

than December 31, 2028. Engineer shall complete such tasks described in the Scope of Services, within this time or within such additional time as may be extended by County.

4. **Compensation and Payment Terms.**

- (a) Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is Two Hundred Forty-Eight Thousand, Seven Hundred Ninety-Five and 66/100 Dollars (\$248,795.66). In no event shall the amount paid by County to Engineer under this Agreement exceed said Maximum Compensation without an approved change order.
- (b) Engineer understands and agrees that the Maximum Compensation stated is an all-inclusive amount and no additional fee, cost or reimbursed expense shall be added whatsoever to the fees stated in the attached Exhibit "A."
- (c) County will pay Engineer based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Engineer shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.

5. **Limit of Appropriation.** Engineer understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is Two Hundred Forty-Eight Thousand, Seven Hundred Ninety-Five and 66/100 Dollars (\$248,795.66). In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of Two Hundred Forty-Eight Thousand, Seven Hundred Ninety-Five and 66/100 Dollars (\$248,795.66) specifically allocated to fully discharge any and all liabilities County may incur under this Agreement. Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Engineer may become entitled to and the total maximum sum that County may become liable to pay to Engineer under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed Two Hundred Forty-Eight Thousand, Seven Hundred Ninety-Five and 66/100 Dollars (\$248,795.66).

6. **Non-appropriation.** Engineer understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Engineer in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the County. In no event shall said termination of this Agreement or County's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by County in any amount(s) in excess of those previously funded.
7. **Taxes.** County is a body corporate and politic under the laws of the state of Texas and as such, is exempt from sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Engineer.
8. **Insurance.** Prior to commencement of the Services, Engineer shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Engineer shall provide certified copies of insurance endorsements and/or policies if requested by County. Engineer shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Engineer shall obtain such insurance written on an Occurrence form from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
 - (a) Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
 - (b) Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
 - (c) Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
 - (d) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
 - (e) Professional Liability insurance with limits not less than \$1,000,000.

County and members of the Fort Bend County Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if required). All Liability policies written on behalf of Engineer shall contain a waiver of subrogation in favor of County.

If required coverage is written on a claims-made basis, Engineer warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the Contract and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Contract is completed.

Engineer shall not commence any portion of the work under this Contract until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by County.

No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to County.

Approval of the insurance by County shall not relieve or decrease the liability of the Engineer.

9. **Indemnity.** TO THE FULLEST EXTENT PROVIDED BY APPLICABLE LAW, ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBENGINEER OR SUPPLIER COMMITTED BY ENGINEER OR ENGINEER'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL. ENGINEER SHALL FURTHER PROCURE AND MAINTAIN GENERAL LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.
10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the 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. Engineer in providing all

services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Engineer shall be deemed an independent Contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Engineer. Engineer and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.
13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.
14. **County/County Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.
15. **Personnel.** Engineer represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Services when and as required and without delays.

All employees of Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Engineer or agent of Engineer who, in County's opinion, is incompetent or by his conduct become detrimental to providing Services pursuant to this Agreement, shall, upon request of County, immediately be removed from association with the Services required under this Agreement.

When performing Services on-site at County's facilities, Engineer shall comply with, and will require that all Engineer's Personnel comply with, all applicable rules, regulations and known policies of County that are communicated to Engineer in writing, including security procedures concerning systems and data and remote access thereto, building security procedures, including the restriction of access by County to certain areas of its premises or systems for security reasons, and general health and safety practices and procedures.

16. **Confidential and Proprietary Information.** Engineer acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Engineer or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including

software) that result from the use of the Confidential Information by Engineer shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Engineer) publicly known or is contained in a publicly available document; (b) is rightfully in Engineer's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Engineer who can be shown to have had no access to the Confidential Information.

Engineer agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Engineer uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Engineer shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Engineer shall advise County immediately in the event Engineer learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Engineer will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Engineer against any such person. Engineer agrees that, except as directed by County, Engineer will not at any time during or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Engineer will promptly turn over to County all documents, papers, and other matter in Engineer's possession which embody Confidential Information.

Engineer acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to County that is inadequately compensable in damages. Accordingly, County may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Engineer acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.

Engineer in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

17. **Ownership and Reuse of Documents.** All work product and data produced or developed under this Agreement by Engineer, including any documents, data, notes, reports, research, graphic presentation materials, and any other related material, shall at all times be the property of County. County, at all times, shall have a right of access to such work

product and information. Engineer shall promptly furnish all such work product and data to County on request. Notwithstanding the foregoing, Engineer shall bear no liability or responsibility for deliverables that have been modified post-delivery or used for a purpose other than that for which they were prepared under this Agreement.

