

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

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

THIS 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 Terracon Consultants, Inc., (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 Services on February 22, 2022, for the Greenbusch Road Paving and Drainage Improvements – Phase II under Mobility Bond Project No. 13312, pursuant to SOQ 14-025, (hereinafter “Agreement”); and

WHEREAS, the parties desire to amend the Agreement for additional professional services to be provided, increase the total Maximum Compensation under the Agreement for the completion of such additional services, and extend the Time for Performance under the Agreement.

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

1. County shall pay Consultant an additional amount not to exceed thirty-five thousand and 00/100 dollars (\$35,000.00) to perform the additional Services, as described in Consultant’s Proposal dated November 19, 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 ninety-one thousand eighty and 00/100 dollars (\$291,080.00), authorized as follows:
 \$256,080.00 under the Agreement; and
 \$ 35,000.00 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 a written agreement executed by the parties.
4. The Time of Performance under the Agreement shall extend to end no later than December 31, 2027.

5. 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

TERRACON CONSULTANTS, INC.

KP George, County Judge



Authorized Agent – Signature

Date

Chad C. Gordon, P.E.

Authorized Agent – Printed Name

ATTEST:

Senior Principal / Department Manager

Title

Laura Richard, County Clerk

January 30, 2025

Date

APPROVED:



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

APPROVED AS TO LEGAL FORM:



Darius R. Porter
Assistant County Attorney
General Counsel Division

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

Attachment:

Exhibit A-1 – Consultant's Proposal – November 19, 2024

EXHIBIT A-1



November 19, 2024

Fort Bend County Engineering Department
Ms. Elise K. Dillow, P.E.
301 Jackson Street, Suite 719
Richmond, Texas 77469

**RE: Supplement to Agreement for Services
Greenbusch Road Paving & Drainage Improvements – Phase II
Ensley Hollow Drive, Katy, 77494
Change Order Request No.1
Terracon Project No. 92211495**

Dear Ms. Dillow:

Terracon is providing the following budget status update and request for modification of budget for the Greenbusch Road Paving & Drainage Improvements – Phase II project. Terracon's current budget amount is \$256,080. Terracon would like to request funds in addition to the original contract amount.


Reasons for the Change Order:


- Updated Unit Fees as agreed to by Joseph Schwieterman with SPI Engineering (original proposal submitted September 29, 2021).

Original Contract Amount	\$256,080.00
Increase due to Updated Fees	\$35,000.00
Final Adjusted Budget	\$291,080.00

If you have any questions or require additional information, please contact us at your convenience.

Respectfully,
Terracon Consultants, Inc.
(Texas Firm Registration No. F-3272)


Karl N. Abousleiman, P.E.
Project Manager
Materials Services


Mark D. Wells, P.E., PMP
Senior Project Manager
Materials Services

Attachment: (1) Terracon 2023/2024 Schedule of Services and Fees



COST ESTIMATE

Greenbusch Road Paving & Drainage Improvements – Phase II Ensley Hollow Drive, Katy, 77494
Terracon Proposal No.P92211495

