

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered into by and between the Fort Bend Grand Parkway Toll Road Authority, a transportation corporation organized and operating under the laws of the State of Texas, hereinafter called the "FBGPTRA" and Aviles Engineering Corporation, hereinafter called "Engineer."

WITNESSETH

WHEREAS, the FBGPTRA 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;

WHEREAS, the FBGPTRA proposes to construct Toll Road grade separation structures from US 59 to north of the Fort Bend Westpark Tollway (FM 1093) in Fort Bend County, Texas, called the Fort Bend Grand Parkway Toll Road, Segment D (the "Project");

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 FBGPTRA 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 \$200,000.00. 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 shall be in accordance with the billing rates shown in Attachment B, with total compensation not to exceed \$200,000.00. 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 FBGPTRA.

Compensation for services described in Attachment A-1 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 FBGPTRA.

- 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 FBGPTRA, 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 FBGPTRA. 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 FBGPTRA, 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 FBGPTRA 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 FBGPTRA 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 FBGPTRA.) 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 FBGPTRA 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 FBGPTRA within thirty (30) calendar days after the FBGPTRA'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 February 1, 2014.

4. The FBGPTRA's Option to Terminate

- a. The FBGPTRA 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 FBGPTRA shall compensate the Engineer in accordance with paragraph 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to the FBGPTRA. The Engineer's final invoice for said services will be presented to and paid by the FBGPTRA in the same manner set forth in paragraph 3(b), 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 FBGPTRA 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 shall survive the termination of this Agreement.
- c. If the FBGPTRA 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 FBGPTRA'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 FBGPTRA by virtue of this Agreement or otherwise. Failure of the FBGPTRA 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 FBGPTRA 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 FBGPTRA, or any duly authorized agent of the FBGPTRA, to inspect and examine the books and records of the Engineer for the purpose of verifying the amount of work performed on the Project. FBGPTRA'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 FBGPTRA subject to all of the following terms and conditions; provided, however, FBGPTRA 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 FBGPTRA 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 FBGPTRA 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.

FBGPTRA 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 FBGPTRA 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 FBGPTRA all of Engineer 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 FBGPTRA that Engineer is permitted to use in connection with the services will not be used without FBGPTRA's consent and shall remain in the sole and exclusive properties of FBGPTRA 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 FBGPTRA, to perform the Scope of Services when and as required and without delays. It is understood that the FBGPTRA 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 FBGPTRA'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 FBGPTRA, is incompetent or by his conduct

becomes detrimental to the Project shall, upon request of the FBGPTRA, 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 FBGPTRA

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 FBGPTRA. Responsibility to the FBGPTRA for sublet work shall remain with the Engineer.

10. Conference

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

11. Appearance as Witness

If requested by the FBGPTRA, 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 FBGPTRA'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 FBGPTRA 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 of the FBGPTRA relating to the property or facilities with respect to which this Agreement pertains, Engineer and the FBGPTRA agree as follows:

- a. **ENGINEER WILL INDEMNIFY AND HOLD HARMLESS THE FBGPTRA, 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 FBGPTRA OR STRICT LIABILITY IMPOSED UPON THE FBGPTRA AS A MATTER OF LAW (INCLUDING STRICT LIABILITY IMPOSED UPON THE FBGPTRA 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 FBGPTRA 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. Termination, if a dispute arises out of, or relates to, the breach thereof, and if the dispute cannot be settled through negotiation, then the FBGPTRA and the Engineer agree to submit the dispute to mediation. In the event the FBGPTRA 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 FBGPTRA 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 FBGPTRA under this Agreement shall be delivered to the Fort Bend Grand Parkway 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 Aviles Engineering Corporation, 5790 Windfern Road, Houston, Texas 77041, Attention: Ronald E. Ortwerth, P.E, or such other place or places as the Engineer may designate by written notice delivered to the FBGPTRA.

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 FBGPTRA, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the FBGPTRA 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 FBGPTRA's Acts

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

19. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the FBGPTRA under this Agreement shall be deemed to be valid covenants and obligations only to extent authorized by the Act creating the FBGPTRA 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 FBGPTRA 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 FBGPTRA 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.

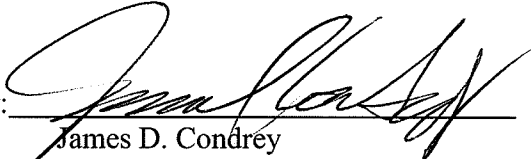
23. Appendices

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 15th day of August, 2012.

FORT BEND GRAND PARKWAY TOLL ROAD
AUTHORITY, a local government Texas
corporation

By: 
James D. Condrey
Chairman, Board of Directors

ATTEST: 
By _____
Secretary, Board of Directors

Aviles Engineering Corporation
ENGINEER

By: 
Name: Ronald E. Ortwerth, PE
Title: Senior Vice President

**ATTACHMENT A
SCOPE OF SERVICES**

**FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) – SEGMENT D
CONSTRUCTION MATERIALS TESTING AND INSPECTION SERVICES**

GENERAL DESCRIPTION

The proposed project consists of the construction of overpass bridge structures and approaches on the Fort Bend Grand Parkway Toll Road (SH 99) from West Riverpark Boulevard to FM 1093 / Fort Bend Westpark Tollway. The construction work includes embankment, stabilized subgrade, base, asphalt, concrete pavement, concrete structures, foundations, etc. All work is to Texas Department of Transportation (TxDOT) specifications.

SCOPE OF SERVICES

Scope of services covered in this proposal will consist of all required materials testing and inspection to ensure the work meets TxDOT specifications. The following services will be provided:

- Moisture/density relationship of soils / stabilized soils
- Compaction testing of subgrade soils, compaction testing of fill / backfill
- Compressive strength testing of concrete test cylinders
- Compressive strength of cement stabilized sand

Working hours for testing and inspection staff will not be limited to 7 a.m. to 5 p.m. on weekdays, and may include night and weekend work.

Additional or unforeseen testing services may be required, and will be paid for as shown in Attachment B-1.

**ATTACHMENT A-1
ADDITIONAL SERVICES**

Fort Bend Grand Parkway Toll Road – Segment D

There are no additional services included in the initial scope of work, and no additional services are to be performed without approval of FBGPTRA. Additional services, if and when required, will be at additional expense, authorized in writing, and performed at the rates described in Attachment B-1 Compensation for Additional Services.

