



CONTRACT AMENDMENT NO. 2
TO
WILLIAMSON COUNTY CONTRACT FOR
ENGINEERING SERVICES

**WILLIAMSON COUNTY ROAD BOND PROJECT: On-call Geotechnical Engineering
and Construction Materials Engineering/Testing Services ("Project")**

THIS CONTRACT AMENDMENT NO. 2 to Williamson County Contract for Engineering Services is by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Terracon (the "Engineer") and becomes effective as of the date of the last party's execution below.

WHEREAS, the County and the Engineer executed the Williamson County Contract for Engineering Services dated effective December 3, 2014 (the "Contract");

WHEREAS, pursuant to Article 14 of the Contract, the terms of the Contract may be modified by a written fully executed Contract Amendment;

WHEREAS, the Rate Schedule in Exhibit D of the Contract are limited to the rates noted in said Exhibit D; and,

WHEREAS, it has become necessary to amend the Contract.

AGREEMENT

NOW, THEREFORE, premises considered, the County and the Engineer agree that the Contract is amended as follows:

- I. The hourly Rates in the original Exhibit D of the Contract are hereby amended as shown in the attached revised Exhibit D (must be attached).

All other terms of the Contract are unchanged and will remain in full force and effect.

IN WITNESS WHEREOF, the County and the Engineer have executed this Contract Amendment, in duplicate, to be effective as of the date of the last party's execution below.

ENGINEER:

By:

Signature

James Bierschwale, PE

Printed Name

Vice-President

Title

7/12/16
Date

COUNTY:

By:

Signature

Printed Name

Title

Date

my OK
7/13/2016

IN WITNESS WHEREOF, the County and the Engineer have executed this Contract Amendment, in duplicate, to be effective as of the date of the last party's execution below.

ENGINEER:

By:

Signature

James Bierschwale, PE

Printed Name

Vice-President

Title

7/12/16
Date

COUNTY:

By:

Signature

DAVID A. GATTIS

Printed Name

County Judge

Title

08-17-2016
Date

my OK
7/13/2016

EXHIBIT D
RATE SCHEDULE
Terracon

GEOTECHNICAL ENGINEERING
Schedule of Services and Fees
Williamson County, Texas
2014

Geotechnical Personnel

Senior Principal / Officer / Consultant, P.E., per hour	\$170.00
Principal Geotechnical Engineer, P.E., per hour	\$140.00
Senior Geotechnical Engineer, P.E. / Sr. Geologist, P.G. / Sr. Project Manager, per hour	\$130.00
Project Manager, per hour	\$115.00
Project Geotechnical Engineer, per hour	\$105.00
Staff Geotechnical Engineer, per hour	\$95.00
Field Geologist, P.G., per hour	\$75.00
Senior Engineering Technician, per hour	\$48.00
Engineering Technician, per hour	\$44.00
Drilling / Field Services Coordinator, per hour	\$60.00
Extra Drilling Crew Member, per hour	\$50.00
Draftsman, per hour	\$70.00
Clerical Support /Administrative Staff, per hour	\$48.00

Field Services

Mobilization of Truck-Mounted Drill Rig, each (for sites within 50 mile radius of office)	\$300.00
Addl. Mileage of Truck-Mounted Drill Rig, per mile (for sites beyond 50 mile radius of office)	\$3.50
Minimum Field Charge for Truck-Mounted Drill Rig, per day	\$700.00
Mobilization of Track/ATV-Mounted Drill Rig, each (for sites within 50 mile radius of office) ...	\$500.00
Addl. Mileage of Track/ATV Drill Rig, per mile (for sites beyond 50 mile radius of office)	\$6.00
Minimum Field Charge for Track/ATV-Mounted Drill Rig, per day	\$1,500.00
Drilling Crew hourly rate (two-man crew), per hour	\$250.00
Drilling Crew & Rig Standby Time (two-man crew), per hour	\$250.00
Extra Drilling Crew Member, per hour	\$50.00

Soil Borings, using 3-inch thin-wall tube sampling (Shelby tube) or 2-inch split-barrel sampling (SPT), depths measured from existing ground surface:

