ENGINEERING SERVICES AGREEMENT

THE STATE OF TEXAS §
§
COUNTY OF WALLER §

THIS AGREEMENT is made and entered into by and between **WALLER COUNTY, TEXAS**, a public body corporate and politic of the State of Texas acting by and through the Waller County Commissioners Court (hereinafter referred to as "County"), and Gradient Group, LLC**,** hereinafter called the "Engineer" or "Company".

W I T N E S S E T H:

WHEREAS, the County proposes to hire the Engineer to perform design services to reconstruct Cochran Road from approximately Old Houston Highway to Brumlow Road in Waller County, Texas, hereinafter called the "Project;"

WHEREAS, the Engineer has represented to the County that it is qualified and prepared to perform all of the services described in the Scope of Services, Appendices A, attached hereto and incorporated herein by reference as if copied herein verbatim (Scope of Services), and has submitted a proposal to provide professional engineering services for the Project;

WHEREAS, the County is satisfied that the Engineer is capable of performing the necessary services required for the Project and desires to contract with the Engineer to perform the services described in the Scope of Services;

WHEREAS, the provisions of Chapter 262, Texas Local Government Code, Competitive Bidding Law do not apply to the proposed agreement because the contract is for professional engineering services and the services were procured pursuant to Chapter 2254, Texas Government Code;

WHEREAS, the County has determined and found that it would be in the best interest of the County to delegate to LJA Engineering, Inc. ("LJA") supervisory and management authority over the Engineer; and

WHEREAS, the Engineer will control the methods and means in performing the work set out in the Scope of Services;

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

1. General

   a. In performing professional engineering services under this Agreement, the Engineer will function solely and exclusively for the benefit of the County and not for the benefit of the Engineer for the Project or any other party. All services rendered by the Engineer

under this Agreement shall be performed under the supervision of LJA. The Engineer shall render services in accordance with generally accepted professional standards of competent engineers practicing in the same or similar locality and under the same or similar circumstances and professional license and use that degree of care and skill to comply with all applicable laws and regulations.

b. The Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all deliverable documents and services furnished by the Engineer under this Agreement. The Engineer shall, without additional compensation, correct or revise all errors and omissions in its documents. Reuse of the documents and deliverables for any purpose other than that for which such deliverables were originally prepared, or alteration of such documents or deliverables without the written verification or adaptation by Engineer for the specific purpose intended, shall be at County's risk. All title blocks and engineer's seal, if applicable, shall be noted and made according to Texas Administrative Code.

c. At the County's request, the Engineer will collaborate with LJA and County personnel to facilitate the implementation of a Project Database within the County's Electronic Document Management System. The Electronic Document Management System will provide electronic management that shall govern the distribution and file copies of all Project related correspondence, reports, plans, and technical data. The County and the Engineer will use this system to facilitate the effective electronic exchange of Project information and documents with members of the design team and other interested stakeholders.

d. The Engineer will collaborate with LJA and County personnel to facilitate the maintenance of the Project Database. Project files shall be entered into the database by the Engineer on a timely basis and made available by LJA and the County at all times for performance of daily Project activities. Other documents, including those used for legal review, audit requests/requirements, and open records request purposes, shall be entered by the County staff assisting the Engineer team. The Engineer shall also ensure that all Project files are appropriately entered into the database:

    1. At all critical milestones;
    2. At established periodic intervals; and
    3. Following completion of the work as a final Project record, including applicable record drawings.

e. County may provide information, reports, studies, site characterizations, advice, instructions, and similar information in its possession relating to the Project ("County Data"). Engineer may reasonably and in good faith rely upon the accuracy of County Data provided by County or any third party designated by County. However, Engineer will not ignore the implications of information furnished to Engineer and shall make reasonable inquiries if County Data as furnished appears to be incorrect or incomplete. Engineer makes no representations or warranties as to the quality, accuracy, usefulness, or completeness of any Services to the extent Engineer relies on County Data. Engineer, its officers, directors, and employees shall have no liability whatsoever with respect to the use of unreliable, inaccurate, or incomplete County Data.

2. Scope of Services

The services to be provided herein in regard to the Project are defined in Appendices A ("Scope of Services").

3. Compensation and Payment

a. The Engineer shall be entitled to payment of the lump sum amount of **$743,737.35** for services to perform the tasks delineated in Appendix A-1. Development of the plans for the Project will be the responsibility of the Engineer. The Engineer shall submit plans for County review at 30%, 60%, 90% and 100% completion, unless modified in writing by County. The County shall review and provide the Engineer comments to the submittals within 20 working days of receipt. The County will pay the Engineer commensurate to the plan submittal completion based upon the County's assessment. The Engineer will not receive further payment until the County is satisfied with the Engineer's responses to the review comments. The services necessary to perform the tasks delineated in Appendix A-2 shall be paid based on hourly rates and the County shall not be obligated to pay in excess of **$96,721.00** for the services described in Appendix A-2. The Engineer shall not be obligated to perform further services hereunder once the Scope of Services delineated in Appendices A-1 and A-2 have been performed.

(1) All hourly billing for the services defined in Appendix A-2 and any additional services not included in the Scope of Services under this Agreement, including changes in the contractual scope of work and revision of work satisfactorily performed, will be performed only when approved in advance and authorized by the County, and will be reimbursed at the raw salary rates in effect at that time, times a multiplier as set forth below, to the extent that such direct salary costs and subcontracts are reasonable and necessary for the performance of such services. The reimbursable hourly raw salary rates cannot exceed those set forth in Appendix B. The Engineer shall also be entitled to expense reimbursement as set forth in Appendix B, provided that miscellaneous expenses, if any, may be reimbursed hereunder only when LJA determines that incurring such expenses is not required as part of the original Scope of Services and provides written approval of such expense in advance of it being incurred. Payment will be made on the basis of certified time and expense records and in accordance with those payment procedures set forth in subparagraph b., below. Billing rates will have a 3.00 multiplier on raw salary rates.

(2) Where Subconsultants are employed by the Engineer to perform additional services not within the original Scope of Services, the Engineer will be reimbursed for Subconsultants' salaries and hourly rates, including overtime rates, on the same basis as described for the Engineer's own personnel in subparagraph a. (1), of this Paragraph. Reimbursement to the Subconsultant for non-salary costs incurred by Subconsultants will be on the same basis as if the costs were incurred by the Engineer. Total contract amounts shall include Subconsultant fees.

b. It is understood and agreed that monthly payments will be made to the Engineer by the

County based on the following procedures: On or about the fifteenth day of each month during the performance of services hereunder and on or about the fifteenth day of the month following completion of all services hereunder, the Engineer shall submit to the County the invoice electronically showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement and for additional services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the County Auditor). The fee, as determined by the methods described herein, includes out-of-pocket costs of Engineer for delivery services, parking, mileage at IRS rate and document printing. Travel expenses submitted for reimbursement must be incurred in accordance with County's travel policy. All expenses submitted by Engineer shall be subject to approval by County prior to reimbursement.

LJA shall review such invoices and approve them within ten (10) calendar days with such modifications as are consistent with this Agreement and forward same to the County Engineer, who will forward to the County Auditor. The County shall pay each such invoice as approved by the County Auditor within twenty (20) calendar days after the County Auditor's approval of same. Invoices are due and payable net 30 days from receipt.

c. It is expressly understood and agreed that the County has available the total maximum sum of **$840,458.35** as hereinafter certified available for the purpose of satisfying the County's obligations under the terms and provisions of this Agreement. The County shall not be liable under any circumstances or any interpretations hereof for any costs under the Agreement except for those certified available for this Agreement by the Waller County Auditor, as evidenced by the issuance of a purchase order by Waller County for the certified amount. Once the funds are expended for the purpose of satisfying the County's obligations under the terms and provisions of this Agreement, the County shall have no further obligations nor shall the Engineer be required to perform further services hereunder.

4. Time of Performance

It is understood and agreed that time is of the essence for performance of the Engineer's services under this Agreement and services shall be performed as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer or architect.

