

AGREEMENT
FOR
ENGINEERING SERVICES

This AGREEMENT, between the Norman Utilities Authority (OWNER) and HDR ENGINEERING, INC, (ENGINEER);

WITNESSETH

WHEREAS, OWNER intends to install a water transmission main generally along Robinson Avenue from N Porter Avenue to N Flood Avenue;

WHEREAS, OWNER desires to hire an engineer to perform preliminary engineering, final design, bidding support, construction administration, and record document services (the SERVICES); and,

WHEREAS, ENGINEER is prepared to provide said SERVICES; and.

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

ARTICLE 1 - EFFECTIVE DATE

The effective date of this AGREEMENT shall be _____.

ARTICLE 2 - COMPLETION DATE

ENGINEER shall complete the SERVICES in accordance with Attachment A, Project Schedule.

ARTICLE 3 - GOVERNING LAW

The laws of the state of Oklahoma shall govern this AGREEMENT.

ARTICLE 4 - SERVICES TO BE PERFORMED BY ENGINEER

ENGINEER shall perform the SERVICES described in Attachment B, Scope of Services.

ARTICLE 5 - COMPENSATION

OWNER shall pay ENGINEER in accordance with Attachment C, Compensation.

ARTICLE 6 - OWNER'S RESPONSIBILITIES

- 6.1. OWNER-Furnished Data: Upon request, OWNER will provide to ENGINEER all data in OWNER's possession relating to ENGINEER's SERVICES on the PROJECT. Such data may include electronic data available from the OWNER's Geographic Information System (GIS), data generated by OWNER's water distribution system model and existing water quality data. ENGINEER will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by OWNER. OWNER's data is provided for temporary use or copying by ENGINEER.
- 6.2. Access to Facilities and Property: OWNER will make its facilities accessible to ENGINEER as required for ENGINEER's performance of its SERVICES.
- 6.3. Timely Review: OWNER will examine ENGINEER's studies, reports, sketches, drawings, specifications, proposals, and other documents; and transmit OWNER comments or other decisions to ENGINEER in a timely manner.
- 6.4. Meetings: OWNER will participate in monthly progress meetings or other meetings with ENGINEER or contractor(s) defined in Scope of Services.
- 6.5. Advertisements, Permits, and Access: Unless otherwise agreed to in the Scope of Services, OWNER will obtain, arrange, and pay for all advertisements for bids; permits and licenses required by local, state, or federal

authorities; and land, easements, rights-of-way, and access necessary for ENGINEER's SERVICES or PROJECT construction.

- 6.6. Hazardous Substances: Unless otherwise provided in this Agreement, Contractor shall have no responsibility for the discovery, presence, handling, removal, disposal of, or exposure of persons to hazardous material or waste in any form at the Project site. If hazardous substances in any form are encountered or suspected, ENGINEER will stop its own work in the affected portions of the PROJECT to permit testing and evaluation. ENGINEER will, if requested by OWNER, conduct tests to determine the extent of the problem and will perform the necessary studies and recommend necessary remedial measures at an additional fee with contract terms to be negotiated.

ARTICLE 7 - STANDARD OF CARE

ENGINEER shall exercise the same degree of care skill and diligence in the performance of the SERVICES as is ordinarily possessed and exercised by a professional engineer under similar circumstances. ENGINEER shall correct the SERVICES that fail to satisfy this standard of care. No warranty, express or implied is included in this AGREEMENT or in any drawing, specifications, report or opinion produced pursuant to this AGREEMENT.

ARTICLE 8 - LIABILITY AND INDEMNIFICATION

- 8.1 General. Having considered the potential liabilities that may exist during the performance of the SERVICES, the benefits of the PROJECT, the ENGINEER's fee for the SERVICES and in consideration of the promises contained in this AGREEMENT, OWNER and ENGINEER agree to allocate and limit such liabilities in accordance with this Article.
- 8.2 Indemnification and Liability. The ENGINEER agrees to defend, indemnify, and hold harmless the OWNER, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the ENGINEER in the performance of services under this Agreement. OWNER agrees to defend, indemnify, and hold harmless the ENGINEER, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the OWNER in the performance of services under this Agreement, provided such indemnification shall be applicable only to the extent sovereign immunity has been waived pursuant to Oklahoma law. The ENGINEER and the OWNER each agree to promptly service notice on the other party of any claims arising hereunder, and shall cooperate in the defense of such claims. The acceptance by OWNER or its representatives of any certification of insurance providing for coverage other than as required in this Agreement to be furnished by the ENGINEER shall in no event be deemed a waiver of any of the provisions of this indemnity provision. None of the foregoing provisions shall deprive the OWNER of any action, right, or remedy otherwise available to OWNER at common law.
- 8.3 Employee Claims. ENGINEER shall indemnify OWNER against legal liability for damages arising out of claims by ENGINEER's employees. To the extent permitted by applicable law, OWNER shall indemnify ENGINEER against legal liability for damages arising out of claims by OWNER's employees.
- 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 shall survive.