0 to 25 feet, per foot	\$14.00
25 to 50 feet, per foot	\$15.50
50 to 75 feet, per foot	\$17.00
75 to 100 feet, per foot	\$18.50
Wash or auger boring, per foot (no sampling)	\$12.00
Additional for Hollow-Stem Augering, per foot	\$6.00

EXHIBIT D



GEOTECHNICAL ENGINEERING Schedule of Services and Fees Williamson County, Texas 2014

Rock Coring, using Nx core barrel sampling, depths measured from existing ground surface:

Softer Rocks (e.g., Austin, Eagle Ford, Del Rio, Walnut, Glen Rose formations and similar):

0 to 25 feet, per foot	\$18.00
25 to 50 feet, per foot	\$20.00
50 to 75 feet, per foot	\$22.00
75 to 100 feet, per foot	\$24.00

Harder Rocks (e.g., Edwards, Buda, Georgetown, Comanche Peak formations and similar):

0 to 25 feet, per foot	\$20.00
25 to 50 feet, per foot	\$22.00
50 to 75 feet, per foot	\$24.00
75 to 100 feet, per foot	\$26.00

Additional Footage Charge if using Track or ATV-Mounted Drill Rig, per foot \$2.00

TxDOT Cone Penetration (TCP) tests, each \$30.00

Grouting of Borings with bentonite or sak-crete, per foot..... \$5.00

Rock coring of very hard rocks such as granite, marble, schist, gneiss, etc. On request

Monitor Well / Piezometer Installation On request

Interior and/or Limited Access Drilling/Sampling On request

Laboratory Classification Tests

Atterberg limits, each	\$55.00
Moisture content, each.....	\$8.00
Density Determination (using Shelby tube or SPT sample), each	\$15.00
Specific gravity, each	\$70.00
Soil pH, each	\$30.00
Soil Resistivity (Miller box method), each.....	\$125.00
Chloride & Soluble Sulfate Content, TEX-620-J, each	\$75.00

Laboratory Grain Size Tests

Sieve analysis, ASTM C 136, each.....	\$75.00
Percent Passing No. 200 Sieve, ASTM C 117, each.....	\$45.00
Combined ASTM C 136 and C 117, each.....	\$95.00
Hydrometer analysis, ASTM D 422, each	\$125.00

EXHIBIT D



GEOTECHNICAL ENGINEERING Schedule of Services and Fees Williamson County, Texas 2014

Laboratory Strength and Volume Change Tests

Unconfined Compression Test (soil), each.....	\$30.00
Unconfined Compression Test (rock), each	\$35.00
Triaxial Compression Tests:	
Unconsolidated-Undrained (UU), per circle	\$265.00
Consolidated-Undrained (CU), with pore pressure measurements, per circle.....	\$450.00
Direct Shear Tests:	
On Coarse-Grained Soils, per point.....	\$175.00
On Fine-Grained Soils, per point	\$275.00
Absorption Swell Tests:	
Free Swell, each	\$100.00
Single Pressure (at estimated overburden), each	\$120.00
Additional Pressures, each.....	\$50.00
Swell Pressure (controlled swell), each	\$300.00
Consolidation Test, regular with increasing load increments (max 6 loads), each	\$440.00
Additional Load Increments, each	\$50.00
Additional Unload-Reload Cycles, per cycle	\$125.00

Other Laboratory Tests and Miscellaneous Items

Flexible Wall Triaxial Permeability Test (Falling Head), each	\$350.00
Optimum Moisture/Maximum Density Relations:	
ASTM D 698, each	\$170.00
ASTM D 1557, each	\$200.00
TEX-113-E, each.....	\$220.00
TEX-114-E, each.....	\$180.00
Additional Charge for Coarse Aggregate Correction (ASTM D 4718), each	\$25.00
Relative Density, ASTM D 4253 & D 4254, each	\$275.00
California Bearing Ratio (CBR), each.....	\$315.00
Soil-Lime Relationship (Lime Series using PI and pH methods), each	\$700.00
Sample Preparation (if required), per hour	\$48.00

