JOINT PROJECT AGREEMENT FOR GRAND OUTER LOOP CORRIDOR STUDY

This Joint Project Agreement (this "Agreement") is made and entered into as of the June 18, 2014 (the "Effective Date") by and between Fort Bend Grand Parkway Toll Road Authority ("GPTRA"), a Texas Local Government Corporation, and Fort Bend County Toll Road Authority ("FBCTRA"), a Texas Local Government Corporation, (collectively, the "Parties" or individually, a "Party").

BACKGROUND

WHEREAS, FBCTRA plans an extension of the Fort Bend Parkway from Sienna Parkway to an intersection with GPTRA's planned Grand Parkway Segment C (the "Grand Outer Loop"); and

WHEREAS, FBCTRA entered into an Engineering Services Agreement with Brown & Gay Engineers of even date herewith for the scope of services for the Fort Bend Parkway and a portion of Segment C more particularly described on **Exhibit A** (the "Contract"); and

WHEREAS, the Parties desire to enter into this Agreement to allocate the costs and responsibilities related to the Contract; and

NOW, THEREFORE, for and in consideration of the mutual agreements contained herein the Parties agree as follows:

AGREEMENT

Section 1.1 Contract Administration and Cost Allocation.

(a) FBTRA shall administer the Contract for the benefit of GPTRA. FBTRA may approve change orders and supplements to the Contract and will provide notice of such changes to GPTRA.

(b) FBTRA shall pursue on behalf and for the benefit of itself and GPTRA all claims out of the Contract.

(c) FBTRA will bill GPTRA fifty percent (50%) of the actual amounts paid pursuant to the Contract, as may be amended or supplemented (the initial total amount of which is $604,053), and its costs, if any, incurred pursuant to Section 1.1(b), as such costs come due and payable. Further, costs will be reduced by any applicable credits or by any amounts recovered pursuant to Section 1.1(b). FBTRA will invoice GPTRA at the completion or earlier termination of the Contract and provide a final accounting of the actual amounts paid pursuant to the Contract.

Section 1.2 Term and Termination. The term of this Agreement shall expire upon the expiration or termination of the Contract. Section 1.1(b) and (c) shall survive the termination of this Agreement.

Section 1.3 Liability.

(a) By this paragraph, neither Party waives or relinquishes any immunity from liability, limitation of liability, or defense on behalf of itself, its officers, employees, and agents provided by the Constitution or the laws of the State of Texas as a result of its execution or performance of this Agreement.

(b) Each Party agrees that it shall have no liability whatsoever for the actions or omissions of an individual employed by the other Party, regardless of where the individual's actions occurred. Each Party is solely responsible for the actions and/or omissions of its employees and officers.

Section 1.4 Miscellaneous.

(a) This Agreement shall be for the sole and exclusive benefit of FBTRA and FBCTRA and shall not be construed to confer any benefit or right upon any customers, residents, or members of FBTRA or FBCTRA, or on any other party.

(b) This Agreement is not assignable by any Party except with the prior written consent of the other Party.

(c) Nothing in this Agreement shall be deemed or construed as creating the relationship of principal and agent, partnership, or joint venture between the Parties, or a joint enterprise between the Parties and/or any other parties.

(d) This Agreement constitutes the entire agreement between the Parties relative to the subject matter hereof. Each Party expressly represents and warrants that no statement, promise, covenant, agreement, warranty, or representation other than those expressly provided in this Agreement was made to or relied upon by that Party.

(e) The failure of either Party to insist, in any one or more instances, upon performance of any terms, covenants, or conditions of this Agreement shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant, or condition by the other Party, but the obligation of such other Party with respect to such future performance shall continue in full force and effect.

(f) This Agreement may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall be considered fully executed as of the Effective Date of this Agreement, when both Parties have executed an identical counterpart, notwithstanding that all signatures may not appear on the same counterpart.

(g) In addition to any other available remedies, each Party shall have the right to injunctive relief in the event the other Party violates any term of this Agreement.

(h) This Agreement, and all claims arising from or related to this Agreement, shall be construed, interpreted, and enforced under the laws of the State of Texas, excluding any choice of law rules that would direct the application of the laws of another jurisdiction. Any litigation involving this Agreement shall be adjudicated exclusively by a state court in Fort Bend County, Texas.

