ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered into by and between the Fort Bend County Toll Road Authority, a transportation corporation organized and operating under the laws of the State of Texas, hereinafter called the "FBCTRA" and Blackline Engineering, LLC, hereinafter called "Engineer."

W I T N E S S E T H

WHEREAS, the FBCTRA proposes to design a right turn deceleration lane along the southbound Fort Bend Parkway Toll Road access road approach to SH 6 (Project Numbers: 101-1026 (FCP26)), in Fort Bend County, Texas, (the "Project");

WHEREAS, the FBCTRA desires to enter into an agreement with Engineer for the performance of services during the Project, that are within the scope of services in Attachment A ("Scope of Services");

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

AGREEMENT

1. General

The Engineer shall render professional services to FBCTRA related to the Project as defined in the Scope of Services in Attachment A.

The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of Engineer's profession practicing under similar conditions at the same time and in the same locality.

2. Compensation and Payment

a. The Maximum Compensation under this Agreement is $96,370.00. The amount paid under this Agreement may not exceed the Maximum Compensation without an approved supplemental agreement.

Compensation for the performance of services within the Scope of Services described in Attachment A will be paid as a lump sum amount not to exceed $96,370.00, as shown in Attachment B.

The Engineer shall furnish satisfactory documentation of such work (e.g. timesheets, billing rates, classifications, invoices, etc.) as may be required by FBCTRA.

b. All performance of the Scope of Services and any services outside the Scope of Services ("Additional Services"), 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 FBCTRA, and Additional Services will be reimbursed based on the billing rates in effect at that time, to the extent that such labor costs and subcontracts are reasonable and necessary for the performance of such services. Out-of-pocket expense costs may be reimbursed only when approved in advance and authorized by the FBCTRA. Payment will be made on the basis of project progress to be billed monthly, and, for Additional Services, on the basis of time and expense records, and, in all cases, in accordance with those payment procedures set forth in subsection d. below. Billing rates will be inclusive of all direct labor, fringe benefits, general overhead, and profit.

c. Where subcontractors are employed by the Engineer to perform pre-approved and pre-authorized Additional Services, the Engineer will be reimbursed for subcontractors' actual salaries and hourly rates, including overtime rates. Reimbursement to the subcontractor for non-salary costs incurred by subcontractor will be on the same basis as if the cost was incurred by the Engineer. For subcontractors employed for the convenience of the FBCTRA, the Engineer will be paid a subcontract administrative fee equal to ten percent (10%) of all subcontractor invoiced amounts.

d. It is understood and agreed that monthly payments will be made to the Engineer by the FBCTRA 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 FBCTRA two (2) copies of invoices showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement and for any Additional Services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the FBCTRA). It is specifically understood that any requests for travel reimbursements shall comply with those procedures for travel reimbursement to Fort Bend County (the "County") employees established by the Fort Bend County Auditor (the "Auditor"). The FBCTRA 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. The County shall pay each such invoice as approved by the FBCTRA within thirty (30) calendar days after the FBCTRA's approval of same.

3. Time of Performance

It is understood and agreed that the time for performance of the Engineer's services under this Agreement shall begin with receipt of the Notice to Proceed. The Engineer will maintain the delivery schedule in Attachment A.

This Agreement will terminate upon the Engineer's completion of the Scope of Services to the satisfaction of the FBCTRA.

4. The FBCTRA's Option to Terminate

a. The FBCTRA has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing 30 days written notice of such intentions to terminate and by stating in said notice the "Termination Date" which shall be less than 30 days later than the actual receipt of such written notice by the Engineer. Upon such termination, the FBCTRA shall compensate the Engineer in accordance with Section 2, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to the FBCTRA. The Engineer's final invoice for said services will be presented to and paid by the FBCTRA in the same manner set forth in Section 2(d), above.

b. Termination of this Agreement and payment as described in subsection (a) of this section shall extinguish all rights, duties, obligations, and liabilities of the FBCTRA 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 common law or statute. The obligations in Sections 5, 6, and 14 of this Agreement shall survive the termination of this Agreement.

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

d. The FBCTRA'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 FBCTRA by virtue of this Agreement or otherwise. Failure of the FBCTRA to exercise any of its said 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 common law or statute.

e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the FBCTRA within 30 days of the Termination Date or upon Engineer's receipt of fees due and payable at the Termination Date, whichever is sooner, when and if this Agreement is terminated.

5. Inspection of the Engineer's Books and Records

Upon written notice (including email), the Engineer will permit the FBCTRA, or any duly authorized agent of the FBCTRA, to inspect and examine the books and records of the Engineer for the purpose of verifying the amount of work performed on the Project at reasonable times during normal business hours. FBCTRA's right to inspect survives the termination of this Agreement for a period of four years.

6. Ownership and Reuse of Documents

Upon payment in full for undisputed amounts of Engineer's services, all documents, including original drawings, estimates, specifications, field notes, and data created, produced, developed or prepared by Engineer or its approved outside advisory or support consultants (collectively, the "Documents") shall be the property of the FBCTRA, subject to all of the following terms and conditions; provided, however, FBCTRA shall not own and shall have no right to receive any documents not deemed "final" by the Engineer until completion or termination of this Agreement, as applicable. Engineer will deliver the Documents to FBCTRA within 30 days of the completion or termination of this Agreement and may retain a set of reproducible record copies of the Documents, provided that the Engineer has received full compensation due pursuant to the terms of this Agreement. It is mutually agreed that FBCTRA will use the Documents solely in connection with the Project and for no other purposes, except with the express written consent of the Engineer, which consent will not be unreasonably withheld. Any use of the Documents without the express written consent of the Engineer will be at FBCTRA's sole risk and without liability or legal exposure to Engineer.

FBCTRA shall also be the owner of all intellectual property rights of the services rendered hereunder, including all rights of copyright therein. It is the intention of Engineer and FBCTRA that the services provided are a "work for hire" as the term is used in the federal Copyright Act. Moreover, Engineer hereby agrees to assign, and by these presents, does assign to FBCTRA, all of Engineer's worldwide right, title, and interest in and to such work product and all rights of copyright therein.

Engineer agrees that all trademarks, trade names, service marks, logos, or copyrighted materials of FBCTRA that Engineer is permitted to use in connection with the services will not be used without FBCTRA's consent and shall remain the sole and exclusive properties of FBCTRA, and this Agreement does not confer upon Engineer any right or interest therein or in the use thereof.

7. Personnel, Equipment, and Material

a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of 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 the FBCTRA, to perform the Scope of Services when and as required and without delays. It is understood that the FBCTRA will approve assignment and release of all key Engineer personnel and that the Engineer shall submit written notification of all key Engineer personnel changes for the FBCTRA's approval prior to the implementation of such changes. For the purpose of this Agreement, key Engineer personnel are defined as: Project Manager. Services described in this Agreement shall be performed under the direction of a Texas Licensed Professional Engineer.

b. All employees of the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer

who, in the opinion of the FBCTRA, is incompetent, or, by his conduct, becomes detrimental to the Project, shall, upon request of the FBCTRA, 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 operation under this Agreement.

8. Items to be furnished to Engineer by the FBCTRA

As applicable, the following items will be supplied to the Engineer:

a. Copies of preliminary studies by others.

b. Assistance in coordination with all utility companies.

c. Assistance in coordination with all public and governmental entities.

9. Subletting

The Engineer shall not sublet, assign, or transfer any part of its rights or obligations in this Agreement without the prior written approval of the FBCTRA. Responsibility to the FBCTRA for sublet work shall remain with the Engineer.

10. Conference

At the request of the FBCTRA, the Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of the FBCTRA, or at the site of the Project, and shall permit inspections of its offices by the FBCTRA, or others when requested by the FBCTRA.

11. Appearance as Witness

If requested by the FBCTRA, or on its behalf, the Engineer shall prepare such engineering exhibits and plans as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences at the office of the FBCTRA 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. Trial preparation and appearance by the Engineer in courts regarding litigation matters are Additional Services and compensation will be paid in accordance with Section 2(b).

12. Compliance with Laws

The Engineer shall comply with all 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 FBCTRA with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

13. Insurance

The Engineer shall obtain and maintain, throughout the term of the Agreement, insurance of the types and in the minimum amounts set forth in Attachment C.

