

**AGREEMENT SUMMARY  
BROKEN ARROW MUNICIPAL AUTHORITY  
COUNTY LINE TRUNK SEWER, PHASE II  
PROFESSIONAL CONSULTANT AGREEMENT  
PROJECT NO. 2154250**

**1.0 Professional Consulting Firm:**

1.1 Name: Professional Engineering Consultants, P.A.  
1.2 Telephone No.: 918-665-5400  
1.3 Address: 1924 S Utica Avenue, Suite 1400  
Tulsa, OK 74104

**2.0 Project Name/Location:** County Line Trunk Sewer, Phase II, Broken Arrow, OK

**3.0 Statement of Purpose:** CONSULTANT understands that the OWNER has retained their professional services in order to prepare Construction Documents for County Line Trunk Sewer, Phase II, Broken Arrow, OK. These documents shall include, but not be limited to, the following: bid document quantities; construction plans detailing the intent of the project; standard details and standard drawings associated with the project specifics; construction specifications; general conditions, and special conditions.

The project limits are generally defined as follows: beginning at the termination of Phase I approximately 950 feet north of Florence Street and terminating in the north right-of-way of Washington Street. Approximately 210 linear feet of 36" pipe, 5,175 linear feet of 42" pipe, and 4,470 linear feet of 48" pipe will be installed for a project total of 9,855 linear feet. Pipe diameters and lengths will be verified during project design.

**4.0 Agreement Summary:**

4.1 Agreement Amount:	
Project Management:	\$ 7,500.00
Geotechnical Services:	\$ 7,000.00
Survey Services:	\$ 13,000.00
Environmental & Ecological Services (allowance, not-to-exceed):	\$ 23,100.00
Engineering Report & Environmental Information Document:	\$ 32,600.00
Preliminary Design Services:	\$ 34,600.00
Final Design Services:	\$ 38,000.00
Bid Assistance/Construction Services (allowance, not-to-exceed):	\$ 18,500.00
Project Closeout (allowance, not-to-exceed):	\$ 11,000.00
<b>TOTAL AGREEMENT AMOUNT</b>	<b>\$ 185,300.00</b>

4.2 Agreement Time:	
Design Phase:	180 calendar days
Bidding & Construction Phase:	As required

4.3 Estimated Construction Budget (Base Bid):	\$ 5,250,000.00
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**5.0 Agreement Approved by the Owner on:** 2021

**AGREEMENT  
FOR  
PROFESSIONAL CONSULTANT SERVICES  
BETWEEN  
BROKEN ARROW MUNICIPAL AUTHORITY  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II  
PROJECT NUMBER 2154250**

This AGREEMENT, including Attachment A through Attachment E, between the Broken Arrow Municipal Authority (OWNER) and Profession Engineering Consultants, P.A., (CONSULTANT);

**W I T N E S S E T H:**

WHEREAS, OWNER intends to replace existing County Line Trunk Sewer from approximately 950' north of Florence Street to Washington Street (PROJECT) for which, OWNER has requested that CONSULTANT provide certain professional services as required and,

WHEREAS, CONSULTANT is qualified and capable to provide the professional services required;

NOW, therefore, in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree as follows:

**ARTICLE 1 - EFFECTIVE DATE**

This AGREEMENT shall be effective upon signature of both parties.

**ARTICLE 2 - GOVERNING LAW**

This AGREEMENT shall be governed by the laws of the State of Oklahoma and venue for any action concerning this Agreement shall be in the District Court of Tulsa County, Oklahoma.

**ARTICLE 3 - SERVICES TO BE PERFORMED BY CONSULTANT**

CONSULTANT shall perform the SERVICES described in Attachment A, Scope of Services. If construction phase services are included, the CONSULTANT shall be the OWNER'S agent and representative to observe, record and report with respect to all services that are required or authorized by the construction documents.

**ARTICLE 4 – ORGANIZATION OF SUBMITTAL DOCUMENTS**

CONSULTANT shall prepare the documents as described in Attachment B as part of this Agreement.

**ARTICLE 5 - COMPENSATION**

OWNER shall pay CONSULTANT in accordance with Attachment C, Compensation and Additional Services.

**ARTICLE 6 - OWNER'S RESPONSIBILITIES**

OWNER shall be responsible for all matters described in Attachment D, OWNER'S Responsibilities and Special Conditions.

## **ARTICLE 7 - STANDARD OF CARE**

CONSULTANT shall perform the SERVICES undertaken in a manner consistent with the prevailing accepted standard for similar services with respect to projects of comparable function and complexity, and with the applicable state laws, as well as the specific codes, regulations, design criteria and construction specifications adopted by the owner and other governing policies published and generally considered authoritative by CONSULTANT'S profession that are in effect at the time of performance of these SERVICES. CONSULTANT is obligated to perform professional services in accordance with the foregoing standard with respect to the laws, codes, regulations, design criteria and construction specifications that are applicable pursuant to this AGREEMENT.

## **ARTICLE 8 - LIABILITY**

8.1 General. Having considered the potential liabilities that may exist during the performance of these SERVICES, the benefits of the PROJECT, and CONSULTANT'S fee for the SERVICES; and in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree to allocate and limit such liabilities in accordance with Article 10.

8.2 Indemnification. CONSULTANT agrees to defend, indemnify, and hold harmless OWNER, and its agents and employees, from and against legal liability for all claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are caused by the negligent or intentional acts, errors, or omissions of CONSULTANT, its agents or employees. In the event claims, losses, damages, or expenses are caused by the joint or concurrent negligence of OWNER and CONSULTANT, or their agents or employees, then they shall be borne by each party in proportion to each entity's own negligence.