EXHIBIT D



GEOTECHNICAL ENGINEERING Schedule of Services and Fees Williamson County, Texas 2014

Additional Comments

- A three-hour (3) minimum charge is applicable to all trips made for the performance of testing, inspection, cancellations, or consulting services. A minimum charge of 2 hours will be assessed 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.
- Court appearances, depositions, etc. will be charged at 1.5 times the quoted hourly rate.
- Unit fees for tests not listed can be quoted on request. If Client requests a test not listed above, tests will be described and a unit fee will be set forth in a Work Authorization or Supplemental Work Authorization that is agreed to in writing by the parties prior to Terracon conducting such test.
- Engineering consultation and evaluation in connection with any laboratory testing or field inspection service will be charged at the appropriate rate.
- Material samples should be submitted in a form that complies with applicable requirements.

EXHIBIT D



CONSTRUCTION MATERIALS ENGINEERING AND TESTING Schedule of Services and Fees Williamson County, Texas 2014

Construction Materials Engineering & Testing Personnel

Senior Principal, per hour	\$170.00
Principal, Officer, per hour	\$140.00
Senior Engineer, per hour	\$110.00
Project Manager, per hour	\$115.00
Senior Engineering Technician, per hour	\$48.00
Construction Materials Technician, per hour	\$46.00
Certified Welding Inspector, per hour	\$80.00
Clerical Support /Administrative Staff, per hour	\$48.00

Concrete Field Services

Engineering technician, per hour	\$46.00
Concrete Sample Pick up Inside City of Austin ETJ, per trip	\$92.00
Concrete Sample Pick up Outside City of Austin ETJ, per hour (2 hr. minimum).....	\$46.00

Concrete Tests

Cylinder compression test (ASTM C 31 & C 39), 4"x8", each	\$15.00
Cylinder compression test (ASTM C 31 & C 39), 6"x12", each	\$20.00
Beam flexural test (ASTM C 293 or C 78), each	\$55.00

Masonry Field Services

Masonry technician, per hour	\$48.00
Masonry Sample Pick up Inside City of Austin ETJ, per trip	\$92.00
Masonry Sample Pick up Outside City of Austin ETJ, per hour (2 hr. minimum)	\$46.00

Masonry Tests:

Compressive strength CMU block (ASTM C 140), each	\$100.00
CMU block absorption only (ASTM C 140), each	\$75.00
CMU Block prism compressive strength (ASTM C 1314), each	\$250.00
Compressive strength of grout prism (ASTM C 1019), each	\$35.00
Compressive strength of mortar cube (ASTM C 780 & C 109), each	\$16.00

EXHIBIT D



CONSTRUCTION MATERIALS ENGINEERING AND TESTING Schedule of Services and Fees Williamson County, Texas 2014

Soils Laboratory Tests

Classification

Atterberg limits (ASTM D 4318), each	\$55.00
Sieve analysis (ATM C 136), each	\$75.00
Sieve analysis percent finer than #200 (ASTM C 117), each	\$45.00
Decantation, TXDOT TEX 406-A, each.....	\$45.00- <i>new</i>
Combined sieve analysis (ASTM C 136 and C 117)	\$95.00
Soil pH, each	\$30.00
Chloride & Soluble Sulfate Content, TEX-620-J, each	\$75.00
Hydrometer analysis, ASTM D 422, each	\$125.00
Permeability (Hydraulic Conductivity) (ASTM D 5084), each	\$350.00
Sample Preparation (if required), per hour	\$48.00
<i>Wet Ball Mill</i> Wet Ball Mill, TXDOT TEX 116-E, each.....	\$200.00- <i>new</i>
Triaxial, Base Materials, TXDOT TEX 117-E, each.....	\$1,150.00- <i>new</i>

Compaction

Optimum moisture / maximum dry density relations (proctors)	
ASTM D698, each	\$170.00
ASTM D1557, each	\$200.00
Additional charge for Coarse Aggregate Correction (ASTM D4718)	\$25.00
TXDOT TEX 113E, each	\$220.00
TXDOT TEX 114E, each	\$180.00
Relative Density (ASTM 4253 and 4254), each	\$275.00