14. Indemnification

With respect to claims brought by third parties against either Engineer or the FBCTRA relating to the property or facilities with respect to which this Agreement pertains, Engineer and the FBCTRA agree as follows:

a. **ENGINEER WILL INDEMNIFY AND HOLD HARMLESS THE FBCTRA, ITS DIRECTORS, OFFICERS, AND EMPLOYEES AGAINST ANY CLAIMS, DEMANDS OR CAUSES OF ACTION; AND COSTS, LOSSES, LIABILITIES, EXPENSES AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING REASONABLE ATTORNEY'S FEES AND COURT COSTS, BROUGHT BY ANY OF ENGINEER'S EMPLOYEES OR REPRESENTATIVES, OR BY ANY OTHER THIRD PARTY, BASED UPON, IN CONNECTION WITH, RESULTING FROM OR ARISING OUT OF THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF ENGINEER; HOWEVER, ENGINEER'S CONTRACTUAL OBLIGATION OF INDEMNIFICATION SHALL NOT EXTEND TO THE NEGLIGENCE OR OTHER FAULT OF THE FBCTRA OR STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A MATTER OF LAW (INCLUDING STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A RESULT OF THE CONDITION OF THE PROPERTY OR FACILITIES WITH RESPECT TO WHICH THIS AGREEMENT PERTAINS).**

b. In the event that both the FBCTRA and Engineer are adjudicated negligent or otherwise at fault or strictly liable without fault with respect to damage or injuries sustained by the claimant, each shall be responsible for its own costs of litigation and pro rata share of damages as determined by the proceedings.

It is a condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the party seeking indemnity shall provide written notice of a third party claim, demand, or cause of action within 30 days after such third party claim, demand, or cause of action is received by the party seeking indemnity. It is a further condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the indemnitor shall thereafter have the right to participate in the investigation, defense, and resolution of such third party claim.

15. Dispute Resolution

Except as expressly provided in Section 4. Option to Terminate, if a dispute arises out of, or relates to, the breach thereof, and if the dispute cannot be settled through negotiation, then the FBCTRA and the Engineer agree to submit the dispute to mediation. In the event the FBCTRA or the Engineer desires to mediate any dispute, that party shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within 10 days of the receipt of such notice, such dispute shall be submitted for mediation in accordance with the procedures and rules of the American Arbitration Association (or any successor organization) then in effect. The deadline for submitting the dispute to mediation can be changed if the parties mutually agree in writing to extend the time between receipt of notice and submission to mediation. The expenses of the mediator shall be shared 50 percent by the FBCTRA and 50 percent by the Engineer. This requirement to seek mediation shall be a condition required before filing an action at law or in equity.

16. Delivery of Notices, Etc.

a. All written notices, demands, and other papers or documents to be delivered to the FBCTRA under this Agreement, shall be delivered to the Fort Bend County Toll Road Authority, P.O. Box 1307, Sugar Land, Texas 77406, Attention: Mike Stone, or at such other place or places as it may from time to time designate by written notice delivered to the Engineer. For purposes of notice under this Agreement, a copy of any notice or communication hereunder shall also be forwarded to the following address: Fort Bend County Clerk, 301 Jackson Street, Richmond, Texas 77469, Attention: County Judge.

b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to Blackline Engineering, LLC, 1616 S. Voss, Suite 300, Houston, TX 77057, Attention: Juliana F. Bihlet, PE, CFM, or such other place or places as the Engineer may designate by written notice delivered to the FBCTRA.

17. Reports of Accidents, Etc.

Within 24 hours after 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 FBCTRA, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the FBCTRA a copy of any summons, subpoena, notice, 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 FBCTRA's Acts

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

19. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the FBCTRA under this Agreement shall be deemed to be valid covenants and obligations only to extent authorized by the Act creating the FBCTRA and permitted by the laws and the Constitution of the State of Texas. This Agreement shall be governed by the laws of the State of Texas, and no officer, director, or employee of the FBCTRA shall have any personal obligation hereunder.

20. Captions Not a Part Hereof

The captions of subtitle 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. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

22. Successors and Assigns

The FBCTRA 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. Appendices

The Appendices attached to this Agreement, which consists of:

Attachment A	Scope of Services
Attachment B	Compensation for Scope of Services
Attachment C	Insurance Requirements

24. Statutory Terms Applicable To State Political Subdivisions

a. As required by Chapter 2270, Government Code, Engineer hereby verifies that it does not boycott Israel and will not boycott Israel through the term of this Agreement. For purposes of this verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations

specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

b. Prior to execution of this Agreement by FBCTRA, the Engineer will be required to submit a Texas Ethics Commission Form 1295. Please see this website for details related to this disclosure:
https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

c. Engineer certifies and agrees that it is not identified on a list prepared and maintained under Sections 806.051, 807.051 or 2252.153, Texas Government Code.

d. In accordance with Section 176.0065, Texas Local Government Code, a list of local government officers of FBCTRA may be obtained by contacting the FBCTRA's records administrator at (281) 500-6050.

[Signatures Follow]

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the 16th day of October, 2019.

FORT BEND COUNTY TOLL ROAD AUTHORITY, a Texas local government corporation

By: _____
Dr. James D. Condrey
Chairman, Board of Directors

Blackline Engineering, LLC
ENGINEER

By: _____
Name: _____
Title: PRINCIPAL

EFFECTIVE DATE

THIS AGREEMENT IS EFFECTIVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID.

DATE OF COMMISSIONERS COURT APPROVAL: _____

AGENDA ITEM NO.: _____

ATTACHMENT A
SERVICES TO BE PROVIDED BY THE ENGINEER

Fort Bend Parkway Toll Road
Southbound Right Turn Deceleration Lane at SH 6

The Engineer shall provide engineering services required for the preparation of plans, specifications and estimates (PS&E) and related documents, for a right turn deceleration lane along the southbound Fort Bend Parkway Toll Road access road approach to SH 6. These services may include, but are not limited to, preparing roadway design, hydrologic and hydraulic design, traffic signal design, utility adjustment coordination, subsurface utility engineering, utility engineering, and survey.

GENERAL REQUIREMENTS

1.1. Design Criteria. The Engineer shall prepare all work in accordance with the latest version of applicable FBCTRA and TxDOT's procedures, specifications, manuals, guidelines, standard drawings, and standard specifications or previously approved special provisions and special specifications, which include: the *PS&E Preparation Manual*, *Roadway Design Manual*, *Hydraulic Design Manual*, the *Texas Manual on Uniform Traffic Control Devices* (TMUTCD), *Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (latest Edition)*, and other approved manuals. When design criteria are not identified in TxDOT manuals, the Engineer shall notify the FBCTRA and refer to the American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Street,* (latest Edition). In addition, the Engineer shall follow the FBCTRA and TxDOT District guidelines in developing the PS&E package. The Engineer shall prepare each PS&E package in a form suitable for letting through the FBCTRA's construction contract bidding and awarding process.

The Engineer shall identify, prepare exhibits and complete all necessary forms for each Design Exception and Waiver required within project limits prior to the 30% project completion submittal. The Engineer shall submit each exception and waiver to the FBCTRA for coordination and processing of approvals. If subsequent changes require additional exceptions, the Engineer shall notify the FBCTRA in writing as soon as possible after identification of each condition that may warrant a design exception or waiver.

1.2. Right-of-Entry and Coordination. The Engineer shall notify the FBCTRA and secure permission to enter private property to perform any surveying, environmental, engineering or geotechnical activities needed off FBCTRA right-of-way. In pursuance of the FBCTRA's policy with the general public, the Engineer shall not commit acts which would result in damages to private property, and the Engineer shall make every effort to comply with the wishes and address the concerns of affected private property owners. The Engineer shall contact each property owner prior to any entry onto the owner's property and shall request concurrence from the FBCTRA prior to each entry.

The Engineer shall notify the FBCTRA and coordinate with adjacent engineers on all controls at project interfaces. The Engineer shall document the coordination effort, and each engineer shall provide written concurrence regarding the agreed project controls and interfaces. In the event the Engineer and the other adjacent engineers are unable to agree, the Engineer and each adjacent engineer shall meet jointly with the FBCTRA for resolution. The FBCTRA will have authority over the Engineer's disagreements and the FBCTRA's decision will be final.