ARTICLE 9 - INSURANCE

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

- 9.1 Worker's compensation insurance for ENGINEER's employees as required by Oklahoma Workers Compensation Statutes.

- 9.2 Comprehensive general liability insurance with a minimum of \$1,000,000 per each occurrence and \$2,000,000 aggregate.
- 9.3 Comprehensive automobile liability insurance with a minimum of \$1,000,000 combined limit.
- 9.4 Professional Liability (errors and omissions) insurance providing a minimum policy value of \$2,000,000 aggregate.

ENGINEER shall furnish OWNER certificates of insurance that shall include a provision that such insurance shall not be canceled without at least thirty days written notice to OWNER. All PROJECT contractors shall be required to include OWNER and ENGINEER as additional insured on their General Liability Insurance policies.

ENGINEER and OWNER each shall require its insurance carriers to waive all rights of subrogation against the other and its directors, officers, partners, commissioners, officials, agents and employees for damages covered by property insurance during and after the SERVICES. A similar provision shall be incorporated into all contractual arrangements entered into by OWNER and shall protect OWNER and ENGINEER to the same extent.

ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY

ENGINEER shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures or safety precautions and programs in connection with the PROJECT; (2) the failure of any contractor, subcontractor, vendor or other PROJECT participant, not under contract to ENGINEER, to fulfill contractual responsibilities to the OWNER or to comply with federal, state or local laws, regulations, and codes; or (3) procuring permits, certificates and licenses required for any construction unless such responsibilities are specifically assigned to ENGINEER in Attachment B, Scope of Services.

ARTICLE 11 - OPINIONS OF COST AND SCHEDULE

Since ENGINEER 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, ENGINEER's opinion of probable costs and of PROJECT schedules shall be made on the basis of experience and qualifications as a professional engineer. ENGINEER does not guarantee that proposals, bids, or actual PROJECT costs will not vary from ENGINEER's cost estimates.

ARTICLE 12 - REUSE OF DOCUMENTS

Upon OWNER's request ENGINEER shall furnish OWNER with deliverables and/or other data on electronic media. All documents, including but not limited to, drawings, specifications and computer software prepared by ENGINEER pursuant to this AGREEMENT are instruments of Service in respect to the PROJECT. Said documents are not intended or represented to be suitable for reuse by OWNER or others on extensions of the PROJECT or on any other PROJECT.

ARTICLE 13 - TERMINATION

This AGREEMENT may be terminated by either party upon written notice in the event of substantial failure by the other 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 terminate or suspend performance of this AGREEMENT for OWNER's convenience upon written notice to ENGINEER. ENGINEER shall terminate or suspend performance of the SERVICES on a schedule acceptable to OWNER. If termination or suspension is for OWNER's convenience, OWNER shall pay ENGINEER for all the SERVICES performed to date, amount not to exceed the normal fee amount due for the SERVICES rendered and termination or suspension expenses. Upon restart, an equitable adjustment shall be made to ENGINEER's compensation.

ARTICLE 14 - DELAY IN PERFORMANCE

Neither OWNER nor ENGINEER 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; floods; earthquakes; fire; epidemics; war; riot and other civil disturbances; strikes, work slowdowns and 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 ENGINEER under this AGREEMENT.

Should such circumstances occur the non-performing party shall, within a reasonable period after 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 15 - COMMUNICATIONS

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

ENGINEER: HDR Engineering, Inc.
210 Park Avenue, Suite 2815
Oklahoma City, Oklahoma 73102
Attn: Alan Swartz
817-851-9467
Alan.Swartz@hdrinc.com

OWNER: Peter Wolbach, Staff Engineer
City of Norman – Utilities Department
225 N Webster Avenue
P.O. Box 370
Norman OK 73069 / 73070
405-217-7778
peter.wolbach@normanok.gov

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

ARTICLE 16 - WAIVER

A waiver by either OWNER or ENGINEER 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 17 - 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 18 – NON-DISCRIMINATION

In connection with the performance of work under this contract, the ENGINEER agrees as follows:

- A. The ENGINEER agrees not to discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, age, place of birth, disability, sex, sexual orientation, gender identity or expression, familial status, or marital status, including marriage to a person of the same sex. The ENGINEER shall take affirmative action to ensure that employees are treated without regard to their race, color, religion, ancestry, national origin, age, place of birth, disability, sex, sexual orientation, gender identity

or expression, familial status, or marital status, including marriage to a person of the same sex. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruiting or recruitment, advertising, lay-off, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The ENGINEER and any companies subcontracted shall agree to post in a conspicuous place, available to employees and applicants for employment, notices to be provided by the City Clerk of the City of Norman setting forth the provisions in this section.