Section 1.5 Notice. Any notice, demand, request, or other instrument authorized or required to be given under this Agreement shall be deemed to have been given only upon receipt. Notices may be given by (i) first class mail, postage prepaid, (ii) overnight delivery service, or (iii) facsimile transmission to the addresses set forth herein or such other address as may be designated by a Party. Notice shall be made as follows:

If to GPTRA:

Fort Bend Grand Parkway Toll Road Authority
c/o The Muller Law Group, PLLC
16555 Southwest Freeway, Suite 200
Sugar Land, Texas 77479
Attn: Richard Muller
Fax: (281) 277-8207

If to FBCTRA:

Fort Bend County Toll Road Authority
c/o The Muller Law Group, PLLC
16555 Southwest Freeway, Suite 200
Sugar Land, Texas 77479
Attn: Richard Muller
Fax: (281) 277-8207

Section 1.6 Joint Representation. Both GPTRA and FBCTRA (the "MLG Represented Parties") have requested The Muller Law Group ("MLG") to represent them in connection with the preparation and review of this Agreement. MLG has discussed with the MLG Represented Parties the advantages and disadvantages of the MLG Represented Parties engaging independent counsel to represent the MLG Represented Parties in connection with the preparation and review of this Agreement because of the potential conflict of interest in MLG's representation of GPTRA and FBCTRA in this matter. MLG has informed GPTRA and FBCTRA that it reasonably believes that its representation of one Party will not be affected by its representation of the other Party, and that MLG is fully able and willing to represent the MLG Represented Parties fairly and adequately in connection with this matter. With a full understanding of each Party's option to retain independent counselor to have MLG represent it with respect to the matters described above, and the advantages and disadvantages of either choice, GPTRA and FBCTRA each requested that MLG represent the MLG Represented Parties with respect to the matters described above. GPTRA and FBCTRA understand that there may be complete disclosure to the MLG Represented Parties of all information and communications that MLG receives from the MLG Represented Parties in the course of MLG's representation in this matter.

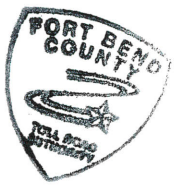
EXECUTION PAGES FOLLOWS

FORT BEND COUNTY TOLL ROAD AUTHORITY

By: _____
James D. Condrey
Chairman

ATTEST:

By: _____
Name: Charles Pyncher
Title: Secretary



EXECUTED on June 18, 2014, to be effective as of the Effective Date of this Agreement.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

By: _____
James D. Condrey
Chairman

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
FORT BEND COUNTY, TEXAS

ATTEST:

By: _____
Name: Charles Rereher
Title: Secretary

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 Brown & Gay Engineers, Inc., hereinafter called "Engineer."

W I T N E S S E T H

WHEREAS, the FBCTRA proposes to perform a corridor study for the Grand Outer Loop consisting of the Grand Parkway Segment C, from the current terminus of SH 99 north of US 59 to the Fort Bend Parkway interchange and the Fort Bend Parkway, from Sienna Parkway to the Grand Parkway interchange (the "Project"); and

WHEREAS, the FBCTRA desires to enter into an agreement for the performance by Engineer of services during the Project, and which are within the "Scope of Services" as defined in paragraph 2 below; and

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 and Attachment A-1.

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 contract is $604,053.00. The amount paid under this Agreement may not exceed the Maximum Compensation without an approved change order.

Compensation for the performance of services within the Scope of Services described in Attachment A will be paid based on actual hourly billing rates and expenses in an amount not to exceed $604,053.00, as shown in Attachment B. Progress payments for work detailed in Attachment A will be made when the Engineer has attained a level of completion equal to or greater than agreed upon milestones of completion in the reasonable opinion of FBCTRA.

Compensation for services described in Attachment A-1 ("Additional Services") will be paid per the rates described in Attachment B-1 only for work authorized in

writing prior to being performed and only for such work as was actually performed. 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 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 completion certificate and, for Additional Services, time and expense records and in accordance with those payment procedures set forth in subparagraph 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 additional services not within the original Scope of 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 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 employees established by the Fort Bend County 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 and end on June 1, 2015.

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 paragraph 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 paragraph 2(d), above.

b. Termination of this Agreement and payment as described in subparagraph (a) of this paragraph 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 paragraph 6, below, shall survive the termination of this Agreement.

