

**PROFESSIONAL SERVICES
SUPPLEMENTAL AGREEMENT #01
FOR
CENTRAL WASTEWATER TREATMENT PLANT EXPANSION**

**STATE OF TEXAS §
 §
COUNTY OF TRAVIS §**

This Supplemental Agreement No. 01 to a contract for Professional Services is made by and between the City of Pflugerville, Texas ("City") and Freese and Nichols, Inc. ("Consultant"). City and Consultant may be referred to herein singularly as "Party" or collectively as the "Parties."

WHEREAS, the City and Consultant executed an Agreement for Professional Services ("Agreement") on the 30 day of March, 2017 for the Central Wastewater Treatment Plant project ("Project") in the amount of \$375,806.00; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the Term of the Agreement, Scope of Services, Work Schedule, Compensation, and Assignment and Subcontracting; and

WHEREAS, it is necessary for the City to amend its agreements from time to time to comply with changes in state law relating to contracts of municipalities.

NOW, THEREFORE, premises considered, the City and the Consultant agree that said Agreement is amended as follows:

I.

Article II. Term shall be amended by changing the term of the Agreement to terminate on August 31, 2019, with the ratification and incorporation of the remaining terms of the Agreement.

Article III. Scope of Services and Exhibit 1, shall be amended as set forth in the attached addendum to Exhibit 1 for design and bid phase services for the Central Wastewater Treatment Plant Expansion.

Article III. Work Schedule shall be amended as set forth in the attached Exhibit 2.

Article IV. Compensation to Consultant and Exhibit 3 (Fee Schedule), shall be amended by increasing by \$3,442,165 (Three Million Four Hundred Forty-Two Thousand One Hundred Sixty-Five Dollars and no cents) the amount payable under the Agreement as shown by the attached Exhibit 3 (Fee Schedule) for a total of \$3,817,971 (Three Million Eight Hundred Seventeen Thousand Nine Hundred Seventy-One Dollars and no cents).

Article XI. Assignment and Subcontracting shall be amended to include the following subcontractors: Austin Geologic, Geoscience, TRI, The Rios Group, and Inland Geodetics, Gupta and Associates, Inc.

Article XIV. Conflict of Interest. Shall be hereby revised to add the following provision:

13.3 Certificate of Interested Parties (TEC Form 1295). For contracts needing City Council approval, or any subsequent changes thereto requiring City Council approval, the City may not accept or enter into a contract until it has received from the Consultant a completed, signed, and notarized TEC Form 1295 complete with a certificate number assigned by the Texas Ethics Commission (“TEC”), pursuant to Texas Government Code § 2252.908 and the rules promulgated thereunder by the TEC. The Consultant understands that failure to provide said form complete with a certificate number assigned by the TEC may prohibit the City from entering into this Agreement. Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC’s website, assigned a certificate number, printed, signed and notarized, and provided to the City. The TEC Form 1295 must be provided to the City prior to the award of the contract. The City does not have the ability to verify the information included in a TEC Form 1295, and does not have an obligation or undertake responsibility for advising Consultant with respect to the proper completion of the TEC Form 1295.

Article XXV. Miscellaneous City Code Provisions. Shall be hereby revised to add the following provision:

Texas Government Code Mandatory Provision. The City of Pflugerville may not enter into a contract with a company for goods and services unless the contract contains a written verification from the company that it; (i) does not boycott Israel; and (ii) will not boycott Israel during the term of the contract. (Texas Government Code, Chapter 2270.002) by accepting this rider, the Consultant hereby verifies that it does not boycott Israel, and agrees that, during the term of this agreement, will not boycott Israel as that term is defined in the Texas Government Code, Section 808.001, as amended. Further, the Consultant hereby certifies that it is not a company identified under Texas Government Code, Section 2252.152 as a company engaged in business with Iran, Sudan, or Foreign Terrorist Organization.

2.

Except as amended hereby and as previously amended as indicated above, the terms of the Agreement shall remain unchanged and in full force and effect.

EXECUTED and **AGREED** to as of the dates indicated below.

**CITY OF
PFLUGERVILLE**

CONSULTANT

(Signature)

(Signature)

Printed Name: Trey Fletcher

Printed Name: _____

Title: Acting City Manager

Title: _____

Date: _____

Date: _____

APPROVED AS TO FORM:

Charles E. Zech
City Attorney
DENTON NAVARRO ROCHA BERNAL & ZECH, P.C.

SUPPLEMENTAL AGREEMENT 01
EXHIBIT 1 - SCOPE OF WORK
Central Wastewater Treatment Plant Expansion/Upgrade to 10.0 MGD

GENERAL DESCRIPTION OF PROJECT AND SERVICES

Wastewater flow to the City of Pflugerville's (CITY) Central Wastewater Treatment Plant (WWTP) has exceeded 75% of the permitted capacity and the trend in the City's population growth indicates the plant could exceed 90% capacity as early as 2021. The CITY is planning to expand the wastewater plant from its current permitted capacity of 5.3 MGD to 10.0 MGD (35 MGD peak two-hour flow) to meet projected needs. The CITY has submitted a TPDES Major Permit Amendment and it is anticipated the plant expansion must be designed to meet 5/5/2/1 (mg/L for BOD, TSS, Ammonia and Phosphorous respectively). In addition to providing increased capacity, some of the existing unit processes are aging and require rehabilitation/replacement to enable those units to serve as reliable components of the expanded system.