5. The County's Option to Terminate

a. The County has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing written notice of such intention to terminate and by stating in said notice the "Termination Date." Upon such termination, the County shall compensate the Engineer in accordance with Paragraph 3., above, for those services that were provided under this Agreement prior to its termination and that have not been previously invoiced to the County. The Engineer's final invoice for said services will be presented to and paid by the County in the same manner set forth in Paragraph 3. b., above.

b. Termination of this Agreement and payment in settlement as described in subparagraph a. of this Paragraph shall extinguish all rights, duties, obligations, and liabilities of the County and the Engineer under this Agreement and this Agreement shall be of no further force and effect; provided, however, such termination shall not act to release the Engineer from liability for any previous default either under this Agreement or under any standard of conduct set by law. No termination of this Agreement shall have the effect of terminating the Engineer's obligations under Sections 7 (Delays and Damages), 8 (Inspection of the Engineer's Books and Records), 12 (Appearance as Witness), or 15 (Indemnification).

c. If the County shall terminate this Agreement as provided in this Paragraph, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to the Engineer.

d. The County's rights and options to terminate this Agreement, as provided in any provision of this Agreement shall be in addition to, and not in lieu of, any and all rights, actions and privileges otherwise available under law or equity to the County by virtue of this Agreement or otherwise. Failure of the County to exercise any of its rights, actions, options or privileges to terminate this Agreement as provided in any provision of this Agreement shall not be deemed a waiver of any rights, actions or privileges otherwise available under the law or equity with respect to any continuing or subsequent breaches of this Agreement or of any other standard of conduct set by law.

e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the County upon the Engineer's receipt of termination payment when and if this Agreement is terminated.

6. Source of Fee Payments

The County intends to pay for design and construction with the proceeds from the sale and issuance of bonds. It is expressly acknowledged that all payments owing for Engineering services performed under this Agreement shall be made solely from this source of funds for financing design and construction of the Project. The County shall be under no liability under this Agreement to make payment to the Engineer from any other source. In addition, the County reserves the right, at its sole discretion, at any time prior to issuance by the County of the written notice to proceed, to terminate this Agreement and in the event of such termination, the Engineer shall not be entitled to any payment, nor have any claim for compensation or damages resulting from such cancellation. In no event shall the liability of the County under this Agreement exceed the amount hereunder certified as available by the County Auditor.

7. Delays and Damages

Except as otherwise provided herein, the Engineer agrees that no other charges or claims for damage shall be made by it against the County for any delays or hindrances occurring during the progress of the Engineer in providing to the County the services specified in this Agreement.

8. Inspection of the Engineer's Books and Records

County shall have the right, during normal business hours, to inspect, copy and audit at any time, and from time to time, all of Engineer's files, books, records, costs, and expenses pertaining to the Program. The County will conduct an audit on an annual basis, or more frequently at its sole discretion. If County elects to audit Engineer's files, books, records, costs, and expenses pertaining to the Program, and the audit discloses a discrepancy of one percent (1%) or more from the payment applications or invoices, then, in addition to repaying County all sums owing, Engineer shall pay the cost of the audit. Any such audit or examination may be undertaken by County or its contracted representative at reasonable times during normal business hours and in conformance with generally accepted auditing standards upon five (5) business days' notice to Engineer.

9. Personnel, Equipment, and Material

a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for performance of the services required under this Agreement and that the Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment, in the opinion of LJA, to perform the services when and as required and without delays. It is understood that LJA will approve assignment and release of all key engineering personnel and that the Engineer shall submit written notification of all key engineering personnel changes monthly for LJA's approval prior to the implementation of such changes. Services described in this Agreement shall be performed under the direction of an engineer licensed to practice professional engineering in the State of Texas.

b. All employees of the Engineer or Subconsultants hired by the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer or Subconsultant of the Engineer who, in the opinion of LJA, is incompetent or by his conduct becomes detrimental to the Project shall, upon request of LJA, immediately be removed from association with the Project.

c. Except as otherwise specified, the Engineer shall furnish all equipment, transportation, supplies, and materials required for its operations under this Agreement.

10. Subletting

The Engineer shall not sublet, assign, or transfer all or any part of the services in this Agreement without the prior written approval of the County. Even in the case of a permitted sublet, Engineer shall remain responsible under this Agreement for the work.

11. Conferences

At the request of LJA, the Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of LJA, or at the site of the Project. LJA and the County are permitted to inspect the Engineer site Project offices.

12. Appearance as Witness

If requested by the County, or on its behalf, the Engineer shall prepare such engineering exhibits and plats as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences and shall furnish competent expert engineering witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project. Compensation for trial preparation and appearance by the Engineer in courts regarding litigation matters will be made in accordance with the provisions of Paragraph 3. a. (1), above.

13. Compliance with Laws

The Engineer shall comply with all applicable federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, the Engineer shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees specified above.

The Engineer shall strictly comply with Section 2251.022 Texas Government Code, and shall require that its Subconsultants fully comply with Section 2251.023 Texas Government Code.

14. Insurance

The Engineer shall obtain, keep and maintain any and all insurance that may be required by law or that may be required by any agreement the County has with any other party concerning the Project as contained in Appendix C.

15. Indemnification

TO THE EXTENT ALLOWED BY LAW, THE ENGINEER AGREES TO INDEMNIFY AND HOLD HARMLESS THE COUNTY, ITS COMMISSIONERS, OFFICERS, EMPLOYEES, AND AGENTS FROM LIABILITY, LOSSES, EXPENSES, DEMANDS, REASONABLE ATTORNEYS' FEES, AND CLAIMS FOR BODILY INJURY (INCLUDING DEATH) AND PROPERTY DAMAGE TO THE EXTENT CAUSED BY THE NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT OF THE ENGINEER (INCLUDING THE ENGINEER'S AGENTS, EMPLOYEES, VOLUNTEERS, AND SUBCONSULTANTS/CONSULTANTS UNDER CONTRACT, OR ANY OTHER ENTITY OVER WHICH THE ENGINEER EXERCISES CONTROL) IN THE PERFORMANCE OF THE SERVICES DEFINED IN THIS AGREEMENT. THE ENGINEER SHALL ALSO SAVE THE COUNTY HARMLESS FROM AND AGAINST ANY AND ALL EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, IN PROPORTION TO THE ENGINEER'S LIABILITY, THAT MIGHT BE INCURRED BY THE COUNTY, IN LITIGATION OR OTHERWISE RESISTING SUCH CLAIMS OR LIABILITIES.

16. Delivery of Notices, Etc.

a. All routine written notices, invoices, change orders, etc. are to be delivered to the County Engineer J. Ross McCall, P.E., 775 Business US 290 East, Hempstead, TX 77445, or at such other place or places as the County may designate by written notice delivered to the Engineer.

All formal notices and demands under this Agreement shall be delivered to the Waller County Judge, Attention: Carbett "Trey" J. Duhon III, 425 FM 1488, Hempstead, TX 77445.

b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to Stephanie Anderson, PE, LEED AP, ENV SP, Gradient Group, LLC, 3151 Briarpark Drive, Suite 225 Houston, TX 77042, or at such other place or places as the Engineer may designate by written notice delivered to the County.

17. Reports of Accidents, Etc.

Within 24 hours of Engineer becoming aware of the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Engineer), whether or not it results from or involves any action or failure to act by the Engineer or any employee or agent of the Engineer and which arises in any manner from the performance of this Agreement, the Engineer shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts known to Engineer pertaining thereto. The Engineer shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Engineer's performance of work under this Agreement.

18. The County's Acts

Anything to be done under this Agreement by the County may be done by such persons, corporations, or firms as the County may designate.

19. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the County under this Agreement shall be deemed to be valid covenants and obligations only to the extent authorized by the Act creating the County and permitted by the laws and the Constitution of the State of Texas.

20. Captions Not a Part Hereof

The captions or subtitles of the several sections and divisions of this Agreement constitute no part of the content hereof but are only labels to assist in locating and reading the provisions hereof.

21. Controlling Law, Venue

This Agreement shall be governed and construed in accordance with the laws of the State of Texas. This Agreement shall be performed entirely in Waller County, Texas and the parties hereto acknowledge that venue is proper in Waller County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

22. Successors and Assigns

The County and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

23. Independent Engineer

Notwithstanding any provision of this Agreement, the Engineer shall at all times act as an independent Engineer, and not as an employee of the County, and the Engineer shall be responsible for the means and methods employed in performing services hereunder.

24. Certificate of Interested Parties (Form 1295)

Texas law requires all parties who enter into any contract with the County that must be approved by Commissioners Court to disclose all Interested Parties. Texas Ethics Commission Form 1295 must be completed in its entirety. If changes to this Form are necessary during this Agreement, the Engineer will notify and send the County an updated and complete version.