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Labor Rates and Vehicle Rates

| Code | Description | Unit | Fee |
|-------------|--|-------------|------------|
| 10100 | Principal, P.E. | Hr. | \$ 167.00 |
| 10200 | Senior Engineer, P.E. (10 Years Experience) | Hr. | \$ 123.00 |
| 10300 | Project Engineer, P.E. or Project Geologist, P.G. | Hr. | \$ 96.00 |
| 10400 | Graduate Engineer, Project Manager or Graduate Geologist | Hr. | \$ 76.00 |
| 10500 | Technician, NICET IV | Hr. | \$ 62.00 |
| 10600 | Technician, NICET III, HMA-II | Hr. | \$ 56.00 |
| 10700 | Senior Engineering Technician or NICET II or HMA-1A | Hr. | \$ 50.00 |
| 10800 | Engineering Technician or ACI Field Grade I | Hr. | \$ 44.00 |
| 10850 | Non-Certified Technician | Hr. | \$ 37.00 |
| 10900 | Senior Welding Inspector, SCWI | Hr. | \$ 100.00 |
| 11000 | Welding Inspector, CWI, ACCP II | Hr. | \$ 78.00 |
| 11100 | Assistant Welding Inspector | Hr. | \$ 56.00 |
| 11200 | Inspector, ASNT III | Hr. | \$ 96.00 |
| 11300 | NDT Inspector NDT II w/ Asst (2 Man Crew) | Hr. | \$ 101.00 |
| 11400 | Support Personnel (CAD & Word Processing) | Hr. | \$ 60.00 |
| 11500 | Inspector, Rebar, Masonry and SFRM | Hr. | \$ 76.00 |
| 15000 | Vehicle Charge | Hr. | \$ 8.00 |

Aggregate Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---|-------------------|-------------|------------|
| 20100 | Sieve Analysis - Coarse Aggregate | C 136 | Ea | \$46.00 |
| 20200 | Sieve Analysis - Fine Aggregate | C 136 | Ea | \$46.00 |
| 20250 | Moisture Content - Concrete Aggregates | C70 or C 566 | Ea | \$15.00 |
| 20300 | Relative Density & Abs. - Coarse Aggregate | C 127 | Ea | \$70.00 |
| 20400 | Relative Density & Abs. - Fine Aggregate | C 128 | Ea | \$85.00 |
| 20500 | Bulk Density & Voids in Aggregate | C 29 | Ea | \$33.00 |
| 20600 | Absorption - Coarse Aggregates | C 127 | Ea | \$39.00 |
| 20700 | Absorption - Fine Aggregates. | C 128 | Ea | \$39.00 |
| 20800 | Finer than 75-um (No. 200) Sieve | C 117 | Ea | \$42.00 |
| 20900 | Organic Impurities in Fine Aggregates | C 40 | Ea | \$41.00 |
| 21000 | L.A. Abrasion | C 131 or C 535 | Ea | \$179.00 |
| 21100 | Clay Lumps and Friable Particles | C 142 | Ea | \$47.00 |
| 21200 | Lightweight Particles | C 123 | Ea | \$55.00 |
| 21300 | Sand Equivalent | D 2419 | Ea | \$56.00 |
| 21400 | Na/Mg Sulfate Soundness (5 cycles) | C 88 | Ea | \$304.00 |
| 21500 | Na/Mg Sulfate Soundness (Additional cycles) | C 88 | Ea | \$175.00 |

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Portland Cement Concrete

| Code | Description | Standard | Unit | Fee |
|-------------|---|------------------|-------------|------------|
| 30100 | Compressive Strength (Cylinder) | C 39 | Ea | \$15.00 |
| 30200 | Flexural Strength (Beam) | C 78 or C 293 | Ea | \$23.00 |
| 30300 | Split Tensile Strength, (Including Preparation) | C 496 | Ea | \$94.00 |
| 30400 | Time of Set by Penetration | C 403 | Ea | \$275.00 |
| 30500 | Linear Shrinkage & Thermal Coefficient (Bar) | C 531 | Set 3 | \$282.00 |
| 30600 | Length Change of Hydraulic-Cement Mortar and Concrete | C 490 & C 157 | Set 3 | \$100.00 |
| 30700 | Density of Structural Lightweight. Concrete | C 567 | Ea | \$70.00 |
| 30800 | Concrete Coring, Minimum Charge | C 42 | Min. | \$290.00 |
| 30900 | Concrete Coring (4" diameter to 6" Thickness) | C 42 | Ea | \$90.00 |
| 31000 | Concrete Coring, additional thickness (6" to 12") | C 42 | In. | \$8.00 |
| 31100 | Concrete Coring, additional thickness (Over 12") | C 42 | In. | \$10.00 |
| 31200 | Preparation of Core, Cap & Test | C 42 | Ea | \$67.00 |
| 31300 | Measuring Length of Core | C 174 | Ea | \$11.00 |
| 31400 | Pachometer Survey (Magnetic Induction) | None | Day | \$78.00 |
| 31500 | Probe Penetration Test Equipment (plus probes) | C 803 | Day | \$79.00 |
| 31600 | Concrete Mix Design Review | ACI 318 | Ea | \$200.00 |

Hot Mix Asphaltic Concrete Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------------|-------------|------------|
| 40100 | Mix Design Review | | Ea | \$200.00 |
| 40200 | HMAC Design (In-Place) | | Ea | \$1,870.00 |
| 40300 | Trail Batch (up to 5 points) | | Ea | \$1,403.00 |
| 40400 | Additional Points | | Ea | \$202.00 |
| 40500 | Extraction/Gradation | Tex-210-F | Ea | \$174.00 |
| 40600 | Specific Gravity | D 2041 & Tex-201-F | Ea | \$62.00 |
| 40700 | HVEEM Stability | Tex-208-F | Set | \$82.00 |
| 40800 | Bulk Density - Lab Molded or Core | Tex-207-F | Set | \$46.00 |
| 40900 | Bulk Density Core | Tex-207-F | Ea | \$41.00 |
| 41000 | Molding Specimens | Tex -206-F | Set | \$54.00 |
| 41100 | Maximum Theoretical Specific Gravity | Tex-227-F | Ea | \$78.00 |
| 41200 | Apparent Specific Gravity | Tex-202-F | Ea | \$58.00 |
| 41300 | Abson Recovery | Tex-211-F | Ea | \$281.00 |
| 41400 | Moisture Susceptibility | Tex-531-C | Ea | \$409.00 |
| 41500 | Penetration | D 5 | Ea | \$74.00 |
| 41600 | Ductility | D 113 | Ea | \$99.00 |
| 41700 | Viscosity | D 2170 | Ea | \$82.00 |
| 41800 | Asphalt Coring, Minimum Charge | | Min. | \$290.00 |
| 41900 | Asphalt Coring (4" Diameter to 6" Thickness) | | Ea | \$80.00 |
| 42000 | Asphalt Coring (4" Dia. Additional Inches Over 6" Thickness) | | In. | \$7.00 |
| 42100 | Asphalt Core Measurement | | Ea | \$8.00 |
| 42200 | Measuring Thickness of Asphalt | | Ea | \$8.00 |