The Engineer shall prepare each exhibit necessary for approval by each railroad, utility, and other governmental or regulatory agency in compliance with the applicable format and guidelines required by each entity and as approved by the FBCTRA. The Engineer shall notify the FBCTRA in writing prior to beginning any work on any outside agency's exhibit.

1.3. Progress Reporting and Invoicing. The Engineer shall invoice according to the breakdowns shown in Attachment "A" and Attachment "B"- Fee *Schedule.* The Engineer shall submit each invoice in a format acceptable to the FBCTRA.

The Engineer shall submit a monthly written progress report to the FBCTRA's Project Manager regardless of whether the Engineer is invoicing for that month. The Engineer's written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered and actions taken to remedy them; list of meetings attended; and overall status, including a percent complete by task.

The Engineer shall schedule milestone submittals at 30%, 60%, 90% and final project completion phases. The Engineer shall advise the FBCTRA in writing if the Engineer is not able to meet the scheduled milestone review date.

Once the project goes to letting, all electronic files shall be delivered within 30 days of letting.

Final payment is contingent upon the FBCTRA's receipt and confirmation by the FBCTRA's Project Manager that the electronic files run and is formatted in accordance with FBCTRA guidelines and all review comments are addressed.

1.4. Coordination. The Engineer shall coordinate issues and communications with FBCTRA's internal resource areas through the FBCTRA's Project Manager. The FBCTRA will communicate the resolution of issues and provide the Engineer direction through the FBCTRA's Project Manager.

1.5. Quality Assurance (QA) and Quality Control (QC). The Engineer shall provide peer review at all levels. For each deliverable, the Engineer shall have some evidence of their internal review and mark-up of that deliverable as preparation for submittal. A milestone submittal is not considered complete unless the required milestone documents and associated internal red-line mark-ups are submitted. The FBCTRA's Project Manager may require the Engineer to submit the Engineer's internal mark-up (red-lines) or comments developed as part the Engineer's quality control step. When internal mark-ups are requested by the FBCTRA in advance, the FBCTRA, at its sole

discretion, may reject the actual deliverable should the Engineer fail to provide the evidence of quality control. The Engineer shall clearly label each document submitted for quality assurance as an internal mark-up document.

The Engineer shall perform QA and QC on all survey procedures, field surveys, data, and products prior to delivery to the FBCTRA. If, at any time, during the course of reviewing a survey submittal it becomes apparent to the FBCTRA that the submittal contains errors, omissions, or inconsistencies, the FBCTRA may cease its review and immediately return the submittal to the Engineer for appropriate action by the Engineer. A submittal returned to the Engineer for this reason is not a submittal for purposes of the submission schedule.

1.6. Use of the TxDOT's and FBCTRA's Standards. The Engineer shall identify and insert as frequently as is feasible the applicable, current FBCTRA standard details, TxDOT Standard Details, TxDOT District Standard Details, or miscellaneous details that have been approved for use in the plan. The Engineer shall sign, seal, and date each Standard and miscellaneous detail if the Standard selected has not been adopted for use by FBCTRA. The Engineer shall obtain approval for use of these details during the early stages of design from the FBCTRA Project Manager. In addition, these details shall be accompanied by the appropriate general notes, special specifications, special provisions, and method of payment. The Engineer shall retain the responsibility for the appropriate selection of each Standard identified for use within their design.

1.7. Organization of Plan Sheets. The PS&E shall be complete and organized in accordance with the latest edition of the TxDOT PS&E Preparation Manual. The PS&E package shall be suitable for the bidding and awarding of a construction contract, and in accordance with the latest FBCTRA's policies and procedures, and the TxDOT PS&E Checklist.

1.8. Organization of Design Project Folder and Files (Electronic Project Files). The Engineer shall organize the electronic project files in accordance with the FBCTRA's File Management System (FMS) format. With the approval of the FBCTRA, the Engineer may maintain the project files in the FBCTRA's ProjectWise container.

1.9. Personal Protective Equipment (PPE). The Engineer shall, and shall require its subcontractors to, (1) provide personal protective equipment (PPE) to their personnel, (2) provide business vehicles for their personnel, and (3) require their personnel to use PPE and drive only business vehicles while performing work on or near roadways. The PPE must meet all (1) current standards set by the Occupational Safety and Health Administration (OSHA) and (2) TxDOT requirements (e.g., safety glasses, Type 3 (TY 3) pants for night work). Each business vehicle must be clearly marked with the Engineer's business name, or the name of the appropriate subcontractor, such that the name can be identified from a distance.

TASK DESCRIPTIONS AND FUNCTION CODES

The Engineer is responsible for designating and providing the services of the following individuals or entities:

The Engineer shall categorize each task performed to correspond with the Function Codes (FC) and Task Descriptions.

FUNCTION CODE 102(110) – FEASIBILITY STUDIES

ROUTE AND DESIGN STUDIES

110.1. Data Collection and Field Reconnaissance. The Engineer shall collect, review and evaluate data described below. The Engineer shall notify the FBCTRA in writing whenever the Engineer finds disagreement with the information or documents:

1. Data, if available, from the FBCTRA, including "as-built plans", existing schematics, right-of-way maps, Subsurface Utility Engineering (SUE) mapping, existing cross sections, existing planimetric mapping, environmental documents, existing channel and drainage easement data, existing traffic counts, accident data, Bridge Inspection records, Project Management Information system (PMIS) data, identified endangered species, identified hazardous material sites, current unit bid price information, current special provisions, special specifications, and standard drawings.
2. Documents for existing and proposed development along proposed route from local municipalities and local ordinances related to project development.
3. Utility plans and documents from appropriate municipalities and agencies.
4. Flood plain information and studies from the Federal Emergency Management Agency (FEMA), the United States Army Corps of Engineers (USACE), local municipalities, and other governmental agencies..
5. Conduct field reconnaissance and collect data including a photographic record of notable existing features.

110.2. Design Criteria. The Engineer shall develop the roadway design criteria based on the controlling factors specified by the State (i.e. 4R, 3R, 2R, or special facilities), by use of the funding categories, design speed, functional classification, roadway class and any other set criteria as set forth in PS&E Preparation Manual, Roadway Design Manual, Bridge Design Manual, Hydraulic Design Manual, and other deemed necessary FBCTRA approved manuals. The Engineer shall obtain written concurrence from the FBCTRA prior to proceeding with a design if any questions arise during the design process regarding the applicability of FBCTRA's design criteria.

FUNCTION CODE 130(130) – RIGHT-OF-WAY (ROW) DATA

All standards, procedures and equipment used by the Engineer's Surveyor shall be such that the results of the survey will be in accordance with Board Rule 663.15, as promulgated by the Texas Board of Professional Land Surveyors.

The Engineer shall locate the existing ROW within the project limits from the

current project control monuments and prepare a layout map for the project.

130.1. Utility Adjustment Coordination. Utility Adjustment Coordination shall include utility coordination meetings with individual utility companies, communication and coordination with utilities.

1. Utility Coordination

The Utility Coordinator shall perform utility coordination and liaison activities with involved utility owners, their consultants, and the FBCTRA to achieve timely project notifications, formal coordination meetings, conflict analysis and resolution. The Utility Coordinator shall act as the "Responsible Party" as indicated in the State's– Utility Cooperative Management Process (See the State's ROW Utility Manual, chapter 2).

a. The Utility Coordinator shall coordinate all activities with the FBCTRA, or their designee, to facilitate the orderly progress and timely completion of the design phase.

b. As required by the FBCTRA the Utility Coordinator shall coordinate with the local utilities committees to present a foot print of the FBCTRA's projects with represented utility companies and owners. The Utility Coordinator shall also coordinate with any other utility committees which may include county, city, or other officials, if needed.

c. The Utility Coordinator shall provide initial project notification letters to all affected utility companies, owners, and other concerned parties.

d. The Utility Coordinator shall provide the FBCTRA and all affected utility companies and owners a Utility Contact List for each project with all information such as: (i) Owner's Name; (ii) Contact Person; (iii) Telephone Numbers; (iv) Emergency Contact Number; (v) E-mail addresses; (vi) as well as all pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.

e. The Utility Coordinator shall advise utility companies and owners of the general characteristics of the Project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area.