18. **Inspection of Books and Records.** Engineer shall permit County, or any duly authorized agent of County, to inspect and examine the books, records, information, and documentation of Engineer which relate to the Services provided under this Agreement. County's right to inspect such books and records shall survive the termination of this Agreement for a period of four (4) years, or until any litigation concerning any of the Services has been satisfactorily resolved, whichever occurs later.
19. **Termination.** County may terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Engineer. Upon termination of this Agreement by County, Engineer shall be paid in accordance with Section 4, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Engineer's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 4 above. No fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Engineer by County.
20. **Force Majeure.** Notwithstanding anything to the contrary contained herein, neither Party shall be liable to the other for any delay or inability to carry out its obligations under this Agreement if such delay or inability is the result of a Force Majeure Event. Within a reasonable time after the occurrence of such event, but no later than ten (10) calendar days after, the Party whose obligations are affected (the "Affected Party") thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party's obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.

For purposes of this Agreement, a Force Majeure Event includes, but is not limited to: strikes or other labor disputes, severe weather disruptions, natural disasters, fire or other acts of God; riots, war, or other emergencies; action by a government agency; the discovery of any hazardous substance or differing and unforeseeable site conditions; and any other incapacities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer may not assign this Agreement to another party without the prior written consent of County.

22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.
24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

If to County: Fort Bend County Engineering
Attn: County Engineer
301 Jackson Street, 4th Floor
Richmond, Texas 77469

And Fort Bend County, Texas
Attention: County Judge
401 Jackson Street, 1st Floor
Richmond, Texas 77469

If to Engineer: Civitas Engineering Group, Inc.
2000 W Sam Houston Parkway S
Suite 1400
Houston, Texas 77042

25. **Performance Representation.** Engineer represents to County that Engineer has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession ("Professionals") practicing in the greater Houston metropolitan area. Engineer shall provide the Services to County with the same professional skill and care ordinarily provided by such Professionals under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent Professional.
26. **Entire Agreement and Modification.** This Agreement constitutes the entire Agreement between the Parties and supersedes all previous agreements, written or oral, pertaining to the subject matter of this Agreement. Any amendment to this Agreement must be in writing and signed by each Party to come into full force and effect. **IT IS ACKNOWLEDGED BY ENGINEER THAT NO OFFICER, AGENT, EMPLOYEE, OR REPRESENTATIVE OF COUNTY HAS ANY AUTHORITY TO CHANGE THE TERMS OF THIS**

AGREEMENT OR ANY ATTACHED EXHIBITS HERETO UNLESS EXPRESSLY AUTHORIZED BY THE FORT BEND COUNTY COMMISSIONERS COURT.

27. **Conflict.** In the event there is a conflict among the terms of this Agreement and the terms of Engineer's Proposal attached hereto, the terms of this Agreement entitled "Agreement for Professional Engineering Services" shall prevail with regard to the conflict.
28. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.
29. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
30. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either party relating to this Agreement shall be considered a waiver or surrender by County of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.
31. **Applicable Law and Venue.** This Agreement shall be construed according to the laws of the state of Texas. Venue for any claim arising out of or relating to the subject matter of this Agreement shall lie in a court of competent jurisdiction of Fort Bend County, Texas.
32. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by County regardless of content For purposes of Sections 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 § 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 § 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 § 2274.001(3) of the Texas Government Code. “Firearm entity” and “firearm trade association” have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.
33. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND 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.
34. **Captions.** The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of the Agreement.
35. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.
36. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

(Execution Page Follows)

IN WITNESS WHEREOF, and intending to be legally bound, County and Engineer hereto have executed this Agreement to be effective on the date signed by the last Party hereto.

FORT BEND COUNTY, TEXAS

KP George, County Judge

Date

ATTEST:

Laura Richard, County Clerk

CIVITAS ENGINEERING GROUP, INC.



Authorized Agent – Signature

Sunil Kommineni, PhD, PE, BCEE, Env SP

Authorized Agent- Printed Name


President

Title

April 1, 2024

Date

APPROVED:



J. Stacy Slawinski, County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds in the amount of \$_____ are available to pay the obligation of Fort Bend County, Texas within the foregoing Agreement.

Robert Ed Sturdivant, County Auditor

I:\AGREEMENTS\2024 Agreements\Engineering\Civitas Engineering Group, Inc (24-Eng-100542)\Civitas Engineering Group, Inc. - Agmt for Professional Eng. Services.docx DRP 03.26.24

EXHIBIT A

(Engineer's Proposal Follows Behind)



March 5, 2024

Binkley & Barfield / DCCM

1710 Seamist Drive
Houston, Texas 77008
Attn: Kevin Mineo, PE

Ref: **Proposal for Fort Bend County Bridge Replacements- Bob White Street**

Dear Mr. Mineo,

Civitas Engineering Group, Inc. (Civitas) is pleased to provide a proposal for professional engineering services for the Fort Bend County Bridge Replacements Bob White Street. Our scope of services includes the following major work elements.

- **Project Management and Coordination, Civil Design and H&H Analysis**
- **Bridge Design**
- **Geotechnical Investigations**
- **Topographic Survey**

Detailed scope of these work elements is provided in the attached Scope of Work.

