WORK AUTHORIZATION

WORK AUTHORIZATION NO. __2

PROJECT: Construction Observation and Material Testing Engineering Services for the
Williamson County Exposition Center Project

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated <u>December 3, 2015</u> and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and <u>Alliance Geotechnical Group of Austin Inc.</u> (the "Engineer").

Part1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$15,000.

Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on <u>October31, 2016</u>. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.

Part 7. This Work Authorization is hereby accepted and acknowledged below.

 $\label{lem:contracts} $$V:\Documents\URS\ Office\ Docs\Contracts\PSAs\RFQ's\2015\ RFQs\Geotech\ and\ Material\ Testing\ -\ Both\Material\ Testing\ and\ Inspection\RFQ\ 1507-015\ -\ Expo\ Center$

EXECUTED this 28 Pay of April , 20 16

ENGINEER:

Alliance Geotechnical Group of Austin Inc.

Signature

MAYNE A. Eppins

MANAGING PORTALER

COUNTY:

Williamson County T

By: Signa

Signature

Printed Name

SIDN

Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment A - Services to be Provided by County

- County will provide project management.
 County will provide a single point of contact, to be identified upon Notice to Proceed.

Attachment B - Services to be Provided by Engineer

The scope of services to be provided by the Engineer is as defined in the enclosed April 22, 1016 letter from Alliance Geotechnical. The Engineer shall provide construction observation and materials testing services on the Taylor Exposition Center required by Chapter 17 of the International Building Code (2012 Edition), the plans and specifications of the Project and as directed by the County.



of Austin, Inc

- · GEOTECHNICAL ENGINEERING
- . ENVIRONMENTAL CONSULTING
- * CONSTRUCTION MATERIALS ENGINEERING AND TESTING

April 22, 2016

Williamson County Commissioners Court
Attn: Mr. Robert B. Daigh, P.E., Senior Director of Infrastructure
3151 SE Inner Loop
Georgetown, Texas 78626

Re: WILCO / Taylor Exposition Center
Taylor, Texas
Alliance Geotechnical Group of Austin Project No. AC15-1202

Dear Mr. Daigh:

The attached proposal and anticipated scope of work are submitted for your review. It is anticipated the scope of work to be covered by Work Authorization #2 will include the following:

- Flexible Base Material Testing
- Reinforcing Steel Inspection
- Concrete Testing
- Mortar and Grout Testing
- Structural Steel Inspection

If there are question regarding the information included in this submittal, please contact the undersigned at your convenience. We appreciate the opportunity to be of continued service to Williamson County.

Respectfully,

Alliance Geotechnical Group of Austin, Inc.

TBPE Firm No. 11290

Wayne A. Eddins Managing Partner

Attach: Exhibit B

Dist: Williamson County - Mr. Robert B. Daigh, P.E.

Mr. Dale Butler, Project Manager

WAE/hk

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200 Mustang Cove • Taylor, Texas 76574
Tel: 512-281-4688 • Fax: 512-281-4191

Project Name:

Williamson County Exposition Center

Project Number: **Estimated Budget:** AC15-1202 \$38,637.00

Date:

April 22, 2016

SECTION 31 00 00 - EARTHWORK

(Estimate 50 production days to complete cuts, construct building pads and construct earthen berms (Estimate 30 miscellaneous trips for density testing (utility backfill, culvert backfill, utility tie-ins, manholes, etc.)

2 Moisture/Density Relationships (TEX 113-E)	@	\$300,00	/test	\$	600.00	
2 Moisture/Density Relationships (TEX 114-E)	@	\$250.00	/test	\$	500.00	
2 Atterberg Limits (TEX 104-E, TEX 106-E)	@	\$75.00	/test	\$	150.00	
2 Maisture Content Tests (TEX 103-E)	@	\$15.00	/test	\$	30.00	
2 Gradation (TEX 110-E)	@	\$75.00	/test	\$	150.00	
75 In Place Density Tests (TEX 115-E)	@	\$20.00	/each	\$	1,500.00	
25 Vehicle Charges	@	\$30,00	trip	S	750.00	***
25 NICET Certified Technician Reg. Hours	@	\$48.00	/hour	S	1,200,00	
5 NICET Certified Technician OT Hours	@	\$60,00	/hour	S	300.00	
8 NICET Certified Technician Saturday OT Hours	@	\$75.00	/hour	\$	600,00	
5 Administrative/Clerical	@	\$48,00	/hour	\$	240.00	
5 Project Manager Hours	@	\$95.00	/hour	5	475.00	
10 Engineering Oversight/Report Review	@	\$25.00	/report	5	250.00	
			Sub-Total	\$	6,745.00	\$6,745.00

II SECTION 31 00 00 - SITE CONCRETE

(Estimate 15 Misc. Placements for pavements, sidewalks, wing walls, etc.)

