's expense furnish information and progress reproductions of ENGINEER's work and that of others assigned to the Project as may be required for the orderly performance of CONSULTANT services.

ARTICLE 5 – OPINIONS OF COST

5.1 *Opinions of Probable Construction Cost*

A. Consultant's opinions (if any) of probable Construction Cost as to the parts of the Work designed or specified by Consultant, or as to which Consultant has agreed to provide such an opinion, are to be made on the basis of Consultant's experience and qualifications and represent Consultant's estimate as an experienced and qualified professional generally familiar with the construction industry. However, because Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Consultant cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Consultant. If Owner or Engineer requires greater assurance as to probable Construction Cost, then Engineer must recommend that Owner retain an independent cost estimator.

ARTICLE 6 – GENERAL CONSIDERATIONS

6.1 *Standards of Performance*

A. *Standard of Care:* The standard of care for all professional and related services performed or furnished by Consultant under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Consultant makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Consultant.

B. *Technical Accuracy:* Neither Engineer nor Owner shall be responsible for discovering deficiencies in the technical accuracy of Consultant's Services. Consultant shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Engineer-furnished or Owner-furnished information.

6.2 *Termination*

6.2.1 The obligation to provide further services under this Agreement may be terminated by CONSULTANT upon thirty (30) days' written notice to ENGINEER in the event of substantial failure by ENGINEER to perform in accordance with the terms hereof through no fault of CONSULTANT. It may also be terminated by ENGINEER without cause or for ENGINEER's convenience upon seven (7) days' written notice certified return receipt to CONSULTANT.

6.2.2 This Agreement will terminate automatically upon termination of the Prime Agreement.

6.2.3 In the event of any termination per Section 6.02.1 or 6.02.2, and if ENGINEER has received an acceptable statement from CONSULTANT, CONSULTANT will be paid on the basis shown in Exhibit I, "Description of Basic Subcontractor Services and Related Matters" for all unpaid Basic Services and Additional Services performed to the date of termination. ENGINEER shall not be obligated to pay CONSULTANT any other termination expenses. ENGINEER releases CONSULTANT from liability for work not completed due to a termination per Section 6.02.1 or 6.02.2.

6.2.4 This Agreement may also be terminated by ENGINEER for cause, including, but not limited to, CONSULTANT's failure to perform the services required for reasons that are not beyond CONSULTANT's control or CONSULTANT's breach of any of the terms of conditions of this Agreement. In such event, the CONSULTANT shall be deemed in default. In the event of such default, ENGINEER may terminate this Agreement immediately and shall have no obligation to make any further payment to CONSULTANT.

6.3 *Reuse of Documents*

A. All documents furnished by CONSULTANT pursuant to this Agreement are instruments of CONSULTANT's services in respect of This Part of the Project and ENGINEER shall obtain ownership and property interest therein whether or not the Project is complete. However, such documents are not intended or represented to be suitable for reuse by ENGINEER or others on extensions or modifications of the Project or in any other project. Any such reuse without specific written verification and adaptation by CONSULTANT for the specific purposes intended will be at user's sole risk and without liability or legal exposure to CONSULTANT or to CONSULTANT's independent professional associates or sub-subconsultants.

6.4 *Records*

6.4.1 Fiscal record of CONSULTANT pertinent to CONSULTANT's compensation and payments under this Agreement will be kept in accordance with generally accepted accounting practices and will not be disposed of by CONSULTANT until after sixty (60) days' prior written notice to and subsequent approval of ENGINEER.

6.4.2 CONSULTANT shall maintain all records (fiscal and other) and design calculations on file in legible form. A copy of these shall be available to ENGINEER at CONSULTANT's reasonable expense and the originals shall not be disposed of by CONSULTANT until after sixty (60) days' prior written notice and subsequent approval of ENGINEER.

6.4.3 CONSULTANT's records and design calculations will be available for examination and audit during normal business house with five (5) days prior written notice.

6.5 *Insurance and Indemnification*

6.5.1 CONSULTANT agrees and shall submit evidence to the ENGINEER before beginning work on This Part of the Project that CONSULTANT has procured and will maintain Workers Compensation, Commercial General and Contractual Liability, Commercial Automobile Liability, and Professional Liability insurance coverage, with limits as set out in Exhibit III Standard Insurance Specifications. Upon the ENGINEER's request, CONSULTANT shall provide ENGINEER with an exact copy of the insurance policy or policies required hereunder. Any insurance on a "claims made" basis shall be maintained for at least two (2) years after completion of the Work or any time period required by the Prime Contract, whichever is longer.

Prior to the commencement of this part of the Project, CONSULTANT shall provide ENGINEER with certificates of insurance evidencing the required insurance. Such certificates shall be issued by an insurance carrier(s) acceptable to ENGINEER and shall be endorsed to include: (1) ENGINEER and OWNER as additional insured's on the Commercial General Liability and Commercial Automobile Liability Policies; and (2) thirty (30) days prior written notice of cancellation or material change in any of the above coverages; (3) a waiver of subrogation on the Commercial General Liability, Commercial Automobile Liability and Worker's Compensation Policies; (4) primary insurance coverage on the Commercial General

Liability and Commercial Automobile Liability Policies; and (5) be attached as Exhibit III to this Agreement.