FUNCTION CODE 145(145, 164) – MANAGING CONTRACTED/SUB-CONSULTANT PE

PROJECT MANAGEMENT AND ADMINISTRATION

The Engineer, in association with the FBCTRA's Project Manager shall be responsible

for directing and coordinating all activities associated with the project to comply with FBCTRA policies and procedures, and to deliver that work on time.

Project Management and Coordination. The Engineer shall coordinate all subconsultant activity to include quality of and consistency of plans and administration of the invoices and monthly progress reports. The Engineer shall coordinate with necessary local entities.

The Engineer shall:

- Prepare monthly written progress reports for each project.
- Meet on a scheduled basis with the FBCTRA to review project progress. Prepare, distribute, and file both written and electronic correspondence.
- Prepare and distribute meeting minutes.
- Document phone calls and conference calls as required during the project to coordinate the work for various team members.

FUNCTION CODE 160(150) – ROADWAY DESIGN

Design Surveys and Construction Surveys

Design Surveys and Construction Surveys include performance of surveys associated with the gathering of survey data for topography, cross-sections, and other related work in order to design a project, or during layout and staking of projects for construction.

1. PURPOSE

The purpose of a design survey is to provide field data in support of transportation systems design.

The purpose of a construction survey is to provide field data in support of highway construction.

2. DEFINITIONS

A design survey is defined as the combined performance of research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3-dimensional) mapping of a project site. A design survey may include, but need not be limited to locating existing right-of- way, cross-sections or data to create cross-sections and Digital Terrain Models (DTM), horizontal and vertical location of utilities and improvements, detailing of bridges and other structures, review of right-of- way maps, establishing control points, etc.

A construction survey is defined as the combined performance of reconnaissance, field work, analysis, computation, and documentation necessary to provide the horizontal and vertical position of specific ground points to be used by the construction contractor for determining lines and grades.

3. TASKS TO BE COMPLETED

3.1. Design Surveys

The survey limits include the Fort Bend Parkway Toll Road southbound access road approach to SH 6 from ROW line to the center of the access road, at a minimum. It extends from under the SH 6 underpass to approximately 900-1000 feet north along the access road. The Engineer's Surveyors shall perform tasks including, but not limited to the following:

i. Obtain or collect data to create cross-sections and digital terrain models.

ii. Locate existing utilities.

iii. Locate topographical features and existing improvements.

iv. Provide details of existing bridge structures.

v. Provide details of existing drainage features, (e.g., culverts, manholes, etc.).

vi. Locate wetlands.

vii. Establish additional and verify existing control points. Horizontal and Vertical control ties must be made and tabulated, to other control points in the vicinity, which were established by other sources such as, the National Geodetic Survey (NGS), and the Federal Emergency Management Agency (FEMA), and any other local entities as directed by the FBCTRA.

viii. Locate existing right-of-ways.

ix. Review right-of-way maps.

x. Locate boreholes.

xi. Perform hydrographic surveys.

xii. Update existing control data and prepare survey control data sheets, as directed by the FBCTRA for inclusion into a construction plan set.

The Engineer's Surveyors shall also prepare a *Survey Control Index Sheet* and a *Horizontal and Vertical Control Sheet(s)*, signed, sealed and dated by the professional engineer in direct responsible charge of the surveying and the responsible RPLS for insertion into the plan set. The *Survey Control Index Sheet* shows an overall view of the project control and the relationship

or primary monumentation and control used in the preparation of the project; whereas, the *Horizontal and Vertical Control sheet(s)* identifies the primary survey control and the survey control monumentation used in the preparation of the project. Both the *Survey Control Index Sheet* and the *Horizontal and Vertical Control Sheet(s)* must be used in conjunction with each other as a set. The State's forms for these sheets can be downloaded from the State's website.

The following information shall be shown on the *Survey Control Index Sheet:*

- Overall view of the project and primary control monuments set for control of the project
- Identification of the control points
- Baseline or centerline
- Graphic (Bar) Scale
- North Arrow
- Placement of note *"The survey control information has been accepted and incorporated into this PS&E"* which shall be signed, sealed and dated by a Texas Professional Engineer
- RPLS signature, seal, and date
- The FBCTRA's title block containing District Name, County, Highway, and CSJ

The following information shall be shown on all *Horizontal and Vertical Control Sheets*:

- Location for each control point, showing baseline or centerline alignment and North arrow.
- Station and offset (with respect to the baseline or centerline alignments) of each identified control point.
- Basis of Datum for horizontal control (base control monument/benchmark name, number, datum).
- Basis of Datum for the vertical control (base control monument, benchmark name, number, datum).
- Date of current adjustment of the datum.
- Monumentation set for Control (Description, District name/number and Location ties).
- Surface Adjustment Factor and unit of measurement.
- Coordinates (State Plan Coordinates [SPC] Zone and surface or grid).
- Relevant metadata.
- Graphic (Bar) Scale.
- Placement of note "*The survey control information has been accepted and incorporated into this PS&E"* which shall be signed, sealed and dated by a Texas Professional Engineer
- RPLS signature, seal and date.

- The FBCTRA's title block

4. TECHNICAL REQUIREMENTS

4.1. Design surveys and construction surveys must be performed under the supervision of a RPLS currently registered with the TBPLS.

4.2. Horizontal ground control used for design surveys and construction surveys, furnished to the Engineer's Surveyor by the FBCTRA or based on acceptable methods conducted by the Engineer's Surveyor, must meet the standards of accuracy required by the FBCTRA.

Reference may be made to standards of accuracy for horizontal control traverses, as described in the TxDOT Survey Manual, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

4.3. Vertical ground control used for design surveys and construction surveys, furnished to the Engineer's Surveyor by the FBCTRA or based on acceptable methods conducted by the Engineer's Surveyor, must meet the standards of accuracy required by the FBCTRA.

Reference may be made to standards of accuracy for vertical control traverses, as described in the TxDOT Survey Manual, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

4.4. Side shots or short traverse procedures used to determine horizontal and vertical locations must meet the following criteria:

i. Side shots or short traverses must begin and end on horizontal and vertical ground control as described above.

ii. Standards, procedures, and equipment (may be GPS Equipment, LiDAR, Total Stations, etc.) used must be such that horizontal locations relative to the control may be reported within the following limits:

- Bridges and other roadway structures: less than 0.1 of one foot.
- Utilities and improvements: less than 0.2 of one foot.
- Cross-sections and profiles: less than 1 foot.
- Bore holes: less than 3 feet.

iii. Standards, procedures, and equipment (may be GPS Equipment,

LiDAR, Total Stations, etc.) used must be such that vertical locations relative to the control may be reported within the following limits:

- Bridges and other roadway structures: less than 0.02 of one foot.
- Utilities and improvements: less than 0.1 of one foot.
- Cross-sections and profiles: less than 0.2 of one foot.
- Bore holes: less than 0.5 of one foot.

5. AUTOMATION REQUIREMENTS

a. Planimetric design files (DGN) must be fully compatible with the FBCTRA's *MicroStation V8i* graphics program without further modification or conversion.

b. Electronically collected and processed field survey data files must be fully compatible with the FBCTRA's computer systems without further modification or conversion. All files must incorporate only those feature codes currently being used by the FBCTRA.

c. DTM must be fully compatible with the FBCTRA's *GEOPAK* system without further modification or conversion. All DTM must be fully edited and rectified to provide a complete digital terrain model with all necessary break lines.

DELIVERABLES

The deliverables to be specified in individual work authorizations for design surveys and construction surveys shall be any combination of the following:

- Digital Terrain Models (DTM) and the Triangular Irregular Network (TIN) files in a format acceptable by the FBCTRA.
- Maps, plans, or sketches prepared by the Engineer's Surveyor showing the results of field surveys.
- Computer printouts or other tabulations summarizing the results of field surveys.
- Digital files or media acceptable by the FBCTRA containing field survey data (ASCII Data files).
- Maps, plats, plans, sketches, or other documents acquired from utility

companies, private corporations, or other public agencies, the contents of which are relevant to the survey.

- Field survey notes, as electronic and hard copies.