Soils Field Services

In place density / moisture test, nuclear method (ASTM D 2922/ASTM D 3017), minimum 3, each	\$18.00
Field gradation of lime treated soil, each	\$45.00
Depth check of lime treated soil, each	\$25.00
Soil pH value each	\$30.00
Soils technician, per hour	\$46.00
Soil Lime Relationship, (Lime Series) Combined pH and Atterberg Limits	\$700.00
Soil Sample Pick up Inside City of Austin ETJ, per trip.....	\$92.00
Soil Sample Pick up Outside City of Austin ETJ, per hour (2 hr. minimum)	\$46.00
Measuring Thickness, Base, Subbase, Subgrade, TXDOT TEX 140-E.....	\$50.00- <i>new</i>

EXHIBIT D



CONSTRUCTION MATERIALS ENGINEERING AND TESTING Schedule of Services and Fees Williamson County, Texas 2014

Asphaltic Concrete Services

Asphalt technician (Level 1A and 1B), per hour	\$55.00
Asphalt Sample Pick up Inside City of Austin ETJ, per trip.....	\$92.00
Asphalt Sample Pick up Outside City of Austin ETJ, per hour (2 hr. minimum)	\$46.00
Molding specimens (TEX 206F), set of 3	\$58.00
Bulk specific gravity of lab molded specimens, set of 3	\$58.00
Bulk specific gravity of core specimen (TEX 207F), each	\$58.00
Maximum theoretical density (ASTM D 2041 or TEX 227F), each	\$86.00
Hveem stability (ASTM D 1560 or TEX 208F), set of 3	\$95.00
Extraction and Sieve Analysis (ASTM D 2172 or TEX 210F), each	\$225.00
Asphalt coring (6" diameter, minimum 3 per trip) Up to 6" thick, each	\$110.00
Asphalt coring (6" diameter, minimum 3 per trip) 6 to 10" thick, each	\$120.00
Asphalt coring (6" diameter, minimum 3 per trip) 10 to 14" thick, each	\$155.00
Asphalt core thickness & density, each	\$57.00
Asphalt Binder, TXDOT Item 300, each	\$750.00—new

Drilled Pier

Senior technician, per hour	\$48.00
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Wood Truss & Fire Stop

Senior technician, per hour	\$60.00
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Structural Steel

Visual Inspection by CWI, per hour	\$80.00
Ultrasonic Testing, per hour	Subcontractor's Cost
Ultrasonic Testing equipment, per day	Subcontractor's Cost
Ultrasonic Testing Trip Fee	Subcontractor's Cost

Reinforcing Steel Detection

Senior Technician, per hour	\$60.00
Hilti Ferrosan equipment, per day	\$220.00

Roofing, Waterproofing and EIFS

Project Manager, Senior Roofing Professional, per hour	\$125.00
Engineering Technician-Forensics/Roofing/Waterproofing, per hour	\$65.00

EXHIBIT D



CONSTRUCTION MATERIALS ENGINEERING AND TESTING Schedule of Services and Fees Williamson County, Texas 2014

Remarks

A three hour minimum charge is applicable to all trips made for the performance of testing, inspection, cancellations or consulting services. A minimum charge of 2 hours will be assessed for trips to the project site for sample or cylinder pick up only.

All labor, equipment, and transportation charges are billed on a portal to portal basis from our office. Court appearances, depositions, etc. will be charged at 1.5 times the quoted hourly rate.

Unit fees for tests not listed can be quoted on request. If Client requests a test not listed above, tests will be described and a unit fee will be set forth in a Work Authorization or Supplemental Work Authorization that is agreed to in writing by the parties prior to Terracon conducting such test.

Engineering consultation and evaluation in connection with any laboratory testing or field inspection service will be charged at the appropriate rate.

Material samples should be submitted in a form that complies with applicable requirements.

Transportation charges are applicable for all field testing assignments including sample pick up.