MINIMUM REQUIRED INSURANCE

1.	Workers Compensation	-	Statutory
	Employer's Liability	-	$1,000,000 per occurrence
2.	Commercial General & Contractual Liability		
	Bodily Injury	-	$1,000,000 per occurrence $2,000,000 in the aggregate
	Property Damage	-	$1,000,000 per occurrence $1,000,000 in the aggregate
	Personal Injury	-	$1,000,000 per occurrence
3.	Commercial Automobile Liability Coverage for all owned (private and others), hired and non-owned vehicles;		
	Bodily Injury	-	$1,000,000 per occurrence $1,000,000 in the aggregate
	Property Damage	-	$1,000,000 per occurrence $1,000,000 in the aggregate
4.	Professional Liability	-	$1,000,000 per claim $1,000,000 in the aggregate

*Including, when site visitation is required, XCU (explosion, collapse, and underground) hazard coverage and premises operations, independent contractors, products, completed operations, contractual, personal injury (with employee exclusion deleted) and property damage coverages.

In the event CONTRACTOR fails to obtain or maintain any insurance coverage required under this Agreement, ENGINEER may terminate this Agreement for cause.

6.5.2 CONSULTANT shall also cause other independent professional associates and subcontractors retained by CONSULTANT for the Project to procure and maintain the same insurance coverages with endorsements.

6.5.3 CONSULTANT shall indemnify and save harmless and defend the OWNER, ENGINEER, its agents, servants and employees from and against any claim, demand or cause of action of every name or nature arising out of the error, omission or negligent act of the CONSULTANT, its subcontractors, agents, servants or employees in the performance of services under this Agreement. The indemnification provided by this Article 6.05.3 shall in no way be limited by the minimum required insurance identified above. For professional liability claims,

CONSULTANT shall reimburse the OWNER, ENGINEER, its agents, servants and employees for all reasonable costs of their defense in the same proportion CONSULTANT is found liable, rather than "defend" as above."

6.6 *Successors and Assigns*

6.6.1 ENGINEER and CONSULTANT each is hereby bound, and the partners, successors, executors, administrators, and legal representatives of each and to the extent permitted by paragraph 6.06.2 the assigns of ENGINEER and CONSULTANT are hereby bound, to the other party to this Agreement and to the partners, successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

6.6.2 Neither ENGINEER nor CONSULTANT shall assign, sublet or transfer any rights under or interest in this Agreement (including, but without limitation, moneys that may become due or moneys that are due) without the written consent of the other, except to the extent that any assignment, subletting or transfer is mandated by law or the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

6.6.3 Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than ENGINEER and CONSULTANT and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole benefit of ENGINEER and CONSULTANT and not for the benefit of any other party.

6.7 *Delegation of Duties*

If in this Agreement it is stated that the Basic Services of CONSULTANT are to be performed by one or more specified individuals within CONSULTANT's organization, only the individuals so specified shall perform services hereunder and their duties shall not be delegated to any other individual or entity without the written consent of ENGINEER. CONSULTANT may employ such other independent professional associates and subcontractors as CONSULTANT may deem appropriate for assistance in the performance of services hereunder with the prior written consent of ENGINEER.

6.8 *Nondiscrimination and Affirmative Action*

In connection with its performance under this Agreement, CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, age, sex, marital status, sexual orientation or affectional preference, national origin, ancestry, citizenship, physical or mental handicap or because he or she is a disabled veteran or veteran of the Vietnam era. CONSULTANT shall take affirmative action to ensure that qualified applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, age, sex, marital status, sexual orientation or affectional preference, national origin, ancestry, citizenship, physical or mental handicap or

because he or she is a disabled veteran or veteran of the Vietnam era. Such actions shall include recruiting and hiring, selection for training, promotion, fixing rates or other

compensation, benefits, transfers and layoff or termination.

6.9 *Confidentiality*

All services performed by CONSULTANT, including but not limited to all drafts, data, correspondence, proposals, reports, and estimates compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of the ENGINEER and OWNER, their agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of the ENGINEER and OWNER.

In addition, CONSULTANT shall not grant any interviews or make any written or oral statements to any news media representatives regarding the project nor publish any article or make any presentation concerning the Project or services performed by CONSULTANT with the prior written consent of the ENGINEER and OWNER.

6.10 *Governing Law*

This Agreement shall be governed by the laws of the State of Texas.

6.11 *Dispute Resolution*

In the event of any dispute between the parties arising out of or in connection with the contract or the services or work contemplated herein; the parties agree to first make a good faith effort to resolve the dispute informally. Negotiations shall take place between the designated principals of each party. If the parties are unable to resolve the dispute through negotiation within 45 days, then either party may give written notice within 10 days thereafter that it elects to proceed with non-binding mediation pursuant to the commercial mediation rules of the American Arbitration Association. In the event that mediation is not invoked by the parties or that the mediation is unsuccessful in resolving the dispute, then either party may submit the controversy to a court of competent jurisdiction. The foregoing is a condition precedent to the filing of any action other than an action for injunctive relief or if a Statute of Limitations may expire.