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

d. The 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, options, 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, options, 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 or upon Engineer's receipt of termination payment, whichever is sooner, when and if this Agreement is terminated.

5. Inspection of the Engineer's Books and Records

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. FBCTRA's right to inspect survives the termination of this Agreement for a period of four years.

6. Ownership and Reuse of Documents

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 termination of this Agreement. Engineer will deliver the Documents to FBCTRA within 30 days of the 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 District'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 in 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 an engineer licensed to practice professional engineering in the State of Texas.

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

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's Executive Director 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 made in accordance with the schedule contained in Exhibit B-1.

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, EMPLOYEES, AND AGENTS AGAINST ANY CLAIMS, DEMANDS, SUITS, OR CAUSES OF ACTION, AND ANY COSTS, LOSSES, LIABILITIES, DAMAGES, PENALTIES, EXPENSES, AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING REASONABLE ATTORNEY'S FEES, EXPENSES, 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 OR ITS EMPLOYEES OR REPRESENTATIVES; PROVIDED 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 paragraph 4, above, 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 non-binding 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 2789, Sugar Land, Texas 77487-9740, Attention: Bill Jameson, 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 Brown & Gay Engineers, Inc., 10777 Westheimer Rd., Suite 400, Houston, TX 77042, Attention: Gary Gehbauer, PE 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, or other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Engineer's performance of work under this Agreement.

18. The 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 paragraphs 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, excluding any choice of law rules that would direct the application of the laws of another jurisdiction. The parties hereto acknowledge that venue is proper solely in Fort Bend County, Texas, for all disputes relating to or 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 A-1	Additional Services
Attachment B	Compensation for Scope of Services
Attachment B-1	Compensation for Additional Services
Attachment C	Insurance Requirements

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 18th day of June, 2014.

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

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

ATTEST:

By _____
Secretary, Board of Directors

Brown & Gay Engineers, Inc.
ENGINEER

By: _____
Name: David C. Johnston
Title: Senior Vice President

ATTACHMENT A
SCOPE OF SERVICES

FORT BEND GRAND OUTER LOOP
PHASE 1

GENERAL

The work to be performed by the Engineer shall consist of providing updated constraints mapping, schematic designs, preliminary drainage analysis, ROW analysis and documentation, program cost estimates and a program schedule for the Fort Bend Grand Outer Loop. The Fort Bend Grand Outer Loop is defined as Grand Parkway Segment C, from the current terminus of SH 99 north of US 59 to the Fort Bend Parkway interchange and the Fort Bend Parkway, from Sienna Parkway to the Grand Parkway interchange. The Engineering Team consists of:

- Brown & Gay Engineers, Inc
- TSC Engineering
- GC Engineering

TASK 1

1. Update Project Constraints

The Engineer shall update environmental and socio-economic constraints mapping using available record data. Record data includes, but is not limited to, National Wetlands Inventory, FEMA flood data, hazardous materials sites, census tract data, potentially historic structures, cemeteries, endangered species habitat, major utilities, etc. This data shall be gathered using the combined study areas of Segment C of the Grand Parkway, from north of US 59 to Big Creek, and the Fort Bend Parkway, from Sienna Parkway to FM 762.

The Engineer shall, through the use of updated constraints mapping, aerial imagery and design criteria, verify the viability of the currently recommended alignment for the Fort Bend Parkway. Specific areas of verification include the Brazos River crossing location, the FM 2759 intersection location, and the FM 762 intersection location. Any changes to the currently recommended alignment shall be approved by the Fort Bend County Toll Road Authority prior to incorporation into further studies.

The Engineer shall identify any additional environmental impacts for revisions to the Grand Parkway Segment C schematic design listed in Task 1, Item 2 below.

The Engineer shall provide on the ground verification of critical constraints, where possible, for the Fort Bend Parkway portion of the project. The critical constraints are potential historic structures, cultural resources and endangered species habitat.

All constraints mapping updates shall be performed using ArcGIS. The Engineer shall furnish computer generated media in ArcGIS format.

The Engineer shall furnish exhibits as requested to illustrate the updated constraints mapping.

2. Update Schematic Designs

The Engineer shall prepare up to three alternatives for providing access from Bridlewood Drive to FM 762 in the ultimate schematic configuration for Segment C of the Grand Parkway.