25. Additional Statutory Requirements. Certain State Law Requirements for Contracts. For purposes of section 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Engineer hereby verifies that Engineer and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

a. Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.

b. If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. “Boycott Israel” has the meaning provided in section 808.001 of the Texas Government Code.

c. If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. “Boycott energy company” has the meaning provided in section 809.001 of the Texas

Government Code.

d. If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. “Discriminate against a firearm entity or firearm trade association” has the meaning provided in section 2274.001(3) of the Texas Government Code. “Firearm entity” and “firearm trade association” have the meanings provided in section 2274.001(6) and (7) of the Texas Government Code.

BY ACCEPTANCE OF AGREEMENT, ENGINEER ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

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IN WITNESS WHEREOF, County and Engineer have caused their respective duly authorized representatives to execute, seal and deliver this Agreement, all as of the day and year first above written.

COUNTY:	ENGINEER:
WALLER COUNTY	Gradient Group, LLC
_____	_____
Carbett "Trey" J. Duhon III, County Judge	Stephanie Anderson
_____	_____
Date	Date

ATTEST:

_____
Debbie Hollan, County Clerk

Approved:

_____
J. Ross McCall, P.E., County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in an amount not to exceed $840,458.35 to accomplish and pay the obligation of Waller County in the foregoing matter.

_____
Alan R. Younts, County Auditor

APPENDIX A-1
Scope of Services (Lump Sum)

Scope of Services
Cochran Road

The project consists of reconstructing approximately 4,500 linear feet of Cochran Road from Old Houston Highway to Brumlow Road. The existing roadway is a 2-lane asphalt road with proposed improvements to include a 2-lane asphalt roadway with widening for turn lanes where needed, incorporating a center turn lane and intersection improvements.

Work not specifically listed below will be provided by others.

1. General

- The Engineer will collect available land plans, existing as-built plans, drainage studies, survey data, and other data pertaining to the design of the project that is publicly available.
- Attend monthly progress meetings with the County, their consultants, and other stakeholders as required to present a status report on design development. (12 months)
- The Engineer shall coordinate with the governing drainage district and water authorities.
- The Engineer shall coordinate with local permitting agencies.
- The Engineer shall coordinate with existing and future development.
- The Engineer shall coordinate with utilities, LIDS, HOAs, and POAs, to analyze impacts and obtain Letters of No Objections (LONOs) or have utilities relocate.
- The Engineer shall perform QA/QC at submittal levels. For each deliverable, the Engineer shall have some evidence of their internal review and mark-up of that deliverable. A milestone submittal is not considered complete unless the associated internal red-line mark-ups are submitted.
- The Engineer shall coordinate subconsultant activity to include quality of and consistency of plans and administration of the invoices and monthly progress reports.
- The Engineer shall develop a detailed project schedule and prepare invoicing and progress reports for each month.
- County projects will follow the Waller County criteria/design manual.

2. Preliminary Engineering

- **SURVEY** – The surveyor will perform a detailed field survey for the detailed design phase. The survey scope will include the following:

  Control and Design Surveys: The surveyor will establish project control as detailed in Chapter 6 of the Design Manual. Elevations will be referenced to the nearest NGS Height Modernization benchmarks. Temporary benchmarks will be set, and the design baseline will be monumented at a maximum 1,000-foot spacing between points. The Design Baseline will be staked at all PCs, PTs, and PIs, and at the beginning, end, and 1,000-foot stations. The surveyor will prepare a survey control map showing all survey control, Temporary Benchmarks, Design Baseline, and all side street construction centerlines.

The surveyor will perform topographic surveys within the existing ROW and 25 feet beyond the existing and proposed ROW as detailed in Chapter 6 of the Design Manual. The total length of survey is 6,257 linear feet, including 5,357 feet along Cochran Road and 100 feet along intersecting roads within the project limits. Roadway cross sections will be taken at intervals of 100 feet. The surveyor will request Right of Entry from adjoining private landowners and provide copies of all correspondence and a tracking report. Structures in clear view and within 100 feet of the existing or proposed ROW will be surveyed. Visible utilities will be surveyed. Buried utilities will be marked and surveyed by the SUE consultant. The surveyor will survey the location of up to 15 geotechnical borings after they are drilled and provide coordinates and elevations in a text file and the topographic survey CAD file. A separate field mobilization will be necessary for this task. Deliverables will be provided as specified in Section 6.1.M. of the Design Manual.

The surveyor will also perform the following services after the work described above is completed in support of efforts by others related to clearing, utility relocation, or other purposes, up to three separate times as needed:

A. Recover, verify, and flag Design Baseline points, survey control points, and benchmarks.
B. Set lathes at 100-foot intervals along ROW tangents and 50-foot intervals along curves.

Right of Way Surveys: The surveyor will survey property corners, perform easement and property ownership research, and prepare a preliminary ROW graphics file showing property ownership along the ROW and the location and widths of the existing ROW. Once ROW needs have been determined and approved by Waller County, the surveyor will prepare a final ROW Map, a table listing each parcel and the parcel number, and a Parcel Map and a Metes-and-Bounds Description for a total of 2 parcels to be acquired for the project. The ROW map and parcel exhibits will be prepared as described in Section 7.3., 7.4. and 7.5. of the Design Manual. The final ROW Map and parcel exhibits will meet the standards and specifications for a TSPS Category 1B, Condition II survey as specified in Section 6.1.L. of the Design Manual. All parcels will be staked in the field. Final deliverables will include KMZ and GIS files.

- **Subsurface Utility Engineer (SUE)** – The Engineer will perform detailed SUE QL A-D for the detailed design phase. The SUE scope will include:

  The scope of subsurface utility designating and/or locating services for this project is described below. Survey services to tie utility crossing marks and/or identifiers placed during the subsurface utility designating and/or locating effort will be provided in this contract.

  A. Quality Level ‘B’ through ‘D’ Utility Information & Designation – The Engineer will provide utility information, up to QL-“B”, along Cochran Rd from US 290 BUS to Brumlow Rd, approximately 1.0 Mi. See attached map in yellow.

  B. Quality Level A Utility Test Hole – The Engineer will excavate by air-vacuum or other minimally invasive methods up to Four (4) test holes on existing utilities along Cochran Rd from US 290 BUS to Brumlow Rd at locations to be determined. This work includes:

- Providing all necessary personnel, equipment, supplies, management and supervision needed for the test hole excavation, backfill and restoration.
- Contacting the appropriate one-call system to request utilities to be marked on-the-ground prior to beginning excavation of test hole.
- Preparing documentation for each test hole attempted. This documentation will include the horizontal and vertical position of the targeted utility or structure, a general description of the target utility, with condition, material and general orientation noted, a generalized description of the material encountered in the test hole, and any other field observations noted during the excavation.
- Based on ASCE Standard 38-22 standards, a 2d CADD file and PDF depicting the subsurface utilities designated, signed and sealed by a professional engineer in the state of Texas.

This work includes:

A. Requesting utility records on all crossing utilities from the Client, public utilities and private utility companies known to provide service within the project area, as well as other sources, in an effort to develop a comprehensive inventory of utility systems likely to be encountered. Record documents may include construction plans, system diagrams, distribution maps, transmission maps, geographic information system data, as well as oral descriptions of the existing systems. The depiction of utilities from records (QL-“C” or “D”) will be based on thorough field and office activities and shall be based on the most reliable indication of position available.
B. Visible surface features and appurtenances of subsurface utilities found within the project site will also be evaluated. Using appropriate surface geophysical methods, The Engineer will search for detectible indications of the location of anticipated subsurface utilities.
C. Marking all locations that can be validated, using paint, flags or other devices.
D. Preparing documentation of the utilities encountered and marked, including their general location, orientation, type & size, if known.
E. Based on ASCE Standard 38-22 standards, a 2d CADD file and PDF depicting the subsurface utilities designated, signed and sealed by a professional engineer in the state of Texas.

This work does not include:

A. Right-of-Entry
B. Permitting
C. Paving coring
D. Traffic control for test holes

The Engineer shall identify potential conflicts and attempt to minimize the potential adverse utility impacts in the preparation of the schematic design. The Engineer shall create and maintain a utility conflict matrix along the project length through the duration of the contract identifying potential known conflicts. The Engineer shall develop and maintain a utility contact list through the duration of the contract.

Deliverables:

A. Utility Conflict Matrix

- **GEOTECHNICAL** - The Engineer will perform geotechnical evaluation for pavement and subgrade preparation the final design phase.

    A. Core/drill and sample a total of 11 geotechnical borings (each boring 500-ft spacing) within the area of the proposed development. The depth and number of borings were determined based on the Waller County Engineering Design Manual. The depth and number of borings are provided on the table below.