The CITY previously retained Freese and Nichols, Inc. (FNI) for a Study Phase to evaluate the existing WWTP and develop recommendations for improvements for expansion of the facility. FNI presented its recommendations in a Conceptual Design Report (December 19, 2017) which documented the design basis, alternative analyses, proposed process improvements, Opinion of Probable Construction Costs, and estimated project schedule. FNI recommended that in addition to increasing the plant capacity, that the treatment processes should also be upgraded to provide for biological nutrient removal (BNR) of phosphorous to replace the existing chemical phosphorous precipitation process. Upgrading the treatment process to BNR will significantly reduce the volume of waste sludge produced, thereby reducing energy and sludge disposal costs.

During the study phase FNI identified a number of minor improvements that could be made immediately to alleviate some nuisance operating conditions and improve process control during the interim period while the design and construction of the treatment plant expansion is ongoing. These improvements (referred to by the project team as the "Interim Improvements Project") are described as follows:

Interim Improvements Project

- Rehabilitation and modifications to existing (unused) sludge holding tank, including demolition of existing equipment, replacement of air piping and diffuser supports, coating interior walls
- Installation of magnetic flow meters on waste activated sludge lines
- Demolition of existing sludge transfer pumps
- Replacement of centrifugal aeration blower, including power supply and control wiring
- Replacement of progressive cavity sludge transfer pumps (2), including power supply and control wiring
- Installation of floating aerators (2) in Carousel aeration basins for supplemental aeration and mixing, including structural modifications for anchor cables, power supply and control wiring
- Relocation of existing return activated sludge line to discharge downstream of existing influent screens
- Modification of sludge transfer yard piping to eliminate 90 degree bends and replace a section of 4" pipeline with 6" pipeline
- Modifications to SCADA system to include new equipment and instrumentation

Treatment Plant Expansion Project

The CITY directed FNI to develop a phased implementation plan for the treatment plant expansion to allow the capital costs to be distributed over several years and to defer construction of the solids processing facilities until such time as waste solids production from the expanded facility requires the solids handling capacity to be increased. Therefore, it is anticipated that the plant expansion project will be implemented in three (3) construction phases, as follows:

Phase I Improvements (Note: Equipment added in this phase will be sized to meet ultimate capacity.)

- New influent lift station with wet well and submersible pumps
- New catenary type coarse screens (2), multi-rake fine screen (1) and stacked tray type grit removal system
- New flow splitter box to split flow to existing and new liquids treatment trains
- New Carrousel style aeration tanks (2) with turbine style aerator/mixers designed for nutrient removal
- New mixed liquor splitter box to split flow between existing and new clarifiers
- New final clarifier with hydraulic sludge removal mechanism
- Expanded return and waste activated sludge pumps
- New effluent cloth filters
- New ultra-violet (UV) disinfection system
- New non-potable water pump station
- New NPW and reclaimed water disinfection system
- New effluent flow meter (Parshall flume) and reaeration tank, non-potable water pumps
- New electrical/motor control building near the influent pump station/headworks
- New electrical/motor control building near the NPW/UV system
- New combined laboratory/administration/electrical motor control building
- New back-up electrical generators
- Associated electrical, controls and SCADA system improvements
- Associated yard piping
- Associated drainage and paving improvements

Phase II Improvements - (To be constructed immediately following Phase I)

- New anaerobic/anoxic basins (2) to enable biological nutrient removal through the existing Carrousel units
- Rehabilitation of the existing process units that will continue to be used in the expanded/upgraded treatment facility, including but not necessarily limited to, the existing Carrousel units (2), final clarifiers (2)
- Associated electrical, controls and SCADA system improvements
- Associated yard piping
- Associated drainage and paving improvements

Phase III Improvements - (To be constructed approximately 2027, depending on actual rate of increase in influent flow)

- New waste sludge processing facility, including rotary drum sludge thickeners (2) and screw press sludge dewatering units (2), and solids processing building
- Associated electrical, controls and SCADA system improvements
- Associated yard piping
- Associated drainage and paving improvements

This Scope of Work for the treatment plant expansion includes development the final construction documents (plans and specifications) for Phase I. This Scope of Work also includes development of Phase II and Phase III to approximately 30% design to coordinate all project phases. Design effort for Phase I may include a limited amount of work for Phases II and III if it is cost effective to design and construct as part of the Phase I improvements (i.e. drain lines, spare electrical conduits, etc.).

BASIC SERVICES AND SPECIAL SERVICES: FNI shall render the following professional services in connection with the development of the Project:

I. Interim Improvements Project

A. Design Phase Services

1. Prepare drawings, specifications, Construction Contract Documents, designs, and layouts of improvements to be constructed for each milestone submittal described above and for the final construction contract documents.
2. Prepare specifications for equipment to be pre-purchased by CITY (aeration blower, floating aerators) and prepare advertisements for bids.
3. Prepare bidder's proposal forms (project quantities) of the improvements to be constructed.
4. Furnish CITY five (5) half-size sets and one electronic PDF copy of drawings, specifications, and bid proposals for each submittal for review and approval by CITY.