The Engineer shall identify the location for the re-alignment of Segment C of the Grand Parkway on the George Foundation property adjacent to Berdett Road. The Engineer shall coordinate the location of this re-alignment with representatives of the George Foundation.

The Engineer shall identify the location and configuration of the interchange between the Grand Parkway Segment C and the Fort Bend Parkway.

Using the preliminary schematic design of the Fort Bend Parkway, the Engineer shall verify the locations of all cross street interchanges and cross street reconstruction limits. The Engineer shall verify bridge lengths and major culvert crossings based on the analysis described in Task 2 below. The Engineers shall prepare updates to the Fort Bend Parkway schematic design as needed based the verification listed above.

Any changes to the current schematic design shall be approved by the Fort Bend County Toll Road Authority prior to incorporation into further actions.

The Engineer shall prepare a phased construction implementation plan for the Fort Bend Grand Outer Loop which defines approximate limits, project elements within those limits and time frame for each area of construction.

For each of the locations listed above in Task 1, Item 2, the Engineer shall prepare a proposed roadway schematic layout and existing and proposed typical sections. The Engineer shall furnish Microsoft Office and Microstation V8 or V8i-Geopak computer generated media containing the roadway schematic layout. All supporting attachments and exhibits shall accompany the schematic layout.

The Engineer shall obtain, review, and evaluate existing and projected traffic data for use in the preparation of the schematic design layouts.

An itemization of the schematic design and engineering work activity to be performed under this contract is detailed below. All designs shall be prepared in accordance with the latest version of: TxDOT Roadway Design Manual, AASHTO Policy on Geometric Design of Highways and Streets, TxDOT Standard Specifications for Construction of Highways, Streets, and Bridges, TxDOT Traffic Operations Manual on Highway Operations, Texas Manual on Uniform Traffic Control Devices, and Highway Capacity Manual - Transportation Research Board.

The schematic layout will adhere to a design scale of 1 in. = 100 ft. The schematic layout, exhibits, and attachments will be developed in English units. All Microsoft Office and Microstation V8 or V8i - Geopak computer graphic files furnished to the County must be submitted in electronic format by means of a CD media. Final copies of the schematic design shall be signed by a professional engineer licensed in the State of Texas.

The geometric schematic plan view shall contain the following design elements:

- Geopak calculated roadway alignments for mainlanes, ramps, direct connectors, HOV lane, managed lanes, frontage roads and cross streets at grade separations and horizontal curve data shown in tabular format
- Pavement edges, curb lines, sidewalks for all roadway improvements
- Typical sections of existing and proposed roadways
- Proposed structure locations including abutment, bent and rail locations
- Existing and proposed major utilities

- Existing property lines and respective property ownership information
- ROW requirements adequate for preparation of ROW maps
- Control-of-access limits
- Existing and projected traffic volumes
- Location and text of the proposed mainlane guide signs and the preliminary locations for changeable message signs
- Lane lines, shoulder lines, and direction of traffic flow arrows indicating the number of lanes on all roadways

The geometric schematic profile view shall contain the following design elements:

- Calculated profile grade and vertical curve data including "K" values for the mainlanes
- Existing ground line profiles
- Grade separations and overpasses

3. Traffic and Revenue Analysis

The Engineer shall prepare a Level 1 toll feasibility analysis of the Fort Bend Parkway 2-lane bridge crossing of the Brazos River. This analysis shall consist of traffic projections, construction costs, typical program costs (ROW, engineering, utilities, maintenance, etc.), and typical finance costs.

4. Environmental Document Determination

The Engineer shall determine the requirements for the preparation of a re-evaluation of the Grand Parkway Segment C Record of Decision based on the updated environmental constraints and schematic design revisions described in Task 1, Items 1 & 2 above. The Engineer shall coordinate the documentation requirements with representatives of the Texas Department of Transportation and the Grand Parkway Association.

The Engineer shall determine the environmental documentation requirements necessary for the Fort Bend Parkway. The Engineer shall coordinate the documentation requirements with the necessary regulatory agencies, particularly the United States Army Corps of Engineers.

The Engineer shall determine the permits necessary for construction of the Fort Bend Grand Outer Loop and report the permits and their requirements to the Fort Bend County Toll Road Authority.

TASK 2

1. Preliminary Drainage Analysis

For the Fort Bend Parkway portion of the project, the Engineer shall determine storm water discharges at all stream crossings and that required for project drainage, to include:

- Drainage area maps showing existing conditions and proposed improvements.
- Hydrologic data/discharge determination.
- Stage-discharge information.