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Hot Mix Asphaltic Concrete Testing, continued

| Code | Description | Standard | Unit | Fee |
|-------------|--------------------------|-----------------|-------------|------------|
| 42300 | PMA Extraction/Gradation | D 2172 | Ea | \$234.00 |
| 42400 | Extraction/Gradation | D 6307 | Ea | \$145.00 |
| 42500 | Asphalt Content | D 4125 | Ea | \$70.00 |

Structural Steel and Welding Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|--------------------------------------|-------------|------------|
| 50100 | Radiographic Source, Iridium | | Day | \$106.00 |
| 50200 | Radiographic Source, Cobalt 60 | | Day | \$122.00 |
| 50300 | Ultrasonic equipment | E 114, E 273, E 587 & E 797 | Day | \$78.00 |
| 50350 | Ultrasonic couplant | | Pint | \$20.00 |
| 50400 | Magnetic Particle Inspection Equipment | E 709 | Day | \$29.00 |
| 50500 | Skidmore-Wilhelm Tension Indicator | | Day | \$117.00 |
| 50600 | Torque Wrench | | Day | \$35.00 |
| 50700 | Discontinuity (Holiday) Equipment | | Day | \$82.00 |
| 50800 | Dry Film Thickness Equipment (Tooke Gauge) | D 4138 | Day | \$29.00 |
| 50900 | Dry Film Thickness Equipment (Magnetic) | D 7091 | Day | \$29.00 |

Masonry Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------|-------------|------------|
| 60100 | Compressive Strength, Mortar Cubes | C 109 | Set 6 | \$120.00 |
| 60200 | Compressive Strength, Mortar Cubes | C 109 | Ea | \$20.00 |
| 60300 | Compressive Strength, Mortar or Grout Cyl. | C 780 / C 39 | Ea | \$20.00 |
| 60400 | Compressive Strength, Grout Prisms | C 1019 | Set 3 | \$120.00 |
| 60500 | Measurement, Brick | C 67 | Ea | \$47.00 |
| 60600 | Compressive Strength Test, Brick | C 67 | Ea | \$28.00 |
| 60700 | Flexural Strength Test, Brick | C 67 | Ea | \$37.00 |
| 60800 | Absorption of Brick, 24 hr | C 67 | Ea | \$62.00 |
| 60900 | Absorption of Brick, 5 hr | C 67 | Ea | \$61.00 |
| 61000 | Measurement, CMU | C 140 | Ea | \$25.00 |
| 61100 | Weight, CMU | C 140 | Ea | \$70.00 |
| 61200 | Moisture Content, CMU | C 140 | Ea | \$70.00 |
| 61300 | Compressive Strength, CMU | C 140 | Ea | \$75.00 |
| 61400 | Compressive Strength, CMU Hollow Prism | C 1314 | Ea | \$117.00 |
| 61500 | Compressive Strength, CMU Filled Prism | C 1314 | Ea | \$150.00 |

Fireproofing Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---------------------------|-----------------|-------------|------------|
| 70100 | Density of SFRM | E 605 | Ea | \$33.00 |
| 70200 | Cohesion/Adhesion of SFRM | E 736 | Ea | \$25.00 |

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Roofing Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---|-----------------|-------------|------------|
| 80100 | Cut Out Roofing Sample Evaluation | D 2928 | Ea | \$303.00 |
| 80200 | Moisture in Mineral Aggregate for BUR | D 1864 | Ea | \$51.00 |
| 80300 | Analysis of New Built-Up Roof Membranes | D 3617 | Ea | \$279.00 |
| 80400 | Compressive Strength of Lightweight Insulation Concrete | C 495 | Set of 4 | \$98.00 |
| 80500 | Compressive Strength of Lightweight Insulation Concrete | C 495 | Ea | \$26.00 |
| 80600 | Unit Weight of Lightweight Insulation Concrete | C 495 | Set of 2 | \$44.00 |

Soils Testing

| Code | Description | Standard | Unit | Fee |
|------------------------------|--|----------------------|-------------|------------|
| 90100 | Liquid & Plastic Limits | D 4318 | Ea | \$53.00 |
| 90200 | Moisture Content of Soil by Mass | D 2216 | Ea | \$8.00 |
| 90300 | Moisture Content by Microwave | D 4643 | Ea | \$26.00 |
| 90400 | Sieve Analysis | D 422 | Ea | \$49.00 |
| 90500 | Sieve Analysis w/ Hydrometer | D 422 | Ea | \$175.00 |
| 90600 | Percent Passing No. 200 Sieve | D 1140 | Ea | \$41.00 |
| 90700 | Sieve Analysis on +No. 200 Material from -No. 200 Sieve Test | C 136 | Ea | \$31.00 |
| 90800 | Specific Gravity | D 854 | Ea | \$51.00 |
| 90900 | pH of Soils | D 4972 | Ea | \$15.00 |
| 91000 | Unconfined Compressive Strength | D 2166 | Ea | \$39.00 |
| 91100 | Unconsolidated-undrained Triaxial Compression | D 2850 | Ea | \$54.00 |
| 91200 | Permeability - Constant Head | D 2434 | Ea | \$200.00 |
| 91300 | One-Dimensional Consolidation | D 2435 | Ea | \$310.00 |
| 91400 | Consolidation, Additional Increment | D 2435 | Ea | \$44.00 |
| 91500 | Dispersive Characteristics by Pinhole Test | D 4647 | Ea | \$246.00 |
| 91600 | Dispersive Characteristics by Crumb Test | D 6572 | Ea | \$33.00 |
| 91700 | Double Hydrometer | D 4221 | Ea | \$152.00 |
| 91800 | Soil Suction - Filter Paper | | Ea | \$49.00 |
| 91900 | Additional increment | | Ea | \$45.00 |
| 92000 | California Bearing Ratio | D 1883 | Ea | \$185.00 |
| 92100 | Soil Shrinkage Factors by Mercury Method | D 427 | Ea | \$54.00 |
| 92200 | Soil Shrinkage Factors by Wax Method | D 4943 | Ea | \$65.00 |
| 92300 | One-Dimensional Swell, Cohesive Soil | D 4546 | Ea | \$251.00 |
| 92400 | OMD Standard Compaction, Method A or B | D 698 | Ea | \$175.00 |
| 92450 | OMD Standard Compaction, Method C | D 698 | Ea | \$195.00 |
| 92500 | OMD Modified Compaction, Method A or B | D 1557 | Ea | \$187.00 |
| 92550 | OMD Modified Compaction, Method C | D 1557/ Tex-113-E | Ea | \$207.00 |
| 92600 | Max. & Min. Density-Sand | D 4253 / D 4254 | Ea | \$182.00 |
| 92700 | Percent Solids in Lime Slurry | | Ea | \$37.00 |
| 92800 | Optimum Lime Content - pH Method | D 6276 | Ea | \$202.00 |
| 92900 | Optimum Lime Content - PI Method | | Ea | \$208.00 |
| <i>Treated Soils Testing</i> | | | | |
| 94100 | Cement Sand Compressive Strength. | D 1633 | Ea | \$61.00 |
| 94200 | Cement Content of Soil-Cement | D 806 | Ea | \$269.00 |
| 94300 | Sieve Analysis - Base Material | C 136 | Ea | \$82.00 |