PROFESSIONAL ENGINEERING FEES:

Civitas will provide the above professional engineering services to deliver Fort Bend County Bridge Replacements – Bob White Street for a lump sum fee for Design and time and materials for Construction Phase Services. The fee breakdown is:

	Design Services	Construction Phase Services	Total
Bob White Street	\$212,338.16	\$35,515.00	\$247,853.16
Direct Expenses			\$942.50
TOTAL =			\$248,795.66

A detailed level of effort (LOE) is attached. We will strive to perform our services to achieve project goals on time to meet the project schedule.





Civitas appreciates the opportunity to provide you with our services. If you have any additional questions, please feel free to call me at (281) 731-5716 or email me at hbrennan@civitasengr.com. We look forward to working with you.

Sincerely,

Hunter Brennan, P.E.
Project Manager

Attachments:

1. Scope of Services
2. LOE
3. Schedule



Attachment 1

Scope of Services

The following engineering scope of work has been developed depicting the specific services which will be performed for this project. The services shall be performed on a lump sum basis with the exception of Construction Phase Services, which will be time and material.

1. Project Management

CEG will provide management, coordination with County Program Management Consultant (PMC) and any outside agencies and host regular project update meetings throughout the design of each bridge. This will include overseeing all tasks to be completed by CEG and/or their subconsultants.

CEG will provide the following Management, Meetings and Coordination:

A. Project Management-

- a. CEG will prepare documents and schedule the design kickoff meeting to include PMC, Fort Bend County and design team to outline the project scope, schedule and roles throughout the duration of the design. The goal of this meeting is to identify and establish a clear set of goals and objectives for the study, review key schedule milestones and develop a preliminary data needs list.
- b. CEG will prepare a schedule to be agreed on by the PMC and design team, as well as keep this schedule updated throughout the project duration of the project.
- c. Progress Reports shall be prepared and provided on a monthly basis to provide updates on progress, needs and/or delays.
- d. Overall management and review of deliverables from CEG and their subconsultants.

B. Coordination-

- a. PMC- Monthly meetings to be held to update on project progress. Additional coordination shall be conducted on an as needed basis.
- b. Bridge Consultant- Bi-Weekly Coordination meetings to update on progress, answer questions and exchange data needed for the design.
- c. Survey & Geotech- Bi-Weekly Coordination meetings to update on progress, answer questions and exchange data needed for the design.
- d. Fort Bend County- Monthly meetings to be held to update on project progress. Additional coordination shall be conducted on an as needed basis.
- e. CEG will summarize the discussions and actions items from the monthly meetings as minutes.

C. Review/Approvals – CEG will prepare documents and coordinate review and approvals of each bridge design with PMC, Fort Bend County Engineering and Fort Bend County Drainage District. Review and approval milestone shall be 30%, 95% and 100% in order to accelerate the overall design schedule.

2. Drainage (H&H) Analysis – The Engineer will oversee the design and plan production in accordance with the approved schedule. The Design will include the Final Design for a Bridge Crossing on Bob White Street at Fairchilds Creek Tributary. For each bridge crossing in accordance with Fort Bend County Design Criteria, Drainage (H&H) Analysis shall be completed. The analysis will include the following:

A. Drainage Analysis and Design

- 1) Field site visit and site reconnaissance to observe and understand the condition of the

drainage channel at each bridge crossing.

- 2) Research, extract and review existing LIDAR, Floodplain maps, Lower Brazos previous study reports, available FEMA Effective models, and as-built drawings of Bob White Street.
- 3) Review survey data and create existing surface with a combination of survey ASCII points and LiDAR data.
- 4) Based on the topographic survey and LiDAR, Engineer will develop HEC-RAS 1D for the sub watershed to determine the overland flowpath conveyance.
- 5) Existing drainage delineation and hydrologic calculations of the Atlas 14 5- and 100-year storm events for Fairchilds Creek and roadside ditches which outfall into Fairchilds Creek on either side of the bridge crossing.
- 6) Develop Existing conditions HEC-RAS model using survey cross sections for the existing geometry data of Fairchilds Creek and existing Oberrender Road bridge crossing as well as for Fairchilds Creek tributary and proposed Bob White Street bridge crossing. Simulate existing conditions steady state river analysis for 5- and 100-year storm events.
- 7) Develop Proposed Conditions HEC-RAS model using survey cross sections for the proposed temporary bridge crossing at Merchant Drive. Simulate proposed conditions steady state river analysis for 5- and 100-year storm events.
- 8) The proposed drainage will be designed to comply with current benchmark datum information and County design guidelines.
- 9) The analysis for ultimate conditions will be completed and submitted as a single drainage impact analysis report for Fort Bend County review and approval.