For the Fort Bend Parkway portion of the project, the Engineer shall complete hydraulic computations and preliminary design in order to determine the general size and configuration of the following of major culverts, bridge waterways and channels.

For the Fort Bend Parkway portion of the project, the Engineer shall complete preliminary evaluation to a level that will allow the determination of general costs and determine right-of-way requirements for minor drainage structures and storm water management facilities.

For the Fort Bend Parkway portion of the project, the Engineer shall prepare documentation to fulfill Federal Emergency Management Agency (FEMA) floodway requirements, including any necessary backwater analysis, to show no affect on the floodway for the proposed crossing.

For the Fort Bend Parkway portion of the project, the Engineer shall prepare hydraulic report and submit to the Fort Bend County Toll Road Authority for approval.

For the Grand Parkway Segment C portion of the project, the Engineer shall validate the previous drainage impact analysis, including hydrology, methodology and hydraulic analysis. As needed, the Engineer shall update the previously prepared report to meet current criteria and standards.

For the entire project area, the Engineer shall identify the needed detention and floodplain fill mitigation volume requirements. The preliminary identification of sites suitable for detention and/or floodplain fill mitigation is not a part of this scope.

The Engineer shall perform the above drainage analysis, and furnish any media requested, using HEC-RAS, HEC-HMS, and EPASWMM or any other computer modeling programs deemed necessary as a result of the project requirements.

TASK 3

1. Right-of-Way Identification

Following the approval of schematic design changes from Task 1, Item 2 above, the Engineer shall identify all property owners impacted by the Fort Bend Grand Outer Loop. This ownership identification shall be made using available record data, particularly the Fort Bend County Appraisal District data. For each identified property owner the Engineer shall tabulate the overall tract size, the estimated acquisition area and the remainder area.

The Engineer shall identify any possible acquisition constraints such as landlocked remainders, unusable remainders, project access needs, project crossing needs, etc.

2. Right-of-Way Documentation

The Engineer shall update the previously prepared right-of-way acquisition documents for the 39 identified Grand Parkway Segment C parcels from US 59 to the proposed Reading Road interchange.

The Engineer shall create right-of-way acquisition documents for any additional parcels along Grand Parkway Segment C, from US 59 to the proposed Reading Road interchange that are identified based on the approved schematic design changes from Task 1, Item 2 above.

The Engineer shall perform the following tasks in updating and preparing right-of-way acquisition documents:

- Ownership Data - Perform abstracting work necessary to adequately define the right-of-way and easements.
- Right-of-Entry – Collect the necessary right-of-entry permission from the individual landowners as necessary for field surveys and ROW documentation.
- Right-of-Way Map - Determine right-of-way and easement requirements for roadway. Locate existing ROW monuments. Calculate and stake right-of-way and easements for use in acquiring necessary right-of-way and easements. Tie to topographic survey. Prepare the following for use in project design and acquiring the necessary right-of-way and easements:

- Right-of-Way Strip Maps
- Parcel Maps

- Parcel Descriptions - Prepare metes and bounds description of each parcel to be used in the conveyance instruments.

All right-of-way work and permanent benchmarks shall be tied to surface coordinates of the Texas Coordinate System, South Central Zone. State plane coordinates shall be multiplied by the NGS surface adjustment factor to obtain the surface coordinates.

TASK 4

1. Program Cost Estimates

The Engineer shall prepare program costs associated with the project development process and construction for the Fort Bend Grand Outer Loop. These program costs shall reflect the program phasing plan identified in Task1, Item 2. The program costs will include, but are not limited to:

- Environmental Approvals
- Utility Adjustments
- Engineering
- ROW Acquisition
- Construction

2. Program Schedule

The Engineer shall prepare a comprehensive program schedule for all major tasks associated with the project development process and construction for the Fort Bend Grand Outer Loop. This program schedule shall reflect the program phasing plan identified in Task 1, Item 2. The program schedule will include, but is not limited to:

- Environmental Approvals
- Utility Adjustments
- Engineering
- ROW Acquisition
- Construction

TASK 5

1. Project Management and Coordination

The Engineer shall direct and coordinate the various elements and activities associated with Tasks 1 through 4.