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Soils Testing, continued

| Code | Description | Standard | Unit | Fee |
|---|---|-----------------|-------------|------------|
| <i>Treated Soils Testing, continued</i> | | | | |
| 94400 | Compressive Strength, Treated Base | Tex-120-E | Ea | \$222.00 |
| 94500 | OMD Standard Compaction, Treated | D 698 | Ea | \$193.00 |
| 94600 | OMD Standard Compaction, Treated | D 1557 | Ea | \$205.00 |
| 94700 | Percent Solids in Lime Slurry using Mud Balance (Field) | | Ea | \$25.00 |
| 94800 | Field Sieve Analysis on Final Mixed Soils | Tex-101-E | Ea | \$10.00 |
| 95100 | Nuclear Density Gauge | D 6938 | Hr. | \$9.00 |

Slip-Lining, Gunite, Shotcrete and Manhole Repair Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------|-------------|------------|
| 100100 | Coring/Drilling of Manhole Grout | | Hole | \$52.00 |
| 100200 | Coring and Strength of Gunite or Shotcrete Panel | | Core | \$105.00 |
| 100300 | Flexural Strength/Modulus of Elasticity of Liner | D 790 | Coupon | \$295.00 |

Geotechnical Drilling and Sampling

| Code | Description | Unit | Fee |
|-------------|---|-------------|------------|
| 111010 | Soil Boring, Intermittent 3-in. Dia. (0 to 50') | Ft | \$16.00 |
| 111020 | Soil Borings, Intermittent 3-in. Dia. (51' to 100') | Ft | \$18.00 |
| 111030 | Soil Boring, Continuous 3-in. (0 to 20') | Ft | \$18.00 |
| 111040 | Soil Boring over 100' (Surcharge) | Ft | \$6.00 |
| 111050 | Wash Boring | Ft | \$8.00 |
| 111060 | Auger Boring | Ft | \$9.00 |
| 111070 | Undisturbed/Split-Spoon in Wash/Auger Borings | Ea | \$34.00 |
| 111080 | Grouting of Completed Boring | Ft | \$5.00 |
| 111090 | A.T.V. Surcharge | Ft | \$6.00 |
| 111100 | Minimum Charge (to be used if charges are less than \$718.00) | LS | \$672.00 |
| 111110 | Mobilization/Demobilization | LS | \$300.00 |
| 111120 | TDH Cone Penetration Test | Ea | \$23.00 |
| 111130 | ATV Mobilization Surcharge | LS | \$117.00 |
| 111140 | Portable Rig Drilling (Crew of two) | Hr | \$152.00 |
| 111150 | Standby (Crew of Two) | Hr | \$146.00 |

Other Services and Testing

| Code | Description | Unit | Fee |
|-------------|--------------------------------------|-------------|------------|
| 112010 | Reimbursable Expenses | Cost + 10% | |
| 113010 | Other Services Provided by Quotation | | |

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES

1. General

Engineering services provided by Aviles Engineering Corporation (AEC) other than report review will be invoiced at applicable rates when requested by the Client Representative for consultation, submittal review and meetings or site visits.

2. Engineering Services

2.1. Engineering services will be performed by a professional engineer licensed in the State of Texas.

2.2. All reports relating to field sampling and inspections and field and laboratory testing services performed by AEC will be reviewed and signed by a licensed engineer. AEC will invoice report review at the Project Engineer rate at a minimum of 0.2 hour of engineering review time for each report issued.

3. Field Services

3.1. "Sampling" is defined as the process of procuring materials for subsequent testing or examination and will be performed by a qualified or certified field representative with knowledge of appropriate sampling procedures.

3.2. "Specimen pickup" is defined as the process of retrieving "specimens," usually pre-fabricated in the field such as cylinders, beams, or cubes, and transporting those specimens to the laboratory for subsequent testing or examination. "Specimen pickup" shall be performed, whenever possible, as a part of a scheduled field trip or by the full time field representative assigned to the Project.

3.3. Services will be charged on a portal-to-portal basis including reasonable roundtrip travel between AEC's office and the Project.

3.4. Field sieve analysis and lime slurry percent solids determination performed in the field will be invoiced plus technician time and vehicle charges.

3.5. The rates for coring of Portland cement concrete or asphaltic concrete are inclusive of the field representative's time, all equipment, and patching of the core hole with a conventional concrete mixture for concrete or cold-patching asphaltic materials for asphaltic concrete. The rates for coring do not include a Vehicle Charge. Patching with specialty materials (such as non-shrink repair grout) must be approved in advance by the Client and any approved specialty patching materials will be reimbursed at cost plus 10%.

3.6. A minimum of 30-minute unpaid lunch will be taken by the field representative for work over eight (8) hours unless otherwise approved in writing by the Client Representative.

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES, continued

4. Laboratory Services

4.1. Sample preparation is included in the fee for all laboratory testing services, unless noted in these "General Notes." Time for performing laboratory services requiring testing on weekends, holidays or on overtime will be invoiced at Senior Engineering Technician Rates.

5. Reporting

5.1. Field Reports

A copy of each report prepared in the field by AEC can be provided to the Client Representative upon request by fax, email or by copying in the field if copier is available for use.

5.2. Final Reports

All final reports of field sampling and inspections and field and laboratory testing services submitted to the Client will contain the following:

- Project name, Company Report Number, & Client Job No.
- Field representative name & classification
- Date and time of departure from AEC's office, if applicable
- Time of arrival at Project, if applicable
- Time of departure from Project, if applicable
- Time of arrival at AEC's office, if applicable
- Services performed
- Field and/or laboratory data, observations, or findings
- Appropriate Specification and/or Test Method
- Signature of licensed Professional Engineer

6. Invoicing

6.1. Field Services

6.1.1. Fees for field representatives performing sampling of materials, testing, inspections, and geotechnical logging shall be as outlined in the Fee Schedule. The fees are inclusive of all tools, equipment, supplies and manpower to perform the specific services, unless noted in these "General Notes."

6.1.2. If specimen pickup is performed as a part of a scheduled field trip or by the full time field representative assigned to the Project, specimen pickup shall be charged at the appropriate field representative rate as outlined in the attached Fee Schedule.