- An 8 ½ inch by 11 inch survey control data sheet for each control point which must include, but need not be limited to, a location sketch, a physical description of the point including a minimum of two reference ties, surface coordinates, a surface adjustment factor, elevation, and the horizontal and vertical datums used. A pre-formatted survey control data sheet form in Microsoft Office Word 2010 format will be provided by the FBCTRA.

- A digital and hard copy of all computer printouts of horizontal and vertical conventional traverses, GPS analysis and results, and survey control data sheets.

- All GEOPAK GPK files and/or OpenRoads GEOPAK files.

- Survey reports in a format requested by the FBCTRA.

FUNCTION CODE 160(160) - ROADWAY DESIGN

ROADWAY DESIGN CONTROLS

160.1. Roadway Design.

The Engineer shall provide roadway plan and profile drawings using Microstation CADD standards as required by the FBCTRA. The drawings must consist of a planimetric file of existing features and files of the proposed improvements. The roadway base map must contain line work that depicts existing surface features obtained from the schematic drawing. Existing major subsurface and surface utilities must be shown if requested by the FBCTRA. Existing and proposed right-of-way lines must be shown. Plan and Profile must be shown on separate or same sheets (this depends upon width of pavement) for main lanes, frontage roads, and direct connectors.

The plan view must contain the following design elements:

1. Calculated roadway centerlines for mainlanes, ramps, cross streets and frontage roads, as applicable. Horizontal control points must be shown. The alignments must be calculated using GEOPAK.
2. Pavement edges for all improvements (mainlanes, direct connectors, ramps, cross streets, driveways and frontage roads, if applicable).
3. Lane and pavement width dimensions.
4. The geometrics of ramps, auxiliary and managed lanes.
5. Proposed structure locations, lengths, and widths.
6. Direction of traffic flow on all roadways. Lane lines and arrows indicating

the number of lanes must also be shown.
7. Drawing scale shall be 1"=100'
8. Control of access line, ROW lines and easements.
9. Begin and end super elevation transitions and cross slope changes.
10. Limits of riprap, block sod, and seeding.
11. Existing utilities and structures.
12. Benchmark information.
13. Radii call outs, curb location, Concrete Traffic Barrier (CTB), guard fence, crash safety items and American with Disabilities Act Accessibility Guidelines (ADAAG) compliance items.

The profile view must contain the following design elements:

1. Calculated profile grade for proposed mainlanes (cite direction), direct connectors, ramps, cross streets and frontage roads, if applicable. Vertical curve data, including "K" values must be shown.
2. Existing and proposed profiles along the proposed centerline of the mainlanes, the outside shoulder line of ramps, and the outside gutter line of the designated (north, south, east or west) bound frontage roads.
3. Drawing vertical scale to be 1"=10'.

160.2. Typical Sections: The Engineer shall prepare typical sections for all proposed and existing roadways and structures. Typical sections must include width of travel lanes, shoulders, outer separations, border widths, curb offsets, managed lanes, and ROW. The typical section must also include Proposed Profile Grade Line (PGL), centerline, pavement design, longitudinal joints, side slopes, sodding or seeding limits, concrete traffic barriers and sidewalks, if required, station limits, common proposed and existing structures including retaining walls, existing pavement removal, riprap, limits of embankment and excavation, etc.

160.3. Right Turn Deceleration Lane Design: The Engineer shall provide the design of the southbound right turn lane to SH 6. The design must be consistent with the approved schematic or refined schematic and the current *TxDOT Roadway Design Manual*.

160.4. Cut and Fill Quantities. The Engineer shall develop an earthwork analysis to determine cut and fill quantities and provide final design cross sections at 100 feet intervals. Cross sections must be delivered in standard GEOPAK format on 11"x17" sheets or roll plots and electronic files. The Engineer shall provide all criteria and input files used to generate the design cross sections. Cross sections and quantities must include existing pavement removals. Annotation shall include at a minimum existing and proposed ROW, side slopes (front & back), profiles, etc.

The Engineer shall submit sets of drawings at the 30%, 60%, and 90%, and final submittals, respectively.

160.5. Plan Preparation. The Engineer shall prepare roadway plans, profiles and typical sections for the proposed improvements. The drawings will provide an overall view of the roadway and existing ground elevations with respect to the various storm design frequencies for the length of the project. The roadway plans must consist of the types and be organized in the sequence as described in the *PS&E Preparation manual.*

160.6. Pavement Design. If applicable, the Engineer shall incorporate the pavement design developed by the FBCTRA for this project. If the pavement design is not available, the FBCTRA may request the Engineer to perform pavement design and submit to FBCTRA for review and approval.

160.7. Pedestrian Facilities. The Engineer shall coordinate with the FBCTRA to incorporate pedestrian facilities as required or shown on the project's schematic. All pedestrian and bicycle facilities must be designed in accordance with the latest Americans with Disabilities Act Accessibility Guidelines (ADAAG), the Texas Accessibility Standards (TAS), and the AASHTO Guide for the Development of Bicycle Facilities.

FUNCTION CODE 160(161) - ROADWAY DESIGN

DRAINAGE

161.1. Data Collection. The Engineer shall provide the following data collection services:

1. Conduct field inspections to observe current conditions and the outfall channels, the cross-drainage structures, drainage easements, the tributary channel, and land development projects that contribute flow to the tributary. Document field inspections with digital photos.
2. Review survey data and coordinate any additional surveying needs with FBCTRA.

161.2. Storm Drains.

The Engineer shall provide the following services:

1. Design and analyze storm drains using software as approved by the FBCTRA.
2. Size inlets and laterals. Analyze existing trunk line and determine any issues. Develop designs that minimize the interference with the passage of traffic or incur damage to the highway and local property in accordance with the State's Hydraulic Design Manual, District criteria and any specific guidance provided by the FBCTRA. Storm drain design software shall be selected as directed by the Work Authorization.
3. Calculate manhole head losses. Compute manhole head losses as per FHWA's HEC-22.
4. Limit discharge into existing storm drains and existing outfalls to the

capacity of the existing system, which will be determined by the Engineer.

5. Identify areas requiring trench protection, excavation, shoring, and de-watering.

161.3. Plans, Specifications and Estimates (PS&E) Development for Hydraulics. The Engineer shall provide the following services:

1. Prepare the PS&E package in accordance with the applicable requirements of the FBCTRA's specifications, standards, and manuals, including the PS&E Preparation Manual. Include the following sheets and documents, as appropriate:

    i. Hydraulic Data Sheets

    ii. Storm Drain Plan/Profile Sheets

    iii. All other relevant sheets

2. Identify areas requiring trench protection, excavation, shoring and de-watering.

3. Prepare drainage area maps.

4. If applicable, prepare plan and profile sheets for storm drain systems and outfall ditches.

5. Select any necessary standard details from FBCTRA or District's list of standards for items such as inlets, manholes, junction boxes and end treatments.

6. Prepare details for non-standard inlets, manholes and junction boxes.

7. Prepare drainage details for outlet protection, outlet structures and utility accommodation structures.

8. Identify pipe strength requirements.

9. Prepare drainage facility quantity summaries.

10. Identify potential utility conflicts and, if feasible, design to mitigate or avoid those identified conflicts.

11. Consider pedestrian facilities, utility impacts, driveway grades, retaining wall and concrete traffic barrier drainage impacts.

12. Identify existing ground elevation profiles at the ROW lines on storm sewer plan and profile sheets.

FUNCTION CODE 160(162) - ROADWAY DESIGN

SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT)

162.1. Signing. The Engineer shall prepare drawings, specifications, and details for all signs. The Engineer shall coordinate with the FBCTRA (and other Engineers as

required) for overall temporary, interim and final signing strategies and placement of signs outside contract limits. The Engineer shall:

- Illustrate and number the proposed signs on plan sheets.
- Select each sign foundation from State Standards.

162.2. Pavement Marking. The Engineer shall detail both permanent and temporary pavement markings and channelization devices on plan sheets. The Engineer shall coordinate with the FBCTRA (and other Engineers as required) for overall temporary, interim, and final pavement marking strategies. The Engineer shall select Pavement markings from the latest State standards.