Table: Summary of Soil Core/Borings

Design Element	Number of Borings	Approximate Boring Depth (ft)	Approximate Total Footage (ft)
Morrison Road	11	10	110
Total	**11**	**-**	**110**

    B. Obtain both disturbed and undisturbed samples continuously to a depth of 10 feet from the existing ground surface. Since the final grade elevation is not known at this time, sample collection will be based on the existing ground surface rather than the final grade elevation.
    C. Obtain utilities clearance for all the boring locations by calling TX 811.
    D. Provide traffic control, labor, and equipment for the Traffic Control Plan (TCP) while performing field services for the roadway borings in compliance with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices" and Waller County Standards, if necessary.
    E. Measure groundwater levels in the borings during drilling and approximately 24 hours after the completion of drilling.
    F. Backfill the borings with soil cutting after drilling. Mark the borings with spray marking/stakes that extend at least 3 feet above the ground surface, tie survey flagging near the top of the stakes, and label the stakes with the boring number. After the completion of our field activities, the client will be notified for surveying of the boring locations.
    G. Perform laboratory tests to classify and determine the engineering properties of the subsurface Soil classifications will be performed in strict accordance with ASTM D 2487. The laboratory program may include the tests described in the Table below.

TABLE: LABORATORY TESTING GENERAL PROCEDURES

Laboratory Test	Applicable ASTM/Standard Procedures
Moisture Content	ASTM D2216
Atterberg Limits	ASTM D4318
Material Finer than No. 200 Sieve	ASTM D1140
Unconfined Compression Strength	ASTM D2166
California Bearing Ratio	ASTM D1883

Characterize the site subsoil and groundwater conditions and provide the results on the “gINT” boring logs. Perform engineering analyses to develop geotechnical recommendations including final concrete pavement recommendations (which will include pavement layer thickness) including subgrade stabilization requirements.

Conduct a desktop geological fault study, which may include reviewing existing fault maps along the project alignment or at the specific project site that could impact the project design. A detailed fault study (phases 1 through 3) is not included in our scope.

Submit a pdf file of a report following Waller County Engineering Design Manual which presents the results of the geotechnical investigation.

- **ENVIRONMENTAL** – The Engineer shall perform an environmental constraints evaluation and identify any required approvals to proceed to the final design phase.

Desktop Environment Review
The Desktop Environmental Review will be performed for purposes of providing a limited review of conditions at the site and surrounding properties. The client is advised that this Desktop Environmental Review will not satisfy the requirements to qualify for landowner liability protections. The Desktop Environmental Review scope of work includes the following:

- Historical records review
- Regulatory records review
- Summary letter of findings and conclusions

A. Historical Use Information

A review of selected historical sources, where reasonably ascertainable and readily available. will be conducted in an attempt to document obvious past land use of the site and adjoining properties back to 1940 or when the site was initially developed, whichever is earlier. The following selected references, depending on applicability and likely usefulness, will be obtained and reviewed for the site:

- Historical topographic maps
- Aerial photographs (approximate 5 to 10-year intervals)
- City directories (approximate 5 -year intervals)
- Fire (Sanborn) insurance maps

B. Regulatory Records Review

Federal, state, and tribal databases, where applicable and within defined minimum search distances from the nearest property boundary, will be reviewed. A database firm will be subcontracted to access governmental records used in this portion of the assessment. Additional federal, state, and local databases may be reviewed if provided by the database firm. Determining the location of unmapped facilities is beyond the scope of this assessment.

In addition to the database review and if customary practice for the site location, an attempt will be made to review reasonably ascertainable and useful local lists or records such as Brownfield sites, landfill/solid waste disposal sites, registered storage tanks, land records, emergency release reports, and contaminated public wells.

The scope of work proposed herein includes up to two hours of regulatory agency file and/or records review, including client-provided reports and files. If the results of this initial review appear to warrant a more extensive review of applicable regulatory agency files and/or records, a cost estimate will be provided to the client for pre -Approval.

C. Report Preparation

A draft Desktop Environmental Review report will be submitted that presents the results of this assessment, based upon the scope of services and limitations described herein. Client comments will be considered prior to submittal of the final report.

Waters of the United States (WOTUS) Desktop Assessment

This scope item aims to assist the client in maintaining compliance with Section 404 of the Clean Water Act (CWA) and/or Section 10 of the Rivers and Harbors Act. The results may determine the necessary level of United States Army Corps of Engineers (USACE) permitting and/or coordination. To achieve this, the Engineer will perform subtasks including a desktop review and report preparation as described below.

A. Desktop Review

Prior to visiting the site, a comprehensive desktop review will be conducted. This will include locating and examining relevant maps, aerial photographs, historical topographic maps, soil surveys, plant species data, United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, soil surveys data from the Natural Resources Conservation Service (NRCS), Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). Additional pertinent data will also be reviewed to ensure a thorough understanding of site conditions.

This desktop review will aid the Engineer shall preliminarily identifying potential aquatic resources on the site. For larger sites, this process will help pinpoint areas of interest, allowing field efforts to be efficiently conducted. This approach minimizes unnecessary time, effort and costs associated with transecting the entire site. If field-based surveys are required for this project, then a change order may be necessary to account for that effort.

B. Report Preparation

The Engineer shall provide comprehensive reports typically address the applicable framework, describe the assessment, methodology, limitations, and findings, and provide site-specific conclusions and recommendations as appropriate. The WOTUS Delineation report will include a brief description of the project, method s/sampling procedures, and results as required by the USACE.

C. Task-Specific Limitations and Considerations

Wetlands are naturally-evolved and evolving systems. Effects of man -made disturbances, temporal variations (e.g., rainfall, season, drought), and subjective interpretation of data may preclude assessment in conformance with USACE requirements and significantly affect findings, conclusions, and recommendations.

Cultural Resources Desktop Assessment

In Texas, cultural resources are reviewed at the federal level under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (54 United States Code § 300101 et seq.), as amended, and the state Antiquities Code of Texas (ACT; Natural Resources Code, Chapter 191) and associated rules (Texas Administrative Code, Title 13, Chapter 26). The Texas Historical Commission (THC) and applicable federal agencies are responsible for managing cultural resource compliance in Texas.

It is understood that the proposed project will occur on lands owned or controlled by Waller County, a political subdivision of the State; therefore, compliance with the ACT would be required. Additionally, it is understood that no federal nexus (federal funding, permitting, or use of federal land) is anticipated at this time and coordination under Section 106 of the NHPA will not be required. If this information is not accurate, please inform the undersigned as soon as possible so that a revised scope, schedule, and/or budget may be determined, as needed.

The Engineer will prepare a cultural resources desktop assessment that contains information about the presence or probability of cultural resources within a one-mile Search Radius of the project site to assist the client in evaluating and complying with the ACT. This assessment will include the review of the Texas Archeological Sites Atlas restricted -access database, the National Register of Historic Places (NRHP) database, and the Texas Department of Transportation (TxDOT) Houston District PALM datasets, that assess the likelihood for buried precontact archeological sites in certain areas of Texas, as well as sources representing soils and geology mapped within the project site. The Engineer will review additional sources such as USGS topographic maps, aerial imagery, TxDOT online Historic Resources Aggregator, and the Texas Freedom Colonies Project Atlas which represents post- Bellum Black settlements and areas of cultural significance to Black communities. These sources will be consulted to identify previous cultural resources projects, known precontact or historic-period archeological sites, State Antiquities Landmarks, and historic properties listed or eligible for listing in the NRHP within the project site or the one -mile Search Radius. A field visit is not included as part of this task. If field -based surveys are required for this project, then a change order may be necessary to account for that effort.

The Engineer will present the results of these queries in a detailed report prepared with appropriate illustrations and tabulated data summaries. This assessment will include the professional opinion about the need for additional work, if warranted. Upon review and acceptance of the assessment by the client, the Engineer will coordinate this assessment with the appropriate regulatory agencies. By law, the THC, which serves as the State Historic Preservation Office, has 30 days to review and comment.

- Present a schematic roll plot for two alternatives with horizontal and vertical alignments.
- Evaluate ROW requirements for roadway based on preliminary cross sections.
- Perform a review of the utilities along the corridor and provide a utility conflict list which includes correspondence with utility companies to the Program Manager.
- Perform a Drainage Analysis in the preliminary design stage to include the following:
    - Identify the ultimate project outfalls
    - Define drainage boundaries for the project
    - Size crossing using HEC-RAS
    - Provide existing vs proposed flows
    - We have assumed that a separate drainage meeting is not required
- Provide Drainage write up in PER.
- Provide updated construction cost estimate based on the preliminary design.
- Provide Preliminary Engineering Report
- Attend PER meeting at Waller County facility.
- Provide M&Bs for ROW taking after design is finalized at PER meeting.

