

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**AMENDMENT TO AGREEMENT FOR CONSTRUCTION MATERIALS TESTING AND
INSPECTION SERVICES**

THIS AMENDMENT ("Amendment") is made and entered into by and between Fort Bend County (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and Aviles Engineering Corporation, (hereinafter "Consultant"), a company authorized to conduct business in the State of Texas.

WHEREAS, the parties executed and accepted that certain Agreement for Construction Materials Testing and Inspection Services, on December 20, 2022, concerning Beechnut Street under Mobility Bond Project No. 17410 pursuant to SOQ 14-025 (the "Agreement"); and

WHEREAS, the parties desire to amend the Agreement to allow Consultant to provide additional Services under the Agreement and increase the maximum compensation amount.

NOW, THEREFORE, the parties do mutually agree as follows:

1. County shall pay Consultant an additional amount not to exceed Sixty-Three Thousand, Three Hundred Ninety-Nine dollars and 50/100 (\$63,399.50) to perform the additional Services, as described in Consultant's proposal dated February 6, 2024, attached hereto as Exhibit "A-1" and incorporated herein for all purposes.
2. The Maximum Compensation payable to Consultant for all Services rendered is hereby increased to an amount not to exceed Two Hundred Seventy-Six Thousand, Nine Hundred Forty-Six dollars and 75/100 (\$276,946.75), authorized as follows:

\$213,547.25 under the Agreement; and
\$ 63,399.50 under this Amendment
3. In no case shall the amount paid by County for all Services under the Agreement and this Amendment exceed the Maximum Compensation without an agreement executed by the parties.
4. BY ACCEPTANCE OF AGREEMENT, CONSULTANT ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

Except as provided herein, all terms and conditions of the Agreement shall remain unchanged.

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 date signed by the final party.

FORT BEND COUNTY

AVILES ENGINEERING CORPORATION

KP George, County Judge

Authorized Agent – Signature

Date

Authorized Agent – Printed Name

ATTEST:

Title

Laura Richard, County Clerk

Date

APPROVED:

J. Stacy Slawinski, P.E., County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$_____ to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

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EXHIBIT A-1

AVILES

February 6, 2024

Fort Bend County Engineering Department
c/o LJA Engineering
Mr. George Abraham
Houston, Texas

Re: Construction Materials Testing and Inspection Services on
Fort Bend County Engineering Department
Beechnut Street from 1,400 feet West of Mason Road to 2,635 feet East of Mason Road
Our Proposal Number: 22-39 – Additional Funds – Revision 2

Mr. Abraham:

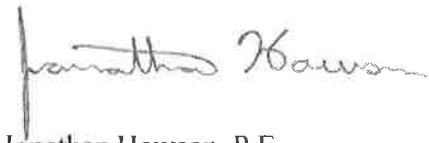
In response to your selection of Aviles Engineering Corporation (AEC) providing Construction Materials Testing and Inspection Services on the above referenced project, AEC is pleased to submit the following rates and cost estimate for your review.

AEC proposes to provide experienced technical personnel to perform testing and inspection services in general accordance with project specifications, project plans, ASTM Standards or other applicable procedures when requested. AEC also proposes that the work be accomplished on a unit price basis in accordance with the attached Schedule of Services and Fees and that the work be performed pursuant to agreed General Conditions. Copies of the AEC Schedule of Services and Fees and Estimate are enclosed herewith and are incorporated into this document. AEC's fees would be determined by the actual amount of technical time expended for this project and the amount of laboratory testing performed.

AEC will proceed with the work on the basis of verbal authorization; however, please sign and return one (1) copy of this document intact or provide an alternate form of contract for AEC's review. AEC can not issue any reports until either a signed copy of the document or an alternate form of contract is received. When returning this document or alternate form of contract, please complete the attached Project Data Sheet so that your file can be properly established.

Aviles Engineering Corporation appreciates the opportunity to offer its services to your project and looks forward to working with you during the construction phase.