Each party shall be responsible for its own cost and expense including attorneys' fees and court cost incurred in the course of any dispute, mediation, or legal proceeding, The fees of the mediator and any filing fees shall be shared equally by the parties.

ARTICLE 7 – EXHIBITS AND OTHER PROVISIONS

EXHIBIT I, Scope of Work

EXHIBIT II, Project Fee Summary

EXHIBIT III, Certificate of Insurance

7.1 *Total Agreement*

A. This Agreement, together with the Exhibits constitutes the entire agreement between

ENGINEER and CONSULTANT and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

7.2 *Designated Representatives*

A. With the execution of this Agreement, Consultant and Engineer shall each designate a specific individual to act as the party's representative under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of the respective party that the individual represents.

7.3 *Consultant's Certifications*

A. Consultant certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement.

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the selection process or in the Agreement execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Engineer or Owner, or (b) to deprive Engineer or Owner of the benefits of free and open competition;

3. "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Engineer:	Consultant:
Ford Engineering, Inc.	Freese and Nichols, Inc.
By:	By:
Title: Principal	Title: David T. Bennett, P.E., Principal
Date Signed:	Date Signed: 04-14-2001
	Professional License No. or Firm's Certificate No. (if required by State law): F-2144
Address for giving notices:	Address for giving notices:
10927 Wye Dr., Suite 104	801 Cherry Street, Suite 2800
San Antonio, Texas 78217	Fort Worth, Texas 76102
Designated Representative:	Designated Representative:
Name: Mark Hill, P.E.	Name: David T. Bennett, P.E.
Title: Principal	Title: Principal
Phone Number: 210-590-4777	Phone Number: 210-298-3829
Facsimile Number: 210-590-4940	Facsimile Number: 210-298-3801
E-Mail Address: mark@fordengineering.com	E-Mail Address: David.Bennett@freese.com

EXHIBIT I, Scope of Work

The electrical scope will include the incoming 480V electrical service, Variable Frequency Drives (VFDs), switchboard, back-up power supply – diesel generator, SCADA, and building/cooling for VFD design for the Ground Storage Tank, Pump Station, and Generator. FNI will also provide the design of an equipment building to house the electrical equipment – switchboard and VFDs. Additional structural design will be for the generator pad and pump pad.

Preliminary Phase

- Provide Preliminary Engineering Report (PER) including incoming 480V electrical service, , options for VFDs, switchboard, generator sizing, SCADA, and building/cooling for the VFDs and other major electrical equipment.
- Coordinate with local Utility for incoming 480V power to the Pump Station.
- Run heat load on equipment building with new VFDs
- Preliminary equipment selection
    - Assume using packaged air-cooled DX units
    - Wall packs or ground mounted RTU
- Make one site visit during design.
- Prepare Opinion of Probable Construction Cost (OPCC).
- Attend one review meeting with the Client at the PER stage.

Design Phase

- Provide electrical, instrumentation and SCADA design for the Pump Station and Ground Storage Tank.
- Provide structural design for the generator pad, pump pad, and building to house the major electrical equipment.
- Provide design for wall mounted HVAC or ground mounted RTU (air cooled DX/electric heating)
- Provide ductwork design for air distribution
- Design controls for lead-lag redundancy for HVAC units
- Design condensate drainage system (no plumbing)
- Provide plans and specifications in PDF format for the 60% Submittal.
- Prepare Opinion of Probable Construction Cost (OPCC).
- Attend one review meeting with the Client at Design Phase interim submittal stage

Final Design Phase

- Update and finalize electrical and structural plans and specifications based on comments from the 60% design submittal stage.
- Provide plans and specifications in PDF format for the Final Submittal.
-
- Prepare Opinion of Probable Construction Cost (OPCC).

Bid Phase

- Respond to requests for information (RFIs) and assist with addenda as required.

- Provide Issued for Construction set of plans/specs.

Construction Phase Services
- Respond to requests for information (RFIs).
- Review shop drawing submittals.
- Attend preconstruction meeting
- Attend up to two site visits during construction for observation (no special inspections)
- Attend up to two site visits for final walk-thru/punch list
- Record Drawings
- Review O&M manuals

EXHIBIT II, Project Fee Summary

Lump Sum: Compensation to Consultant shall be the lump sum fee of **Two Hundred Fifty-five Thousand Seven Hundred Twenty-five Dollars ($255,725.00).** If Consultant sees the Scope of Services changing so that additional services are needed, Consultant will notify Engineer for Engineer's approval before proceeding. Additional Services shall be computed based on a negotiated lump sum fee.

Phase	Amount	Fee type
Preliminary Phase	$ 60,296	Lump Sum
Design Phase	$ 137,514	Lump Sum
Bid Phase	$ 13,976	Lump Sum
Construction Phase Services	$ 43,939	Lump Sum
Total	$ 255,725	

EXHIBIT III, Certificate of Insurance