B. Bid Phase Services

Upon completion of the design services and approval of drawings and specifications by CITY, FNI will proceed with the performance of services in this phase as follows:

1. Coordinate with the CITY to issue a Notice to Bidders to prospective contractors and vendors, and to selected plan rooms.
2. Submit contract documents (plans and specification) to the CITY (one (1) electronic copy, one (1) full-size hard copy).
3. Assist CITY by responding to questions and interpreting bid documents. Prepare and issue addenda to the bid documents to plan holders, if necessary.
4. Assist the CITY in conducting a pre-bid conference for the construction project and coordinate responses with CITY. Response to the pre-bid conference will be in the form of addenda issued after the conference. Attend the tour of the project site after the pre-bid conference.
5. Develop an example "Construction Sequence" presentation, demonstrating to potential Contractors possible methodologies for sequencing construction events. FNI will also provide special procedures and construction constraints, clearly identified in the plans, specs and in the presentation, to define limitations for the Contractor to take any unit process or plant facility out of service for construction.
6. Assist CITY in the opening, tabulating, and analyzing the bids received. Review the qualification information provided by the apparent low bidder to determine if, based on the information available, they appear to be qualified to construct the project. Recommend award of contracts or other actions as appropriate to be taken by CITY.
7. Assist CITY in the preparation of Conformed (As-Bid) Construction Contract Documents. "As-Bid" plans and specifications shall incorporate any changes from addendum into the final electronic documents and the documents shall be reprinted with the appropriate changes notated and clouded per FNI record drawing standards. Provide three (3) full size and seven (7) half-size sets

of "As-Bid" Construction Contract Documents which include information from the apparent low bidders bid documents, legal documents, and addenda bound in the documents for execution by the CITY and construction contractor. Distribute copies of these documents to the contractor with a notice of award that includes directions for the execution of these documents by the construction contractor. Provide CITY with the remaining hard copies and one electronic PDF copy of these documents for use during construction.

8. Furnish contractor copies of the drawings and specifications for construction pursuant to the General Conditions of the Construction Contract.

C. Construction Phase Services

Upon completion of the bid phase services, FNI will proceed with construction phase services as described below. FNI will endeavor to protect CITY in providing these services however, it is understood that FNI does not guarantee the Contractor's performance, nor is FNI responsible for supervision of the Contractor's operation and employees. FNI shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor, or any safety precautions and programs relating in any way to the condition of the premises, the work of the Contractor or any Subcontractor. FNI shall not be responsible for the acts or omissions of any person (except its own employees or agents) at the Project site or otherwise performing any of the work of the Project.

1. Assist CITY in conducting pre-construction conference with the Contractor, review construction schedules prepared by the Contractor pursuant to the requirements of the construction contract, and prepare a proposed estimate of monthly cash requirements of the Project from information provided by the Construction Contractor.
2. Establish communication procedures with the CITY and contractor. Submit monthly reports of construction progress. Reports will describe construction progress in general terms and summarize project costs, cash flow, construction schedule and pending and approved contract modifications.
3. Establish and maintain a project documentation system consistent with the requirements of the construction contract documents. Monitor the processing of contractor's submittals and provide for filing and retrieval of project documentation. Produce monthly reports indicating the status of all submittals in the review process. Review contractor's submittals, including, requests for information, modification requests, shop drawings, schedules, and other submittals in accordance with the requirements of the construction contract documents for the projects. Monitor the progress of the contractor in sending and processing submittals to see that documentation is being processed in accordance with schedules.
4. Based on FNI's observations as an experienced and qualified design professional and review of the Payment Requests and supporting documentation submitted by Contractor, determine the amount that FNI recommends Contractor be paid on monthly and final estimates, pursuant to the General Conditions of the Construction Contract.
5. Make visits appropriate to the stage of construction to the site (as distinguished from the continuous services of a Resident Project Representative) to observe the progress and the quality

of work and to attempt to determine in general if the work is proceeding in accordance with the Construction Contract Documents. In this effort FNI will endeavor to protect the CITY against defects and deficiencies in the work of Contractors and will report any observed deficiencies to CITY.

6. Notify the contractor of non-conforming work observed on site visits. Review quality related documents provided by the contractor such as test reports, equipment installation reports or other documentation required by the Construction contract documents.
7. Coordinate the work of testing laboratories and inspection bureaus required for the testing or inspection of materials, witnessed tests, factory testing, etc. for quality control of the Project.
8. Interpret the drawings and specifications for CITY and Contractor(s). Investigations, analyses, and studies requested by the Contractor(s) and approved by CITY, for substitutions of equipment and/or materials or deviations from the drawings and specifications are an additional service.
9. Establish procedures for administering constructive changes to the construction contracts. Process contract modifications and negotiate with the contractor on behalf of the CITY to determine the cost and time impacts of these changes. Prepare change order documentation for approved changes for execution by the CITY. Documentation of field orders, where cost to CITY is not impacted, will also be prepared. Investigations, analyses, studies or design for substitutions of equipment or materials, corrections of defective or deficient work of the contractor or other deviations from the construction contract documents requested by the contractor and approved by the CITY are an additional service. Substitutions of materials or equipment or design modifications requested by the CITY are an additional service.
10. Prepare documentation for contract modifications required to implement modifications in the design of the project. Receive and evaluate notices of contractor claims and make recommendations to the CITY on the merit and value of the claim on the basis of information submitted by the contractor or available in project documentation. Endeavor to negotiate a settlement value with the Contractor on behalf of the CITY if appropriate. Providing these services to review or evaluate construction contractor(s) claim(s), supported by causes not within the control of FNI are an additional service.
11. Assist in the transfer of and acceptance by the construction contractor of any CITY furnished equipment or materials.
12. Conduct, in company with CITY's representative, a final review of the Project for conformance with the design concept of the Project and general compliance with the Construction Contract Documents. Prepare a list of deficiencies to be corrected by the contractor before recommendation of final payment. Assist the City in obtaining legal releases, permits, warranties, spare parts, and keys from the contractor. Review and comment on the certificate of completion and the recommendation for final payment to the Contractor(s). Visiting the site to review completed work in excess of two (2) trips are an additional service.
13. Revise the construction drawings in accordance with the information furnished by construction Contractor(s) reflecting changes in the Project made during construction. Two (2) full-size sets of "Record Drawings" shall be provided by FNI to the CITY.