Respectfully submitted,
Aviles Engineering Corporation
(TBPE Firm Registration No. F-42)



Jonathan Howson, P.E.
CMT Department Manager

Schedule of Services & Fees
Project Data Sheet
Estimate (2 Pages)

AGREED TO THIS _____ DAY OF _____, _____

BY: _____

TITLE: _____

FIRM: _____

Aviles Engineering Corporation
Schedule of Services and Fees * Construction Materials Testing

LABORATORY TESTING SERVICES

Concrete and Aggregates

Laboratory testing of concrete, grout, mortar and lightweight roof fill cylinders, beams and cubes delivered to our laboratory in accordance with ASTM procedures and project specifications:

| | | |
|--|------|-----------|
| a. Concrete Compression Test | Each | \$ 20.00 |
| b. Reserves Not Tested..... | Each | \$ 20.00 |
| c. Lightweight Concrete Compression Test..... | Each | \$ 20.00 |
| d. Flexural Strength of Concrete Test (Beams) | Each | \$ 31.00 |
| e. Compressive Strength of Mortar or Grout (2" x 2" x 2")..... | Each | \$ 26.00 |
| f. Compressive Strength of Grout Prism | Each | \$ 53.00 |
| Sieve Analysis of Aggregates | Each | \$ 62.00 |
| Washed Sieve Analysis on Flexible Base Materials | Each | \$ 108.00 |
| Abrasion Test of Aggregates by Los Angeles Machine | Each | \$ 236.00 |
| Density of Lightweight Concrete Cylinders | Each | \$ 92.00 |
| Rel. Density & Absorption – Coarse Aggregates..... | Each | \$ 92.00 |
| Rel. Density & Absorption – Fine Aggregates..... | Each | \$ 112.00 |
| Concrete Mix Design Review for Compliance to ACI or ASTM Standards..... | Each | \$ 500.00 |
| Preparation and Testing of Cores..... | Each | \$ 89.00 |

Soils

Moisture/Density Relationship of Soil (Proctor Test):

| | | |
|--|------|-----------|
| a. ASTM D 698 Method A or B | Each | \$ 231.00 |
| b. ASTM D 1557 Method A or B | Each | \$ 247.00 |
| c. ASTM D-698 & D-1557, Method C..... | Each | \$ 271.00 |
| d. TxDOT Test Method Tex-113-E | Each | \$ 271.00 |
| e. ASTM D 558 on Lime or Cement Treated Soils..... | Each | \$ 256.00 |
| Atterberg Limits Determination (PI) | Each | \$ 71.00 |
| Grain Size Analysis, Mechanical & Hydrometer | Each | \$ 145.00 |
| Lime Series Curve, pH Method | Each | \$ 266.00 |
| Material Finer Than #200 Sieve..... | Each | \$ 55.00 |
| Sieve Analysis on + #200 Sieve Material | Each | \$ 65.00 |
| Bearing Ratio Test (CBR), ASTM D-1883, per point (Does not include moisture/density relationship) | Each | \$ 243.00 |

LABORATORY TESTING SERVICES, continued

Asphaltic Concrete Testing

| | | |
|---|---------|-----------|
| a. Molding Specimens (3 Specimens)..... | Per Set | \$ 72.00 |
| b. Density (3 Specimens) | Per Set | \$ 61.00 |
| c. Stability (3 Specimens)..... | Per Set | \$ 108.00 |
| d. Extraction and Gradation | Each | \$ 230.00 |
| e. Theoretical Specific Gravity | Each | \$ 103.00 |
| Thickness Determination of Asphaltic Concrete Cores | Each | \$ 25.00 |
| Density Determination of Asphaltic Concrete Cores | Each | \$ 55.00 |
| Asphaltic Concrete Mix Design Review | Each | \$ 500.00 |

Other Items

| | | |
|--|------|-----------|
| Compressive Strength of Cement Stabilized Sand or Soil Cement | Each | \$ 81.00 |
| Moisture Content of Soil, Cement Stabilized Sand or Soil Cement | Each | \$ 11.00 |
| Comp. Str. - Cement or LFA Stabilized Bases or Soils (Modified Tex-120-E)..... | Each | \$ 292.00 |
| Splitting Tensile Strength of Concrete..... | Each | \$ 124.00 |
| Absorption and Saturation - Facia Brick | Each | \$ 82.00 |
| Compressive Strength - Facia Brick | Each | \$ 38.00 |
| Compressive Strength of Masonry Prisms | Each | \$ 200.00 |
| Thickness Testing of Concrete or Asphaltic Concrete Cores (9 Point) | Each | \$ 30.00 |

FIELD TESTING SERVICES

Engineering Technician to Perform:

- Concrete Placement Inspection and testing
- Concrete Batch Plant Inspection
- Cylinder/Cube/Beam Pick Up
- Proofrolling Observation
- Concrete Placement and/or Batch Plant Inspection
- Drilled Pier, Pile and/or Foundation Inspection
- Post Tension Inspection
- Soil Cement or Lime Stabilization Inspection
- Field Compaction Testing and Observation
- Laboratory Technician
- Masonry Mortar, Grout or Prism Testing or Inspection
- Base Plate Inspection and Non-Shrink Grout Testing
- Sample Pick Up

| | | |
|--|-------------------------|-----------|
| Engineering Technician (ACI-I, SB 102, or SB 101) (Minimum 4 Hours) | Per Hour | \$ 65.00 |
| Overtime | Per Hour | \$ 97.50 |
| Senior Engineering Technician (ACI-I and SB 102) (Minimum 4 Hours) | Per Hour | \$ 78.00 |
| Overtime | Per Hour | \$ 117.00 |
| Concrete Pavement Cores (Minimum Fee \$600.00) | | |
| 6 Inches Thick or Less, 4 Inch Diameter Bit | Per Core | \$ 119.00 |
| Additional Thickness – (6" to 12") = \$11.00 per inch; (Over 12") = \$14.00 per inch | | |
| Coring of Structural Concrete or Core Diameters other than 4" | Will Quote Upon Request | |

FIELD TESTING SERVICES, continued

Asphaltic Concrete Pavement Cores (Minimum Fee \$600.00)

| | | |
|--|----------|-----------|
| a. 6 Inches Thick or Less, 4 Inch Diameter | Per Core | \$ 106.00 |
| b. Additional Thickness over 6" | Per Inch | \$ 10.00 |
| Reinforcing Steel Inspection (4 Hr. Min.) | Per Hour | \$ 90.00 |
| Overtime | Per Hour | \$ 135.00 |
| Structural Steel Inspection (4 hr. Min.) | Per Hour | \$ 115.00 |
| Overtime | Per Hour | \$ 136.50 |

Other Services

| | | |
|--|-----------|-----------|
| Use of Nuclear Density Gauge | Per Day | \$ 90.00 |
| Fireproofing – Cohesion / Adhesion Test..... | Each | \$ 33.00 |
| Fireproofing – Density Test | Each | \$ 43.00 |
| Floor Moisture Kit | Each | \$ 60.00 |
| UT Equipment | Per Day | \$ 103.00 |
| UT Couplant (Minimum Charge of 1 Pint) | Per Pint | \$ 30.00 |
| Magnetic Particle Yoke | Per Day | \$ 45.00 |
| Magnetic Powder (Minimum Charge 0.5 Pounds)..... | Per Pound | \$ 30.00 |
| Use of James R-Meter | Per Day | \$ 75.00 |
| Solids Content of Lime Slurry - Field..... | Per Test | \$ 49.00 |
| Skidmore Wilhelm | Per Day | \$ 154.00 |
| Field Sieve Analysis | Each | \$ 12.00 |
| Vehicle Charge | Per Trip | \$ 80.00 |

Engineering Services and Management

| | | |
|--|----------|-----------|
| Principal or Chief Engineer..... | Per Hour | \$ 250.00 |
| Senior Engineer | Per Hour | \$ 205.00 |
| Project Engineer | Per Hour | \$ 165.00 |
| NACE Inspector Level II | Per Hour | \$ 150.00 |
| Graduate Engineer, Project Manager..... | Per Hour | \$ 115.00 |
| NICET Level IV | Per Hour | \$ 105.00 |
| NICET Level III | Per Hour | \$ 100.00 |
| NICET Level II, or TxDOT SB 101 & 102..... | Per Hour | \$ 90.00 |

Remarks

- All hours are portal to portal from 5790 Windfern, Houston, Texas. Fractions of hours will be billed to the closest quarter hour. Overtime is classified as all hours worked over eight (8) hours per day or hours worked before 6:00am, after 6:00 pm weekdays and any hours worked on Saturdays, Sundays or Holidays. Overtime will be invoiced at 1.5 times hourly rate. If a special trip is made just to pickup test cylinders, the minimum charge will be lowered to 2 hours for the technician.
- Badging, safety training courses, and drug screen testing will be invoiced at applicable hourly rates. The drug screen and safety course fees will be invoiced at cost.
- Project Engineer / Manager to schedule and supervise personnel and evaluate and review reports will be billed at a minimum of 0.2 hours per report issued.
- Laboratory testing requiring overtime, weekend or holiday work will be invoiced at applicable test rate plus technician overtime charges.
- Services and fees not listed will be quoted upon request.