- B. In the event of the ENGINEER's noncompliance with this nondiscrimination clause, the contract may be canceled or terminated by the City Council. The ENGINEER may be declared by the City Council ineligible for further contracts with the said agency until satisfactory proof of intent to comply shall be made by the ENGINEER.
- C. The ENGINEER agrees to include this nondiscrimination clause in any subcontracts connected with the performance of this agreement.

ARTICLE 19 - INTEGRATION

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and ENGINEER. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT. This AGREEMENT, including its attachments and schedules, may only be changed by a written amendment executed by both parties. The following attachments and schedules are hereby made a part of this AGREEMENT:

- Attachment A - Schedule
- Attachment B - Scope of Services
- Attachment C - Compensation

ARTICLE 20 - SUCCESSORS AND ASSIGNS

OWNER and ENGINEER each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party to this AGREEMENT and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this AGREEMENT.

ARTICLE 21 - ACKNOWLEDGEMENT.

If ENGINEER has 10 or more full-time employees during the term of this Agreement, and this Agreement has a value of one hundred thousand dollars (\$100,000) or more, ENGINEER hereby represents, warrants, and covenants to the OWNER that, in accordance with and pursuant to 21 O.S. § 1289.31 (i) it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, and (ii) will not discriminate against a firearm entity or firearm trade association during the term of this Agreement.

IN WITNESS WHEREOF, OWNER and ENGINEER have executed this AGREEMENT.

DATED this 7th day of October, 2026.

HDR Engineering, Inc.

ATTEST

By: [Signature]
 Lucas A. Bathurst
 Title: Vice President / Area Manager

By: [Signature]
 Jenifer Rayshell
 Title: Administrative Manager

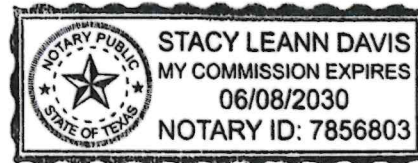
STATE OF Texas, COUNTY OF Dallas, SS:

Before me, the undersigned, a Notary Public in and for said Lucas A. Bathurst of the HDR Engineering, Inc., its Vice President / Area Manager, to me known to be the identical person(s) who executed the foregoing Contract K-2526-113, Robinson Transmission Main – Porter to Flood and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

WITNESS my hand and seal this 7th day of October, 2026.

My Commission Expires: 06/08/2030

Notary Public: [Signature]



Norman Utilities Authority- OWNER

APPROVED as to form and legality this 8th day of October, 2026.

[Signature]
 City Attorney

APPROVED by the Trustees of the Norman Utilities Authority this _____ day of _____, 20____.

ATTEST

By: _____
 Title: _____

ATTACHMENT A **SCHEDULE**

Task Name	Start	Finish
Norman - WA0242 - Robinson Water Transmission Main	10/15/26	4/10/29
Notice to Proceed	10/15/26	10/15/26
Kickoff Meeting	10/26/26	10/30/26
Project Setup and Administration	11/2/26	11/6/26
Project Survey and Geotech	11/9/26	1/29/27
Preliminary Design (35% Design)	12/10/26	2/10/27
Quality Control	2/11/27	2/24/27
35% Submittal	2/25/27	2/25/27
Norman Review	2/26/27	3/26/27
35% Design Review Meeting	3/29/27	3/29/27
65% Design	3/30/27	5/24/27
65% Specifications	3/30/27	5/24/27
Quality Control	5/25/27	6/7/27
65% Submittal	6/8/27	6/8/27
Norman Review	6/9/27	7/7/27
65% Design Review Meeting	7/8/27	7/8/27
95% Design	7/9/27	8/19/27
95% Specifications	7/9/27	8/19/27
Quality Control	8/20/27	9/3/27
95% Submittal	9/3/27	9/3/27
Norman Review	9/6/27	9/24/27
95% Design Review Meeting	9/27/27	9/27/27
100% Design	9/28/27	10/25/27
100% Specifications	9/28/27	10/25/27
Quality Control	10/26/27	11/1/27
100% Submittal/ODEQ Submittal	11/2/27	11/2/27
Norman Review/ODEQ Review	11/3/27	1/4/28
100% Design Review Meeting	11/2/27	11/2/27
Bid Phase Services	1/5/28	3/7/28
Construction Phase Services	3/8/28	3/20/29
As-Built/Record Drawings	3/21/29	4/10/29

ATTACHMENT B

SCOPE OF SERVICES

This PROJECT will consist of the design of a portion of the Robinson Water Transmission Main project with approximately 3,200 linear feet of 30-inch C-900 PVC water line along or under Robinson Street. The PROJECT limits extend from the railroad tracks adjacent to James Garner Avenue on the west to the east side of Porter Avenue on the east. Replacement of the existing 16-inch water line between the west side of Flood Avenue and the east side of the railroad tracks will be an Additional Service. Under this contract, this project will consist of the following phases of work with their associated tasks:

1. Preliminary Design – Alignment evaluation, 35% Design including Technical Memorandum, 35% P&P Sheets, and Preliminary Opinion of Probable Construction Cost (OPCC).
2. Final Design – 65%, 95% and 100% Design Plans, Project Specifications, and OPCC for the water line design.
3. Bid Phase Services
4. Construction Phase Services
5. As-Built / Record Document Services

Specific tasks for each phase are described in the following sections.