II. Treatment Plant Expansion Project

A. Design Phase Services

1. Conduct a Design Phase Kick-off Meeting with CITY: (1) to review the scope of services, (2) establish communications protocol, (3) review project schedule, (4) discuss and understand any other requirements or expectations the CITY may have for the project.
2. Perform general administrative duties associated with the project including progress monitoring, monthly progress reporting, scheduling, general correspondence, documentation, office administration and invoicing for the scope items identified below. These duties include maintaining routine contact with the CITY to help meet the needs of the CITY in a timely manner, and executing the work in accordance with the work plan, budget and schedule.
3. Advise CITY as to the necessity of CITY's providing or obtaining data or services from others, and assist CITY regarding any such services.
4. Meetings and Site Visits:
 - a. Conduct monthly progress meetings, up to a maximum of twelve (12) meetings during the design phase. Conduct up to twelve (12) meetings by telephone conference call between monthly progress meetings.
 - b. Conduct up to six (6) additional site visits by the engineering team to the WWTP, for coordination on condition assessment and design aspects for completion of the project.
 - c. Conduct one (1) Process and Instrumentation Diagram (P&ID) workshop to review the proposed instrumentation and process control concepts.
 - d. Conduct up to three (3) design review workshops at the 30%, 60% and 90% design level to review the construction documents, answer questions and receive comments from the CITY's project team.
 - e. Conduct one (1) Construction Sequencing workshop between the 60% and 90% design level to establish the sequence of construction and any special operating procedures required during construction to enable the required details to be incorporated into the construction documents.
5. Obtain the services of a licensed Land Surveyor to perform topographic survey of the existing WWTP for the purposes of defining the location and elevation of existing facilities, extent and limits of the area(s) planned for construction of new treatment units, drainage patterns, and other information required for design of the WWTP expansion.
6. Commission geotechnical borings and provide a Geotechnical Engineering Report as required for the design phase.
7. Perform required TCEQ Chapter 217 process calculations to size the treatment units for recommended alternative from the Conceptual Design Report. Document calculations and any proposed variances to TCEQ rules for regulatory approvals.
8. Update and submit one (1) electronic copy of the Opinion of Probable Construction Cost (OPCC) at 30%, 60%, 90% and 100% design levels.

9. Prepare drawings, specifications, Construction Contract Documents, designs, and layouts of improvements to be constructed for each milestone submittal described above and for the final construction contract documents.

The Conceptual Design Report identified two (2) vendors/suppliers for the Carrousel type aeration equipment, but the site layout and design details differ for each vendor. The Scope of Work anticipates that design will include alternate layouts to accommodate either vendor to encourage competition during the bidding phase. If during the 30% design phase it is determined that it is in the CITY's best interest to base the design on a particular vendor's equipment configuration, the final detail design (60% - 100%) for the alternate facility layout will not be performed. The fee for final detail design of the alternate facility layout is identified as Special Services in Exhibit 3.

10. Freese and Nichols will develop a reference storm water pollution prevention plan (SWPPP) for the project to be executed by the project's Primary and Secondary Operators to reduce the release of sediment and pollution from the construction site. The construction SWPPP provided will be written to comply with the requirements of the Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) general permit for storm water runoff from construction activity (TXR150000).

The SWPPP document will consist of an erosion control and waste management narrative plan including site parameters, best management practices (BMPs) and techniques, erosion control drawings with site controls, and a checklist outlining the necessary steps the Primary and Secondary Operators must complete to apply for authorization under this permit. Three (3) copies of the SWPPP reference document will be provided.

11. Plans and Specifications for any potentially occupied building will be submitted through the CITY's planning and development process for construction permitting. The CITY will coordinate on obtaining these permits.
12. As part of all final design submittals, electronic digital files (PDFs) for design calculations and CAD/Revit shall be submitted to the CITY.
13. Furnish CITY, when requested, the engineering data necessary for applications for routine permits required by local, state and federal authorities. Preparation of applications and supporting documents for government grants, TWDB or other funding is an Additional Service.
14. Detailed design elements shall be developed using AutoCAD and Autodesk Revit BIM software for modeling the plant arrangement, coordinating with the CITY on the detailed mechanical, equipment and structures and the development of plan sheets for bidding purposes.
15. Submit drawings, specifications, design documentation and Construction Contract Documents to the Texas Commission on Environmental Quality (TCEQ) for regulatory approval. Submit drawings for the Laboratory/Administration Building to the Texas Department of Licensing and Regulation for required ADA compliance rule reviews and associated approvals. No other submittals for regulatory or permitting reviews are anticipated or included in the Scope of Work.
16. This project will be delivered using Competitive Sealed Proposals (CSP). FNI will use FNI standard CSP contract documents and technical standards for drawings and technical specifications.