Service (As described in proposal)	Quantity	Unit	Unit Rate	Estimate	New Rate 2023/2024
EARTHWORK					
Estimate 2 trips at 4 hours each to obtain subgrade sample Estimate 2 trips at 4 hours each to obtain cement stabilized sand Estimate 10 trips at 4 hours each to observe proofroll operations Estimate 103 trips at 12 hours each to test backfill for underground utilities Estimate 37 trips at 10 hours each to observe chemical subgrade treatment, perform gradations, obtain treated sample Estimate 45 trips at 6 hours each to test compaction of pavement subgrade					
Field Representative, Regular Hours	1356	hours	\$ 50.00	\$ 67,800.00	\$65.00
Field Representative, Over Time Hours	576	hours	\$ 75.00	\$ 43,200.00	\$97.50
Moisture Density Relationship - Standard	10	each	\$ 150.00	\$ 1,500.00	\$175.00
Moisture Density Relationship - Modified	2	each	\$ 220.00	\$ 440.00	\$220.00
Atterberg Limits	9	each	\$ 65.00	\$ 585.00	\$75.00
Compressive Strength for CSS	24	each	\$ 40.00	\$ 960.00	\$60.00
Density Gauge	148	day	\$ 60.00	\$ 8,880.00	\$60.00
Vehicle Charge	199	trip	\$ 60.00	\$ 11,940.00	\$70.00
Subtotal, Earthwork				\$ 135,305.00	
FOUNDATION					
Estimate 4 trips at 8 hours each to observe and test concrete for top of wall sheet piling Estimate 3 trips at 12 hours each to observe and test concrete for drilled straight shafts Estimate 2 trips at 6 hours each to observe and test concrete for wingwall					
Field Representative, Regular Hours (Senior Field Representative)	56	hours	\$ 50.00	\$ 2,800.00	\$85.00
Field Representative, Over Time Hours	24	hours	\$ 75.00	\$ 1,800.00	\$127.50
Vehicle Charge	9	trip	\$ 60.00	\$ 540.00	\$70.00
Concrete Test Cylinders	208	each	\$ 16.00	\$ 3,328.00	\$18.00
Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and processing)	9	day	\$ 150.00	\$ 1,350.00	\$175.00
Subtotal, Foundation				\$ 9,818.00	
CAST-IN-PLACE CONCRETE					
Estimate 30 trips at 6 hours each to test concrete for junction box, inlets, slope paving, etc. Estimate 4 trips at 10 hours each to test concrete for bridge columns Estimate 4 trips at 5 hours each to test grout for metal beam guard fence Estimate 2 trips at 8 hours each to test concrete for reinforced concrete slab for bridge Estimate 2 trips at 8 hours each to test concrete for curbs for bridge Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements					
Field Representative, Regular Hours	384	hours	\$ 50.00	\$ 19,200.00	\$65.00
Field Representative, Over Time Hours	224	hours	\$ 75.00	\$ 16,800.00	\$97.50
Mix Design Review	5	each	\$ 175.00	\$ 875.00	\$175.00
Vehicle Charge	91	trip	\$ 60.00	\$ 5,460.00	\$70.00
Concrete Test Cylinders	504	each	\$ 16.00	\$ 8,064.00	\$18.00
Concrete Pavement Cores, 4" diameter up to 6" depth or less	24	each	\$ 100.00	\$ 2,400.00	\$100.00
Concrete Coring, additional thickness greater than 6" depth, per inch	24	each	\$ 10.00	\$ 240.00	\$10.00
Testing Concrete Cores (Includes: length, sawing, capping and compressive strength)	24	each	\$ 100.00	\$ 2,400.00	\$115.00
Compressive Strength For Grout	12	each	\$ 35.00	\$ 420.00	\$50.00
Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and processing)	91	day	\$ 150.00	\$ 13,650.00	\$175.00
Subtotal, Cast-in-Place Concrete				\$ 69,509.00	
ASPHALT					
Estimate 6 trips at 10 hours each to test asphalt base and surface course					
Field Representative, Regular Hours	48	hours	\$ 50.00	\$ 2,400.00	\$65.00
Field Representative, Over Time Hours	12	hours	\$ 75.00	\$ 900.00	\$97.50
Mix Design Review	2	each	\$ 250.00	\$ 500.00	\$250.00
Asphalt Lab Series	6	each	\$ 550.00	\$ 3,300.00	\$550.00
Asphalt Coring	5	each	\$ 90.00	\$ 450.00	\$70.00
Bulk Density (Core), per set of 3	2	each	\$ 59.00	\$ 118.00	\$75.00
Measuring Thickness of Asphalt Cores	5	each	\$ 9.00	\$ 45.00	\$9.00
Vehicle Charge	6	trip	\$ 60.00	\$ 360.00	\$70.00
Subtotal, Asphalt				\$ 8,073.00	
PROJECT MANAGEMENT AND ADMINISTRATION					
Senior Project Engineer	5	hours	\$ 165.00	\$ 825.00	\$200.00
Project Manager / Project Engineer (P.E.)	170	hours	\$ 150.00	\$ 25,500.00	\$165.00
Administration	90	hours	\$ 75.00	\$ 6,750.00	\$85.00
Vehicle Charge	5	trip	\$ 60.00	\$ 300.00	\$70.00
Subtotal, Project Management and Administration				\$ 33,375.00	
ESTIMATED COST				\$ 256,080.00	