8.3 Consequential Damages. OWNER shall not be liable to CONSULTANT for any special, indirect, or consequential damages resulting in any way from the performance of the SERVICES such as, but not limited to, loss of use, loss of revenue, or loss of anticipated profits.

8.4 Survival. Upon completion of all SERVICES, obligations, and duties provided for in this AGREEMENT, or if this AGREEMENT is terminated for any reason, the terms and conditions of this Article 8 shall survive.

## **ARTICLE 9 - INSURANCE**

During the performance of the SERVICES under this AGREEMENT, CONSULTANT shall maintain the following insurance:

- (1) General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate;
- (2) Automobile Liability Insurance, with a combined single limit of not less than \$1,000,000 for each person, not less than \$1,000,000 for each accident and not less than \$1,000,000 for property damage; and
- (3) Professional Liability Insurance, with a limit of \$1,000,000 annual aggregate.

CONSULTANT shall furnish OWNER certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days written notice to OWNER. All PROJECT sub-consultants shall be required to name OWNER and CONSULTANT as certificate holders on their certificate of insurance for the PROJECT, and shall be required to indemnify OWNER and CONSULTANT to the same extent. CONSULTANT shall be held responsible to submit certificates of insurance for sub-consultants to OWNER prior to the sub-consultant's release to commence work.

## **ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY**

CONSULTANT shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the construction

of the PROJECT; or (2) procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to CONSULTANT in Attachment A, Scope of Services.

#### **ARTICLE 11 - LIMITATIONS OF RESPONSIBILITIES FOR ACTS OF OTHERS**

CONSULTANT shall not at any time supervise, direct, control or have authority over any work performed by any employee, contractor or other agent of OWNER. CONSULTANT shall not be responsible for the acts or omissions of any employee, contractor or other agent associated with the PROJECT except for its own employees, subcontractors and other agents.

#### **ARTICLE 12 - OPINIONS OF COST AND SCHEDULE**

Since CONSULTANT has no control over the cost of labor, materials, or equipment furnished by others, or over the resources provided by others to meet PROJECT schedules, CONSULTANT'S opinion of probable costs and of PROJECT schedules shall be made on the basis of experience and qualifications as a professional. CONSULTANT does not guarantee that proposals, bids, or actual PROJECT costs will conform to OWNER'S cost estimates or that actual schedules will conform to OWNER'S projected schedules.

#### **ARTICLE 13 - REUSE OF DOCUMENTS**

All documents, including, but not limited to, drawings, specifications, and details, reports, etc. prepared by CONSULTANT pursuant to this AGREEMENT are instruments of service in respect to the PROJECT. They are not intended or represented to be suitable for reuse by CONSULTANT or others on extensions of the PROJECT or on any other project. Any reuse or adaptation without prior written verification by the OWNER for the specific purpose intended will be at CONSULTANT'S sole risk and without liability or legal exposure to the OWNER. CONSULTANT shall defend, indemnify, and hold harmless the OWNER against all claims, losses, damages, injuries, and expenses, including attorney's fees, arising out of or resulting from such reuse.

#### **ARTICLE 14 - OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY**

Except as otherwise provided herein, engineering documents, drawings, and specifications prepared by CONSULTANT as part of the SERVICES shall become the property of OWNER. CONSULTANT shall retain its rights in its standard drawing details, specifications, data bases, computer software, and other proprietary property. Rights to intellectual property developed, utilized, or modified in the performance of the SERVICES shall remain the property of CONSULTANT, but shall be provided to the OWNER, at no additional expense to the OWNER.

#### **ARTICLE 15 - TERMINATION**

This AGREEMENT may be terminated by either party upon written notice in the event of substantial failure by the either party to perform in accordance with the terms of this AGREEMENT. The non-performing party shall have fifteen (15) calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may suspend performance of this AGREEMENT for OWNER'S convenience upon written notice to CONSULTANT. Upon restart, an equitable adjustment may be made to CONSULTANT'S compensation, if the period of suspension has created an economic hardship for the CONSULTANT.

#### **ARTICLE 16 - DELAY IN PERFORMANCE**

Neither OWNER nor CONSULTANT shall be considered in default of this AGREEMENT for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this AGREEMENT, such circumstances include, but are not limited to, abnormal weather conditions such as floods, earthquakes, fire; civil disturbances such as war, riots, or other civil epidemic; power outages, strikes, lockouts, work slowdowns, or other labor disturbances; sabotage; judicial restraint, and inability to procure permits, licenses, or

authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or services required to be provided by either OWNER or CONSULTANT under this AGREEMENT.

Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this AGREEMENT.

#### **ARTICLE 17 - WAIVER**

A waiver by either OWNER or CONSULTANT of any breach of this AGREEMENT shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

#### **ARTICLE 18 - SEVERABILITY**

The invalidity, illegality, or unenforceability of any provision of this AGREEMENT or the occurrence of any event rendering any portion or provision of this AGREEMENT void shall in no way affect the validity or enforceability of any other portion or provision of this AGREEMENT. Any void provision shall be deemed severed from this AGREEMENT, and the balance of this AGREEMENT shall be construed and enforced as if this AGREEMENT did not contain the particular portion or provision held to be void. The parties further agree to amend this AGREEMENT to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire AGREEMENT from being void should a provision which is of the essence of this AGREEMENT be determined void.