17. Coordinate with and furnish such information necessary to utility companies whose facilities may be affected, or services may be required for the Project.
18. Prepare bidder's proposal forms (project quantities) of the improvements to be constructed.
19. Furnish CITY five (5) half-size sets and one electronic PDF copy of drawings, specifications, and bid proposals for each submittal review and workshop above, for review and approval by CITY.

B. Bid Phase Services

Bid phase services assume the project is constructed based on a Competitive Sealed Proposal selection process. Upon completion of the design services and approval of "Final" drawings and specifications by CITY, FNI will proceed with the performance of services in this phase as follows:

1. Issue a Notice to Bidders, consistent with the selected CSP process, for the CITY to distribute to prospective contractors and vendors, and to selected plan rooms, using the CITY's standard bid process. Provide a copy of the notice to bidders for CITY to use in notifying construction news publications and publishing appropriate legal notice. The cost for publications shall be paid by CITY.
2. Assist CITY in securing Competitive Sealed Proposals (bids). In coordination with the CITY, assist the CITY in development of CSP selection criteria, assist in development of bidding documents for CSP using FNI's standard construction contract documents format, assist the CITY with evaluating bids/proposals for compliance (FNI will not be a voting member of the selection panel, but will participate in and provide guidance to CITY during contractor interviews/selections), and assist with the CSP award process.
3. Distribution of bid documents to selected plan rooms, and to prospective bidders that respond to the Notice to Bidders shall follow the CITY's standard bid procedure. FNI shall provide up to ten (10) sets of Bid Documents (three (3) full-size and seven (7) half-size) for the CITY's use, and coordinate with the CITY's procurement process for distribution of Contract Documents to prospective bidders and notification to plan rooms.
4. Communicate with potential bidders as required by the CITY's standard bid process.
5. Assist CITY by responding to questions and interpreting bid documents. Prepare and issue addenda to the bid documents to plan holders, if necessary, following the CITY's standard bid process.
6. The CITY will receive and open, and evaluate Competitive Sealed Proposals based on the published bid/proposer evaluation criteria at the appointed time.
7. Assist the CITY in conducting two (2) pre-bid conferences for the construction project and coordinate responses with CITY. Response to the pre-bid conference will be in the form of addenda issued after the conference. Attend the tours of the project site after the pre-bid conference.
8. Develop an example "Construction Sequence" presentation, demonstrating to potential Contractors possible methodologies for sequencing construction events. FNI will also provide special procedures and construction constraints, clearly identified in the plans, specs and in the

presentation, to define limitations for the Contractor to take any unit process or plant facility out of service for construction.

9. Assist CITY in the preparation of Conformed (As-Bid) Construction Contract Documents. "As-Bid" plans and specifications shall incorporate any changes from addendum into the final electronic documents and the documents shall be reprinted with the appropriate changes notated and clouded per FNI record drawing standards. Provide three (3) full size, seven (7) half-size sets of "As-Bid" Construction Contract Documents which include information from the apparent low bidders bid documents, legal documents, and addenda bound in the documents for execution by the CITY and construction contractor. Distribute copies of these documents to the contractor with a notice of award that includes directions for the execution of these documents by the construction contractor. Provide CITY with the remaining hard copies and one electronic PDF copy of these documents for use during construction.
10. Furnish contractor copies of the drawings and specifications for construction pursuant to the General Conditions of the Construction Contract.

ADDITIONAL SERVICES: Additional Services to be performed by FNI, if authorized by CITY, which are not included in the above described basic services, are described as follows:

- A. Construction or Post Construction/Startup Phase Services for treatment plant expansion.
- B. Field layouts or the furnishing of construction line and grade surveys.
- C. GIS mapping services or assistance with these services.
- D. Providing services to investigate existing conditions or facilities, or to make measured drawings thereof, or to verify the accuracy of drawings or other information furnished by CITY.
- E. Providing renderings, model, and mock-ups requested by the CITY.
- F. Revising drawings, specifications or other documents when such revisions are 1) not consistent with approvals or instructions previously given by CITY or 2) due to other causes not solely within the control of FNI.
- G. Providing consultation concerning the replacement of any Work damaged by fire or other cause during the construction, and providing services as may be required regarding the replacement of such Work.
- H. Investigations involving consideration of operation, maintenance and overhead expenses, and the preparation of rate schedules, earnings and expense statements, feasibility studies, appraisals, evaluations, assessment schedules, and material audits or inventories required for certification of force account construction performed by CITY.
- I. Preparing applications and supporting documents for government grants, loans, or planning advances and providing data for detailed applications.
- J. Providing shop, mill, field or laboratory inspection of materials and equipment. Observe factory tests of equipment at any site remote to the project or observing tests required because of equipment failing the initial test.
- K. Conducting pilot plant studies or tests.
- L. Preparing data and reports for assistance to CITY in preparation for hearings before regulatory agencies, courts, arbitration panels or any mediator, giving testimony, personally or by deposition, and preparations therefore before any regulatory agency, court, arbitration panel or mediator.
- M. Furnishing Special Inspections required under chapter 17 of the International Building Code. These Special Inspections are often continuous, requiring an inspector dedicated to inspection of the individual work item, and they are in addition to General Representation and Resident Representation services noted elsewhere in the contract. These continuous inspection services can be provided by FNI as an Additional Service.
- N. Assisting CITY in preparing for, or appearing at litigation, mediation, arbitration, dispute review boards, or other legal and/or administrative proceedings in the defense or prosecution of claims disputes with Contractor(s).