0 Project Setup and Administration

0.1 Project Setup and Administration

- 0.1.1 As part of project planning and setup, ENGINEER will develop a project management and quality plan outlining the project goals and objectives, scope of work, communications protocols, and quality review plan. A kick-off meeting will be held with the OWNER to confirm key elements of the project management plan, quality plan, project scope objectives, baseline schedule, and initial technical items.
- 0.1.2 Throughout project execution, ENGINEER will conduct monitoring and control activities to track project progress and develop monthly invoices with project activity reports for submittal to the OWNER. Activity reports will document activities completed in the previous period and planned activities for the following month.
- 0.1.3 ENGINEER will arrange and coordinate the design effort with the railroad and will lead one (1) meeting with the city and the railroad.
- 0.1.4 ENGINEER will lead three (3) review meetings with the OWNER at 35%, 65% and 95% submittals. ENGINEER will incorporate comments into the next phase of the design effort.

Deliverables:

- Project Management and Quality Control Plan
- Project Kickoff Meeting Agenda and Summary (.pdf format)
- Project Schedule (.mpp or .pdf format)
- Monthly Invoices with Activity Report (including updated project schedule)
- Meeting Notes and Comment Logs for 35%, 65% and 95% Quality Control Meetings

1 Preliminary Design Services

1.1 Data Collection and Review

- 1.1.1 ENGINEER will develop and submit a data needs request to obtain initial data and information for review. Requested data and information will include the following:
- Existing water line plans in the vicinity of Flood Ave. and Robinson St.
 - Existing water line plans in the vicinity of James Garner Ave. and Robinson St.
 - Existing water line plans in the vicinity of Porter Ave. and Robinson St.
 - Existing plans for the stormwater pump station and infrastructure in the vicinity of Flood Ave. and Robinson St.
 - Other applicable design basis studies, reports or plans
- 1.1.2 Delivery to the ENGINEER will be in electronic format.

1.2 Alignment Evaluation

- 1.2.1 ENGINEER will evaluate and rank up to three (3) alignments between Flood Ave. and Porter Ave. for the water line. Evaluations will include the following:
- Desktop and field observation (from public access) of available easement and public right-of-way areas capable of accommodating the water line
 - Utility conflict data for each alignment based on visible surface markings
 - Permit requirements for each alignment
 - Socio-economic impacts to residents and businesses for each alignment
 - Operational and maintenance impacts for each alignment
 - AACE Class V OPCC for each alignment
- 1.2.2 The ENGINEER will meet with the OWNER and Ardurra to coordinate the water line connection at Porter Avenue. The OWNER will provide ACAD files to the ENGINEER for the tie in location. The information provided will include Northing and Easting, MSL elevation for top of pipe, and slope and bearing of connecting pipe.
- 1.2.3 The ENGINEER will not perform any hydraulic modeling associated with the OWNER's water model to evaluate pressures, velocities or water age in the system. To determine if the existing 16-inch water line between Flood Ave. and the railroad should be replaced based on future conditions, the OWNER will provide local pressures and velocities based on future max day demands. The ENGINEER will provide a recommendation on whether to replace this segment of the water line based on the provided information. Designing the replacement of the 16-inch waterline between Flood and the project starting point east of the railroad will be an ADDITIONAL SERVICE.
- 1.2.4 Alternatives will be evaluated and recommendations provided for consideration and selection by the OWNER. Evaluation criteria and weightings of the criteria will be developed for review and acceptance by the OWNER so that each alternative can be compared and ranked. ENGINEER will conduct an internal quality control review of the preliminary alignment alternatives, evaluation criteria, and scoring matrix and confirm compliance with overall objectives previously established by the OWNER for implementing the Project. After developing the alignment alternatives and scoring matrix, a meeting will be conducted with the OWNER and the ENGINEER where the alignment alternatives and the scoring matrix will be presented and discussed. ENGINEER will incorporate changes in the matrix and alignments identified in the meeting. ENGINEER will prepare meeting notes and revise the alignments based on the outcome of the meeting.
- 1.2.5 The ENGINEER will prepare an Alignment Evaluation Technical Memorandum from the data provided in 1.2.1 above. The draft Alignment Evaluation Memorandum with the alignment recommendation will

be submitted to the OWNER for comment. Comments from the OWNER will be incorporated into the Alignment Evaluation Memorandum, and the ENGINEER will finalize the Memorandum. ENGINEER will deliver one (1) pdf electronic copy of the final Alignment Evaluation Memorandum to the OWNER.