#### **ARTICLE 19 - INTEGRATION**

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and CONSULTANT. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT.

#### **ARTICLE 20 - SUCCESSORS AND ASSIGNS**

To the extent permitted by Article 22, OWNER and CONSULTANT each binds itself and its successors and assigns to the other party to this AGREEMENT.

#### **ARTICLE 21 - ASSIGNMENT**

Neither OWNER nor CONSULTANT shall assign its duties under this AGREEMENT without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this AGREEMENT. Nothing contained in this Article shall prevent CONSULTANT from employing independent sub-consultants, associates, and sub-contractors to assist in the performance of the SERVICES. However, third party entities must comply with Article 9.

#### **ARTICLE 22 - THIRD PARTY RIGHTS**

Nothing in this AGREEMENT shall be construed to give any rights or benefits to anyone other than OWNER and CONSULTANT.

#### **ARTICLE 23 - COMPLETION**

CONSULTANT shall complete the services within the time frame outlined on Attachment E, Schedule, subject to conditions which are beyond the control of the CONSULTANT.

#### **ARTICLE 24 - IMMIGRATION COMPLIANCE**

24.1 Consultant shall demonstrate that he:

- 24.1.1 Has complied, and shall at all times during the term of this Contract, comply in all respects with all immigration-related laws, statutes, ordinances and regulations including without limitation, the Immigration and Nationality Act, as amended, the Immigration Reform and Control Act of 1986, as amended, and the Oklahoma Taxpayer and Citizen Protection Act of 2007 (Oklahoma HB 1804) and any successor laws, ordinances or regulations (collectively, the Immigration Laws"); and
- 24.1.2 Has properly maintained, and shall at all times during the term of this Contract, maintain any and all employee records required by the U.S. Department of Homeland Security ("DHS"), including, without limitation, properly completed and maintained Form I-9s for each of the Consultants employees; and
- 24.1.3 Has verified the employment eligibility for all employees hired on or after July 1, 2008 through DHS's E-Verify system, and shall at all times continue to verify the employment eligibility of all employees hired during the term of this Contract; and
- 24.1.4 Has required, and will at all times during the term of this Contract, require any sub-contractor utilized, hired or sub-contracted for by Consultant for the completion or undertaking of any duties, tasks or responsibilities under this Contract, to comply the requirements and obligations imposed by the Immigration Laws and set forth in Paragraph (I), parts (a), (b) and (c), above, with regards to each of the sub-contractor's employees.
- 24.2 Consultant will indemnify, defend and hold harmless BAMA against any loss, cost, liability, expense (including, without limitation, costs and expenses of litigation and reasonable attorney's fees) demands, claims, actions, causes of action, liabilities, suits, damages, including special and consequential damages that arise from or in connection with, directly or indirectly, Consultants failure, deliberate or negligent, to fulfill its obligations and representations regarding verifying the employment eligibility of its employees and the employees of any subcontractor utilized by Contractor as set forth more fully in Paragraph 24.1 above.

## **ARTICLE 25 - COMMUNICATIONS**

Any communication required by this AGREEMENT shall be made in writing to the address specified below:

OWNER: Broken Arrow Municipal Authority  
485 N. Poplar Avenue  
Broken Arrow, OK 74012  
Contact: Mr. Ethan J.L. Edwards  
Director, Engineering & Construction

CONSULTANT: Professional Engineering Consultants, P.A.  
1924 S. Utica Avenue, Suite 1400  
Tulsa, OK 74104  
918-664-5400

Contact Name: Chad Grisier, P.E.  
Municipal Services Team Lead

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of OWNER and CONSULTANT.

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IN WITNESS WHEREOF, the General Manager of the Broken Arrow Municipal Authority in Broken Arrow, Oklahoma has hereunto set his hand, for and on behalf of the Broken Arrow Municipal Authority and the CONSULTANT has signed, or caused his name to be signed, and seal affixed by proper authority, the day and year first above written and these presents have been executed in triplicate counterparts.

**OWNER:**

Broken Arrow Municipal Authority

By:

Michael L. Spurgeon, General  
Manager

Date:

**CONSULTANT:**

PROFESSIONAL ENGINEERING  
CONSULTANTS, P.A.

By:

Michael D. Kelsey, P.E.,  
Vice President

Date:

4/8/2021

(CORPORATE SEAL, IF APPLICABLE)

Attest:

Secretary [Seal]

Date:

Attest:

Robert A. Koopman  
Robert A. Koopman, P.E., Principal

Date:

4-8-2021

Approved as to form:

*Alet S.*

Assistant City Attorney

**VERIFICATION**

State of Oklahoma )

County of Tulsa ) §

Before me, a Notary Public, on this 8th day of April, 2021, personally appeared Michael D. Kelsey, known to be to be the (President, Vice-President, Corporate Officer, Member, or Other: vice President) of Professional Engineering Consultants, P.A., and to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he/she executed the same as his/her free and voluntary act and deed for the uses and purposes therein set forth.

My Commission Expires:

August 28, 2021

*Aidan Gearhart*

Notary Public



**ATTACHMENT A  
TO  
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES  
BETWEEN  
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. (CONSULTANT)  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II  
PROJECT NO. 2154250**

**SCOPE OF SERVICES**

The following scope of services shall be made a part of the AGREEMENT dated the \_\_\_\_ day of April 2021.