2023
SCHEDULE OF SERVICES AND FEES
HOUSTON MATERIALS

Personnel

Principal, per hour	\$ 225.00
Senior Engineer, P.E., per hour	\$ 200.00
Senior Project Manager / Project Engineer, per hour	\$ 165.00
Project Manager / Graduate Engineer, per hour	\$ 140.00
Administrative Staff, per hour	\$ 85.00
Certified Welding Inspector (CWI), per hour	\$ 150.00
Senior Engineering Technician, per hour	\$ 85.00
Engineering Technician, per hour	\$ 65.00

Transportation

Vehicle Charge (local, within Fort Bend County), per trip	\$ 70.00
Sample Pick Up, per trip	\$ 175.00
Mileage (outside Fort Bend County), per mile	\$ 0.80
Per Diem, lodging and food, per day	\$ 200.00

Reimbursable Expenses

Direct non-salary expenses incurred, identifiable and not applicable to general overhead are billed at no cost plus for handling and include, but are not limited to the following:

Remarks:

A four (4) hour minimum charge for personnel and equipment is applicable to all trips made for the performance of testing, inspection or consulting services. The minimum charge is not applicable for trips to the project site for sample pick up only. All labor, equipment and transportation charges are billed on a portal to portal basis from our office.

Overtime rates of 1.5 times the quoted hourly rate will be applicable to any hours worked outside of our normal office hours of 7:00 AM to 6:00 PM Monday through Friday, and any hours worked on weekends, Terracon holidays or over eight (8) hours per day.

Expert testimony in depositions, hearings, mediation, and trials will be charged at 1.5 times the above rates.

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SCHEDULE OF SERVICES AND FEES
HOUSTON MATERIALS

Concrete Mix Verifications

Regular aggregates, each	\$ 300.00
Lightweight aggregates, each	\$ 350.00
Additional design, same aggregate sample, each	\$ 200.00
Review mix design submitted by others, each	\$ 175.00
Batch and confirmation of others mix design each	By Quotation
Design confirmation cylinder test (ASTM C-39), each	\$ 18.00
Design confirmation beam test (ASTM C-293 or C-78), each	\$ 55.00

Concrete Tests

Cylinder compression test (ASTM C-39), each	\$ 18.00
Beam flexural test (ASTM C-293 or C-78), each	\$ 55.00
Cube compression test (ASTM C-109), each	\$ 30.00
Compressive strength of shotcrete/gunite (ASTM C-1140), each	\$ 100.00
Lightweight insulating concrete compression test, 3" x 6" cylinders (ASTM C-495), each	\$ 35.00
Lightweight insulating concrete Dry Unit Weight 3" x 6" cylinders (ASTM C-495), each	\$ 35.00
Windsor probes, per set of 3 (Technician time charged separately) (ASTM C-305).....	\$ 100.00
Length change of hardened hydraulic cement mortar of concrete (ASTM C-157), set of 3.....	\$ 400.00
Oven Dry Density of Structural Lightweight Concrete (ASTM C-567), each.....	\$ 35.00
Density of Hardened Concrete (ASTM C-642), each	\$ 100.00
Determining F _F Floor Flatness and F _L Floor Levelness Numbers for Random Traffic Floors (ASTM E-1155) (includes labor, equipment, & vehicle), 4 Hr. Minimum, per hour	\$ 150.00
Hilti® Ferrosan (includes labor, equipment, & vehicle), 4 Hr. Minimum, per hour.....	\$ 150.00
Hilti® GPR (includes labor, equipment, & vehicle), 4 Hr. Minimum, per hour.....	\$ 250.00