3. Civil Design – The Engineer will perform the design and plan production in accordance with the approved schedule. The Design will include the Preliminary and the Final Design for existing bridges to be replaced on Bob White Street at Fairchilds Creek Tributary. Plans will be submitted to **FORT BEND COUNTY** for review and approval at 30%, 95% and 100% design stages. The Design will include the following;

A. Roadway Design for Bridge Approach

- 1) Engineer shall develop plan and profile drawings for the roadway to establish the proposed roadway grades approaching each bridge abutment. This design shall be in coordination with the H&H analysis conducted and the elevation established for the proposed bridge replacement.
- 2) Approach design shall be in accordance with Fort Bend County Roadway Design Criteria.

B. Temporary Road Crossing Fairchilds Creek Tributary

- 1) A temporary crossing of the Fairchild Creek Tributary shall be designed and provided for this location to allow access to residents during construction of the bridge on Bob White Street. Temporary design shall include temporary culvert, backfill and paving allowing residents access during the proposed construction at Bob White Street.

B. Traffic Control Plan

- 1) Engineer shall design a traffic control plan based on the replacement of each bridge. This plan will include layouts for each roadway impacted and shall be used in bidding and permitting with Fort Bend County.
- 2) Bob White Street is a 2-lane road and is the only access for multiple residences. A road

closure, detour plan shall be developed for the Traffic Control Plan at this location.

- 3) Traffic Control plan shall utilize Texas Manual on Uniform Traffic Control Devices as well as Fort Bend County Design Criteria.
- B. Storm Water Pollution Prevention Plan (SWPPP) - The Engineer will design a Storm Water Pollution Prevention Plan (SW3P) to reduce and/or eliminate silt and mud from the site during construction of the proposed site and proposed improvements.
- C. Specifications – The Engineer shall develop standard specifications for the materials, construction and installation of roadway, bridge, utility, drainage, etc. items related to the design of this project. Specification shall be in accordant with TxDOT and or Fort Bend County Criteria.
- D. Deliverables will include:
 - 1) Roadway alignment and approach layouts and profile with existing utilities, existing and proposed drainage pipes and/or structures.
 - 2) Traffic Control plans to include detour and road closure.
 - 3) SWPPP plans
 - 4) Ensure coordination with bridge design.
 - 5) Temporary crossing plans for Fairchilds Creek Tributary at Merchant Drive to include paving, backfill and culvert.
 - 6) 11x17 plan sheets in PDF for County review at 30%, 95% and 100%.
 - 7) Engineers' opinion of probable cost.
 - 8) Project Specifications.

4. Bridge Design

A. Bridge Layout

- 1) The Engineer shall prepare a bridge layout plan sheet for each bridge.
- 2) Prior to the preparation of each bridge layout, the Engineer shall prepare a comparative cost analysis of bridge structures to determine:
 - a) The optimum bridge beams for vertical clearance over any roadway, or waterways
 - b) The optimum bridge structure versus roadway embankment, pavement, soil stabilization, and retaining walls, and
 - c) The optimum bridge beams for the direct connectors
- 3) The Engineer shall submit a bridge layout for each structure early in the plan preparation process to obtain approval from Fort Bend County. The Engineer shall also render each bridge, to the appropriate level of detail, in the 3D corridor model. The Engineer shall comply with all relevant sections of the latest edition of the TxDOT Bridge Design Manual - LRFD, TxDOT Bridge Project Development Manual, TxDOT Bridge Detailing Guide, and AASHTO LRFD Bridge Design Specifications, and respective checklists.

Each bridge layout sheet must include bridge typical sections, structural dimensions,

abutment and bent locations, and superstructure and substructure types.

The Engineer shall locate and plot all soil borings and utilities, show proposed retaining walls, and, for staged construction, indicate limits of existing bridge for removal and reconstruction.

- 4) The Engineer shall confirm approval from the County prior to proceeding with final bridge design. The Engineer will make necessary revisions to the layout to reflect the progress of the final design.

The Engineer shall comply with all relevant sections of the latest edition of the State's Bridge Design Manual-LRFD, Bridge Project Development Manual, Bridge Railing Manual, Bridge Design Guide, Bridge Detailing Guide, and AASHTO LRFD Bridge Design Specifications.

Each bridge layout sheet must include bridge typical sections, structural dimensions, abutment and bent locations, superstructure and substructure types, and any pertinent information from the Bridge Detailing Guide layout checklists.

The Engineer shall locate using the County provided information and plot all soil borings and utilities, show proposed retaining walls, and, for staged construction, indicate limits of existing bridge for removal and reconstruction.

Bridge layout must include all information that is specified in the Bridge Detailing Guide.

- 5) For highway caps and demolition:

Engineer shall develop preliminary bridge layouts to accompany the load rating and retrofit strategy report. Bridge layouts will include plan and profile based on the as-built plans. Existing roadways and proposed improvements will be depicted to identify impacts to existing foundations.

Typical sections will be provided at critical locations to further identify critical foundation impacts.

Engineer shall develop a demolition sequence for upper deck bridge structures to be removed. Demolition sequence includes but is not limited to: include in the required demolition plan the type and location of equipment to be used, the method and sequence of removal of the structural elements, and a narrative indicating the stability of the partially demolished structure is maintained throughout the demolition process. Provide sign and sealed demolition plans when demolition structures intersect active roadways.