- O. Performing investigations, studies and analyses of substitutions of equipment and/or materials or deviations from the drawings and specifications.
- P. Assisting CITY in the defense or prosecution of litigation in connection with or in addition to those services contemplated by this Agreement. Such services, if any, shall be furnished by FNI on a fee basis negotiated by the respective parties outside of and in addition to this Agreement.
- Q. Providing environmental support services including the design and implementation of ecological baseline studies, environmental monitoring, impact assessment and analyses, permitting assistance (beyond the TPDES major amendment shown in Basic Services), and other assistance required to address environmental issues.
- R. Performing investigations, studies, and analysis of work proposed by construction contractors to correct defective work.
- S. Design, contract modifications, studies or analysis required to comply with local, State, Federal or other regulatory agencies that become effective after the date of this agreement.
- T. Services required to resolve bid protests or to rebid the projects for any reason.
- U. Visits to the site more than the number of trips included in Basic Services for periodic site visits, coordination meetings, or contract completion activities.
- V. Any services required because of default of the contractor(s) or the failure, for any reason, of the contractor(s) to complete the work within the contract time.
- W. Providing services after the completion of the construction phase not specifically listed in Basic Services.
- X. Providing basic or additional services on an accelerated time schedule. The scope of this service include cost for overtime wages of employees and consultants, inefficiencies in work sequence and plotting or reproduction costs directly attributable to an accelerated time schedule directed by the CITY.
- Y. Providing services made necessary because of unforeseen, concealed, or differing site conditions or due to the presence of hazardous substances in any form.
- Z. Providing services to review or evaluate construction contractor(s) claim(s), provided said claims are supported by causes not within the control of FNI.
- AA. Providing value engineering studies or reviews of cost savings proposed by construction contractors after bids have been submitted.
- BB. Preparing statements for invoicing or other documentation for billing other than for the standard invoice for services attached to this professional services agreement.
- CC. Provide follow-up professional services during Contractor's warranty period.
- DD. Providing data, reports or briefings to CITY Council on the status of the project.

TIME OF COMPLETION: FNI is authorized to commence work on the Project upon execution of this AGREEMENT and agrees to complete the services in accordance with the following schedule:

30% Design Documents Submittal	12 weeks after NTP
60% Design Documents Submittal	14 weeks after receipt of comments from the City
90% Design Documents Submittal	14 weeks after receipt of comments from the City
100% Design Documents Submittal	3 weeks after receipt of comments from the City

If FNI’s services are delayed through no fault of FNI, FNI shall be entitled to adjust contract schedule consistent with the number of days of delay. These delays may include but are not limited to delays in CITY or regulatory reviews, delays on the flow of information to be provided to FNI, governmental approvals, etc. These delays may result in an adjustment to compensation as outlined on the face of this AGREEMENT and in Attachment CO.

RESPONSIBILITIES OF CITY: CITY shall perform the following in a timely manner so as not to delay the services of FNI:

- A. Designate in writing a person to act as CITY’s representative with respect to the services to be rendered under this Agreement. Such person shall have contract authority to transmit instructions, receive information, interpret and define CITY’s policies and decisions with respect to FNI’s services for the Project.
- B. Provide all criteria and full information as to CITY’s requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which CITY will require to be included in the drawings and specifications.
- C. Assist FNI by placing at FNI’s disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project.
- D. Arrange for access to and make all provisions for FNI to enter upon public and private property as required for FNI to perform services under this Agreement.
- E. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by FNI, obtain advice of an attorney, insurance counselor and other consultants as CITY deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of FNI.
- F. Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.
- G. Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such legal services as CITY may require or FNI may reasonably request with regard to legal issues pertaining to the Project including any that may be raised by Contractor(s), such auditing service as CITY may require to ascertain how or for what purpose any Contractor has used the moneys paid under the construction contract, and such inspection services as CITY may require to ascertain that Contractor(s) are complying with any law, rule, regulation, ordinance, code or order applicable to their furnishing and performing the work.

- H. Give prompt written notice to FNI whenever CITY observes or otherwise becomes aware of any development that affects the scope or timing of FNI's services.
- I. Furnish, or direct FNI to provide, Additional Services as stipulated in this Agreement or other services as required.
- J. Bear all costs incident to compliance with the requirements this section.