6.1.3. If specimen pickup is **not** performed as a part of a scheduled field trip or by the full time field representative assigned to the Project, the specimen pickup will be charged at the Engineering Technician rate. If a separate trip for the specimen pickup is required, only the actual personnel time with a minimum charge of two (2) hours, plus the minimum Vehicle Charge will be invoiced.

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES, continued

6. Invoicing, continued

6.1. Field Services, continued

6.1.4. Actual time shall be charged for hourly equipment rental as outlined in the attached Fee Schedule. A minimum charge of four (4) hours will apply for all field equipment including the Nuclear Density Gauge.

6.1.5. All hourly services invoiced will be accompanied by a signed time sheet or daily report, including the name and classification of the individual. Hourly services will be invoiced to the nearest ¼ hour or less.

6.1.6. A minimum charge of four (4) hours for Company representative, vehicle, and equipment (where charged on an hourly rate) shall apply to each visit to the Project site or to an authorized off-site location for sampling, observation, inspection, or testing as outlined in the Fee Schedule.

6.1.7. Geotechnical logging will be performed by a qualified logger or field representative certified as a NICET Level II in soils or a qualified graduate engineer or geologist. Logging services shall be invoiced in addition to geotechnical drilling and sampling services at the loggers applicable hourly rate plus vehicle charge.

6.2. Laboratory Services

The fees stated for laboratory tests are all inclusive. No other charges will be levied for personnel services and/or materials related to such testing, except for stabilized soils mixed in the laboratory, or as otherwise specifically noted in these "General Notes."

6.3. Overtime

6.3.1. Overtime will not be allowed for any engineering services.

6.3.2. Overtime for field services is applicable for any hours work before 6:00 a.m. or after 6:00 p.m., Monday through Friday, and any hours worked on Saturday, Sunday or a FBGPTRA Holiday or over 8 hours per day. Overtime will be invoiced at 1.5 times the hourly rate.

6.4. Reimbursable Expenses

6.4.1. Authorized services performed by qualified sub-contractors or consultants will be reimbursed and shall be invoiced at cost plus 10%.

6.4.2. Any badging, drug screening or safety courses required to perform these services will be invoiced at the applicable personnel rates and cost for these items will be invoiced at cost plus 10%.

6.4.3. Incidentals such as photographs, reproduction material other than distribution of daily field and laboratory reports, delivery, etc. shall be invoiced at cost + 10%.

6.4.4. Should the use of traffic control be necessary during coring/boring operations, a certified Peace Officer, a subcontractor, or in-house personnel may be engaged to provide traffic control. A certified Peace Officer or subcontractor will be invoiced at cost plus 10%. In-house certified traffic control personnel will be invoiced at NICET Level II Rates otherwise the non-certified technical rate will apply.

**ATTACHMENT B-1
 COMPENSATION FOR ADDITIONAL SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Labor Rates and Vehicle Rates

| Code | Description | Unit | Fee |
|-------------|--|-------------|------------|
| 10100 | Principal, P.E. | Hr. | \$ 167.00 |
| 10200 | Senior Engineer, P.E. (10 Years Experience) | Hr. | \$ 123.00 |
| 10300 | Project Engineer, P.E. or Project Geologist, P.G. | Hr. | \$ 96.00 |
| 10400 | Graduate Engineer, Project Manager or Graduate Geologist | Hr. | \$ 76.00 |
| 10500 | Technician, NICET IV | Hr. | \$ 62.00 |
| 10600 | Technician, NICET III, HMA-II | Hr. | \$ 56.00 |
| 10700 | Senior Engineering Technician or NICET II or HMA-1A | Hr. | \$ 50.00 |
| 10800 | Engineering Technician or ACI Field Grade I | Hr. | \$ 44.00 |
| 10850 | Non-Certified Technician | Hr. | \$ 37.00 |
| 10900 | Senior Welding Inspector, SCWI | Hr. | \$ 100.00 |
| 11000 | Welding Inspector, CWI, ACCP II | Hr. | \$ 78.00 |
| 11100 | Assistant Welding Inspector | Hr. | \$ 56.00 |
| 11200 | Inspector, ASNT III | Hr. | \$ 96.00 |
| 11300 | NDT Inspector NDT II w/ Asst (2 Man Crew) | Hr. | \$ 101.00 |
| 11400 | Support Personnel (CAD & Word Processing) | Hr. | \$ 60.00 |
| 11500 | Inspector, Rebar, Masonry and SFRM | Hr. | \$ 76.00 |
| 15000 | Vehicle Charge | Hr. | \$ 8.00 |

Aggregate Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---|-------------------|-------------|------------|
| 20100 | Sieve Analysis - Coarse Aggregate | C 136 | Ea | \$46.00 |
| 20200 | Sieve Analysis - Fine Aggregate | C 136 | Ea | \$46.00 |
| 20250 | Moisture Content - Concrete Aggregates | C70 or C 566 | Ea | \$15.00 |
| 20300 | Relative Density & Abs. - Coarse Aggregate | C 127 | Ea | \$70.00 |
| 20400 | Relative Density & Abs. - Fine Aggregate | C 128 | Ea | \$85.00 |
| 20500 | Bulk Density & Voids in Aggregate | C 29 | Ea | \$33.00 |
| 20600 | Absorption - Coarse Aggregates | C 127 | Ea | \$39.00 |
| 20700 | Absorption - Fine Aggregates. | C 128 | Ea | \$39.00 |
| 20800 | Finer than 75-um (No. 200) Sieve | C 117 | Ea | \$42.00 |
| 20900 | Organic Impurities in Fine Aggregates | C 40 | Ea | \$41.00 |
| 21000 | L.A. Abrasion | C 131 or C 535 | Ea | \$179.00 |
| 21100 | Clay Lumps and Friable Particles | C 142 | Ea | \$47.00 |
| 21200 | Lightweight Particles | C 123 | Ea | \$55.00 |
| 21300 | Sand Equivalent | D 2419 | Ea | \$56.00 |
| 21400 | Na/Mg Sulfate Soundness (5 cycles) | C 88 | Ea | \$304.00 |
| 21500 | Na/Mg Sulfate Soundness (Additional cycles) | C 88 | Ea | \$175.00 |