- 6) Bridge Detail Summary

The Engineer shall prepare total bridge quantities, estimates, and summary sheets for each bridge.

- 7) Bridge Structural Details.

The Engineer shall prepare each structural design and develop detailed structural drawings of all required details in compliance with the above-listed manuals and guidelines. The Engineer shall assemble and complete all applicable County Standard

Details sheets.

Additionally, the Engineer shall:

- d) Perform calculations for design of bridge abutments
- e) Perform calculations for bridge slab design
- f) Perform calculations to determine elevations of bridge substructure and superstructure elements
- g) Perform calculations of bridge box beam design
- h) Prepare necessary foundation details and plan sheets
- i) Prepare plan sheets for abutment design
- j) Prepare plan sheets for additional abutment details
- k) Prepare framing plan and slab plan sheets
- l) Compute and prepare tables for slab and bearing elevations, dead load deflections, etc.
- m) Design beams and prepare beam design tables, and
- n) Prepare special provisions and special specifications, in accordance with the above-listed manuals and guidelines

8) Bridge Design Deliverables – Plans

The engineer shall provide the following information at each submittal:

- a) 30% Plans Submittal:
 - a. A KMZ file of the bridge location and layout showing the roadway
 - b. Ensure coordination with roadway, drainage and utilities
 - c. Preliminary bridge layout, details, abutments and foundations
 - d. 11" x 17" plan sheets in PDF for County review
 - e. Estimate of construction cost
 - f. Engineer's internal QA and QC markup set
- b) 95% Plans Submittal
 - a. A KMZ file of the bridge location and layout showing the roadway
 - b. Ensure coordination with roadway, drainage and utilities
 - c. Bridge and retaining wall layouts, details, abutments and foundations
 - d. 11" x 17" plan sheets in PDF for County review
 - e. Marked up general notes
 - f. Stability analysis for retaining walls
 - g. Estimate of construction cost
 - h. List of governing Specifications and Special Provisions in addition to those required
 - i. New Special Specifications and Special Provisions, if applicable
 - j. Engineer's internal QA and QC markup set
 - k. Other supporting documents
- b) 100% Plans Final Submittal

- a. Deliver 11x17 electronic copies of final bridge design plans
- b. Revised supporting documents from 95% review comments

5. Topographic Survey - See attached survey scope of services provided by WSB attached.

6. Geotechnical Investigations - See attached geotechnical scope of services provided by WSB attached.

7. Construction Phase Services – The engineer will perform services at the request of the PMC and Fort Bend County. These shall be completed on a time and material basis and the services include:

- A. Bid Evaluations
- B. Attend pre-construction meeting
- C. Review and respond to submittals
- D. Review and respond to RFI's as needed and provided by the PMC and Contractor
- E. Conduct field visits on an as needed basis throughout the construction of each bridge.
- F. Review and approve shop drawings.
- G. Review and approve forming details.
- H. Provide minor redesign (major redesign will be handled with a contract supplement), which will include changes to the affected plan sheets
- I. Answer general questions
- J. Provide clarification, and
- K. Perform other project related tasks in support of the County during bridge construction

Exclusions

- A. Design and relocation of petroleum pipelines.
- B. Construction Management & Inspection.
- C. Environmental evaluation and permitting including but not limited to: wetlands delineation & permitting, threatened and endangered species, Clean Water Act Section 404 determination, Cultural Investigation, etc.
- D. Seismic Fault Evaluation and Analysis.

Additional Services

Additional services, if needed, will be considered outside the scope of the estimated fee. CEG will perform additional services based on a negotiated fee. Reimbursable expenses will be charged at Engineer's cost. The following items are considered additional services and are not part of the lump sum fee:

<ul style="list-style-type: none"> <input type="checkbox"/> Flood plain analysis <input type="checkbox"/> Utility availability applications and coordination <input type="checkbox"/> Permitting <input type="checkbox"/> Wastewater lift stations / package treatment plant <input type="checkbox"/> Environmental Evaluation and/or Permitting <input type="checkbox"/> Wetlands related issues <input type="checkbox"/> Landscaping and irrigation plans 	<ul style="list-style-type: none"> * Geotechnical and pavement design recommendations (other than discussed) * Driveway permits * Individual Building Permits / TDLR & ADA Compliance * Fulltime site representation during construction.
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ATTACHMENT 2: LOE FORT BEND COUNTY BRIDGE REPLACEMENTS - BOB WHITE AT FAIRCHILDS CREEK TRIBUTARY