EXHIBIT 2
City of Pflugerville Central WWTP Expansion to 10 MGD, Phase I
 Design/Bid Phase Project Schedule
 (as of February 2, 2018)

ID	Task Name	Duration	Start	Finish	2018				2019				2020							
					Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1			
1	Pflugerville Central WWTP Expansion - Final Design	320 days	Wed 2/14/18	Tue 5/7/19																
2	NTP on Final Design Phase	0 days	Wed 2/14/18	Wed 2/14/18	◆ 2/14															
3	30% Design Docs	12 wks	Wed 2/14/18	Tue 5/8/18																
4	City Review of Design Docs	10 days	Wed 5/9/18	Tue 5/22/18																
5	60% Design Docs	14 wks	Wed 5/23/18	Tue 8/28/18																
6	City Review of Design Docs	10 days	Wed 8/29/18	Tue 9/11/18																
7	90% Design Docs	14 wks	Wed 9/12/18	Tue 12/18/18																
8	City Review of Design Docs	10 days	Wed 12/19/18	Tue 1/1/19																
9	100% Design Docs	3 wks	Wed 1/2/19	Tue 1/22/19																
10	Submit Design Docs to TCEQ	0 days	Tue 1/22/19	Tue 1/22/19	◆ 1/22															
11	TCEQ Review	60 days	Wed 1/23/19	Tue 4/16/19																
12	Advertise/Bid/Award Const. Contracts	75 days	Wed 1/23/19	Tue 5/7/19																
13	Advertise for Bids	45 days	Wed 1/23/19	Tue 3/26/19																
14	Bid Opening/Review/Award	30 days	Wed 3/27/19	Tue 5/7/19																
15																				
16	Construction	18 mons	Wed 5/8/19	Tue 9/22/20																
17	Start-up	2 mons	Wed 9/23/20	Tue 11/17/20																

							Project Fee Summary				
							Basic Services	3,389,841			
							Special Services	52,324			
							Total Project	3,442,165			

Team Member	Construction Manager V	Construction Manager V	Environmental Scientist IV	Environmental Scientist II	Administrative Assistant II	Sr. Operations Analyst	Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort
Tasks ↓ Current Hourly Bill Rate →											
Project Management and Meetings (12 Months)											
Project Administration/Reporting/Documentation											
Project Kick-off Meeting (Client)											
Project Kick-off Meeting (Internal)											
Progress Meetings (monthly, 12 months, conf call as needed)											
Coordination of Subs											
Surveyor											
Geotech											
Site Visits with Design Team (up to 6)											
Design of Interim Improvements											
30% Design Development											
Process Design											
Detailed Process Calculations for TCEQ Submittal											
Process Flow Diagram/Mass Balance											
Preliminary P&IDs											
Hydraulic Calculations/Hydraulic Profile											
P&ID Review Workshop											
Civil Design											
General Site Plan and Equipment Layout											
Topographic Plan, Survey Control Points											
Demolition Plans - General Layout											
Yard Piping Plans - General Layout											
Paving Plans - General Layout											
Grading Plans - General Layout											
Geotechnical Study											
SWPPP and Erosion and Sedimentation Control Plan and Details											
Unit Process Design - Phase I Improvements											
Influent Lift Station Design Calcs, Layout, Outline Specs											
Coarse Screen Design Calcs, Layout, Outline Specs											
Fine Screen Design Calcs, Layout, Outline Specs											
Grit Removal System Design Calcs, Layout, Outline Specs											
Influent Splitter Box Design Calcs, Layout, Outline Specs											
BNR Carousel Basins Design Calcs, Layout, Outline Specs											
ML Splitter Box Design Calcs, Layout, Outline Specs											
Final Clarifier Design Calcs, Layout, Outline Specs											
RAS/WAS PS Design Calcs, Layout, Outline Specs											
Cloth Filter Design Calcs, Layout, Outline Specs											
UV Disinfection Design Calcs, Layout, Outline Specs											
Non-potable Water System Design Calcs, Layout, Outline Specs											
Effluent Flow Meter/Reaeration Design Calcs, Layout, Outline Specs											
Admin/Lab/Electrical Building - Floor Plan and Elevation											
Electrical Buildings at Headworks and UV Area - Floor Plan and Elevation											
Electrical Site Plan - Layout, Outline Specs											
Standby Power System - Design Calcs, Layout, Outline Specs											
SCADA System Architecture, Outline Specs											
30% Design - Phase II Improvements (Rehab Existing Facilities, Add BNR Reactors)											
Anaerobic/Anoxic Basins Design Calcs, Layout, Outline Specs											
Existing Carousel Mods and Rehab Layout, Outline Specs											
Existing Final Clarifiers Rehab Layout, Outline Specs											
Yard Piping Plans - General Layout											
Electrical Site Plan - Layout, Outline Specs											
SCADA System Architecture, Outline Specs											
Design Coordination - Phase III Improvements (Solids Handling)											
Identify Typical Thickener Equipment NPW and Power Req's											
Identify Typical Dewatering Equipment NPW and Power Req's											
Develop Typical Layout to Define Building Envelope											
Yard Piping Plans - General Layout											
Electrical Site Plan - General Layout											
SCADA System Architecture											
Standby Power System - Estimated Power Requirements											
30% Milestone QC and Submittal											
30% OPCC											
Detailed Design - 30% - 100%											
Civil Design											
General Site Plan and Equipment Layout											
Topographic Plan, Survey Control Points											
Demolition Plans - Plans and Details											
Yard Piping Plans and Details											
Special Tie-in Details (at Existing Carousels, Clarifiers, RAS/WAS)											
Grading Plans and Details											
Paving Plans and Details											
Unit Process Design - Phase I Improvements											
Influent Lift Station Plans, Details and Specs											
Coarse Screen Plans, Details and Specs											
Fine Screen Plans, Details and Specs											
Grit Removal System Plans, Details and Specs											
Influent Splitter Box Plans, Details and Specs											
BNR Carousel Basins Plans, Details and Specs											
ML Splitter Box Plans, Details and Specs											
Final Clarifier Plans, Details and Specs											
RAS/WAS PS Plans, Details and Specs											
Cloth Filter Plans, Details and Specs											
UV Disinfection Plans, Details and Specs											
Non-potable Water System Plans, Details and Specs											
Effluent Flow Meter/Reaeration Plans, Details and Specs											
Admin/Lab/Electrical Building - Plans, Details and Specs											
Electrical Buildings at Headworks and UV- Plans, Details and Specs											
Electrical Site Plan - Plans, Details and Specs											
Standby Power System - Plans, Details and Specs											
SCADA System Plans, Details and Specs											
Construction Sequencing Workshop											
60% Milestone QC and Submittal Review Meeting											
90% Milestone QC and Submittal Review Meeting											
100% Milestone QC and Submittal Review Meeting											
Constructability Review											
60% OPCC											
90% OPCC											
100% OPCC											
Internal Review/Coordination Meetings											
Bid Phase Assistance											
Bid Phase Assistance - Interim Improvements											
Bid Phase Assistance - Phase I Expansion											
Advertisement Assistance to City											
Pre-Bid Conferences (2)											
RFI/Addenda											
Bid Tabulation/Evaluation/CSP Analysis											
Conformed (As-Bid) Documents											
Construction Phase Services - Interim Improvements											
Total Basic Services Hours											
Total Basic Services Labor Effort											
Const. \$ 40,828											
Env. \$ 5,956											
Admin. \$ 21,144											