**1.0 PROJECT UNDERSTANDING**

- 1.1 CONSULTANT understands that the OWNER has retained their professional services in order to prepare construction documents for bidding purposes for the construction of County Line Trunk Sewer, Phase II in Broken Arrow. These documents shall include, but not be limited to, the following: a design manual including all numerical calculations supporting the intent of the design, as well as providing the basis for bid document quantities; construction drawings detailing the intent of the project; standard details and standard drawings associated with the project specifics; construction specifications; general conditions, and special conditions.
- 1.2 The CONSULTANT understands that the OWNER intends to request a loan for the construction funds for this PROJECT. The CONSULTANT is required to keep the OWNER apprised of the PROJECT costs and advise the OWNER of necessary cost reduction measures, if required, during the course of the PROJECT.
- 1.3 Furthermore, the CONSULTANT understands that the OWNER has budgeted \$6,150,000.00 for this PROJECT that includes all professional consultant fees, easement & right-of-way acquisition, and construction cost.

**2.0 PROJECT SCOPE**

- 2.1 The project consists of design for the replacement of approximately 9,855 LF of sanitary trunk line sewer. The design is to be based on the Conceptual Alignment established during the Phase I design process, and as shown on the attached Exhibit A.

Limits of project may be reduced or otherwise separated into base bid and bid alternates based on the OWNER's project budget. The limits will be defined during the Preliminary Design phase.

- 2.2 CONSULTANT will provided Project Management Services consisting of coordination correspondence, and conducting meetings with sub-consultants, regulatory agencies, and Owner throughout the Project.
- 2.3 Survey and geotechnical services will be provided by CONSULTANT. A



geotechnical report will be prepared and submitted to the OWNER by the CONSULTANT. Temporary Construction and Permanent Utility easement documents that require revision from the Phase I improvement project will be prepared and submitted to the OWNER.

- 2.4 CONSULTANT will review the 2018 Broken Arrow Wastewater System Master Plan (prepared by Others) and verify the recommended pipe diameters. Analysis of pipe diameters will be based on the flow rate data provided in the Master Plan and known plans for any flow rate changes due to reroute of sewage flows based on other projects. CONSULTANT will not be conducting additional flow rate verification or analysis of future pipe capacity beyond the information provided in the Master Plan or any new flow changes as discussed above.
- 2.5 Impact of the PROJECT to environmental, ecological and cultural resources will be coordinated by CONSULTANT. Further, CONSULTANT will coordinate the follow-up response to satisfy the requirements of regulatory agencies including if required: Nationwide Permit coordination and application, Wetlands Permit application and Mitigation Debit coordination, and Threatened & Endangered Species surveys.
- 2.6 CONSULTANT understands that the previously prepared Engineering Report (ER) includes the limits of this PROJECT. CONSULTANT will complete necessary revision to the ER for purposes of the Oklahoma Department of Environmental Quality (ODEQ) permit. Report will adhere to the Oklahoma Funding Agency Coordinating Team (FACT) format.
- 2.7 CONSULTANT will prepare the Environmental Information Document (EID) as required per OWRB Clean Water Loan program.
- 2.8 CONSULTANT will provide Construction Administration services including submittal and RFI reviews and responses, attend construction progress meetings as requested by OWNER, and conduct site visits as requested by OWNER. Scope includes a maximum of three (3) site visits during construction.

### **3.0 SCOPE OF SERVICES**

- 3.1 ADMINISTRATIVE/MANAGERIAL DUTIES: CONSULTANT shall be responsible to perform the following tasks throughout the course of the PROJECT:
  - 3.1.1 Document all meetings, conferences, coordination, phone conversations, etc. and send documentation to OWNER within three (3) calendar days.
  - 3.1.2 Meet with the Owner in a Pre-Design Conference in order to determine design criteria, requirements and codes and other critical design features of the Project such as preferred alignment as well as project schedule and milestone dates.
  - 3.1.3 Provide Owner with a list of all proposed sub-consultants and tasks sub-consultants are responsible to perform.
  - 3.1.4 Meet with the Owner to discuss review comments on each phase of the project and incorporate appropriate comments into following phase.
- 3.2 GEOTECHNICAL SERVICES PHASE: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:

- 3.2.1 CONSULTANT will use an appropriate ONE-Call utility locate system prior to arriving onsite.
  - 3.2.2 Perform four (4) Subsurface borings to depths of approximately 25 feet below existing grade, or top of rock, whichever comes first.
  - 3.2.3 SPT sampling at the following depth (in feet) intervals:
    - 1.5, 3.0, 6.0, 8.5, and at 5.0 intervals thereafter.
  - 3.2.4 Relatively undisturbed soil samples (Shelby Tubes) will also be obtained.
  - 3.2.5 Grab/bulk samples from auger cuttings will be obtained depending on site conditions.
  - 3.2.6 Laboratory testing will be performed to determine the following index and engineering properties:
    - Moisture Content
    - Atterberg Limits
    - Percent Passing #200 sieve
  - 3.2.7 Geotechnical report, including boring logs, soil descriptions and classification, groundwater elevations at the time of drilling, and laboratory test results.
  - 3.2.8 Boreholes will be plugged with sodium bentonite, auger cuttings (spoils) and capped with similar materials.
  - 3.2.9 General Cleanup of the site.
- 3.3 SURVEY SERVICES PHASE: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
- 3.3.1 Verify or reestablish horizontal and vertical control necessary for the design and construction of the PROJECT. Control shall be in accordance with the OWNER'S Engineering Design criteria.
  - 3.3.2 Conduct all field surveys, including topographical, boundary, and aerial surveys, as necessary, for design of the project.
  - 3.3.3 Research and field-verify, as able, the horizontal and vertical locations of all public and private utilities within the PROJECT boundary, which may be in conflict with the PROJECT.
  - 3.3.4 Procure and provide Property Reports on up to five (5) Right-of-way acquisition parcels that have changed ownership since completing this effort in Phase 1.
  - 3.3.5 Prepared revised Temporary Construction Easement and any necessary Permanent Easement documents based upon change in land ownership since completion of this effort during Phase 1.
  - 3.3.6 As Part of the design phase, provide staking of proposed easements for on-site review during the property acquisition process.
- 3.4 ENVIRONMENTAL & ECOLOGICAL SERVICES PHASE: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
- 3.4.1 Perform a field and desktop review of the surface waters that are on the proposed alignment and consult with the US Army Corps of Engineers regarding jurisdictional waters of streams and/or wetlands. Provide recommendations for mitigation measures required by USACE and incorporate into the final design.
  - 3.4.2 Should USACE permitting be required as a result of initial reviews and coordination with USACE, complete and submit Nationwide permit application.