Deliverable:

- PER Report
    - Design Survey
    - Geotechnical Report
    - SUE Borings
    - Environmental Report
    - Drainage Memo
    - Roll Plot
    - Utility Conflict Table
- AutoCAD File
- KMZ

3. Final Design

- Construction drawings will be prepared on 11”x17” sheets at a 1” = 50’ scale
- Obtain LONOs from utilities or have utilities relocated prior to bidding.
- Obtain final permitting approvals from governing agencies (County & MUD) prior to bidding.
- Prepare project title sheet and index sheet
- Prepare horizontal alignment data
- Prepare typical sections
- Prepare roadway plan and profile sheets to include existing topo
- Prepare Earthwork cross sections (including proposed roadway section) based on survey information. Includes slopes and critical elevations on proposed roadway section.
- Prepare drainage and roadway details.
- Prepare drainage area maps.
- Prepare signing and striping details.
- Prepare traffic control plans.
- Prepare erosion control (SWPPP) details.
- Other Miscellaneous items. Prepare survey control maps, driveway details, intersection layout details, retaining walls.
- Include construction standards.
- Provide updated construction cost estimates based on the final design.
- Prepare the complete package for letting including project manual with general notes, specification list, summary of work, utility adjustment summary, geotechnical report (if applicable) and bid form.

4. Construction/Bid Phase Services

- Provide administrative documents.
- Attend pre-bid meeting
- Respond to questions from bidders.
- Attend preconstruction meeting
- Attend field meetings and make visits to site during construction - 6 months
- Calculate quantities and assist the County engineer in preparing change orders
- Review and approval of shop drawings
- Review and approval of forming details
- Respond to requests for information (RFIs)
- Answer general questions
- Provide record drawings.
- Construction staking not included

Cochran Road

Project Number 23303 (GG# 20500-0001)

Project Manager: Stephanie Anderson, PE

5/12/2025

BASIC SERVICES		**$**	**840,458.35**
PHASE 1	**Preliminary Engineering Report**	**$**	**453,530.35**
	1P - Pre-Design Study	$	187,323.00
	1D - Drainage		$81,024.00
	1S - Survey		$99,848.40
	1U - SUE		$49,660.95
	1G - Geotechnical		$18,759.00
	1E - Environmental		$16,915.00
Phase 2	**Engineering Design Services**	**$**	**290,207.00**
	2P - Design Plans	$	290,207.00
Phase 3	**Construction Phase Services**	**$**	**96,721.00**
	3P - Construction Phase Services		$96,721.00
TOTAL PROJECT COST		**$**	**840,458.35**

FEE SCHEDULE

TASK DESCRIPTION **GRADIENT PRIME**	SENIOR PROJECT MANAGER	SENIOR ENGINEER	DESIGN ENGINEER	EIT	SENIOR CADD TECHNICIAN	CADD TECHNICIAN	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	UNIT	NO OF UNITS	HOURS PER UNIT
GENERAL											
DATA COLLECTION		2		8	16			26	NA	NA	NA
PROJECT MEETINGS (12 months)	24	24		12				60	NA	NA	NA
COORDINATION WITH LOCAL AGENCIES	8	16		16				40	NA	NA	NA
PROJECT ADMINISTRATION	36	36					24	96	NA	NA	NA
PRELIMINARY ENGINEERING											
FIELD SURVEYING COORDINATION	16	8					4	28	NA	NA	NA
SUE COORDINATION	8	4					2	14	NA	NA	NA
GEOTECH COORDINATION	1	4					1	6	NA	NA	NA
ENVIRONMENTAL CONTRAINTS EVALUATION COORDINATION	2	2					2	6	NA	NA	NA
PREPARE 2 SCHEMATIC ROLL PLOT & KMZ	8	12	16	24	32	48		140	NA	NA	NA
EVALUATE ROW REQUIREMENTS	8	16		12		4		40	NA	NA	NA
UTILITY COORDINATION	8	16	20	32		8		84	NA	NA	NA
CONSTRUCTION COST ESTIMATES	2	4	8	8	4	8		34	NA	NA	NA
PREPARATION OF PER	8	12	20	16	8	16	4	84	NA	NA	NA
PER MEETING & PRESENTATION	8	12		8	4	8		40	NA	NA	NA
FINAL DESIGN											
TITLE SHEET		1	1	2		2		6	Sheets	1	6
OVERALL LAYOUT w/ HORIZONTAL DATA	1	1	2	8	12	12		36	Sheets	1	36
EXISTING TYPICAL SECTIONS (2 per Sheets)	1	2	2		2	8		15	Sheets	1	15
PROPOSED TYPICAL SECTIONS (2 per Sheets)	2	4	4	4	8	32		54	Sheets	2	27
ROADWAY PLAN & PROFILE SHEETS (50 SCALE)	12	24	32	48	8	80		204	Sheets	10	20
ROADWAY DETAILS		4	8	8	8	32		60	Sheets	2	30
EARTHWORK/DESIGN CROSS SECTIONS (EVERY 50'; 4 per Sheet)	4	16	32	24	32	48		156	Sheets	20	8
CULVERT LAYOUT SHEETS	2	8	32	16	8	16		82	Sheets	4	21
DRAINAGE DETAILS		2	12		4	32		50	Sheets	2	25
DRAINAGE AREA MAPS (50 SCALE DOUBLE BANK)	2	4	6	8	12	16		48	Sheets	2	24
SIGNING AND STRIPING LAYOUTS (50 SCALE DOUBLE BANK)		8	16	32	10	64		130	Sheets	6	22
SIGNING AND STRIPING DETAILS		1	2		2	4		9	Sheets	4	2
TCP LAYOUTS (50 SCALE DOUBLE BANK)	4	16	32	24	30	36		142	Sheets	7	20
TCP DETAILS		1	2		2	6		11	Sheets	5	2
SW3P LAYOUTS (50 SCALE DOUBLE BANK)	2	8	24	28	24	36		122	Sheets	6	20
SW3P DETAILS		1	2		2	4		9	Sheets	2	5
MISCELLENAEOUS DETAILS		4	8		16	24		52	Sheets	2	26
UTILITY COORDINATION- LONOS	8	12	16	8				44	NA	NA	NA
DETAILED CONSTRUCTION COST ESTIMATE	2	4	8	24	4			42	NA	NA	NA
PRODUCE PROJECT MANUAL	1	16	16	8	4			45	NA	NA	NA
HOURS SUB-TOTALS	178	305	321	378	252	544	37	2,015		77	
CONTRACT RATE PER HOUR	$391.00	$357.00	$323.00	$170.00	$170.00	$153.00	$136.00			# OF SHEETS	
TOTAL LABOR COSTS	$69,598.00	$108,885.00	$103,683.00	$64,260.00	$42,840.00	$83,232.00	$5,032.00	$477,530.00			
LABOR SUBTOTAL								**$477,530.00**			

OTHER DIRECT EXPENSES	# OF UNITS	UNIT	COST/UNIT					
Mileage	1,250	mile	$0.700					$875.00
SUBTOTAL DIRECT EXPENSES								**$875.00**

SUMMARY	
TOTAL LABOR COSTS	$477,530.00
OTHER DIRECT EXPENSES	$875.00
TOTAL	**$478,405.00**

FEE SCHEDULE

TASK DESCRIPTION **GRADIENT PRIME - CA**	SENIOR PROJECT MANAGER	SENIOR ENGINEER	DESIGN ENGINEER	EIT	SENIOR CADD TECHNICIAN	CADD TECHNICIAN	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	UNIT	NO OF UNITS	HOURS PER UNIT
CONSTRUCTION PHASE SERVICES											
ADMINSTRATIVE DOCUMENTS	4	4					8	16	NA	NA	NA
ATTEND PRE-BID MEETING	4	4						8	NA	NA	NA
RESPOND TO QUESTIONS	4	8	8					20	NA	NA	NA
PRECONSTRUCTION MEETING	4	4						8	NA	NA	NA
ATTEND FIELD MEETINGS AND SITE VISITS	12	36	24					72	NA	NA	NA
PREPARATION OF CHANGE ORDERS	2	4	24					30	NA	NA	NA
REVIEW AND APPROVE SHOP DRAWINGS	2	12	12	12				38	NA	NA	NA
RESPOND TO RFIS	4	24	24	24				76	NA	NA	NA
ANSWER GENERAL QUESTIONS	2	6	12					20	NA	NA	NA
PROVIDE RECORD DRAWINGS	2	2	2	4	2	4		16	NA	NA	NA
HOURS SUB-TOTALS	40	104	106	40	2	4	8	304		0	
CONTRACT RATE PER HOUR	$391.00	$357.00	$323.00	$170.00	$170.00	$153.00	$136.00			# OF SHEETS	
TOTAL LABOR COSTS	$15,640.00	$37,128.00	$34,238.00	$6,800.00	$340.00	$612.00	$1,088.00	$95,846.00			
LABOR SUBTOTAL								**$95,846.00**			