**ATTACHMENT B-1
COMPENSATION FOR ADDITIONAL SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Portland Cement Concrete

| Code | Description | Standard | Unit | Fee |
|-------------|---|------------------|-------------|------------|
| 30100 | Compressive Strength (Cylinder) | C 39 | Ea | \$15.00 |
| 30200 | Flexural Strength (Beam) | C 78 or C 293 | Ea | \$23.00 |
| 30300 | Split Tensile Strength, (Including Preparation) | C 496 | Ea | \$94.00 |
| 30400 | Time of Set by Penetration | C 403 | Ea | \$275.00 |
| 30500 | Linear Shrinkage & Thermal Coefficient (Bar) | C 531 | Set 3 | \$282.00 |
| 30600 | Length Change of Hydraulic-Cement Mortar and Concrete | C 490 & C 157 | Set 3 | \$100.00 |
| 30700 | Density of Structural Lightweight. Concrete | C 567 | Ea | \$70.00 |
| 30800 | Concrete Coring, Minimum Charge | C 42 | Min. | \$290.00 |
| 30900 | Concrete Coring (4" diameter to 6" Thickness) | C 42 | Ea | \$90.00 |
| 31000 | Concrete Coring, additional thickness (6" to 12") | C 42 | In. | \$8.00 |
| 31100 | Concrete Coring, additional thickness (Over 12") | C 42 | In. | \$10.00 |
| 31200 | Preparation of Core, Cap & Test | C 42 | Ea | \$67.00 |
| 31300 | Measuring Length of Core | C 174 | Ea | \$11.00 |
| 31400 | Pachometer Survey (Magnetic Induction) | None | Day | \$78.00 |
| 31500 | Probe Penetration Test Equipment (plus probes) | C 803 | Day | \$79.00 |
| 31600 | Concrete Mix Design Review | ACI 318 | Ea | \$200.00 |

Hot Mix Asphaltic Concrete Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------------|-------------|------------|
| 40100 | Mix Design Review | | Ea | \$200.00 |
| 40200 | HMAC Design (In-Place) | | Ea | \$1,870.00 |
| 40300 | Trail Batch (up to 5 points) | | Ea | \$1,403.00 |
| 40400 | Additional Points | | Ea | \$202.00 |
| 40500 | Extraction/Gradation | Tex-210-F | Ea | \$174.00 |
| 40600 | Specific Gravity | D 2041 & Tex-201-F | Ea | \$62.00 |
| 40700 | HVEEM Stability | Tex-208-F | Set | \$82.00 |
| 40800 | Bulk Density - Lab Molded or Core | Tex-207-F | Set | \$46.00 |
| 40900 | Bulk Density Core | Tex-207-F | Ea | \$41.00 |
| 41000 | Molding Specimens | Tex -206-F | Set | \$54.00 |
| 41100 | Maximum Theoretical Specific Gravity | Tex-227-F | Ea | \$78.00 |
| 41200 | Apparent Specific Gravity | Tex-202-F | Ea | \$58.00 |
| 41300 | Abson Recovery | Tex-211-F | Ea | \$281.00 |
| 41400 | Moisture Susceptibility | Tex-531-C | Ea | \$409.00 |
| 41500 | Penetration | D 5 | Ea | \$74.00 |
| 41600 | Ductility | D 113 | Ea | \$99.00 |
| 41700 | Viscosity | D 2170 | Ea | \$82.00 |
| 41800 | Asphalt Coring, Minimum Charge | | Min. | \$290.00 |
| 41900 | Asphalt Coring (4" Diameter to 6" Thickness) | | Ea | \$80.00 |
| 42000 | Asphalt Coring (4" Dia. Additional Inches Over 6" Thickness) | | In. | \$7.00 |
| 42100 | Asphalt Core Measurement | | Ea | \$8.00 |
| 42200 | Measuring Thickness of Asphalt | | Ea | \$8.00 |

**ATTACHMENT B-1
 COMPENSATION FOR ADDITIONAL SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Hot Mix Asphaltic Concrete Testing, continued

| Code | Description | Standard | Unit | Fee |
|-------------|--------------------------|-----------------|-------------|------------|
| 42300 | PMA Extraction/Gradation | D 2172 | Ea | \$234.00 |
| 42400 | Extraction/Gradation | D 6307 | Ea | \$145.00 |
| 42500 | Asphalt Content | D 4125 | Ea | \$70.00 |

Structural Steel and Welding Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|--------------------------------------|-------------|------------|
| 50100 | Radiographic Source, Iridium | | Day | \$106.00 |
| 50200 | Radiographic Source, Cobalt 60 | | Day | \$122.00 |
| 50300 | Ultrasonic equipment | E 114, E 273, E 587 & E 797 | Day | \$78.00 |
| 50350 | Ultrasonic couplant | | Pint | \$20.00 |
| 50400 | Magnetic Particle Inspection Equipment | E 709 | Day | \$29.00 |
| 50500 | Skidmore-Wilhelm Tension Indicator | | Day | \$117.00 |
| 50600 | Torque Wrench | | Day | \$35.00 |
| 50700 | Discontinuity (Holiday) Equipment | | Day | \$82.00 |
| 50800 | Dry Film Thickness Equipment (Tooke Gauge) | D 4138 | Day | \$29.00 |
| 50900 | Dry Film Thickness Equipment (Magnetic) | D 7091 | Day | \$29.00 |

Masonry Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------|-------------|------------|
| 60100 | Compressive Strength, Mortar Cubes | C 109 | Set 6 | \$120.00 |
| 60200 | Compressive Strength, Mortar Cubes | C 109 | Ea | \$20.00 |
| 60300 | Compressive Strength, Mortar or Grout Cyl. | C 780 / C 39 | Ea | \$20.00 |
| 60400 | Compressive Strength, Grout Prisms | C 1019 | Set 3 | \$120.00 |
| 60500 | Measurement, Brick | C 67 | Ea | \$47.00 |
| 60600 | Compressive Strength Test, Brick | C 67 | Ea | \$28.00 |
| 60700 | Flexural Strength Test, Brick | C 67 | Ea | \$37.00 |
| 60800 | Absorption of Brick, 24 hr | C 67 | Ea | \$62.00 |
| 60900 | Absorption of Brick, 5 hr | C 67 | Ea | \$61.00 |
| 61000 | Measurement, CMU | C 140 | Ea | \$25.00 |
| 61100 | Weight, CMU | C 140 | Ea | \$70.00 |
| 61200 | Moisture Content, CMU | C 140 | Ea | \$70.00 |
| 61300 | Compressive Strength, CMU | C 140 | Ea | \$75.00 |
| 61400 | Compressive Strength, CMU Hollow Prism | C 1314 | Ea | \$117.00 |
| 61500 | Compressive Strength, CMU Filled Prism | C 1314 | Ea | \$150.00 |

Fireproofing Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---------------------------|-----------------|-------------|------------|
| 70100 | Density of SFRM | E 605 | Ea | \$33.00 |
| 70200 | Cohesion/Adhesion of SFRM | E 736 | Ea | \$25.00 |

**ATTACHMENT B-1
COMPENSATION FOR ADDITIONAL SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Roofing Testing

| Code | Description | Standard | Unit | Fee |
|-------------|---|-----------------|-------------|------------|
| 80100 | Cut Out Roofing Sample Evaluation | D 2928 | Ea | \$303.00 |
| 80200 | Moisture in Mineral Aggregate for BUR | D 1864 | Ea | \$51.00 |
| 80300 | Analysis of New Built-Up Roof Membranes | D 3617 | Ea | \$279.00 |
| 80400 | Compressive Strength of Lightweight Insulation Concrete | C 495 | Set of 4 | \$98.00 |
| 80500 | Compressive Strength of Lightweight Insulation Concrete | C 495 | Ea | \$26.00 |
| 80600 | Unit Weight of Lightweight Insulation Concrete | C 495 | Set of 2 | \$44.00 |