The Engineer shall provide the following information on sign and pavement marking layouts:

- Roadway layout.
- Center line with station numbering.
- Designation of arrow used on exit direction signs
- Culverts and other structures that present a hazard to traffic.
- Location of utilities.
- Existing signs to remain, to be removed, to be relocated or replaced.
- Proposed signs (illustrated, numbered and size).
- Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
- Quantities of existing pavement markings to be removed.
- Proposed delineators, object markers, and mailboxes.
- The location of interchanges, mainlanes, grade separations, frontage roads and ramps.
- The number of lanes in each section of proposed highway and the location of changes in numbers of lanes.
- Right-of-way limits.
- Direction of traffic flow on all roadways.

162.3. Traffic Signals. The Engineer shall identify and prepare Traffic Signal Plans for any adjustments to the existing traffic signal required to accommodate the addition of the right turn deceleration lane. The Engineer shall confirm the power source for all signals and coordinate with the appropriate utility agency. Traffic Signal Plans must be signed and sealed by a Texas Registered Professional Engineer. The Engineer shall develop all quantities, general notes,

specifications and incorporate the appropriate agency standards required to complete construction.

The Engineer shall provide the following information in the Traffic Signal Plans:

1. Layout
   a. Estimate and quantity sheet
      (1) List of all bid items
      (2) Bid item quantities
      (3) Specification item number
      (4) Paid item description and unit of measure
   b. Basis of estimate sheet (list of materials)
   c. General notes and specification data.
   d. Condition diagram
      (1) Highway and intersection design features
      (2) Roadside development
      (3) Traffic control including illumination
   e. Plan sheet(s)
      (1) Existing traffic control that will remain (signs and markings)
      (2) Existing utilities
      (3) Proposed highway improvements
      (4) Proposed installation
      (5) Proposed additional traffic controls
      (6) Proposed illumination attached to signal poles.
      (7) Proposed power pole source
   f. Notes for plan layout
   g. Phase sequence diagram(s)
      (1) Signal locations
      (2) Signal indications
      (3) Phase diagram
      (4) Signal sequence table
      (5) Flashing operation (normal and emergency)
      (6) Preemption operation (when applicable)
      (7) Contact responsible Agency to obtain interval timing, cycle length and offset
   h. Construction detail sheets(s)
      (1) Poles (State standard sheets)
      (2) Detectors
      (3) Pull Box and conduit layout
      (4) Controller Foundation standard sheet
      (5) Electrical chart
   i. Marking details (when applicable)
   j. Aerial or underground interconnect details (when applicable)

2. General Requirements
   a. Contact local utility company
      (1) Confirm power source
   b. Prepare governing specifications and special provisions list

c. Prepare project estimate

3. Summary of Quantities
   a. Small signs tabulation
   b. Large signs tabulation including all guide signs

4. Sign Detail Sheets
   a. All signs except route markers
   b. Dimensioning (letters, shields, borders, etc.)
   c. Designation of shields attached to guide signs

FUNCTION CODE 160(163) - ROADWAY DESIGN

MISCELLANEOUS (ROADWAY)

The Engineer shall provide the following services:

163.1. Traffic Control Plan, Detours, Sequence of Construction. The Engineer shall prepare Traffic Control Plans (TCP) including TCP typical sections, for the project. A detailed TCP must be developed in accordance with the latest edition of the TMUTCD. The Engineer shall implement the current Barricade and Construction (BC) standards and TCP standards as applicable. The Engineer shall interface and coordinate phases of work, including the TCP, with adjacent Engineers. The Engineer shall:

1. Prepare each TCP in coordination with the FBCTRA. The TCP must include interim signing for every phase of construction. Interim signing must include regulatory, warning, construction, route, and guide signs. The Engineer shall interface and coordinate phases of work, including the TCP, with adjacent Engineers, which are responsible for the preparation of the PS&E for adjacent projects.
2. Include the work limits, the location of channelizing devices, positive barrier, location and direction of traffic, work area, stations, pavement markings, and other information deemed necessary for each phase of construction.
3. Identify and delineate any outstanding ROW parcels.

163.2. Illumination. The Engineer shall refer to TxDOT's *Highway Illumination Manual* and other deemed necessary State approved manuals for design of continuous lighting and safety lighting for all conventional lighting. The Engineer shall include safety lighting as part of each design on each flashing beacon and traffic signal. The Engineer shall provide a preliminary layout for initial review and approval by the FBCTRA. The Engineer shall prepare circuit wiring diagrams showing the number of luminaries on each circuit, electrical conductors, length of runs, service pole assemblies. The Engineer shall integrate existing illumination within the project limits into the proposed design. The Engineer shall coordinate with the FBCTRA to determine the location of proposed conventional lighting. The proposed design shall consist of LED lighting.

163.3. Storm Water Pollution Prevention Plans (SW3P). The Engineer shall develop SW3P, on separate sheets from (but in conformance with) the TCP, to minimize potential impact to receiving waterways. The SW3P must include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control.

163.4. Compute and Tabulate Quantities. The Engineer shall provide the summaries and quantities within all formal submittals.

163.5. Estimate. The Engineer shall independently develop and report quantities necessary to construct the contract in standard FBCTRA bid format at the specified milestones and Final PS&E submittals. The Engineer shall prepare each

construction cost estimates using Estimator or any approved method. The estimate shall be provided at each milestone submittal per FBCTRA's requirement.

163.6. Specifications and General Notes. The Engineer shall identify necessary standard specifications, special specifications, special provisions and the appropriate reference items. The Engineer shall prepare General Notes from the District's *Master List of General Notes*, Special Specifications and Special Provisions for inclusion in the plans and bidding documents. The Engineer shall provide General Notes, Special Specifications and Special Provisions in the required format.

163.7. Constructability Review. The Engineer shall provide Independent Quality Review of the constructability of the PS&E sets.

The Engineer shall perform constructability reviews at major project design milestones (e.g. 30%, 60%, 90%, and final plan) to identify potential constructability issues and options that would provide substantial time savings during construction. The constructability review must be performed for all roadway and structural elements such as Sequence of Work and Traffic Control, Drainage (Temporary and Permanent), Storm Water Pollution Prevention Plan (SW3P), Environmental Permits, Issues and Commitments (EPIC) addressed, identify Utility conflicts; ensuring accuracy and appropriate use of Items, Quantities, General Notes, Standard and Special Specifications, Special Provisions, Contract Time/Schedule, Standards; and providing detailed comments in an approved format. Reviews must be captured in a Constructability Log identifying areas of concern and potential conflict. The Engineer shall provide the results of all Constructability reviews and recommendations to the FBCTRA at major project design milestone submittals.

Deliverables

Plans

The Engineer shall provide the following information at each submittal:

1. 30% Plans Submittal

    1.1. 1 pdf for the FBCTRA Review.
    1.2. Estimate of construction cost.
    1.3. Engineer's internal QA and QC markup set.

2. 60% Plans Submittal:

    2.1. 1 pdf of 11" x 17" plan sets for the FBCTRA review.
    2.2. Estimate of construction cost.
    2.3. Engineer's internal QA and QC marked up set.

3. Review Submittal (90%)

    3.1. 1 pdf of 11" x 17" plan sheets for the FBCTRA Review.
    3.2. Estimate of construction cost.
    3.3. Marked up general notes using Track Changes.
    3.4. New Special Specifications and Special Provisions with Form 1814, if applicable.
    3.5. Engineer's internal QA and QC marked up set.
    3.6. Other supporting documents.

4. Final submittal (100%).

    4.1. 1 pdf of 11" x 17".
    4.2. Revised supporting documents from 95% review comments.

Electronic Copies

The Engineer shall furnish the FBCTRA with a USB Flash Drive of the final plans in the format of current CADD system used by the FBCTRA, .pdf format, and in the FBCTRA's File Management System (FMS) format.

The Engineer shall also provide separate USB Flash Drive containing cross section information (in dgn, XLR, & ASCII formats) for the FBCTRA contractor to use.

The Engineer shall provide an electronic copy of Primavera file or the latest scheduling program used by the FBCTRA for construction time estimate.

Calculations

The Engineer shall provide the following:

A pdf with all quantity and non-structural design calculations.