OTHER DIRECT EXPENSES	# OF UNITS	UNIT	COST/UNIT					
Mileage	1,250	mile	$0.700					$875.00
SUBTOTAL DIRECT EXPENSES								**$875.00**

SUMMARY	
TOTAL LABOR COSTS	$95,846.00
OTHER DIRECT EXPENSES	$875.00
TOTAL	**$96,721.00**

FEE SCHEDULE

TASK DESCRIPTION **DRAINAGE - GRADIENT**	DEPUTY PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	CADD OPERATOR	TOTAL LABOR HRS. & COSTS	UNIT	NO OF UNITS	HOURS PER UNIT
GENERAL									
DATA COLLECTION	1	2		8		11	NA	NA	NA
PRELIMINARY ENGINEERING						0	NA	NA	NA
DRAINAGE ANALYSIS - EXISTING CONDITION	2	4	12	48		66	NA	NA	NA
DRAINAGE ANALYSIS - PROPOSED CONDITION	2	4	12	48		66	NA	NA	NA
SIZE ROADSIDE DITCH & CULVERTS INCLUDING HEC-RAS ANALYSIS	2	4	12	48		66	NA	NA	NA
DRAINAGE REPORT NARRATIVE	1	2	6	24		33	NA	NA	NA
DRAINAGE REPORT FIGURES	2	4	12	48	88	154	NA	NA	NA
HOURS SUB-TOTALS	10	20	54	224	88	396		0	
CONTRACT RATE PER HOUR	$391.00	$357.00	$340.00	$170.00	$153.00			# OF SHEETS	
TOTAL LABOR COSTS	$3,910.00	$7,140.00	$18,360.00	$38,080.00	$13,464.00	$80,954.00			
LABOR SUBTOTAL						**$80,954.00**			

OTHER DIRECT EXPENSES	# OF UNITS	UNIT	COST/UNIT			
Mileage	100	mile	$0.700			$70.00
SUBTOTAL DIRECT EXPENSES						**$70.00**

SUMMARY	
TOTAL LABOR COSTS	$80,954.00
OTHER DIRECT EXPENSES	$70.00
TOTAL	**$81,024.00**

FEE SCHEDULE

TASK DESCRIPTION **SURVEY - LANDTECH**	PROJECT MANAGER	SURVEYOR RPLS SENIOR	SURVEY TECHNICIAN	CAD TECHNICIAN	TOTAL LABOR HRS. & COSTS	NO OF DWGS	HR / SHT
RIGHT-OF-WAY (ROW) SURVEY							
RIGHT-OF-WAY MAPPING - TRADITIONAL ROW MAP							
PERFORM ABSTRACTING, SURVEY EXISTING PROPERTY AND ROW MONUMENTATION, AND PROVIDE PRELIMINARY ROW SHEETS SHOWING PRELIMINARY DETERMINATION OF PROPERTY OWNERSHIP AND EXISTING ROW WIDTHS.	3	12	50	44	109	N/A	N/A
PREPARE PRELIMINARY ROW MAP SHEETS SHOWING EXISTING AND PROPOSED ROW. AREAS TO BE ACQUIRED SHALL BE SHADED AND LABELED AND MEET WALLER COUNTY ROW MAP REQUIREMENTS.					0	N/A	N/A
PREPARE INDIVIDUAL PARCEL MAPS AND METES-AND-BOUNDS DESCRIPTIONS FOR EACH PARCEL TO BE ACQUIRED. ASSUME 2 PARCELS.	1	4	8	16	29		
PREPARE FINAL ROW MAP SET COMPLIANT WITH TSPS CATEGORY 1B, CONDITION II SPECIFICATIONS. PARCELS TO BE ACQUIRED SHALL BE SHADED AND LABELED AND MAP SHALL MEET WALLER COUNTY ROW MAP REQUIREMENTS. PROVIDE KMZ AND GIS DELIVERABLES.	3	9	15	28	55	N/A	N/A
HOURS SUB-TOTALS	7	25	73	88	193		
CONTRACT RATE PER HOUR	$230.00	$188.00	$130.00	$115.00			
TOTAL LABOR COSTS	$1,610.00	$4,700.00	$9,490.00	$10,120.00	$25,920.00		
% DISTRIBUTION OF STAFFING	3.63%	12.95%	37.82%	45.60%			
SUBTOTAL FC 145					**$25,920.00**		

TASK DESCRIPTION	SUPPORT MANAGER	SURVEYOR RPLS SENIOR	SURVEYOR RPLS	SURVEYOR RPLS JUNIOR	TOTAL LABOR HRS. & COSTS	NO OF DWGS	HR / SHT
DESIGN SURVEY							
REQUEST RIGHT OF ENTRY (ROE) FROM ALL ADJACENT LANDOWNERS. PROIVDE COPIES OF ROE LETTERS AND TRACKING REPORT.		1	4		5	N/A	N/A
ESTABLISH SURVEY CONTROL AT 1000-FOOT INTERVALS USING GPS RTK AND DIGITAL LEVEL LOOP. STAKE PROJECT BASELINE AT ALL PCs, PTs, PIS, AND AT BEGINNING, ENDING, AND 1000-FOOT STATIONS.	1	2	10		13	N/A	N/A
PREPARE SURVEY CONTROL MAP WHICH SHOWS ALL SURVEY CONTROL, TEMPORARY BENCHMARKS, DESIGN BASELINE, AND ALL SIDE STREET CONSTRUCTION CENTERLINES.	2	4		16	22		
PERFORM TOPOGRAPHIC SURVEY OF EXISTING ROADWAY, UTILITIES, DITCHES, FENCES, BRIDGES AND OTHER IMPROVEMENTS WHICH WILL EXTEND 20-FEET BEYOND EXISTING OR PROPOSED ROW. CROSS SECTIONS SHALL BE SURVEYED AT 100-FOOT INTERVALS. INTERSECTING STREETS WILL BE SURVEYED FOR A MINIMUM OF 100-FEET BEYOND PROPOSED PAVEMENT. STRUCTURES IN CLEAR VIEW AND WITHIN 100-FEET OF EXISTING OR PROPOSED ROW WILL BE TIED TO SURVEY. SURVEY STORM AND SANITARY SEWER FACILITIES INCLUDING FLOWLINES WHERE ACCESSIBLE. PROVIDE COPIES OF ALL POINT FILES, FIELD NOTES, AND DATA COLLECTION FILES. PROVIDE COPIES OF ALL POINT FILES, FIELD NOTES, AND DATA COLLECTION FILES.		2	13		15	N/A	N/A
PREPARE CAD MAPPING FILES FOR TOPOGRAPHIC SURVEY MAP AND DIGITAL TERRAIN MODEL.	2	7		48.5	57.5	N/A	N/A
SURVEY 20 GEOTECHNICAL BORINGS (REQUIRES SEPARATE MOBILIZATION)			2		2	N/A	N/A

FEE SCHEDULE

SURVEY SUE LEVEL B MARKINGS PLACED BY SUE TEAM MEMBER AND PROVIDE POINT FILES AND FIELD NOTES (REQUIRES SEPARATE MOBILIZATION)					0	N/A	N/A
RECOVER, REFLAG, AND VERIFY BASELINE POINTS, SURVEY CONTROL POINTS, AND BENCHMARKS. RE-ESTABLISH MISSING POINTS AS NEEDED. THIS PROPOSAL PROVIDES FOR THIS SERVICE TO BE PERFORMED THREE SEPARATE TIMES FOR CLEARING, UTILITY RELOCATION, OR OTHER PURPOSES AS NEEDED.		3	18		21	N/A	N/A
SET LATHES AT 100-FOOT INTERVALS ALONG ALL ROW TANGENTS, AND AT 50-FOOT INTERVALS ALONG ALL ROW CURVES. THIS PROPOSAL PROVIDES FOR THIS SERVICE TO BE PERFORMED THREE SEPARATE TIMES FOR CLEARING, UTILITY RELOCATION, OR OTHER PURPOSES AS NEEDED.		5	27		32	N/A	N/A
OTHER CONSTRUCTION PHASE SERVICES	(WILL BE BASED ON A TIME AND MATERIALS BASIS)				0	N/A	N/A
HOURS SUB-TOTALS	5	24	74	64.5	167.5		
CONTRACT RATE PER HOUR	$230.00	$188.00	$130.00	$115.00			
TOTAL LABOR COSTS	$1,150.00	$4,512.00	$9,620.00	$7,417.50	$22,699.50		
% DISTRIBUTION OF STAFFING	2.99%	14.33%	44.18%	38.51%			
SUBTOTAL FC 160 (150)					$22,699.50		