(Estimate approximately 750-900 cy site concrete)

(Estimate 35 Sets of 4 Cylinders each w/ Air, Slump, Temp)

(Estimate 10" Flexible Base beneath pavement & sidewalks)
(Estimate 3,500 if of curb placements, 10 placements, 2 hours/placement 4 cylinders/placement)

4 Linguisering Oversignakeport Review	@		/report Sub-Total	3	2,674.00	\$2,674,00
2 Project Manager Hours 4 Engineering Oversight/Report Review	@	\$95.00		\$	190.00	
4 Administrative/Clerical	@	\$48.00		\$	192.00	
4 Vehicle Charges (including cyl. p/up)	@	\$30.00		\$	120.00	
8 Reinforced Concrete Certified Tech (Reinforcing Steel Insp.)	@	\$48.00		\$	384.00	
12 ACI Certified Tech. Reg. Hours (Casting & Sample plup)	@	\$48.00		\$	576.00	
12 NICET Certified Technician Density Testing	@	\$48.00		\$	576,00	
0 Triaxial (TEX 117-E, TEX 118-E, TEX 131-E)	@	\$1,500.00	/each	\$		
0 Wet Ball Mill (TEX 116-E)	@	\$350.00	/each	\$	- T	
10 In Place Density Tests (TEX 115-E)	@	\$20.00	/each	3	200.00	
4 Air Content, Slump, Temp (TEX 414-1, 415-1 and 418-1)	@	\$20.00	/each	\$	80.00	
16 Concrete Cylinders	@	\$16.00	/each	\$	256.00	

III SECTION 31 00 00 - ASPHALT PAVEMENT

(Estimate 68,000 sf of Asphalt Pavement Base Bld & Alt. 17) (Estimate 68,000 sf of Fiexible Base layer, total of 10" / 2 Lifts & 4 Trips per lift) (Estimate 3 Days of Laydown Operations)

			Sub-Total	\$ 8,488.00	\$8,488.00
12 Engineering Oversight/Report Review	@	\$25.00	/report	\$ 300.00	and the latest and the
4 Project Manager Hours	@	\$95.00	/hour	\$ 380.00	
4 Administrative/Clerical	@	\$48.00	/hour	\$ 192.00	
12 Vehicle Charges	@	\$30.00	trip	\$ 360.00	
10 In-Place HMA Thickness/Density (TEX 140-E)	@	\$50.00		\$ 500.00	
3 Lab Density & Stability, Set of 3 (TEX 207-F, TEX 208-F)	@	\$50.00	/set	\$ 150.00	
3 Maximum Theoretical (Rice) Gravity (TEX 227-F)	@	\$60.00		\$ 180.00	
0 Hamburg Wheel (TEX 242-F)	@	\$600.00	/each	\$ -	
2 Extraction/Gradation (TEX 210-F, TEX 210-F, Part II)	@	\$175.00	/each	\$ 350.00	
75 In Place Density Tests (TEX 115-E)	@	\$20.00	/each	\$ 1,500.00	
8 TxDOT I-B Certified Technician (OT Hrs.)	@	\$70.00	/hour	\$ 560.00	A
24 TxDOT I-B Certified Technician (Reg. Hrs.)	@	\$56.00	/hour	\$ 1,344.00	
8 TxDOT I-A Certified Technician (OT Hrs.)	@	\$70.00	/hour	\$ 560.00	
24 TxDOT I-A Certified Technician (Reg. Hrs.)	@	\$56.00	/hour	\$ 1,344.00	
16 NICET Certified Technician Density Testing	@	\$48.00	/hour	\$ 768.00	

IV SECTION 03 30 00 - CAST-IN- PLACE STRUCTURAL CONCRETE

(Estimate 35,000 (+/-) SF of 6" Concrete Slabs on Ground in Base Bid)

(Estimate 82,000 (+/-) SF of 4" & 6" Concrete Slabs on Ground in Add Alt. Bid Items)

(Estimate 4 cyls./75 CY or fraction thereof)

(Estimate 1,500 cy (+/-) Concrets

(Estimate total of 8 Concrete Slab Placements)

(Estimate 12 Concrete Placements for Footings @ 2 Hrs. & 4 Cylinders Ea.)