Deliverables:

- Meeting Notes for the Alternative Review Meeting
- Draft and Final Alignment Evaluation Memorandum in PDF Format

1.3 Topographic and Easements Survey

1.3.1 Surveying will be conducted by the ENGINEER, or its qualified, licensed surveyor for the selected alignment. Survey scope of work will include the following tasks:

- Utility coordination. Prior to commencing any topographic fieldwork, the surveyor will coordinate with, collect, and review available public and private utility records within the project limits. The surveyor will submit a utility locate request for the project limits to OKIE 811 at least 72 hours prior to survey. Contact members listed on the OKIE ticket, request utility atlas maps, and plot atlas maps as "per atlas map" if said maps are provided by the Utility Owner. Follow-up field activities will be performed as additional field markings are made by respective Utility Owners.
- Right-of-Way and Property: Survey will locate and tie existing ROW, property lines and easements including type, size, volume and page, where applicable, as provided on the County Assessors GIS Map data.
- Survey will horizontally and vertically pick up visible surface features; drainage features; manholes; curbs; signs; sidewalks; building locations; fences/retaining walls; trees and/or tree lines; roadways; railways; and city, county and franchise utilities (as provided by OKIE 811 utility locate request) visible and marked within the project area.
- Methods and precision: Survey coordinates will be reported on the NGS Oklahoma State Plane Coordinate System, South Zone, NAD83 for Horizontal and NAVD 88 Vertical. Horizontal and vertical control will be set using multiple observed RTK with averages. Survey to conform to and with the Oklahoma Minimum Standards as defined in INSTRUCTION MANUAL FOR TOPOGRAPHIC AND PLANIMETRIC MAPPING.
- Surveyor will research boundaries, subdivision plats, ROW and easements of which the surveyor has knowledge, which may affect the physical boundaries of the project. Easements with volume and page numbers (as provided) will be identified and labeled in the survey submittal. Research will include public record resources, including but not limited to: county records; ODOT records; franchise utility records (gas, telephone, electric, cable and others); ownership or easement records as available; and title/abstracting reports from owner on proposed easement parent tracts.
- City will provide utility locates for the surveyor of all water lines and other city utilities in the area. City will also provide services to locate manholes, valves, and hydrants that may not be a surface level.

Deliverables:

- Survey Data will be delivered as a Civil 3D file
- The above-listed Ownership Exhibits
- Overall drawing with the line and ROW shown in AutoCAD 2000 format with control
- Electronic versions of each created Ownership Plat.

1.4 Subsurface Utility Engineering

- 1.4.1 SUE services will be performed for this project in general accordance with the recommended practices and procedures described in ASCE publication ASCE/UESI/CI 38-22 "Standard Guidelines for Investigating and Documenting Existing Utilities".
- 1.4.2 QLA SUE will be performed for the selected alignment at up to eight (8) individual locations up to 8 feet deep each.
- 1.4.3 Upon completion of each test hole, provide test hole data form for each utility exposed including surveyed top of pipe elevation, pipe diameter and pipe material. Two pictures will be taken, one of the utility and one of the test hole board showing the depth.
- 1.4.4 Scope assumes the use of vacuum excavation equipment. Use of hydraulic excavation will be considered an additional service.

Deliverables:

- Utility file in ACAD format depicting all SUE data documented on the PROJECT.
- A summary sheet of all test hole coordinate data and depth information. 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These forms will be signed and sealed by a Professional Engineer and delivered to the ENGINEER in PDF format.
- 11" x 17" SUE Plan Sheets depicting all SUE data documented on the PROJECT.

1.5 35% Design

- 1.5.1 The ENGINEER will prepare, for the approval by the OWNER, drawings setting forth in detail the requirements for the construction of the Project, which will comply with all applicable laws, statutes, ordinances, codes, and regulations. The standard of care applicable to the ENGINEER's services will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services at the time of such services are performed. The ENGINEER will re-perform any service not meeting this standard of care without additional compensation.
- 1.5.2 The 35% design package will consist of the following items:
 - General Sheets which will include a cover sheet, sheet index, project location map, quantities and pay items, construction pay item summary, general construction notes, survey coordination sheet, overall site plan, erosion control, traffic control, and details.
 - 35% Plan and Profile sheets will provide, at a 1" = 20' scale, will show the following: proposed plan/profile, pipe size, appurtenance locations, existing utilities and utility easements, and pertinent information needed to construct the project. Property lines, legal description (Lot Nos., Block Nos., and Addition Names) along with property ownership will be provided on plan view.
- 1.5.3 ENGINEER will provide an AACE Class 4 Opinion of Probable Construction Cost (OPCC) to reflect costs associated with the anticipated Project.
- 1.5.4 The ENGINEER will prepare a Technical Memorandum (TM) that includes a recommendation and summary of the proposed alignment, utility coordination, easement requirements, permitting requirements, and any other important design considerations. The TM will also include the 35% Plan and Profile sheets. The profile will be limited to a preliminary water line elevation based on depth of cover, anticipated utility conflicts, service connections, and reconnections to existing water lines. Profile will include top of pipe, known utility conflicts, connections and existing ground profile along the centerline of the proposed alignment. Development of the 35% P&P sheets will not begin until the full survey on the recommended alignment has been received.