LABOR SUMMARY BY FUNCTION CODE	SUPPORT MANAGER	SURVEYOR RPLS SENIOR	SURVEYOR RPLS	SURVEYOR RPLS JUNIOR	TOTAL MH BY FC	TOTAL COSTS BY FC
RIGHT-OF-WAY SURVEY FC 130 (130)	7	25	73	88	193	$25,920.00
DESIGN SURVEY	5	24	74	65	168	$22,699.50
SUBTOTAL LABOR EXPENSES	12	49	147	153		$48,619.50

FEE SCHEDULE

UNIT COSTS	# OF UNITS	2- Person Survey Crew COST/UNIT	UNIT	TOTAL
FIELD SURVEY - RIGHT-OF-WAY SURVEY	69	$ 200.00	HOUR	$ 13,800.00
FIELD SURVEY - DESIGN SURVEY	177	$ 200.00	HOUR	$ 35,400.00
FIELD SURVEY - ADDITIONAL SERVICES		$ 200.00	HOUR	$ -
SUBTOTAL UNIT COSTS	246			**$ 49,200.00**

OTHER DIRECT EXPENSES	# OF UNITS	COST/UNIT	UNIT	TOTAL
Mileage	2,100	$0.700	mile	$1,470.00
Certified Letter Return Receipt	60	$8.95	each	$537.00
Standard Postage	30	$0.73	each	$21.90
Plat Copies per Page		$5.00	each	$0.00
Deed Copies per page		$1.00	sheet	$0.00
SUBTOTAL DIRECT EXPENSES				**$2,028.90**

SUMMARY	
TOTAL COSTS FOR SUR ONLY	$48,619.50
NON-SALARY (UNIT COSTS) FOR SUR ONLY	$49,200.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUR ONLY	$2,028.90
GRAND TOTAL	**$99,848.40**

COST BY FUNCTION				
	OFFICE	FIELD	ODE	TOTAL
ROW SURVEY	$ 25,920.00	$ 13,800.00	$ 420.00	$ 40,140.00
DESIGN SURVEY	$ 22,699.50	$ 35,400.00	$ 1,608.90	$ 59,708.40
ADD. SERVICES				
TOTAL	$ 48,619.50	$ 49,200.00	$ 2,028.90	$ 99,848.40

FEE SCHEDULE

TASK DESCRIPTION **SUE - TNP**	PROJECT MANAGER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER IN TRAINING I	SENIOR UTILITY COORDINATOR	UTILITIES COORDINATOR					TOTAL LABOR HRS. & COSTS	NO OF DWGS	HR / SHT
Utility Coordination													
1. Preliminary Conflict Analysis													
Obtain Design Files, Create Combined Design/SUE CAD Basefiles	2	2		2							6	N/A	N/A
Initial Conflict Analysis	2	3	12	12							29	N/A	N/A
Prepare Initial Utility Conflict Matrix	4	3	12		12						31	N/A	N/A
2. Final Conflict Analysis											0	N/A	N/A
Obtain Design Files, Create Combined Design/SUE CAD Basefiles	2	2		2							6	N/A	N/A
Final Conflict Analysis	3	3	12	12							30	N/A	N/A
Update Utility Conflict Matrix	5	3	9		12						29	N/A	N/A
HOURS SUB-TOTALS	18	16	45	28	24	0					131	#REF!	
CONTRACT RATE PER HOUR	$96.67	$96.67	$63.33	$56.67	$63.33	$56.67							
TOTAL LABOR COSTS	$1,740.06	$1,546.72	$2,849.85	$1,586.76	$1,519.92	$0.00					$9,243.31		
% DISTRIBUTION OF STAFFING	13.74%	12.21%	34.35%	21.37%	18.32%	0.00%							
SUBTOTAL FC 135 (135)											**$9,243.31**		

LABOR SUMMARY BY FUNCTION CODE	PROJECT MANAGER	ENGINEER SENIOR	ENGINEER PROJECT	ENGINEER UTILITIES	UTILITIES COORDINATOR SENIOR	UTILITIES COORDINATOR	UTILITIES FIELD INSPECTOR SENIOR	UTILITIES FIELD INSPECTOR	ENGINEERING SPECIALIST (UTILITY)	ADMIN/ CLERICAL	TOTAL MH BY FC	TOTAL COSTS BY FC
Utility Coordination	18	16	45	28	24	0	0	0	0	0	131	$9,243.31
SUBTOTAL LABOR EXPENSES	18	16	45	28	24	0	0	0	0	0		$9,243.31

UNIT COSTS	# OF UNITS		COST/UNIT	UNIT						
SUE Mobilization/Demobilization	50		$5.65	mile						$282.50
SUE (Quality Level D)	2,500		$0.75	LF						$1,875.00
SUE (Quality Level C)	7,800		$0.85	LF						$6,630.00
SUE (Quality Level B - Utility Designation)	10,300		$2.00	LF						$20,600.00
SUE (Quality Level A - Utility Locate, Test Holes) Level A: 0 to 5 ft	2		$2,400.00	each						$4,800.00
SUE (Quality Level A - Utility Locate, Test Holes) Level A: > 5 to 8 ft	1		$2,600.00	each						$2,600.00
SUE (Quality Level A - Utility Locate, Test Holes) Level A: > 8 to 13 ft	1		$2,900.00	each						$2,900.00
SUE (Quality Level A - Utility Locate, Test Holes) Level A: > 13 to 20 ft			$3,300.00	each						$0.00
SUE (Quality Level A - Utility Locate, Test Holes) Level A: > 20 ft			$175.00	FT						$0.00
One (1) Designating Person with equipment			$55.00	hour						$0.00
Two (2) Designating Person with equipment	8		$73.33	hour						$586.64
Two (2) Person Vacuum Excavation with equipment			$350.00	hour						$0.00
Coring and repairing the pavement includes labor, equipment, and materials			$830.00	each						$0.00
SUBTOTAL UNIT COSTS										**$40,274.14**

OTHER DIRECT EXPENSES	# OF UNITS		COST/UNIT	UNIT						
Mileage	205		$0.700	mile						$143.50
Traffic Control Services, Arrow Boards and Attenuator trucks - (Includes labor, equipment and fuel)				day						$0.00
SUBTOTAL DIRECT EXPENSES										**$143.50**

SUMMARY	
TOTAL COSTS FOR SUE ONLY	$9,243.31
NON-SALARY (UNIT COSTS) FOR SUE ONLY	$40,274.14
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUE ONLY	$143.50
GRAND TOTAL	$49,660.95

FEE SCHEDULE

TASK DESCRIPTION **GEOTECHNICAL - HTS**	PROJECT MANAGER	SENIOR ENGINEER	ENGINEER PROJECT	ENGINEER DESIGN	ENGINEER IN TRAINING II	ENGINEER IN TRAINING I	ENGINEERING TECHNICIAN SENIOR	ENGINEERING TECHNICIAN	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	HR / SHT
GEOTECH INVESTIGATION												
Coordinate Soil Bore Locations/Mark/Utility Call-ins				2		1		4		7	N/A	N/A
Field Personnel and Management During Drilling				2		1		4		7	N/A	N/A
Sample Classification, Laboratory Coordination and Boring Log Generation				10		2				12	N/A	N/A
Preliminary Geotechnocal Report			1	10		1				12	N/A	N/A
Final Geotechincal Report			2	10		1				13	N/A	N/A
Prepare Boring Log Sheets, Stamp and Seal			1	6		2				9	N/A	N/A
HOURS SUB-TOTALS	0	0	4	40	0	8	0	8	0	60	#REF!	
CONTRACT RATE PER HOUR	$100.00	$100.00	$176.00	$122.00	$122.00	$75.00	$100.00	$59.00	$100.00			
TOTAL LABOR COSTS	$0.00	$0.00	$704.00	$4,880.00	$0.00	$600.00	$0.00	$472.00	$0.00	$6,656.00		
% DISTRIBUTION OF STAFFING	0.00%	0.00%	6.67%	66.67%	0.00%	13.33%	0.00%	13.33%	0.00%			
SUBTOTAL FC 102 (110)										**$6,656.00**		