				Sub-Total	5	3,280,00	\$3,280.00
8	Engineering Oversight/Report Review	@	\$25.00	/report	\$	200.00	
	Project Manager Hours	@	\$95.00		\$	380.00	
	Project Engineer Hours for Mix Design Reviews	@	\$130.00		\$		
	Administrative/Clerical	@	\$48.00		3	192.00	241-241-241-241-2
8	Vehicle Charges (Including Cylinder p/up)	@	\$30.00		\$	240.00	
8	ICC Certified Structural Reinforced Concrete Tech. (Reg.)	@	\$48.00		\$	384.00	
- 5	ACI Certified Technician Hours (O.T.)	@	\$60.00	/hour	\$	300.00	
	ACI Certified Technician Hours (Reg.)	@	\$48.00	/hour	\$	1,152.00	
	Concrete Cylinders for Concrete Footings	@	\$18.00		\$	216.00	
12	Concrete Cylinders for Slabs/Beams	@	\$18.00	/test	S	216.00	

SECTION 04 05 13 MORTAR & GROUT

(Estimate 30 Production Days for CMU Block Installation) (Estimate 3 Mortar Cubes & 4 Grout Cubes per day's production)

				Sub-Total	\$ 9,830.00	\$9,830,00
60	Engineering Oversight/Report Review	@	\$25.00	/report	\$ 1,500.00	
	Project Manager Hours	@	\$95.00	/hour	\$ 950.00	
	Administrative/Clerical	@	\$48.00	/hour	\$ 720.00	
	Vehicle Charges - including sample pick-up	@	\$30,00	/trip	\$ 900.00	
50	NICET Certified Tech. Hours (Reg.) including Rein	f. Steel @	\$48,00	/hour	\$ 2,400.00	
	Grout Cubes	@	\$16,00		\$ 1,920.00	
	Mortar Cubes	@	\$16.00	/each	\$ 1,440.00	

VI SECTION 05 12 00 - STRUCTURAL STEEL WELDING/BOLTING INSPECTIONS (Periodic - as scheduled) (Estimate 10 Trips to the site, 5 hours per trip)

			Sub-Total	\$ 5,670.00	\$5,670.00
10 Engineering Oversight/Report Review	@	\$25.00	/report	\$ 250.00	
4 Project Manager Hours	@	\$95.00	and the second second	\$ 380.00	
5 Administrative/Clerical	@	\$48.00	/hour	\$ 240.00	
10 Vehicle Charges (Sub-Consultant)	@	\$55.00	/trip	\$ 550.00	
50 CWI (Sub-Consultant) Hours	@	\$85.00	/hour	\$ 4,250.00	

VII PROJECT OVERSIGHT

		No. of the last			
10 Project Principal Hours	@ \$195.00 /hour	3	1.950.00	S	1,950.00

TOTAL

\$38,637.00

NOTES:

- Overtime rates of 1.25 times the regular hourly rate will be charged for hours worked over eight (8) hours
 per day Monday thru Friday or any time before 7:00 a.m. or after 5:00 p.m. Service performed on Saturdays
 and Sundays will be billed at 1.5 times the regular hourly rate. Services performed on recognized holidays will be billed at 2.0 times the regular hourly rate.
- 2. All laboratory test fees are F.O.B. our laboratory; additional charge for sample pickup outside of Williamson County may apply.
- 3. Project Engineer to review/evaluate/sign and seal reports will be billed at \$25/Report
- 4. Additional tests not specified in this proposal will be quoted upon request,
- 5. This proposal does not include any costs associated with stand-by, non-readiness charges, and/or trips for re-lests of the previous failing tests.
- 6. An additional charge will be made for shop inspections made outside of Williamson County. A per dlam charge of \$120,00 will be charged for any inspections that will require an overnite stay.

Attachment C - Work Schedule

Work will be completed within the next year.