The Engineer shall provide ongoing quality assurance and quality control to ensure completeness of product.

The Engineer shall coordinate the efforts of the subconsultants providing support on the project.

The Engineer shall prepare monthly invoices, including progress reports, and perform the administrative tasks necessary for the project. The monthly invoices will be inclusive of any subconsultant activities.

FORT BEND GRAND OUTER LOOP
PHASE 2

TASK 1

1. Environmental Document Preparation

The Engineer shall prepare a re-evaluation of the Grand Parkway Segment C Final Environmental Impact Statement, in accordance with 23 CFR 771.129. This document must include the project history, addressing the specific changes that have occurred, potential environmental impacts and why (or why not) the Record of Decision (ROD) remains valid.

The format is contingent on whether changes have occurred to the project or to the environmental clearance requirements since the original approval. However, the re-evaluation document should include the following information and follow the TxDOT Standards of Uniformity for Written Re-evaluations:

- Synopsis of the project history, including environmental approvals and public involvement
- Construction history (if applicable)
- Status of right of way acquisition
- Design changes
- Evaluation of environmental impacts or land use changes
- Conclusion
- Location map
- Revised typical sections
- Revised schematic design

ATTACHMENT A-1

No additional services at this time.

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND OUTER LOOP

FEE SCHEDULE SUMMARY

PHASE 1

WORK TASK	DESCRIPTION	TOTAL
Brown & Gay Engineers, Inc.		
1	Environmental & Schematic Updates	$ 94,325.00
2	Preliminary Drainage Analysis	$ 10,460.00
3	Right-of-Way Maps	$ 144,110.00
4	Program Costs & Schedule	$ 24,000.00
5	Project Administration	$ 18,920.00
	Direct Expenses	$ 2,065.00
	Firm Sub-Total	**$ 293,880.00**
TSC Engineering		
3	Control and Field Surveys	$ 64,905.00
	Direct Expenses	$ 9,373.00
	Firm Sub-Total	**$ 74,278.00**
GC Engineering		
2	Preliminary Drainage Analysis	$ 162,200.00
	Direct Expenses	$ 1,300.00
	Firm Sub-Total	**$ 163,500.00**
TOTAL		$531,658.00

PHASE 2

WORK TASK	DESCRIPTION	TOTAL
Brown & Gay Engineers, Inc.		
1	Segment C ROD Re-Evaluation	$ 70,210.00
	Direct Expenses	$ 2,185.00
TOTAL		$72,395.00

ATTACHMENT B-1
2014 HOURLY RATE SCHEDULE
BROWN & GAY ENGINEERS, INC.

JOB CLASSIFICATION	Salary Rates (2014)	
	Minimum	Maximum
Project Manager	$ 180.00	$ 225.00
Senior Engineer	$ 160.00	$ 225.00
Project Engineer	$ 120.00	$ 190.00
Design Engineer	$ 100.00	$ 150.00
EIT	$ 75.00	$ 110.00
Senior Tech / Senior CADD	$ 80.00	$ 130.00
Tech / CADD	$ 50.00	$ 90.00
Chief Surveyor	$ 180.00	$ 225.00
RPLS	$ 120.00	$ 175.00
Survey Party Chief	$ 80.00	$ 120.00
Survey Technician	$ 80.00	$ 130.00
Abstractor	$ 70.00	$ 100.00
Senior Environmental Coordinator	$ 120.00	$ 190.00
Senior Scientist	$ 160.00	$ 225.00
Scientist	$ 80.00	$ 115.00
GIS Technician	$ 70.00	$ 100.00
Clerical	$ 40.00	$ 80.00

FIELD CREW HOURLY RATES

2-Man Survey Crew*	$ 130.00
3-Man Survey Crew*	$ 150.00
Survey Crew w/ GPS*	$ 180.00

* The hourly rate includes the imputed costs for survey equipment, vehicles, materials (stakes, flagging, iron rods, etc.) and for personnel

Expenses (mileage, delivery, reproduction, etc. will be reimbursed at actual costs

Note: Salary rates and field crew rates shown above are effective for first year of contract and are subject to annual 4% escalation.

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 30 days prior written notice of any 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 $1,000,000 each employee for Occupational Disease, $1,000,000 policy limit for Occupational Disease; and Employer's Liability of $1,000,000 each accident.

b. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, 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 $2,000,000 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."