PROJECT DATA SHEET
CONSTRUCTION MATERIALS TESTING AND INSPECTION SERVICES

Project Name: _____

Project Location: _____

Your Job No: _____ Purchase Order No: _____

Project Manager: _____ Telephone No: _____

Number and Distribution of Reports:

() Copies To: _____ () Copies To: _____

Attn: _____

Attn: _____

() Copies To: _____ () Copies To: _____

Attn: _____

Attn: _____

Invoicing Address: _____

Attn: _____

Site Contact: _____ Telephone No: _____

Other Pertinent Information: _____

CONSTRUCTION MATERIALS ESTIMATE

Fort Bend County Engineering Department

Beechnut Street from 1,400 feet West of Mason Road to 2,635 feet East of Mason Road

Soils Inspection

Soils Inspection and Testing will be provided in general accordance with the project plans and specifications. The inspection and testing of the pavement subgrade will include lime application inspection, field gradations after final mixing of the lime stabilized subgrade, field density testing, and depth checks. Samples to determine moisture density relationships (MDR) and other soil constants will be obtained as required. AEC estimates thirty-five (35) trips for inspection and testing.

| <u>Service Description</u> | <u>Unit Rate</u> | <u>Quantity</u> | <u>Amount</u> |
|--|------------------|-----------------|---------------------|
| Senior Engineering Technician, per hour | \$ 78.00 | 280 | \$ 21,840.00 |
| Senior Engineering Technician, OT per hour | \$ 117.00 | 35 | \$ 4,095.00 |
| OMD Standard Compaction, Treated, each | \$ 256.00 | 3 | \$ 768.00 |
| OMD Standard Compaction, each | \$ 231.00 | 0 | \$ - |
| Atterberg Limits, each | \$ 71.00 | 0 | \$ - |
| Percent Passing #200 Sieve, each | \$ 55.00 | 0 | \$ - |
| Sieve Analysis, each | \$ 65.00 | 0 | \$ - |
| Optimum Lime Content - pH Method | \$ 266.00 | 0 | \$ - |
| Cement Sand Compressive Strength, each | \$ 81.00 | 0 | \$ - |
| Use of Nuclear Gauge, per day | \$ 90.00 | 35 | \$ 3,150.00 |
| Vehicle Charge, per trip | \$ 80.00 | 35 | \$ 2,800.00 |
| Project Engineer, per hour | \$ 165.00 | 11.4 | \$ 1,881.00 |
| | | Subtotal | \$ 34,534.00 |

Concrete Inspection

Concrete Inspection will be provided per the project plans and specifications. It will include testing of the concrete pavement, stamped concrete, sidewalks, ramps, curb, and repairs. Cylinders will be cast in sets of 4 (1 set for every 100 cu. yd. for paving). AEC estimates twenty-one (21) trips for concrete testing and eleven (11) trips for cylinder pickups. AEC will also take cores of the concrete pavement (one (1) core every 500 LF per lane) for thickness verification and compressive strength.

| <u>Service Description</u> | <u>Unit Rate</u> | <u>Quantity</u> | <u>Amount</u> |
|---|------------------|-----------------|---------------------|
| Senior Engineering Technician, per hour | \$ 78.00 | 154 | \$ 12,012.00 |
| Senior Engineering Technician, OT per hour | \$ 117.00 | 5 | \$ 585.00 |
| Engineering Technician, per hour | \$ 65.00 | 11.25 | \$ 731.25 |
| Engineering Technician, OT per hour | \$ 97.50 | 13.5 | \$ 1,316.25 |
| Concrete Compression Tests, each | \$ 20.00 | 139 | \$ 2,780.00 |
| Conc. Coring (4" Dia. to 6" Thickness) (C42) | \$ 119.00 | 38 | \$ 4,522.00 |
| Conc Coring, Add Thick (Over 6" to 12") (C42) | \$ 11.00 | 38 | \$ 418.00 |
| Preparation of Core, Cap & Test (C42) | \$ 89.00 | 25 | \$ 2,225.00 |
| Vehicle Charge, per trip | \$ 80.00 | 32 | \$ 2,560.00 |
| Project Engineer, per hour | \$ 165.00 | 10.4 | \$ 1,716.00 |
| | | Subtotal | \$ 28,865.50 |

Estimate Continued on Next Page

Construction Materials Testing and Inspection Estimate, continued

| | |
|---|--------------------|
| ESTIMATED TOTAL FOR SERVICES AND TESTING = | \$63,399.50 |
|---|--------------------|

NOTES & ASSUMPTIONS:

- *Estimate is based on contractor's scheduled substantial completion of 2/28/2024.*
- *No standby time is included in this estimate, it is based on the Contractor being ready for inspection at the time the inspection is scheduled.*
- *No re-inspection or re-testing is included in this estimate*
- *Other special inspections and testing may be required in the plans and specifications. These services can be provided if not provided by others. AEC has not included any other special inspections or building code required testing as part of this proposal other than what is specifically stated above.*
- *No engineer or project management time is included for onsite progress meetings. AEC can attend meetings if requested by the owner or contractor.*
- *Mix design reviews were not included in this proposal. AEC can perform mix design reviews if requested by the owner or engineer.*