Masonry Tests

Cement mortar mix verification (ASTM C-305), each	\$ 300.00
Compressive strength CMU block (ASTM C-140), each	\$ 100.00
CMU block absorption only (ASTM C-140), each	\$ 90.00
Compressive strength masonry prism (ASTM C-1314) CMU prism up to 8 (in.) width, Hollow Cells, each	\$ 100.00
CMU prism up to 8 (in.) width, Grout Filled Cells, each.....	\$ 150.00
Brick prism up to 4 (in.) width, each	\$ 100.00
Compressive strength of masonry cube/cylinder (ASTM C-109/C-780), each	\$ 30.00
Compressive strength of grout prism (ASTM C-1019), each	\$ 50.00
Compressive strength of Brick and Structural Clay Tiles (ASTM C-67), each	\$ 75.00



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Aggregate Tests

Sieve analysis, dry (ASTM C-136), each	\$ 85.00
Sieve analysis (ASTM C-117), each	\$ 75.00
Sieve analysis w/ -200 (ASTM C-136 & C-117), each	\$ 120.00
Unit weight (ASTM C-29), each	\$ 50.00
Specific gravity/absorption (ASTM C-127 or C-128), each	\$ 80.00
Organic impurities (ASTM C-40), each	\$ 75.00
Resistivity (TX 129E), each	\$ 120.00
L.A. abrasion (ASTM C-131 or C-535), each	\$ 350.00
Sulfate soundness, 5 cycles (ASTM C-88), each	\$ 550.00
Additional cycles, each	\$ 175.00
Sample prep if uncrushed	\$ 25.00
Potential Alkali-Silica Reactivity of Aggregates (Mortar Bar Method) (ASTM C1260/C1567):	
2 samples or less, each	\$ 1,400.00
3 or more samples, each	\$ 1,100.00
Sand Equivalent (ASTM D-2419, TX 203-F), each	\$ 120.00
Deleterious Material (ASTM C142), each	\$ 80.00
Lightweight Pieces (ASTM C123):	
Fine Aggregate, each	\$ 125.00
Coarse Aggregate, each	\$ 150.00
Chert, each	\$ 175.00
Percent Flat / Elongated Particles (ASTM D-4791), each	\$ 65.00
Percent Fractures Faces (ASTM D-4791), each	\$ 65.00

Soils Laboratory Tests

Classification

Moisture Content and visual classification, each	\$ 15.00
Atterberg limits (ASTM D-4318 Method A), each	\$ 75.00
Percent Passing No. 200 Sieve (ASTM D-1140), each	\$ 80.00
Sieve Analysis, each	\$ 85.00
Grain Size Analysis (Sieve), each	\$ 50.00
Hydrometer Analysis, each	\$ 125.00
Density, each	\$ 20.00



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SCHEDULE OF SERVICES AND FEES
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Compaction

Optimum moisture / maximum density relations (proctors)

ASTM D-698, method A & B, each	\$ 175.00
ASTM D-698, method C, each (Includes Rock Correction ASTM D4718)	\$ 200.00
ASTM D-1557, method A & B, each	\$ 220.00
ASTM D-1557, method C, each (Includes Rock Correction ASTM D4718)	\$ 235.00
TXDOT 113E, each	\$ 270.00
TXDOT 114E, Part I, each	\$ 220.00
TXDOT 114E, Part II, each	\$ 270.00
Relative density (ASTM D-4254), each	By Quotation
Sample preparation (if required), each.....	By Quotation

Strength

TXDOT wet ball mill value (TEX 116E), each	\$ 250.00
TXDOT triaxial series (TEX 117E), each	\$1500.00
California Bearing Ratio (CBR) (ASTM D-1883), each.....	\$ 450.00
Compressive Strength Tests including molding	
Fine grained soils (ASTM D-1633, Method A), each	\$ 85.00
Base material (TEX 120E), each	\$ 100.00