LABOR SUMMARY BY FUNCTION CODE	SUPPORT MANAGER	ENGINEER SENIOR	ENGINEER PROJECT SENIOR	ENGINEER PROJECT	ENGINEER DESIGN	ENGINEER IN TRAINING II	ENGINEER IN TRAINING I	GEOLOGIST JUNIOR	ADMIN/ CLERICAL	TOTAL MH BY FC	TOTAL COSTS BY FC
GEOTECH INVESTIGATION	0	0	4	40	0	8	0	8	0	60	$6,656.00
SUBTOTAL LABOR EXPENSES	0	0	4	40	0	8	0	8	0		$6,656.00

UNIT COSTS	# OF UNITS	Test Code	COST/UNIT	UNIT					
Unconfined Compressive Strength (Soil)	17	ASTM D2166	$54.00	each					$918.00
Unconfined Compressive Strength (Rock)		ASTM D2938		each					$0.00
Soil Boring/Rock Coring without TCP (< 60 ft.)	110	N/A	$27.00	LF					$2,970.00
Soil Boring/Rock Coring without TCP (> 60 ft.)		N/A		LF					$0.00
Borehole Grouting - Bentonite Chips		N/A		LF					$0.00
Pavement Coring	11	N/A	$180.00	each					$1,980.00
Determining Moisture Content in Soil Materials	17	ASTM D 2216	$12.00	each					$204.00
Determining Atterberg Limits of Soils	17	ASTM D 4318	$76.00	each					$1,292.00
Determining Plastic Soil Limits		Tex-105-E		each					$0.00
Calculating the Plasticity Index of Soils		Tex-106-E		each					$0.00
Particle Size Analysis of Soils		Tex-110-E		each					$0.00
Determining the Amount of Material in Soils Finer than the 75 micrometer (No. 200) Sieve	17	ASTM D 1140	$59.00	each					$1,003.00
Determining Sulfate Content in Soils - Colorimetric Method		Tex-145-E		each					$0.00
California Bearing Ratio with Standward Proctor	2	ASTM D1883	$1,023	each					$2,046.00
SUBTOTAL UNIT COSTS									**$10,413.00**

OTHER DIRECT EXPENSES	# OF UNITS		COST/UNIT	UNIT					
Mileage				mile					$0.00
Mobilization and Demobilization of Drilling Rig (Trips over 100 miles from office to site)	1		$746.00	LS					$746.00
Traffic Control Services - including signage & cones) - by 2 non certified technicians	2		$472.00	day					$944.00
SUBTOTAL DIRECT EXPENSES									**$1,690.00**

SUMMARY	
TOTAL COSTS FOR GEO ONLY	$6,656.00
NON-SALARY (UNIT COSTS) FOR GEO ONLY	$10,413.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR GEO ONLY	$1,690.00
GRAND TOTAL	**$18,759.00**

FEE SCHEDULE

TASK DESCRIPTION **ENVIRONMENTAL - TERRACON**	PRINCIPAL	SENIOR GEOLOGIST/ SCIENTIST	PROJECT GEOLOGIST/ SCIENTIST	SENIOR STAFF GEOLOGIST/ SCIENTIST	STAFF GEOLOGIST/ SCIENTIST	FIELD GEOLOGIST/ SCIENTIST	CAD/GIS OPERATOR II	CONTRACT ADMIN SPECIALIST	ADMINISTRATIVE ASSISTANT	TOTAL LABOR HRS. & COSTS	UNIT	NO OF UNITS	HOURS PER UNIT
GENERAL													
DATA COLLECTION										0	NA	NA	NA
PROJECT MEETINGS										0	NA	NA	NA
COORDINATION WITH LOCAL AGENCIES										0	NA	NA	NA
PROJECT ADMINISTRATION										0	NA	NA	NA
PRELIMINARY ENGINEERING										0	NA	NA	NA
ENVIRONMENTAL CONTRAINTS EVALUATION										0	NA	NA	NA
PREPARATION OF PER										0	NA	NA	NA
PER MEETING										0	NA	NA	NA
FINAL DESIGN										0	NA	NA	NA
ASSIST WITH PRODUCTION OF PROJECT MANUAL										0	NA	NA	NA
										0			
Task 1 - Desktop Environmental Review			4	20			6	2	2	34			
Task 2 - Waters of the U.S. Desktop Review	2	2		26	12		20	2	2	66			
Task 3 - Cultural Desktop Review		4			12				2				
HOURS SUB-TOTALS	2	6	4	46	24	0	26	4	6	118			
CONTRACT RATE PER HOUR	$220.00	$210.00	$180.00	$150.00	$130.00	$110.00	$110.00	$100.00	$90.00			# OF SHEETS	
TOTAL LABOR COSTS	$440.00	$1,260.00	$720.00	$6,900.00	$3,120.00	$0.00	$2,860.00	$400.00	$540.00	$16,240.00			
LABOR SUBTOTAL										**$16,240.00**			

OTHER DIRECT EXPENSES	# OF UNITS	UNIT	COST/UNIT							
Database/Historical Resources Package (Desktop Environmental Review)	1	each	$ 675.00							$675.00
Mileage		mile	$ 0.75							$0.00
SUBTOTAL DIRECT EXPENSES										**$675.00**

SUMMARY	
TOTAL LABOR COSTS	$16,240.00
OTHER DIRECT EXPENSES	$675.00
TOTAL	**$16,915.00**

APPENDIX A-2
Scope of Services (Hourly)

The work to be performed by the Engineer for additional services shall be approved in writing by the County, or LJA, prior to the Engineer starting any work on the task. Prior to initiating any work, the Engineer shall submit a scope of services and a proposed fee for each requested task for the County's review and approval. Tasks may include, but are not limited to, Construction Phase services or any other services deemed necessary by the County for the project.

Appendix B
Maximum Hourly Rates and Expenses

GRADIENT	
Job Classification	**Maximum Raw Salary Rate**
Senior Project Manager	$115.00
Senior Project Engineer	$105.00
Project Engineer	$110.90
Design Engineer	$95.00
Engineer-In-Training II	$50.00
Engineer-In-Training I	$48.33
Senior CADD Technician	$50.00
CADD Technician	$45.00
Adm/Clerical	$40.00
Surveyor RPLS Senior	$62.00
Survey Technician	$43.00
2-Person Survey Crew	$200.00
2-Person Survey Crew	$245.00
Senior Engineering Technician	$24.00
Engineering Technician	$20.50
Junior Engineering Technician	$18.00
Senior Geologist/Scientist	$60.70
Project Geologist/Scientist	$53.00
Senior Staff Geologist/Scientist	$44.04
Staff Geologist/Scientist	$37.90
Field Geologist/Scientist	$32.85
CAD/GIS Operator II	$34.58
Contract Admin Specialist	$35.36
Senior Utility Coordinator	$63.33
Utilities Coordinator	$56.67

Appendix C
Insurance

Engineer's Insurance Requirements. Throughout the term of this Agreement, Engineer shall carry and maintain in force the insurance described herein.

Commercial General Liability Insurance at least as broad as CG 00 01 (including protective liability coverage on operations of independent Engineers engaged in construction, blanket contractual liability coverage, products liability coverage, and explosion, collapse and underground hazards coverage) for the benefit of Engineer, against claims for personal injury, bodily injury and property damage, with a limit of not less than One Million Dollars ($1,000,000) in the event of personal injury or bodily injury to any number of persons or of damage to property arising out of any one occurrence, and not less than $1,000,000 in the aggregate applicable to this Program.

Workers' compensation insurance covering all employees of Engineer employed in, on or about the Program in order to provide statutory benefits as required by the laws of the State of Texas.

Automobile Liability: $300,000 combined single limit per accident for bodily injury and property damage. County shall be named as Additional Insured for this coverage.

Professional Liability: $1,000,000 aggregate covering Engineer in connection with the services to be provided by Engineer under this Agreement.

Engineer shall, upon County's request, furnish County with appropriate certificates evidencing the insurance required to be maintained by Engineer hereunder.