- 1.5.5 ENGINEER will conduct an internal QA/QC of the draft TM and the 35% plan sheets. ENGINEER will incorporate comments and submit to OWNER for review.
- 1.5.6 After receiving input and comments from the OWNER, ENGINEER will update and finalize the TM. ENGINEER will deliver three (3) bound hard copies and one (1) pdf electronic copy of the final technical memorandum to the OWNER.
- 1.5.7 Following finalization of the TM, ENGINEER will coordinate with Ardurra on the tie-in location.

Deliverables:

- Draft Technical Memorandum including 35% P&P Sheets
- Final Technical Memorandum including 35% P&P Sheets
- Comment Log
- AACE Class 4 OPCC

1.6 35% Design Deliverables Summary

- Meeting Notes for the Alternative Review Meeting
- Draft and Final Alignment Evaluation Memorandum in PDF Format
- Survey Data will be delivered as a Civil 3D file
- The above-listed Ownership Exhibits
- Overall drawing with the line and ROW shown in AutoCAD 2000 format with control
- Electronic copies of each created Ownership Plat.
- Utility file in ACAD format depicting all SUE data documented on the PROJECT.
- A summary sheet of all test hole coordinate data and depth information. 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These forms will be signed and sealed by a Professional Engineer and delivered to the ENGINEER in PDF format.
- 11" x 17" SUE Plan Sheets depicting all SUE data documented on the PROJECT.
- Draft Technical Memorandum including 35% P&P Sheets
- Final Technical Memorandum including 35% P&P Sheets
- Comment Log
- AACE Class 4 OPCC

2 Final Design Services

The ENGINEER will prepare, for the approval by the OWNER, drawings and specifications setting forth in detail the requirements for the construction of the Project, which will comply with all applicable laws, statutes, ordinances, codes, and regulations. The standard of care applicable to the ENGINEER's services will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services at the time of such services are performed. The ENGINEER will re-perform any service not meeting this standard of care without additional compensation.

2.1 65% Design

2.1.1 The 65% design package will consist of the following items:

- General Sheets which will include a cover sheet, sheet index, project location map, quantities and pay items, construction pay item summary, general construction notes, survey coordination sheet, overall site plan, erosion control, and details.
- Traffic control notes will be provided as necessary to guide the development of Traffic Control Plans by the Contractor. Detailed Traffic Control is not included under this contract.

- Plan and Profile sheets will show the following: proposed plan/profile, pipe size, appurtenance locations, existing utilities and utility easements, and pertinent information needed to construct the project. Property lines, legal description (Lot Nos., Block Nos., and Addition Names) along with property ownership will be provided on plan view.
- 2.1.2 The ENGINEER will utilize the City of Norman's Standard Specifications and Construction Drawings (City Specifications) to the maximum extent possible. Additional technical specifications will be prepared as required to supplement the City Specifications.
- 2.1.3 ENGINEER will provide an AACE Class 3 OPCC to reflect costs associated with the anticipated Project.
- 2.1.4 ENGINEER will conduct an internal QA/QC of the 65% plan sheets, 65% specifications and 65% OPCC. ENGINEER will incorporate comments and submit to OWNER for review.
- 2.1.5 ENGINEER will begin permit coordination for the project as necessary. Coordination with the railroad is an Additional Service.

Deliverables:

- 65% Draft P&P Sheets
- 65% Draft Specifications
- AACE Class 3 OPCC

2.2 95% Design

- 2.2.1 The ENGINEER will incorporate the OWNER's 65% comments into the 65% plan set and advance the plan set to 95% including the following items:
- General Sheets which will include a cover sheet, sheet index, project location map, quantities and pay items, construction pay item summary, general construction notes, survey coordination sheet, overall site plan, erosion control, and details.
 - Traffic control notes will be provided as necessary to guide the development of Traffic Control Plans by the Contractor. Detailed Traffic Control is not included under this contract.
 - Plan and Profile sheets will show the following: proposed plan/profile, pipe size, appurtenance locations, existing utilities and utility easements, and pertinent information needed to construct the project. Property lines, legal description (Lot Nos., Block Nos., and Addition Names) along with property ownership will be provided on plan view.
- 2.2.2 The ENGINEER will incorporate the OWNER's 65% comments into the 65% specifications and advance the project specifications to 95%.
- 2.2.3 ENGINEER will provide an AACE Class 2 OPCC to reflect costs associated with the anticipated Project.
- 2.2.4 ENGINEER will conduct an internal QA/QC of the 95% plan sheets, 95% specifications and 95% OPCC. ENGINEER will incorporate comments and submit to OWNER for review.
- 2.2.5 ENGINEER will complete permit coordination for the project as necessary. Coordination with the railroad is an Additional Service.
- 2.2.6 Submit plans as required to all private utility companies that may be affected by the project. ENGINEER will meet with the private utility companies if necessary and incorporate comments into the 95% plan set.