Grand Project Totals

	PRIME	SURVEY	GEOTECH	STRUCTURES
\$248,795.66	\$118,120.00	\$24,345.66	\$17,020.00	\$89,310.00

		Grand SUBTOTALS					
TASK	Description	SUBTOTALS	CIVITAS	WSB	WSB	CONCEPT	
	Total Labor Cost Bob White	\$100,890.00	\$100,890.00				
	Construction Phase Services-Bob White	\$17,080.00	\$17,080.00				
	Other Direct Expenses	\$150.00	\$150.00				
SUBTOTAL PROJ MGMT, CIVIL and H&H		\$118,120.00					
	Total Labor Cost Bob White	\$23,553.16		\$23,553.16			
	Construction Phase Services	\$0.00					
	Other Direct Expenses	\$792.50		\$792.50			
		\$0.00					
SUBTOTAL SURVEY		\$24,345.66					
	Total Labor Cost Bob White	\$17,020.00			\$17,020.00		
	Construction Phase Services	\$0.00					
	Other Direct Expenses	\$0.00					
		\$0.00					
SUBTOTAL GEOTECH		\$17,020.00					
	Total Labor Cost Bob White	\$70,875.00				\$70,875.00	
	Construction Phase Services-Bob White	\$18,435.00				\$18,435.00	
	Other Direct Expenses	\$0.00					
		\$0.00					
SUBTOTAL STRUCTURAL		\$89,310.00					
	Total Labor Cost Bob White						
	Construction Phase Services						
	Other Direct Expenses						
	Total Labor Cost Bob White	\$212,338.16	\$100,890.00	\$23,553.16	\$17,020.00	\$70,875.00	\$0.00
	Construction Phase Services-Bob White	\$35,515.00	\$17,080.00	\$0.00	\$0.00	\$18,435.00	\$0.00
	Other Direct Expenses (Specified Rate & Unit Cost)	\$942.50	\$150.00	\$792.50	\$0.00	\$0.00	\$0.00
	Grand Project Totals	\$248,795.66	\$118,120.00	\$24,345.66	\$17,020.00	\$89,310.00	\$0.00

Ft. Bend County Bridges- Bob White and Oberrender

LEVEL OF EFFORT - Bob White

Description / Task		Estimated Manhours									Total Fee	
		Principal	Project Manager	Senior Engineer	Project Engineer	EIT	Designer	Cadd Tech.	GIS Technician	Admin. (hrs)		Subtotal (hrs)
		\$ 350.00	\$ 255.00	\$ 240.00	\$ 175.00	\$ 150.00	\$ 135.00	\$ 115.00	\$ 125.00	\$ 90.00		
*LEVEL OF EFFORT												
Project Management												
	Project Management	Covered with Orberrender PM Effort									0	\$0.00
	Coordination & meetings w/ Program Management Team & Ft. Bend County										0	\$0.00
	Coordination & meetings w/ Bridge Subconsultant		5	16							21	\$5,115.00
	Coordination & meetings w/ Survey & Geotech Subconsultant		4	12							16	\$3,900.00
	Schedule	Covered with Orberrender PM Effort									0	\$0.00
	Progress Reports										0	\$0.00
Sub-total Hours/Costs		0	9	28	0	0	0	0	0	0	37	\$9,015.00
Drawings												
	Cover Sheet			2	4	4		5			15	\$2,355.00
	Index Sheet			2	4	4		5			15	\$2,355.00
	General Notes			1	2	4		4			11	\$1,650.00
	Project Layout and Alignment Data Sheets			2	4	8		8			22	\$3,300.00
	Roadway Plan & Profile		2	6	12	14	8	18			60	\$9,300.00
	Traffic Control Plan with Alternate access crossing at Merchant Ct.	2	2	2	12	12		12			42	\$6,970.00
	Traffic Control Details		1	2	4			4			11	\$1,650.00
	SWPPP		2	4	8	12		12			38	\$6,050.00
	SWPPP Details			1	2	4		4			11	\$1,650.00
	Standard Details			1	2	4		4			11	\$1,650.00
	Specifications		2	4		4					10	\$2,070.00
Sub-total Hours/Costs		2	8	26	52	74	8	76	0	0	246	\$39,000.00
Engineering												
	Field Visit/ Site Reconnaissance			2	4	4					10	\$1,780.00
	Research and review FEMA Effective models, Tejas Lakes and Quail Acres subdivision drainage studies and reports, as-built drawings of Bob White street			4	8	8					20	\$3,560.00
	Review survey data and create existing surface with a combination of survey ASCI points and LIDAR data			6	4	8		6			24	\$4,030.00
	Develop HEC-RAS 1D for the sub watershed to determine the overland flowpath conveyance			8	4	16		16			44	\$6,860.00
	Existing drainage delineation and Atlas 14 5- and 100-year storm events hydrologic calculations for Fairchilds creek tributary			8	16	20			12		56	\$9,220.00
	Develop Existing conditions HEC-RAS model using survey cross sections for the existing gemetry data of Fairchilds creek tributary and existing Bob White street bridge crossing. Simulate existing conditions steady state river analysis for 5- and 100-year storm events			4	8	16			8		36	\$5,760.00
	Develop Proposed Conditions HEC-RAS model using survey cross sections for the existing gemetry data of Fairchilds creek tributary for temporary bridge crossing at Merchant Drive. Simulate proposed conditions steady state river analysis for 5- and 100-year storm event			4	8	16					28	\$4,760.00
	Prepare drainage report that includes exhibits and submit to Fort Bend for review			4	8	12			16		40	\$6,160.00
	Address comments and submit updated models / reports (atleast 2 submittals)			2	8	8		2			20	\$3,310.00
	Quantity take-off and Cost Estimate		2	4	5	12					23	\$4,145.00
	QA/QC	1	4	8							13	\$3,290.00
Sub-total Hours/Costs		1	6	54	73	120	0	24	36	0	314	\$52,875.00
Total Basic Services												\$100,890.00
Construction Phase Services												
	Bid Tab Review		1	4	6						11	\$2,265.00
	Pre-Construction Kickoff Meeting		1	2	4						7	\$1,435.00
	RFI Review and Response			4	12						16	\$3,060.00
	Submittal Review			8	8						16	\$3,320.00
	Field Meetings / Site Visit			4	4						8	\$1,660.00
	Construction Engineering Services			6	12	12					30	\$5,340.00
Sub-total Hours/Costs		0	2	28	46	12	0	0	0	0	88	\$17,080.00
Total Construction Phase Services												\$17,080.00
Optional Services												
											0	\$0.00
Sub-total Hours/Costs		0	0	0	0	0	0	0	0	0	0	\$0.00
Total Basic Services + Construction Phase Services+Optional Services												\$117,970.00
Reimbursable Expenses												
33	Travel (at IRS approved rate)											\$ 150.00
34	Postage / Courier (at cost)											\$ -
35	Printing / Copying (at cost)											\$ -
Sub-total												\$ 150.00
*Actual Billing Rates will be actual raw rates time 3.0 multiplier												
Total:											\$118,120.00	