City of Pflugerville Central WWTP Expansion to 10 MGD (Phase I) Design and Bid Phase 1-Feb-18 Detailed Cost Breakdown																					Project Fee Summary																								
																					Basic Services					3,389,841																			
																					Special Services					52,324																			
																					Total Project					3,442,165																			
Special Services																					Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort																				
Employee	Kendall King	Coby Gee	Leonard Ripley	Engineer VI	Engineer IV	Engineer II	Senior CAD Designer	Technician IV	Technician II	Technician II	Electrical Engineer VI	Electrical Engineer IV	Electrical Engineer II	Technician II	Engineer V	Engineer III	Technician IV	Jay Scanlon	Garrett Johnston	Technician IV	Technician II	Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort																			
Project Role	Project Manager	APM/ Desn Mgr. Team 1	WW Technologist	Sr. Desn Eng/QC	Desn Eng. - Team 1	Jr. Desn Eng. - Team 1	Lead CADD Desn	WW Treat - CAD	Sr. WW Treat Jr. CAD - Team 2	WW Treat Jr. CAD - Team 1	Sr. Elect Eng/QC	Elect Eng.	Elect Eng	Elect CAD	Sr Struct Eng	Struct Eng	Struct CAD	Sr. Drain Eng/QC	Drain Eng	Drain CAD	Drain CAD	Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort																			
Tasks ↓ Current Hourly Bill Rate →	\$240	\$156	\$240	\$209	\$156	\$137	\$153	\$126	\$96	\$96	\$209	\$156	\$137	\$96	\$178	\$137	\$126	\$240	\$178	\$126	\$96																								
Detailed Design - 30% - 100% - Alternate BNR System Design																					0	\$ -	\$ -	\$ -	\$ -																				
Civil Design																					0	\$ -	\$ -	\$ -	\$ -																				
Yard Piping Plans and Details																					46	\$ 6,100	\$ -	\$ -	\$ 6,100																				
Grading Plans and Details																					61	\$ 8,412	\$ -	\$ -	\$ 8,412																				
Paving Plans and Details																					57	\$ 7,682	\$ -	\$ -	\$ 7,682																				
Unit Process Design - Phase I Improvements																					0	\$ -	\$ -	\$ -	\$ -																				
BNR Carousel Basins Plans, Details and Specs																					184	\$ 26,992	\$ -	\$ -	\$ 26,992																				
Electrical Site Plan																					21	\$ 3,138	\$ -	\$ -	\$ 3,138																				
																					0	\$ -	\$ -	\$ -	\$ -																				
																					0	\$ -	\$ -	\$ -	\$ -																				
Total Special Services Hours																					369	\$ 52,324	\$ -	\$ -	\$ 52,324																				
Total Special Services Labor Effort																					\$ 2,160	\$ 3,120	\$ 2,400	\$ 2,299	\$ 4,992	\$ 6,576	\$ 3,060	\$ 3,024	\$ 768	\$ 2,688	\$ 209	\$ 624	\$ 1,644	\$ 576	\$ 1,424	\$ 1,096	\$ 2,016	\$ 1,920	\$ 2,848	\$ 5,040	\$ 3,840				