Stabilization Evaluation

Soil - Lime curve, 5 point PI vs. Lime content, each (Does Not include pH).....	\$ 350.00
Cement content (ASTM D-806), each.....	\$ 750.00
Cement content (ASTM D-806), two or more samples, each	\$ 550.00
Soil pH Value, each.....	\$ 55.00
Fresh cement content (ASTM D-2901), each.....	\$ 95.00
Fresh cement content 3 point curve (ASTM D-2901), each.....	\$ 420.00
Compressive Strength of Cement Stabilized Sample (ASTM D-1633, Method A), each	\$ 60.00

Soils Field Services

Technician time will be charged at the appropriate hourly rate plus:

Nuclear density gauge, per day	\$ 60.00
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SCHEDULE OF SERVICES AND FEES
HOUSTON MATERIALS

Coring Services*

*Coring performed by a Terracon Approved Sub-Contractor

Core drilling, minimum charge per trip, local, each.....	\$ 350.00
Concrete pavement cores, 4" diameter up to 6" depth or less, each.....	\$ 100.00
Concrete coring, additional thickness greater than 6" depth, per inch	\$ 10.00
Testing concrete cores (includes: length, sawing, capping and compressing testing), each ..	\$ 115.00
Asphalt pavement cores 4" diameter up to 6" depth or less, each.....	\$ 70.00
Asphalt coring, additional thickness greater than 6" depth, per inch	\$ 8.00
Standby time in clients interest, machine and operator, per hour	\$ 75.00
Structural Concrete Coring.....	By Quotation

Asphaltic Concrete Services

Molding specimens (TEX 206F), set of 3	\$ 75.00
Molding specimens (TEX 241F), set of 2	\$ 150.00
Bulk specific gravity of lab molded specimens, set of 2 or 3.....	\$ 65.00
Bulk specific gravity of core specimen (TEX 207F), each	\$ 75.00
Maximum theoretical density (TEX 227F), each	\$ 120.00
Hveem stability (TEX 208F), set of 3	\$ 80.00
Extraction (ASTM D-2172 or TEX 210F), each.....	\$ 240.00
Asphalt Content and Gradation (TEX 236F & TEX 200-Part 1), each.....	\$ 240.00
HMAC Mix Design (TEX 204F), each	\$1,600.00
HMAC Mix Design review prepared by others, each	\$ 250.00

NDE Field Services

Technician time will be charged at the appropriate hourly rate plus:

Ultrasonic gauge, per day	\$ 150.00
MT/LP consumables, per day	\$ 150.00
Minimum trip charge, personnel and equipment.....	\$ 500.00
Torque Wrench, per hour	\$ 100.00
Skidmore Wilhelm, per day.....	\$ 100.00
Paint thickness gauge, per day.....	\$ 50.00

Sprayed Applied Fireproofing Materials

Density by Displacement Method (ASTM E-605), each	\$ 50.00
Adhesion / Cohesion (ASTM E-736), each.....	\$ 30.00

Roofing Materials

Dissection Analysis of built-up roof cuts (ASTM D-2829, D-3617), with aggregate	\$ 350.00
Dissection Analysis of built-up roof cuts (ASTM D-2829, D-3617), without aggregate	\$ 350.00
Moisture content of roofing aggregate (ASTM D-1864)	\$ 50.00
Hardness of roofing aggregate (ASTM D-1865).....	\$ 120.00

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Remarks

- Tests not listed can be quoted on request.
- Rush test results are subject to a surcharge.
- Engineering consultation and evaluation in connection with any laboratory testing service will be charged at the appropriate rate.
- Materials samples should be submitted in a form that complies with applicable requirements.
- Prices quoted for concrete coring are for paving and flat work. Charges for coring structural concrete can be quoted on request.
- Special supplies, permits, equipment, associated drilling, sampling, field testing, on site facilities, grading contractors, water trucks, bulldozers, security forces, surveyors or other support services will be billed at cost plus 20 percent.
- All rented equipment and outside services not identified in the fee schedule will be billed at cost.