Bridge Design - Bob White Rd at Fairchilds Creek, Fort Bend County							
<i>Concept Engineers, Inc.</i>	Project Principal	Sr. Project Engineer	Project Engineer	EIT	Designer	Admin Asst.	Total Labor Hours & Cost
	\$360.00	\$275.00	\$210.00	\$155.00	\$120.00	\$90.00	
30% PLANS SUBMITTAL							
Preliminary Bridge Layout	1	2	4	20	4	0	31
Bridge KMZ	0	1	2	4	0	0	7
Preliminary Bridge Details	1	2	4	16	4	0	27
Preliminary Bridge Abutments	0	0	0	0	0	0	0
Preliminary Bridge Foundations	0	0	0	0	0	0	0
Coordination with Roadway	0	0	0	0	0	0	0
Coordination with Utilities and Environmental	0	0	0	0	0	0	0
Construction Cost Estimate	0	1	2	2	0	0	5
Engineers Internal QA-QC	1	2	2	0	0	0	5
Subtotal	\$1,080.00	\$2,200.00	\$2,940.00	\$6,510.00	\$960.00	\$0.00	\$13,690.00
95% PLANS SUBMITTAL							
Bridge Layout	1	4	2	16	4	0	27
Bridge KMZ	0	1	2	2	0	0	5
Bridge Details	1	2	8	40	24	0	75
Bridge Retaining Walls	0	0	0	0	0	0	0
Bridge Abutments	1	2	4	16	8	0	31
Bridge Foundations	1	2	4	24	8	0	39
Coordination with Roadway	0	0	2	8	0	0	10
Coordination with Utilities and Environmental	0	0	0	0	0	0	0
General Notes	0	1	2	8	4	0	15
List of Specifications and Special Provisions	0	1	2	4	0	0	7
Special Specifications and Special Provisions	0	1	2	4	0	0	7
Construction Cost Estimate	0	1	2	4	0	0	7
Engineers Internal QA-QC	2	4	2	0	0	0	8
Subtotal	\$2,160.00	\$5,225.00	\$6,720.00	\$19,530.00	\$5,760.00	\$0.00	\$39,395.00
100% FINAL PLANS SUBMITTAL							
Final Bridge Plans	2	4	8	40	16	0	70
Specifications and Special Provisions	0	2	2	0	0	0	4
Special Specifications and Special Provisions	0	2	2	2	0	1	7
Address 90% Review Comments	0	2	4	4	0	0	10
Engineers Internal QA-QC	2	4	0	0	0	0	6
Subtotal	\$1,440.00	\$3,850.00	\$3,360.00	\$7,130.00	\$1,920.00	\$90.00	\$17,790.00
Total Budget Estimate	\$4,680.00	\$11,275.00	\$13,020.00	\$33,170.00	\$8,640.00	\$90.00	\$70,875.00