Soils Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|----------------------|-------------|------------|
| 90100 | Liquid & Plastic Limits | D 4318 | Ea | \$53.00 |
| 90200 | Moisture Content of Soil by Mass | D 2216 | Ea | \$8.00 |
| 90300 | Moisture Content by Microwave | D 4643 | Ea | \$26.00 |
| 90400 | Sieve Analysis | D 422 | Ea | \$49.00 |
| 90500 | Sieve Analysis w/ Hydrometer | D 422 | Ea | \$175.00 |
| 90600 | Percent Passing No. 200 Sieve | D 1140 | Ea | \$41.00 |
| 90700 | Sieve Analysis on +No. 200 Material from -No. 200 Sieve Test | C 136 | Ea | \$31.00 |
| 90800 | Specific Gravity | D 854 | Ea | \$51.00 |
| 90900 | pH of Soils | D 4972 | Ea | \$15.00 |
| 91000 | Unconfined Compressive Strength | D 2166 | Ea | \$39.00 |
| 91100 | Unconsolidated-undrained Triaxial Compression | D 2850 | Ea | \$54.00 |
| 91200 | Permeability - Constant Head | D 2434 | Ea | \$200.00 |
| 91300 | One-Dimensional Consolidation | D 2435 | Ea | \$310.00 |
| 91400 | Consolidation, Additional Increment | D 2435 | Ea | \$44.00 |
| 91500 | Dispersive Characteristics by Pinhole Test | D 4647 | Ea | \$246.00 |
| 91600 | Dispersive Characteristics by Crumb Test | D 6572 | Ea | \$33.00 |
| 91700 | Double Hydrometer | D 4221 | Ea | \$152.00 |
| 91800 | Soil Suction - Filter Paper | | Ea | \$49.00 |
| 91900 | Additional increment | | Ea | \$45.00 |
| 92000 | California Bearing Ratio | D 1883 | Ea | \$185.00 |
| 92100 | Soil Shrinkage Factors by Mercury Method | D 427 | Ea | \$54.00 |
| 92200 | Soil Shrinkage Factors by Wax Method | D 4943 | Ea | \$65.00 |
| 92300 | One-Dimensional Swell, Cohesive Soil | D 4546 | Ea | \$251.00 |
| 92400 | OMD Standard Compaction, Method A or B | D 698 | Ea | \$175.00 |
| 92450 | OMD Standard Compaction, Method C | D 698 | Ea | \$195.00 |
| 92500 | OMD Modified Compaction, Method A or B | D 1557 | Ea | \$187.00 |
| 92550 | OMD Modified Compaction, Method C | D 1557/ Tex-113-E | Ea | \$207.00 |
| 92600 | Max. & Min. Density-Sand | D 4253 / D 4254 | Ea | \$182.00 |
| 92700 | Percent Solids in Lime Slurry | | Ea | \$37.00 |
| 92800 | Optimum Lime Content - pH Method | D 6276 | Ea | \$202.00 |
| 92900 | Optimum Lime Content - PI Method | | Ea | \$208.00 |

Treated Soils Testing

| | | | | |
|-------|-----------------------------------|--------|----|----------|
| 94100 | Cement Sand Compressive Strength. | D 1633 | Ea | \$61.00 |
| 94200 | Cement Content of Soil-Cement | D 806 | Ea | \$269.00 |
| 94300 | Sieve Analysis - Base Material | C 136 | Ea | \$82.00 |

**ATTACHMENT B-1
 COMPENSATION FOR ADDITIONAL SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

Soils Testing, continued

| Code | Description | Standard | Unit | Fee |
|---|---|-----------------|-------------|------------|
| <i>Treated Soils Testing, continued</i> | | | | |
| 94400 | Compressive Strength, Treated Base | Tex-120-E | Ea | \$222.00 |
| 94500 | OMD Standard Compaction, Treated | D 698 | Ea | \$193.00 |
| 94600 | OMD Standard Compaction, Treated | D 1557 | Ea | \$205.00 |
| 94700 | Percent Solids in Lime Slurry using Mud Balance (Field) | | Ea | \$25.00 |
| 94800 | Field Sieve Analysis on Final Mixed Soils | Tex-101-E | Ea | \$10.00 |
| 95100 | Nuclear Density Gauge | D 6938 | Hr. | \$9.00 |

Slip-Lining, Gunite, Shotcrete and Manhole Repair Testing

| Code | Description | Standard | Unit | Fee |
|-------------|--|-----------------|-------------|------------|
| 100100 | Coring/Drilling of Manhole Grout | | Hole | \$52.00 |
| 100200 | Coring and Strength of Gunite or Shotcrete Panel | | Core | \$105.00 |
| 100300 | Flexural Strength/Modulus of Elasticity of Liner | D 790 | Coupon | \$295.00 |

Geotechnical Drilling and Sampling

| Code | Description | Unit | Fee |
|-------------|---|-------------|------------|
| 111010 | Soil Boring, Intermittent 3-in. Dia. (0 to 50') | Ft | \$16.00 |
| 111020 | Soil Borings, Intermittent 3-in. Dia. (51' to 100') | Ft | \$18.00 |
| 111030 | Soil Boring, Continuous 3-in. (0 to 20') | Ft | \$18.00 |
| 111040 | Soil Boring over 100' (Surcharge) | Ft | \$6.00 |
| 111050 | Wash Boring | Ft | \$8.00 |
| 111060 | Auger Boring | Ft | \$9.00 |
| 111070 | Undisturbed/Split-Spoon in Wash/Auger Borings | Ea | \$34.00 |
| 111080 | Grouting of Completed Boring | Ft | \$5.00 |
| 111090 | A.T.V. Surcharge | Ft | \$6.00 |
| 111100 | Minimum Charge (to be used if charges are less than \$718.00) | LS | \$672.00 |
| 111110 | Mobilization/Demobilization | LS | \$300.00 |
| 111120 | TDH Cone Penetration Test | Ea | \$23.00 |
| 111130 | ATV Mobilization Surcharge | LS | \$117.00 |
| 111140 | Portable Rig Drilling (Crew of two) | Hr | \$152.00 |
| 111150 | Standby (Crew of Two) | Hr | \$146.00 |

Other Services and Testing

| Code | Description | Unit | Fee |
|-------------|--------------------------------------|-------------|------------|
| 112010 | Reimbursable Expenses | Cost + 10% | |
| 113010 | Other Services Provided by Quotation | | |

**ATTACHMENT B-1
COMPENSATION FOR ADDITIONAL SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES

1. General

Engineering services provided by Aviles Engineering Corporation (AEC) other than report review will be invoiced at applicable rates when requested by the Client Representative for consultation, submittal review and meetings or site visits.