A pdf copy of all engineering calculations, analysis, input calculations, quantities, geometric designs (GEOPAK GPK files), etc. relating to the project's structural elements. Project structural elements include, but are not limited to: bridges, retaining walls, overhead sign foundations, high-mast illumination foundations, non-standard culverts, custom headwalls and drainage appurtenances.

Working copies of all spreadsheets and output from any programs utilized on a USB Flash Drive in a universally reliable format.

The .pdf file should be submitted on a USB Flash Drive.

Schedule

1. 30% Plans Submittal – 60 days after receiving Notice to Proceed (January 2020)
2. 60% Plans Submittal – 40 days after receiving 30% comments. (March 2020)
3. 90% Plans Submittal – 30 days after receiving 60% comments. (April 2020)
4. 95% Plans Submittal – 2 weeks after receiving 90% comments. (April-May 2020)
5. 100% Plans Submittal – 2 weeks after receiving 95% comments. (May-June 2020)

Prime Provider: BLACKLINE ENGINEERING, LLC
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH 6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

Prime Provider: Blackline Engineering, LLC Highway: Fort Bend Parkway Toll Road at SH 6 RTL		**SUBTOTALS**	**BLACKLINE**	**GUNDA**	**WINDROSE**
FC 110	Total Labor Cost (Lump Sum)	$5,410.00	$5,410.00		
FC 145	Total Labor Cost (Lump Sum)	$8,880.00	$8,880.00		
FC 150	Total Labor Cost (Lump Sum)	$6,750.00			$6,750.00
FC 160	Total Labor Cost (Lump Sum)	$16,010.00	$16,010.00	$0.00	
FC 161	Total Labor Cost (Lump Sum)	$16,620.00	$16,620.00	$0.00	
FC 162	Total Labor Cost (Lump Sum)	$15,270.00	$3,480.00	$11,790.00	
FC 163	Total Labor Cost (Lump Sum)	$26,300.00	$18,670.00	$7,630.00	
SUBTOTAL LABOR EXPENSES		**$95,240.00**	**$69,070.00**	**$19,420.00**	**$6,750.00**
DIRECT EXPENSES		**$1,130.00**	**$930.00**	**$200.00**	**$0.00**
GRANT TOTAL		**$96,370.00**	**$70,000.00**	**$19,620.00**	**$6,750.00**

Prime Provider: BLACKLINE ENGINEERING, LLC.
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 110 - ROUTE & DESIGN STUDIES										
DATA COLLECTION & FIELD RECONNAISSANCE	0	1	1	8	0	0	0	10	N/A	N/A
DESIGN CRITERIA	1	2	2	2	0	0	0	7	N/A	N/A
RIGHT-OF-WAY DATA (BE)	0	0	0	0	1	4	0	5	N/A	N/A
UTILITY ADJUSTMENT COORDINATION, CONFLICT ANALYSIS & MATRIX	0	4	4	12	2	0	0	22	N/A	N/A
HOURS SUB-TOTALS	1	7	7	22	3	4	0	44		
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$220.00	$1,260.00	$980.00	$2,200.00	$390.00	$360.00	$0.00	$5,410.00		
% DISTRIBUTION OF STAFFING	2.3%	15.9%	15.9%	50.0%	6.8%	9.1%	0.0%			
SUBTOTAL - FC 110								**$5,410.00**		

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 145 - PROJECT MANAGEMENT AND ADMINISTRATION										
PROJECT MANAGEMENT & COORDINATION WITH TRA	2	4	6	0	0	0	4	16	N/A	N/A
PROJECT MANAGEMENT & COORDINATION WITH SURVEYOR	0	1	0	1	2	4	4	12	N/A	N/A
PROJECT MANAGEMENT & COORDINATION WITH SIGNAL	1	2	0	4	0	0	4	11	N/A	N/A
PROJECT ADMINISTRATION	4	8	0	16	0	0	0	28	N/A	N/A
HOURS SUB-TOTALS	7	15	6	21	2	4	12	67		
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$1,540.00	$2,700.00	$840.00	$2,100.00	$260.00	$360.00	$1,080.00	$8,880.00		
% DISTRIBUTION OF STAFFING	10.4%	22.4%	9.0%	31.3%	3.0%	6.0%	17.9%			
SUBTOTAL - FC 145								**$8,880.00**		

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 160 - ROADWAY DESIGN CONTROLS										
ROADWAY DESIGN	2	4	4	16	8	2	0	36	N/A	N/A
TYPICAL SECTIONS	0	1	2	3	2	6	0	14	1	14
TURN LANE PLAN AND PROFILE (SCALE: H 1"=100' V 1"=10')	0	1	1	2	4	4	0	12	1	12
EARTHWORK CROSS SECTIONS (CUT AND FILL QUANTITIES)	1	0	2	16	4	1	0	24	1	24
PLAN PREPARATION										
ALIGNMENT DATA SHEETS	0	1	1	2	1	2	0	7	1	7
INTERSECTION DETAILS SHEET	0	1	1	4	0	3	0	9	1	9
MISC ROADWAY DETAILS SHEETS	0	1	1	2	0	2	0	6	1	6
ROADWAY STANDARDS SHEETS	0	1	1	2	0	2	0	6	4	2
REMOVAL SHEET	0	0	1	3	0	4	0	8	1	8
PEDESTRIAN FACILITIES	0	2	1	4	0	4	0	11	1	11
MISCELLANEOUS ROADWAY DETAILS	0	0	1	2	0	2	0	5	1	5
HOURS SUB-TOTALS	3	12	16	56	19	32	0	138	13	
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$660.00	$2,160.00	$2,240.00	$5,600.00	$2,470.00	$2,880.00	$0.00	$16,010.00		
% DISTRIBUTION OF STAFFING		MANAGER	ENGINEER	ENGINEER	DESIGNER	TECH	CLERICAL	LABOR HRS. & COSTS	DWGS	PER SHEET
SUBTOTAL - FC 160										
	0	1	1	8	0	0	0	10	N/A	N/A

Prime Provider: BLACKLINE ENGINEERING, LLC.
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 161 - DRAINAGE										
DATA COLLECTION	0	0	1	7	0	0	0	8	N/A	N/A
STORM DRAINS	0	0	3	3	0	2	0	8	1	8
ANALYZE EXISTING TRUNK LINE	2	2	6	10	0	0	0	20		
DRAINAGE AREA MAPS	1	1	2	4	0	2	0	10	1	10
HYDRAULIC DATA SHEETS	0	0	1	5	0	2	0	8	1	8
DRAINAGE COMPUTATIONS	2	2	10	40	0	0	0	54	N/A	N/A
DRAINAGE QUANTITIES	0	0	1	7	0	0	0	8	N/A	N/A
STORM SEWER PLAN AND PROFILES	0	0	1	2	4	4	0	11	1	11
STORM SEWER LATERALS	0	0	2	4	0	2	0	8	1	8
DRAINAGE DETAILS	0	0	1	2	0	2	0	5	1	5
DRAINAGE STANDARD DETAILS	0	0	1	2	0	2	0	5	3	2
HOURS SUB-TOTALS	5	5	29	86	4	16	0	145	9	
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$1,100.00	$900.00	$4,060.00	$8,600.00	$520.00	$1,440.00	$0.00	$16,620.00		
% DISTRIBUTION OF STAFFING	3.45%	3.45%	20.00%	59.31%	2.76%	11.03%	0.00%			
SUBTOTAL - FC 161								**$16,620.00**		

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 162 - SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT)										
SIGNING & PAVEMENT MARKING	0	2	2	8	4	4	0	20	1	20
SMALL SIGN SUMMARY SHEET	0	1	1	4	2	2	0	10	1	10
HOURS SUB-TOTALS	0	3	3	12	6	6	0	30	2	
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$0.00	$540.00	$420.00	$1,200.00	$780.00	$540.00	$0.00	$3,480.00		
% DISTRIBUTION OF STAFFING	0.00%	10.00%	10.00%	40.00%	20.00%	20.00%	0.00%			
SUBTOTAL - FC 162								**$3,480.00**		