Deliverables:

- 95% Draft P&P Sheets
- 95% Draft Specifications
- AACE Class 2 OPCC

2.3 Geotechnical Engineering

- 2.3.1 Geotechnical engineering services associated with the 65% design phase will commence upon completion, submittal, and acceptance of the 35% design deliverables. The geotechnical investigation will occur on parcels where ROE has been obtained at the selected sites. Soil borings will be advanced in selected locations based on surface conditions, pre-existing geotechnical data and other factors. When possible, soil borings will be placed on public ROW. Samples will be acquired, and laboratory tests will be conducted to provide engineering data necessary for the design. ENGINEER will provide Geotechnical Boring Logs and a Geotechnical Design Basis Report for trenchless construction methods.
- 2.3.2 The borings will be backfilled using bentonite grout. Pavement will be patched with either ready-mix concrete or asphalt cold patch to match the existing pavement. Actual work required will be refined as the PROJECT progresses. Billing will be based on actual work performed by the geotechnical subcontractor.

Deliverables:

- Geotechnical Boring Logs and Design Basis Report

2.4 ODEQ Permitting

- 2.4.1 After completion of the 95% quality control review meeting and prior to the advertisement for bids, ENGINEER will provide sealed contract documents and prepare an engineering design report and calculations to comply with ODEQ requirements to obtain a Permit to Construct. OWNER will electronically submit the application package to ODEQ for review. If necessary, incorporate modifications requested by ODEQ. The OWNER will be responsible for fees associated with the permitting process.

Deliverables:

- ODEQ Engineering Design Report
- ODEQ Application for Permit to Construct

2.5 Final Design

- 2.5.1 ENGINEER will provide a written response to OWNER 95% comments and will modify documents incorporating required changes including, but not limited to, any ODEQ or private utility required changes. ENGINEER will provide the following sealed construction contract documents to OWNER: two (2) half-size (11"x17") drawing sets; two (2) specification sets; Final OPCC and PDF files of the aforementioned documents.

Deliverables:

- Final Comment Log Responding to ODEQ and Private Utility Comments
- Signed and Sealed Plans and Specifications
- AACE Class 1 OPCC

2.6 Final Design Deliverable Summary

- 65% Draft P&P Sheets
- 65% Draft Specifications
- AACE Class 3 OPCC
- 95% Draft P&P Sheets
- 95% Draft Specifications
- AACE Class 2 OPCC
- Geotechnical Boring Logs and Design Basis Report
- ODEQ Engineering Design Report
- ODEQ Application for Permit to Construct
- Final Comment Log Responding to ODEQ and Private Utility Comments
- Signed and Sealed Plans and Specifications
- AACE Class 1 OPCC

3 BID PHASE SERVICES

3.1 Pre-Bid Activities

- 3.1.1 Assist the OWNER in the advertisement of the project for competitive bids.
- 3.1.2 Assist the OWNER in securing bids, preparing addenda, issuing notice to bidders and notifying construction news publications. The notice to bidders will be furnished to the OWNER for publication in the local news media. The cost for publications will be paid by the OWNER. The ENGINEER will distribute bid documents, plans and specifications for the Project to prospective bidders via CivCast. Coordinate and conduct a pre-bid conference for the project for each bid package included in Basic Services.
- 3.1.3 In conjunction with the OWNER, ENGINEER will issue addenda in response to questions raised during the bidding process. ENGINEER will transmit addenda to all plan holders via CivCast.
- 3.1.4 Provide Engineer's Estimate if different from the Final OPCC.

Deliverables:

- Notice to Bidders
- Addenda
- Engineer's Estimate

3.2 Post-Bid Activities

- 3.2.1 Attend the bid opening and assist the OWNER in the opening and tabulation of bids for construction of project.
- 3.2.2 Perform reference checks and recommend to the OWNER as to the proper action on all proposals received. Provide Letter of Recommendation of Award to OWNER.
- 3.2.3 Assist the OWNER in coordinating the execution of the conformed contract documents. Provide conformed documents (plans and specifications) in electronic format (PDF and CAD) via SharePoint.