- 3.4.3 Should mitigation be required as a result of USACE permitting, perform calculations for mitigation debits.
  - 3.4.4 Perform a protected species review of the proposed alignment and consult with USFWS for impacts to protected species. Provide recommendations for mitigation measures required by USFWS and incorporated into the final design.
  - 3.4.5 Should it be necessary pending coordination and findings of initial review, conduct field survey of protected species.
  - 3.4.6 Perform a cultural and historical review and consult with regulatory agency for potential of archaeological resources and acquire regulatory clearance on the proposed alignment. Scope of work does not include hiring an archaeologist or conducting additional archaeological investigations/study if so required by a regulatory agency.
- 3.5 PRELIMINARY DESIGN PHASE: Upon receiving the written Notice to Proceed, the Consultant shall perform the following tasks in accordance with the schedule provided in Attachment E:
- 3.5.1 Verify or reestablish horizontal and vertical control necessary for the design and construction of the PROJECT. Control shall be in accordance with the OWNER'S Engineering Design criteria.
  - 3.5.2 Conduct all field surveys, including topographical, boundary, and aerial surveys, as necessary, for design of the project.
  - 3.5.3 Research and field-verify, as able, the horizontal locations of all public and private utilities within the PROJECT boundary, which may be in conflict with the PROJECT. Vertical locations for gravity systems will be field determined.
  - 3.5.4 Review the 2018 Wastewater System Master Plan flow data and any new flow data provided by Owner and verify recommended pipe diameters. Provide recommendations for any revisions to suggested pipe diameters.
  - 3.5.5 Submit alignment options to OWNER for review with conceptual construction quantity and cost estimates with a 15% contingency.
  - 3.5.6 Provide OWNER recommended project limits or bid alternative limits, based on the allowable project budget.
  - 3.5.7 Prepare preliminary construction drawings of proposed project.
  - 3.5.8 Prepare preliminary Supplemental Specifications to the Broken Arrow Standard Construction Specifications.
  - 3.5.9 Submit five (5) bound sets of 1/2 size prints and one (1) electronic PDF file of the preliminary plans and special provisions.
  - 3.5.10 Conduct preliminary coordination with private and public utility companies.
- 3.6 FINAL DESIGN PHASE: Following approval of the Preliminary Design, and upon receiving the written Notice to Proceed, CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
- 3.6.1 Meet with utility companies and City of Broken Arrow departments to arrange for the relocation of utility facilities and services in conflict with the PROJECT. Review relocation plans and contracts submitted by the utilities, and provide comments and recommendations prior to City approval and execution of the relocation plans. Obtain releases for non-relocated facilities.
  - 3.6.2 Prepare detailed construction plans in conformance with appropriate drafting standards.
  - 3.6.3 Prepare final Supplemental Specifications to the Broken Arrow Standard

- Construction Specifications in one (1) PDF file format.
- 3.6.4 Prepare final quantity and cost estimate.
- 3.6.5 Prepare Contract proposal in units compatible with Broken Arrow Standard Construction Specifications.
- 3.6.6 Final PROJECT deliverables, where applicable, will be sealed by an Engineer licensed in the State of Oklahoma.
- 3.6.7 Submit five (5) bound sets of 1/2 size prints and one (1) electronic PDF file of the final construction plans and contract bid documents for distribution and review.
- 3.6.8 Prepare Stormwater Pollution Prevention Plan report. Submit seven (7) copies and one (1) electronic PDF file of the draft SWP3 report.
- 3.6.9 Incorporate final review comments and furnish two (2) completed signed/sealed SWP3 hardcopy reports and one (1) electronic PDF file.

3.7 **ENGINEERING REPORT & ENVIRONMENTAL INFORMATION DOCUMENT:**  
Upon receiving the written Notice to Proceed, CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:

- 3.7.1 The Engineering Report that was previously prepared for the Phase I improvements of County Line Trunk Sewer encompassed the scope of these Phase II improvements. CONSULTANT will review and complete revisions, including updates to cost estimates and present worth analysis, to the existing documents as necessary for the final design of the PROJECT.
- 3.7.2 The Environmental Information Document (EID) does not encompass the limits of Phase II improvements and will be prepared as required per OWRB Clean Water Loan program.
- 3.7.3 CONSULTANT will provide six (6) bound paper copies and one (1) electronic PDF file of the draft documents for review by OWNER.
- 3.7.4 Perform revisions per OWNER'S comments and submit three (3) bound paper copies and one (1) electronic PDF file of the final documents for OWNER'S files and the appropriate number of copies for submittal to OWRB and ODEQ.
- 3.7.5 Final documents will be sealed by an Engineer licensed in the State of Oklahoma.