2. Engineering Services

2.1. Engineering services will be performed by a professional engineer licensed in the State of Texas.

2.2. All reports relating to field sampling and inspections and field and laboratory testing services performed by AEC will be reviewed and signed by a licensed engineer. AEC will invoice report review at the Project Engineer rate at a minimum of 0.2 hour of engineering review time for each report issued.

3. Field Services

3.1. "Sampling" is defined as the process of procuring materials for subsequent testing or examination and will be performed by a qualified or certified field representative with knowledge of appropriate sampling procedures.

3.2. "Specimen pickup" is defined as the process of retrieving "specimens," usually pre-fabricated in the field such as cylinders, beams, or cubes, and transporting those specimens to the laboratory for subsequent testing or examination. "Specimen pickup" shall be performed, whenever possible, as a part of a scheduled field trip or by the full time field representative assigned to the Project.

3.3. Services will be charged on a portal-to-portal basis including reasonable roundtrip travel between AEC's office and the Project.

3.4. Field sieve analysis and lime slurry percent solids determination performed in the field will be invoiced plus technician time and vehicle charges.

3.5. The rates for coring of Portland cement concrete or asphaltic concrete are inclusive of the field representative's time, all equipment, and patching of the core hole with a conventional concrete mixture for concrete or cold-patching asphaltic materials for asphaltic concrete. The rates for coring do not include a Vehicle Charge. Patching with specialty materials (such as non-shrink repair grout) must be approved in advance by the Client and any approved specialty patching materials will be reimbursed at cost plus 10%.

3.6. A minimum of 30-minute unpaid lunch will be taken by the field representative for work over eight (8) hours unless otherwise approved in writing by the Client Representative.

**ATTACHMENT B-1
COMPENSATION FOR ADDITIONAL SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES, continued

4. Laboratory Services

4.1. Sample preparation is included in the fee for all laboratory testing services, unless noted in these "General Notes." Time for performing laboratory services requiring testing on weekends, holidays or on overtime will be invoiced at Senior Engineering Technician Rates.

5. Reporting

5.1. Field Reports

A copy of each report prepared in the field by AEC can be provided to the Client Representative upon request by fax, email or by copying in the field if copier is available for use.

5.2. Final Reports

All final reports of field sampling and inspections and field and laboratory testing services submitted to the Client will contain the following:

- Project name, Company Report Number, & Client Job No.
- Field representative name & classification
- Date and time of departure from AEC's office, if applicable
- Time of arrival at Project, if applicable
- Time of departure from Project, if applicable
- Time of arrival at AEC's office, if applicable
- Services performed
- Field and/or laboratory data, observations, or findings
- Appropriate Specification and/or Test Method
- Signature of licensed Professional Engineer

6. Invoicing

6.1. Field Services

6.1.1. Fees for field representatives performing sampling of materials, testing, inspections, and geotechnical logging shall be as outlined in the Fee Schedule. The fees are inclusive of all tools, equipment, supplies and manpower to perform the specific services, unless noted in these "General Notes."

6.1.2. If specimen pickup is performed as a part of a scheduled field trip or by the full time field representative assigned to the Project, specimen pickup shall be charged at the appropriate field representative rate as outlined in the attached Fee Schedule.

6.1.3. If specimen pickup is **not** performed as a part of a scheduled field trip or by the full time field representative assigned to the Project, the specimen pickup will be charged at the Engineering Technician rate. If a separate trip for the specimen pickup is required, only the actual personnel time with a minimum charge of two (2) hours, plus the minimum Vehicle Charge will be invoiced.

**ATTACHMENT B-1
COMPENSATION FOR ADDITIONAL SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) - SEGMENT D**

PROVIDER NAME: AVILES ENGINEERING CORPORATION

GENERAL NOTES, continued

6. Invoicing, continued

6.1. Field Services, continued

6.1.4. Actual time shall be charged for hourly equipment rental as outlined in the attached Fee Schedule. A minimum charge of four (4) hours will apply for all field equipment including the Nuclear Density Gauge.

6.1.5. All hourly services invoiced will be accompanied by a signed time sheet or daily report, including the name and classification of the individual. Hourly services will be invoiced to the nearest ¼ hour or less.

6.1.6. A minimum charge of four (4) hours for Company representative, vehicle, and equipment (where charged on an hourly rate) shall apply to each visit to the Project site or to an authorized off-site location for sampling, observation, inspection, or testing as outlined in the Fee Schedule.

6.1.7. Geotechnical logging will be performed by a qualified logger or field representative certified as a NICET Level II in soils or a qualified graduate engineer or geologist. Logging services shall be invoiced in addition to geotechnical drilling and sampling services at the loggers applicable hourly rate plus vehicle charge.

6.2. Laboratory Services

The fees stated for laboratory tests are all inclusive. No other charges will be levied for personnel services and/or materials related to such testing, except for stabilized soils mixed in the laboratory, or as otherwise specifically noted in these "General Notes."

6.3. Overtime

6.3.1. Overtime will not be allowed for any engineering services.

6.3.2. Overtime for field services is applicable for any hours work before 6:00 a.m. or after 6:00 p.m., Monday through Friday, and any hours worked on Saturday, Sunday or a FBGPTRA Holiday or over 8 hours per day. Overtime will be invoiced at 1.5 times the hourly rate.

6.4. Reimbursable Expenses

6.4.1. Authorized services performed by qualified sub-contractors or consultants will be reimbursed and shall be invoiced at cost plus 10%.

6.4.2. Any badging, drug screening or safety courses required to perform these services will be invoiced at the applicable personnel rates and cost for these items will be invoiced at cost plus 10%.

6.4.3. Incidentals such as photographs, reproduction material other than distribution of daily field and laboratory reports, delivery, etc. shall be invoiced at cost + 10%.

6.4.4. Should the use of traffic control be necessary during coring/boring operations, a certified Peace Officer, a subcontractor, or in-house personnel may be engaged to provide traffic control. A certified Peace Officer or subcontractor will be invoiced at cost plus 10%. In-house certified traffic control personnel will be invoiced at NICET Level II Rates otherwise the non-certified technical rate will apply.

Attachment C

The Engineer shall furnish certificates of insurance to the FBGPTRA 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 FBGPTRA with at least 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 \$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, 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 \$2,000,000 each claim/annual aggregate.

The FBGPTRA and the FBGPTRA'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 FBGPTRA and the FBGPTRA's Directors, with the exception of insurance required under paragraph "e."