Construction Administration Services - Bob White at Fairchilds Creek Tributary,							
<i>Concept Engineers, Inc.</i>	Project Principal	Sr. Project Engineer	Project Engineer	EIT	CADD Designer	Admin Asst.	Total Labor Hours & Cost
	\$360.00	\$275.00	\$210.00	\$155.00	\$120.00	\$90.00	
Pre-Construction Meeting	0	1	4	4	0	0	9
Field Meetings and Site Visits	0	1	4	4	0	0	9
RFIs and Change Orders	0	1	18	36	0	0	55
Shop Drawings Review and Approval	0	2	8	20	0	0	30
							103
Subtotal	\$0.00	\$1,375.00	\$7,140.00	\$9,920.00	\$0.00	\$0.00	\$18,435.00

GEOTECHNICAL ENGINEERING

Bob White St

Type of Services	Quantity	Unit	Price	Total
<u>Geotechnical Subsurface Drilling Services</u>				
Mobilization - Truck Mounted Drill Rig (incl. mileage)	1	Each	\$ 3,950.00	\$ 3,950.00
Boring Soil Includes SPT/TCP	200	Per Foot	\$ 18.00	\$ 3,600.00
Push Tubes	5	per sample	\$ 35.00	\$ 175.00
Grouting	200	Per Foot	\$ 1.25	\$ 250.00
				\$ 7,975.00
<u>Laboratory Testing</u>				
Moisture Content	40	Each	\$ 6.50	\$ 260.00
Atterberg Limits	20	Each	\$ 52.50	\$ 1,050.00
Full Sieve Test	20	Each	\$ 52.50	\$ 1,050.00
Density and UCS	5	Each	\$ 80.00	\$ 400.00
Soluble Sulfate	5	Per Test	\$ 60.00	\$ 300.00
				\$ 3,060.00
<u>Professional Services</u>				
Sr. Geotechnical Engineer (P.E.)	3	Per Hour	\$ 225.00	\$ 675.00
Staff Geotechnical Engineer (E.I.)	6	Per Hour	\$ 150.00	\$ 900.00
Project Manager (E.I.)	6	Per Hour	\$ 110.00	\$ 660.00
Site Visit/ Sampling (E.I.)/Project Management	1	LS	\$ 750.00	\$ 750.00
				\$ 2,985.00
			Total	\$ 14,020.00
<u>Traffic Control</u>				
	1	Each	\$ 3,000.00	\$ 3,000.00
			Total+TC Fee	\$ 17,020.00

OFFICE LABOR - Topographic Survey		Bob White St									
		\$ 231.04	\$ 222.59	\$ 125.24	\$ 121.15	\$ 115.52	\$ 104.25	\$ 200.00	\$ 245.00		
TASK	Task Descriptions	Support Manager	Surveyor (RPLS) - Senior	Survey Technician - Senior	CAD Operator - Senior	Survey Field Crew Coordinator	Abstractor	2-Person Survey Crew	3-Person Survey Crew	Total Hours	Total Cost
	Establish horizontal and vertical controls		1.0	2.0		0.5		12.0		16	\$ 2,930.83
	Obtain roadway cross sections (not to extend beyond	0.5	3.0	4.0	16.0	1.0			12.0	37	\$ 6,278.17
	Locate existing utilities		1.0						6.0	7	\$ 1,692.59
	Provide bridge details		1.0						6.0	7	\$ 1,692.59
	Locate drainage structures		1.0		2.0			4.0		7	\$ 1,264.89
	Review ROW maps		3.0	3.0						6	\$ 1,043.49
	Locate existing ROW	0.5	2.0	2.0	1.0		2.0	6.0		14	\$ 2,340.83
	Locate boreholes			0.5	0.5				2.0	3	\$ 613.20
	Channel Cross Sections			0.0					12.0	12	\$ 2,940.00
	Prepare, sign, seal data survey control sheet		2.0	2.0						4	\$ 695.66
	QA/QC deliverables	4.0	4.0	1.0	1.0					10	\$ 2,060.91
	Subtotal Hours:	5	18	15	21	2	2	22	38	122	
	Subtotal Labor Cost:	\$ 1,155.20	\$ 4,006.62	\$ 1,815.98	\$ 2,483.58	\$ 173.28	\$ 208.50	\$ 4,400.00	\$ 9,310.00		\$ 23,553.16
160 (163)	Roadway Design										
160/163.1	Utility Engineering	0	0	0	0	0	0			-	\$ -
	Subtotal Hours:	0	0	0	0	0	0			-	\$ -
	Subtotal Labor Cost:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			-	\$ -

Other Direct Expenses - FC 150	Unit	Cost	Quantity	Total
Mileage (at IRS approved rate)	Mile	\$ 0.655	1000	\$ 655.00
Field Supplies (lathes, stakes, flagging, spray paint, etc. at cost)	day	\$ 35.00	2	\$ 70.00
Map/Plat Records (at cost)	sheet	\$ 7.50	5	\$ 37.50
Deed Copies (at cost)	sheet	\$ 2.00	15	\$ 30.00
Other Direct Expenses Total - FC 148				\$ 792.50

TOTAL \$ 24,345.66