3.8 **BID DOCUMENTS.**

- 3.8.1 Incorporate final design review comments and furnish one (1) complete set of full-size drawings and contract documents and one (1) PDF file, one (1) unbound set of reduced-size (11" x 17") drawings and one (1) PDF file, and one (1) set of final drawings on electronic media (AutoCAD 2018 or earlier version) and one (1) PDF file, and one (1) master set of final specifications on electronic media and paper. Proposal Information, Construction Contract, and General Specification documents will be prepared and provided to CONSULTANT by OWNER for bidding.

3.9 **BID ASSISTANCE PHASE:**

- 3.9.1 Assist the OWNER, as requested, in advertising the PROJECT for bids for construction.
- 3.9.2 Conduct a pre-bid conference, if requested by OWNER.
- 3.9.3 Serve as the technical question point-of-contact during bidding including responding to any Contractor RFI's and if required, draft necessary addendum(s) to clarify Contract documents.

- 3.9.4 Prepare bid tabulation, if requested, and provide reference checks for potential low bidder award.

### 3.10 CONSTRUCTION SERVICES PHASE:

- 3.10.1 Attend a pre-construction conference with the OWNER and Contractor.
- 3.10.2 Conduct site visits during the construction of the PROJECT at the request of the OWNER.
- 3.10.3 When requested by the OWNER, consult and advise the OWNER during construction and make recommendations to the OWNER regarding materials and workmanship.
- 3.10.4 When requested by the OWNER, review samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests of material and equipment and other data pursuant to the General Conditions of the Construction Contract.
- 3.10.5 Interpret the intent of the plans and specifications for the OWNER and the Contractor. Investigations, analyses, and studies requested by the Contractor and approved by the OWNER, for substitutions of equipment and/or materials or deviations from the plans and specifications will be considered an additional service.
- 3.10.6 Conducting, with the OWNER'S representative, a final inspection of the construction for conformance with the design concept of the PROJECT and general compliance with the contract documents, and review and comment on the certificate of completion and the recommendation for final payment to the Contractor.

### 3.11 PROJECT CLOSEOUT:

- 3.11.1 Incorporate changes into the drawings based on comments provided by the Contractor and/or resident inspector and produce Record Drawings.
- 3.11.2 Submit one (1) set of Record Drawings on reproducible media.
- 3.11.3 Submit Records Drawings on electronic media (AutoCAD 2018 or earlier version and a PDF file).
- 3.11.4 Submit any revision to the contract documents caused by construction changes.

**ATTACHMENT B  
TO  
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES  
BETWEEN  
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. (CONSULTANT)  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II, PROJECT NO. 2154250**

**ORGANIZATION OF SUBMITTAL DOCUMENTS**

The CONSULTANT shall prepare the following documents as described as a part of the AGREEMENT dated the \_\_\_\_ day of April, 2021.

**1.0 CONSTRUCTION PLANS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following drawings:

- 1.1 Title Sheet
- 1.2 Pay Quantities and Pay Item/General Notes
- 1.3 Right of Way and Easement Plans
- 1.4 Survey drawings showing horizontal and vertical Project Control
- 1.5 Erosion Control Plans and Details
- 1.6 Sanitary Sewer Line Plan and Profiles
- 1.7 Manhole Structure Layout Details
- 1.8 Standard Construction Details

**2.0 RIGHT OF-WAY DOCUMENTS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:

- 2.1 Any revised legal description Documents for right-of- way, permanent easements, and temporary construction easements resulting from change in land ownership since completion of these Documents during Phase I.
- 2.2 Surveyor's Certification Document.
- 2.3 Ownership Certification Report.

**3.0 GEOTECHNICAL REPORT:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:

- 3.1 Signed and Sealed Geotechnical Engineering Report

**4.0 DESIGN CALCULATIONS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following:

- 4.1 Pipe capacity and velocity calculations based on anticipated flow rates, per the 2018 Wastewater System Master Plan and any Owner -provided plans for flow changes since the 2018 Wastewater System Master Plan was prepared.
- 4.2 Other Engineer Design Calculations.

**5.0 CONTRACT DOCUMENTS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:

- 5.1 Advertisement Documents:
  - 5.1.1 Supplemental Specifications

- 5.1.2 Notice to Bidders
  - 5.1.3 Information to Bidders
- 5.2 Bid Documents:
  - 5.2.1 Bid Proposal
  - 5.2.2 Bid Affidavit
  - 5.2.3 Bid Bond
- 5.3 Agreement Documents:
  - 5.3.1 Agreement
  - 5.3.2 Bonds (Performance, Payment, and Maintenance)
  - 5.3.3 Bond Certification
  - 5.3.4 Change Order
  - 5.3.5 Work Directive
  - 5.3.6 Pay Estimate Form
  - 5.3.7 Release of Claimant
- 5.4 Project Conditions:
  - 5.4.1 General Conditions
  - 5.4.2 Special Conditions
- 5.5 Construction Specifications.

**ATTACHMENT C  
TO  
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES  
BETWEEN  
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. (CONSULTANT)  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II, PROJECT NO. 2154250**

**COMPENSATION AND ADDITIONAL SERVICES**

The following compensation and hourly rates shall apply as described in Appendices 1 and 2 and shall be made a part of the AGREEMENT dated the \_\_\_\_ day of April, 2021.