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 163 - MISCELLANEOUS (ROADWAY)										
TRAFFIC CONTROL PLAN	1	4	1	8	1	4	0	19	1	19
ADVANCED WARNING SIGN LAYOUT	0	1	1	2	0	4	0	8	1	8
STORM WATER POLLUTION PREVENTION PLANS	0	0	1	2	0	4	0	7	1	7
COMPUTE & TABULATE QUANTITIES & SUMMARY SHEETS	0	2	6	10	0	2	0	20	N/A	N/A
CONSTRUCTION COST EST. (30, 60, 90 & FINAL)	0	4	4	16	0	0	0	24	N/A	N/A
SPECIFICATIONS AND GENERAL NOTES (SPEC BOOK)	0	2	4	8	0	0	0	14	1	14
QA/QC AND CONSTRUCTABILITY REVIEW	8	8	0	0	0	0	0	16	N/A	N/A
TITLE AND INDEX SHEET	0	0	2	2	0	4	0	8	1	8
TCP AND SWP3 STANDARD DETAILS	0	1	1	2	0	4	0	8	16	1
DELIVERABLES FOR FBCTRA (30,60,90, ETC.) & INTERNAL QA/QC	0	5	5	5	0	0	8	23	N/A	N/A
HOURS SUB-TOTALS	9	27	25	55	1	22	8	147	21	
CONTRACT RATE PER HOUR	$220.00	$180.00	$140.00	$100.00	$130.00	$90.00	$90.00			
TOTAL LABOR COSTS	$1,980.00	$4,860.00	$3,500.00	$5,500.00	$130.00	$1,980.00	$720.00	$18,670.00		
% DISTRIBUTION OF STAFFING	6.12%	18.37%	17.01%	37.41%	0.68%	14.97%	5.44%			
SUBTOTAL - FC 163								**$18,670.00**		

Prime Provider: BLACKLINE ENGINEERING, LLC.
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

DESCRIPTION							TOTAL MH BY FC	TOTAL COSTS BY FC
FC 110 - ROUTE & DESIGN STUDIES							44	$5,410.00
FC 145 - PROJECT MANAGEMENT AND ADMINISTRATION							67	$8,880.00
FC 160 - ROADWAY DESIGN CONTROLS							138	$16,010.00
FC 161 - DRAINAGE							145	$16,620.00
FC 162 - SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT)							30	$3,480.00
FC 163 - MISCELLANEOUS (ROADWAY)							147	$18,670.00
SUBTOTAL LABOR EXPENSES							571	**$69,070.00**

OTHER DIRECT EXPENSES								
Reproduction								$430.00
Mileage								$500.00
SUBTOTAL DIRECT EXPENSES								**$930.00**
GRAND TOTAL (BLACKLINE)								**$70,000.00**

Sub-Consultant: GUNDA CORPORATION, LLC
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH 6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 162 - SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT)										
TRAFFIC SIGNALS	1	8	4	12	22	44	2	93	10	9
HOURS SUB-TOTALS	1	8	4	12	22	44	2	93	10	
CONTRACT RATE PER HOUR	$250.00	$210.00	$170.00	$140.00	$115.00	$110.00	$65.00			
TOTAL LABOR COSTS	$250.00	$1,680.00	$680.00	$1,680.00	$2,530.00	$4,840.00	$130.00	$11,790.00		
% DISTRIBUTION OF STAFFING	1.08%	8.60%	4.30%	12.90%	23.66%	47.31%	2.15%			
SUBTOTAL - FC 162								**$11,790.00**		

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 163 - MISCELLANEOUS (ROADWAY)										
ILLUMINATION										
SAFETY LIGHTING	0	4	4	8	12	24	2	54	1	54
SELECTION OF STANDARD DRAWINGS AND DETAILS	0	0	0	2	2	3	0	7	4	2
HOURS SUB-TOTALS	0	4	4	10	14	27	2	61	5	
CONTRACT RATE PER HOUR	$250.00	$210.00	$170.00	$140.00	$115.00	$110.00	$65.00			
TOTAL LABOR COSTS	$0.00	$840.00	$680.00	$1,400.00	$1,610.00	$2,970.00	$130.00	$7,630.00		
% DISTRIBUTION OF STAFFING	0.00%	6.56%	6.56%	16.39%	22.95%	44.26%	3.28%			
SUBTOTAL - FC 163								**$7,630.00**		

DESCRIPTION	TOTAL MH BY FC	TOTAL COSTS BY FC
FC 162 - SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT)	93	$11,790.00
FC 163 - MISCELLANEOUS (ROADWAY)	61	$7,630.00
SUBTOTAL LABOR EXPENSES	154	**$19,420.00**

OTHER DIRECT EXPENSES	
DIRECT EXPENSES	$200.00
SUBTOTAL DIRECT EXPENSES	**$200.00**
GRAND TOTAL (GUNDA)	**$19,620.00**

Sub-Consultant: WINDROSE LAND SERVICES
Highway: Fort Bend Parkway Toll Road at SH 6

ATTACHMENT B
FBPTR-SH 6 RTL FEE ESTIMATE
Method of Payment: Lump Sum

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	PROJECT ENGINEER	GRADUATE ENGINEER	SENIOR DESIGNER	CAD TECH	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
FC 150 - DESIGN SURVEYS AND CONSTRUCTION SURVEYS										
DESIGN SURVEY				1				1	N/A	N/A
SURVEY AND CONTROL INDEX SHEETS				1				1	1	1
HORIZONTAL AND VERTICAL CONTROL SHEETS				1				1	1	1
HOURS SUB-TOTALS	3	0	0	0	0	0	0	3	2	
CONTRACT RATE PER HOUR										
TOTAL LABOR COSTS	$6,750.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$6,750.00		
% DISTRIBUTION OF STAFFING	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
SUBTOTAL - FC 160								$6,750.00		

DESCRIPTION							TOTAL MH BY FC	TOTAL COSTS BY FC
FC 150 - DESIGN SURVEYS AND CONSTRUCTION SURVEYS							3	$6,750.00
SUBTOTAL LABOR EXPENSES							3	$6,750.00

OTHER DIRECT EXPENSES								
DIRECT EXPENSES								$0.00
SUBTOTAL DIRECT EXPENSES								$0.00
GRAND TOTAL (WINDROSE)								**$6,750.00**

Attachment C

The Engineer shall furnish certificates of insurance to the FBCTRA evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of the Engineer, name of insurance company, policy number, term of coverage and limits of coverage. The Engineer shall cause its insurance companies to provide the FBCTRA with at least thirty (30) days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the insurance coverage required under this Agreement. The Engineer shall obtain such insurance from such companies having a Bests rating of B+/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 insurance in accordance with the laws of the State of Texas, or state of hire/location of Services, and Employers' Liability coverage with a limit of not less than $500,000 each employee for Occupational Disease, $500,000 policy limit for Occupational Disease; and Employer's Liability of $500,000 each accident.

b. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, Contractors' Protective Liability Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:

$2,000,000	general aggregate limit
$1,000,000	each occurrence, combined single limit
$2,000,000	aggregate Products, combined single limit
$1,000,000	aggregate Personal Injury/Advertising Liability
$50,000	Fire Legal Liability
$5,000	Premises Medical

c. 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.

d. Umbrella Excess Liability insurance written as excess of Employer's Liability, with limits not less than $2,000,000 each occurrence combined single limit.

e. Professional Liability insurance with limits not less than $1,000,000 each claim/annual aggregate.

The FBCTRA and the FBCTRA's Directors shall be named as additional insureds to all coverages required above, except for those requirements in paragraphs "a" and "e." All policies written on behalf of the Engineer shall contain a waiver of subrogation in favor of the FBCTRA and the FBCTRA's Directors, with the exception of insurance required under paragraph "e."

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2019-549565

Date Filed:
10/09/2019

Date Acknowledged:
10/14/2019

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Blackline Engineering, LLC
Houston, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Fort Bend County Toll Road Authority

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
101-1026 (FCP26)
Right Turn Deceleration Lane Along the South Bound Fort Bend Parkway Toll Road Access Road Approach to SH 6

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Tufail, Asim	Houston, TX United States	X	
Novosad, Scott	Houston, TX United States	X	
Bihlet, Juliana	Houston, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is [redacted], and my date of birth is [redacted].

My address is [redacted] (street), [redacted] (city), [redacted] (state), [redacted] (zip code), [redacted] (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in [redacted] County, State of [redacted], on the [redacted] day of [redacted], 20[redacted].
(month) (year)

[redacted]
(Declarant)