Deliverables:

- Bid Tabulation
- Recommendation of Award
- Conformed Plans and Specifications

4 Construction Phase Services

4.1 Pre-Construction Conference and Monthly Progress Meetings

- 4.1.1 Conduct pre-construction conference and, in conjunction with the OWNER, issue clarifications in response to questions raised at the conferences. Agenda, minutes, and attendance will be completed by the ENGINEER.
- 4.1.2 Attend monthly progress meetings as needed with the OWNER and the PROJECT contractor. Meet with OWNER staff for PROJECT discussions, coordination, and presentations as required by the OWNER.

4.2 Field Activities

- 4.2.1 Represent the OWNER in Non-Resident construction administration of the project. In this capacity, the construction administration duties will not place any responsibility on ENGINEER for the techniques, sequences and methods of construction or the safety precautions incident thereto, and the ENGINEER will not be responsible or liable in any degree for the CONTRACTOR's failure to perform the construction work in accordance with the Contract Documents. The OWNER will be responsible for construction inspection. The ENGINEER will make up to four (4) site visits during construction to meet with the OWNER's inspector and verify that the project is being constructed in general conformance with the plans and specifications.

4.3 Construction Documentation

- 4.3.1 Review samples, catalog data, schedules, shop drawings, geotechnical, laboratory, shop and mill tests of material and equipment, and other data which the CONTRACTOR is required to submit for conformance with the design concept of the project and compliance with the information given by the Contract Documents.
- 4.3.2 Interpret the intent of the plans and specifications for the OWNER and CONTRACTOR, responding to Requests for Information.
- 4.3.3 Review testing laboratories' reports and inspection bureaus required for the testing or inspection of materials, factory testing, etc., for the project. The cost of such laboratory tests or inspection will be paid by the OWNER. Review daily construction reports and photos for general PROJECT progress.
- 4.3.4 Accompany the OWNER in conducting one (1) final completion inspection of the PROJECT 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. Prepare a list of deficiencies to be corrected by the CONTRACTOR before final payment is released.
- 4.3.5 ENGINEER will review and comment on the certificate of completion and the recommendation for monthly progress payments to the CONTRACTOR. Verification of quantities and completion of work will be the responsibility of the OWNER. OWNER will provide a copy of the approved pay application to the ENGINEER.
- 4.3.6 Review and comment on the certificate of completion and the recommendation for final payment to the CONTRACTOR following final inspection of the completed Project.
- 4.3.7 Review, evaluate and prepare documentation related to change orders as required.

5 As-Built Record Documents

5.1 As-Built Record Documents

- 5.1.1 Revise contract drawings with reference to the Contract Document required "red line" notations and the assistance of assigned OWNER or 3rd Party Resident Representative Staff. Revised drawings will reflect available information as to how the work was constructed. Furnish as-built record documents in PDF, CAD, and GIS formats. No hard copies will be required.

6 ADDITIONAL SERVICES

6.1 General Additional Services

- 6.1.1 Services not specifically included in the Basic Services described herein may be performed by the ENGINEER as Additional Services when requested or approved by the OWNER.
- 6.1.2 The ENGINEER shall not proceed with Additional Services without prior authorization from the OWNER. The scope, schedule, and compensation for Additional Services shall be mutually agreed upon by the OWNER and ENGINEER prior to executing such services.

6.2 Water Line Replacement Between Flood and the Railroad

- 6.2.1 Prepare 35%, 65%, 95% and 100% Plans and Specifications for approximately 650 linear feet between the west side of Flood Ave. to the west side of the railroad tracks adjacent to James Garner Avenue. Plans and Specifications will be in accordance with the tasks outlined above. This task will include preparing boring plans for Flood Ave.

6.3 Water Line Replacement under the Railroad

- 6.3.1 Prepare 35%, 65%, 95% and 100% Plans and Specifications for approximately 250 linear feet under the railroad tracks. Plans and Specifications will be in accordance with the tasks outlined above. This task will include preparing boring plans for the railroad.
- 6.3.2 ENGINEER will coordinate with the railroad to obtain a crossing permit.

ATTACHMENT C COMPENSATION

The OWNER will compensate ENGINEER on a lump sum basis for the SERVICES rendered. The lump sum fee is broken down below by task as defined in the Scope of Services:

Activity	Task Description	Lump Sum Amount
Basic Services		
1	Preliminary Design Services	\$127,000
2	Final Design Services	\$95,500
3	Bid Phase Services	\$14,900
4	Construction Phase Services	\$32,000
5	As-Built Record Documents	\$7,000
Basic Services Total		\$276,400
Additional Services		
A1	General Additional Services	\$7,150
A2	Waterline Replacement Between Flood and the Railroad	\$14,750
A3	Waterline Replacement Under the Railroad	\$18,100
Additional Services Total		\$40,000

The ENGINEER may submit interim statements, not to exceed one per month, for partial payment for SERVICES rendered. The statements to OWNER will be by task for the percentage of work actually completed. The OWNER will make interim payments within 30 calendar days in response to ENGINEER's interim statements.