**1.0 BASIC COMPENSATION**

The basic compensation for the Professional Consultant to perform all duties and responsibilities associated with the Scope of Services as described in Attachment A shall be in accordance with the following payment breakdown:

- 1.1 Project Management Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$7,500 for the completion of the Project Management Services Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.2 Geotechnical Services Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$7,000 for the completion of the Geotechnical Services Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.3 Survey Services Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$13,000 for the completion of the Survey Services Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.4 Environmental and Ecological Services Phase Payment: The OWNER shall pay the CONSULTANT on an hourly basis, not to exceed \$23,100 for the completion of the Environmental and Ecological Services Phase for the services listed below. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
  - 1.4.1 Wetlands Jurisdictional Assessment \$6,380.00
  - 1.4.2 Threatened & Endangered Species Habitat Assessment \$1,320.00
  - 1.4.3 Cultural Resource Assessment \$2,750.00
  - 1.4.4 Wetlands Permit Coordination (if required) \$1,100.00
  - 1.4.5 Wetlands Mitigation Debits Coordination (if required) \$770.00
  - 1.4.6 American Burying Beetle Survey (if required) \$5,060.00
  - 1.4.7 Long Eared Bat Survey (if required) \$5,720.00
- 1.5 Engineering Report and Environmental Information Document Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$32,600 for the revisions and completion of the Engineering Report and Environmental Information Document. This amount includes all labor, material, overhead and profit associated with the Scope of Services.



- 1.6 Preliminary Design Services Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$34,600 for the completion of the Preliminary Design Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.7 Final Design Services Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$38,000 for the completion of the Final Design Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.8 Bid Assistance/Construction Services Phase Payment: The OWNER shall pay the CONSULTANT on an hourly basis, plus reimbursable expenses, not to exceed \$18,500 for the completion of the Bid Assistance/Construction Services Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.9 Project Closeout Phase Payment: The OWNER shall pay the CONSULTANT on an hourly basis, plus reimbursable expenses, not to exceed \$11,000 for the completion of the Project Closeout Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.

## **2.0 SERVICES BASED ON TIME**

The hourly rates set forth in Appendices 1 and 2 include all salaries, benefits, overhead and other indirect costs including federal, state, and local taxes, plus profit and effective as of January 1, 2021.

CONSULTANT shall apply a 10% administrative fee to total invoice charges of services based on time. No other markup of SUBCONSULTANT hourly rates shall be applied by CONSULTANT.

## **3.0 REPRODUCTION**

All charges for reproduction shall be included in Basic Compensation Fee of the Professional Consultant. No separate payment will be made for these expenses.

## **4.0 MILEAGE**

All direct costs shall be included in the Basic Compensation of the Professional Consultant. No separate payment will be made for these expenses.

## **5.0 DIRECT COSTS**

All direct costs shall be included in the Basic Compensation of the Professional Consultant. No separate payment will be made for these expenses.

## **6.0 ADJUSTMENT CLAUSE**

The rates and costs described in this AGREEMENT shall not be revised annually, unless mutually agreed upon by both parties.

**ATTACHMENT D  
TO  
AGREEMENT FOR CONSULTING SERVICES  
BETWEEN  
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. (CONSULTANT)  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II, PROJECT NO. 2154250**

**OWNER'S RESPONSIBILITIES AND SPECIAL CONDITIONS**

The following list of special OWNER'S responsibilities and contract special conditions shall be made a part of this AGREEMENT dated the \_\_\_\_ day of April, 2021.

**1.0 OWNER'S RESPONSIBILITIES**

- 1.1 OWNER shall furnish to CONSULTANT all available information pertinent to the PROJECT including previous reports and any other data relative to design and construction of the PROJECT;
- 1.2 OWNER shall furnish to CONSULTANT all public utility information available relative to the design and construction of the PROJECT. Consultant topographical survey shall locate all utilities above and below ground for exact location;
- 1.3 OWNER shall furnish to CONSULTANT list of codes adopted by the municipality as well as subdivision regulations, design criteria and construction standards and specifications that may be pertinent to the design and construction of the PROJECT;
- 1.4 OWNER shall be responsible for all permit fees and for all costs associated with the bidding of the final approved construction documents required for the construction of this PROJECT;
- 1.5 OWNER shall be responsible for all land/easement acquisition costs and filing of the required legal documents, if necessary; and
- 1.6 OWNER shall examine all studies, reports, sketches, estimates, specifications, plan drawings, proposals, and other documents presented by the CONSULTANT and render in writing decisions pertaining thereto within a reasonable time so as not to delay the SERVICES of the CONSULTANT.

**2.0 SPECIAL CONDITIONS**

- 2.1 OWNER will provide to CONSULTANT information related to known and/ or potentially hazardous subsurface conditions and/ or history of site contamination.
- 2.2 OWNER shall provide right of entry for CONSULTANT personnel in performing site visits, field surveys, and inspections.
- 2.3 OWNER shall assure that private Utilities, not located by an appropriate One-Call utility locate system, are identified prior to geotechnical crew arriving onsite, or

have made arrangements for an Owner representative with knowledge of such utilities to meet onsite prior to commencement of drilling activities.

- 2.4 OWNER shall furnish to CONSULTANT latest Right-of-Way or improvement plans of 23<sup>rd</sup> Street north of New Orleans Street.

**ATTACHMENT E  
TO  
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES  
BETWEEN  
CITY OF BROKEN ARROW(OWNER)  
AND  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. (CONSULTANT)  
FOR  
COUNTY LINE TRUNK SEWER, PHASE II  
PROJECT NO. 2154250**

**PROJECT SCHEDULE**

The following schedule shall be made a part of the AGREEMENT dated the\_\_day of April, 2021.

**1.0 GEOTECHNICAL & SURVEY SERVICES:**

- 2.1 Notice to Proceed: Upon written notice to proceed Consultant shall begin Geotechnical and Survey Services within fourteen (14) working days. Consultant anticipates completing the field work within seven (7) business days.

**2.0 ENVIRONMENT & ECOLOGICAL SERVICES:**

- 2.1 Upon written notice to proceed, CONSULTANT shall coordinate and respond to Environmental and Ecological regulatory requirements as required through completion of Final Design Phase, including if required: Nationwide Permit coordination and application, Wetland Permit application and Mitigation Debit coordination, and Threatened & Endangered Species surveys.

**3.0 PRELIMINARY DESIGN PHASE:**

- 3.1 CONSULTANT shall commence Preliminary Design Phase within five (5) business days upon written Notice to Proceed.
- 3.2 Submit Preliminary Alignment Options: Thirty (30) Calendar days from notice to proceed of Preliminary Design Phase.
- 3.3 Submit Preliminary Construction Plans and revisions to any Easement and Legal Description documents: Ninety (90) Calendar Days from notice to proceed of Preliminary Design Phase.
- 3.4 Owner Review: Fifteen (15) Calendar Days.

**4.0 FINAL DESIGN PHASE:**

- 4.1 CONSULTANT shall commence Final Design Phase within five (5) business days upon written Notice to Proceed.
- 4.2 Submit Final Construction Documents: Sixty (60) Calendar Days from notice to proceed of Final Design Phase.

**5.0 BIDDING PHASE:**

- 5.1 Advertise Construction Plans and Contract Documents: As required.

## **6.0 CONSTRUCTION SERVICES PHASE:**

6.1 Construction Services: As required.

**APPENDIX 1**  
**TERRACON SUBCONSULTANT**  
**2021 RATE SCHEDULE**

<u>TITLE</u>	<u>HOURLY RATE</u>
Senior Staff Scientist	\$175
Senior Staff Scientist	\$105
Administration	\$60

## Appendix 2

### 2021 RATE SCHEDULE A\*\*

<u>TITLE</u>	<u>HOURLY RATE *</u>
Principal Engineer 2.....	\$170.00
Principal Engineer 1.....	\$155.00
Project Manager 2.....	\$165.00
Project Manager 1.....	\$135.00
Senior Engineer 2.....	\$160.00
Senior Engineer 1.....	\$145.00
Project Engineer 2.....	\$130.00
Project Engineer 1.....	\$115.00
Design Engineer 2.....	\$115.00
Design Engineer 1.....	\$105.00
Landscape Arch. 2.....	\$130.00
Landscape Arch. 1.....	\$120.00
Land Use Planner 2.....	\$130.00
Land Use Planner 1.....	\$120.00
Design Technician Supervisor 2.....	\$150.00
Design Technician Supervisor 1.....	\$135.00
Design Technician 2.....	\$135.00
Design Technician 1.....	\$95.00
Project Assistant.....	\$75.00
Commissioning Agent 2.....	\$140.00
Commissioning Agent 1.....	\$125.00
Balance Technician 2.....	\$100.00
Balance Technician 1.....	\$70.00
Land Surveyor.....	\$120.00
Party Chief.....	\$100.00
Survey Technician.....	\$80.00
Inspector.....	\$105.00
Senior Engineering Technician.....	\$90.00
Engineering Technician.....	\$70.00
Driller.....	\$95.00

\*Premium time for all non-salaried personnel or as noted in the contract      1.5 multiplier

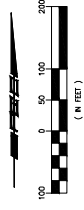
2021 RATE SCHEDULE A  
Page 2

REIMBURSABLES:

Infrared Camera .....	\$50.00/Hour
Structural Testing Equipment .....	\$50.00/Hour
Outside Consultants .....	Cost plus 10%
Reproduction & Photography .....	Cost plus 10%
Equipment Rental .....	Cost plus 10%
Material .....	Cost plus 10%
Vehicle Mileage .....	\$0.56/Mile
Truck Mileage .....	\$0.65/Mile
ATV .....	\$20.00/Hour
GPS .....	\$50.00/Hour
3D Laser Scanner .....	\$150.00/Hour
Robotic Total Station.....	\$50.00/Hour
UAS.....	\$150.00/Hour
Drill Rig Use .....	\$75.00/Hour
Car Rental and Fuel .....	Cost plus 10%
Per Diem, Meals .....	Cost plus 10%
Per Diem, Lodging .....	Cost plus 10%
Deliveries and Overnight Mail. . .	Cost plus 10%
Travel, Hotel, Meals, and Subsistence.....	Cost plus 10%
Filing Fees .....	Cost plus 10%
Concrete Testing Equipment .....	\$10.00/Each
Nuclear Gauge Equipment.....	\$20.00/Each
Compression Tests of Cylinders .....	\$12.00/Each
Ultra Sonic Testing Equipment .....	\$50.00/Each
Semi-Trailer Mileage.....	\$3.00/Mile

\*\*The rates shown above are effective for services through December 31, 2021 and are subject to revision thereafter.





PREPARED 10/10/2021, CAC

END OF PHASE I,  
BEGIN PHASE II

PROPOSED  
PHASE II  
ALIGNMENT



PROPOSED  
PHASE II  
ALIGNMENT