 $\label{lem:contracts} $$V:\Documents\URS\ Office\ Docs\Contracts\PSAs\RFQ's\2015\ RFQs\Geotech\ and\ Material\ Testing\ -\ Both\Material\ Testing\ and\ Inspection\RFQ\ 1507-015\ -\ Expo\ Center\ Original\ Date:\ 8/4/15$

Revised Date: 4.26.16

Attachment D - Fee Schedule

WILLIAMSON COUNTY EXPO CENTER UNIT R	ate sheet	- 2015			
	11000	290			
Personnel	Linit	Req.	Hr. Rate	<u>Q.1</u>	. Agto
Pnincipal	Hr.	5	195.00		
Senior Professional Engineer	Hr.	S	195.00	Ţ.	
Professional Engineer	Hr.	5	130.00		100
Project Manager	Hr.	\$	95.00	9000	1
Laboratory Manager	Hr.	S	95.00		
Engineer In Training (E.L.T.)	Hr.	5	85.00		
Certified Welding Inspector (CWI)	Hr.	\$	85.00		
FaDOT Level I-A	Hr.	5	56.00	\$	70.00
TADOT Level I-B	Hr.	5	56.00	\$	70.00
NICET Certified Soils/Concrete Technician (C.E.T.)	Hr.	5	48.00	S	60.00
ACI Certified Strength Testing or Aggregate Testiny Technician (C.E.T.)	hv.	\$	48.00	5	60.00
Administrative Assistant	Hr.	\$	48,00		
Project Engineer - Report Neview	Rept.	\$	25.00	-	11.00
Vehicle Charge	Trip	\$	30.00		
Vehicle Charge	Day	\$	50,00		
to the second of	entra entra	in :		5	
Testing Services - Soils	Unit	<u> Un</u>	At Rate		
Moisture Content (Tex 103-E)	Eq.	\$	20.00		E-FI
Tex 114-E Proctor	Ea.	5	250.00		
Sieve Analysis (Tex 110-E, Pt. 1 Dry)	Ea.	5	50.00		
Sieve Analysis (Tex 110-E, Pt. 2 Wet)	Ea.	5	80.00		
Atterberg Limits (Tex 104-E, Tex 105-E, Tex 106-E)	.Ea.	5	75.00		
In-Place Density Tests (Tex 115-6)	.Ea.	ŝ	20.00		
Hydrometer Analysis (AASHTO T-88)	Ea.	\$	450.00		
Soil pH (Tex 128-E)	Ęo.	\$	50.00		
Permeability of Sall	Ĕa.	3	350.00		
Linear Sar Shrinkage	Eo.	\$	75.00		
Testing Services - Concrete	Unit	Hei	t Rate		
	Bill		11044		
Sieve Analysis of Fine & Coarse Aggregate (Tex 401-A, Tex 402-A)	Ea.	\$	802.00		
SSD Specific Gravity and Absorption of Aggregates (Tex 403-A)	Ea.	\$	80.00		
Link Weight (Tex 40%-A)	Eu.	\$	75.00	- TIUFE	
Moterial Finer than No. 200 Sieve Analysis (Tex 406-A)	Ear.	\$	75.00		
Organic Impurities in Fine Aggregate (Tex 408-A)	En.	\$	85.00		
Las Angeles Alvasian Test (Tex 410-A)	€a.	Ş.	350.00		
Concrete Cylinder Compressive Strength (Tex 418-A)	Ea.	\$	18.00		
Coverete Flaxural Beam Strangth Test (Tex 419-4)	Ear.	ş	25.00		- 1
2" x 2" Martos Cubes	Ea.	\$	16.00		Í
3.25" x 6.25" Grout Prisms	Ea.	ş	16.00		- 10
CMID Block Prism Testing	Ea.	\$	350.00		- 1

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8 X		ψ.		
Tasting Services - Hot Mixed Asphaltic Concrete (HMAC)	Unit		Init Rate	
Somple Preparation	Ea,	5	50.00	
Gradation (Tex 210-F, Part 1 & 2)	Ea.	\$	200.00	
Hamburg Wheel (Tex 242-F)	Fa-	\$	600.00	
Entraction/Gradation (Tex 236-F)	Ea.	\$	225.00	
Mixing (Tex 205-F)	Set of 3	5	75.00	
HVEEM Stability (Tex 207-F, Tex 208-F)	Set of 3	\$	50.00	
Laboratory Molded Density (Tex 207-F, Parts)	Set of 3	\$	45.00	
Max Theoretical (Rice) Specific Gravity (Tex 227-F)	Ea.	15	60.00	
Thickness (Tex 140-E)	Ea.	\$	50,00	
% Air Voids - In Place	Ea.	\$	75.00	0
% Theoretical Density - In Place	Fer.	\$	75.00	
Maisture Content (Tex 212-F)	Ea.	5	25.00	
Coring Rig / Core Bit Charge	Ęa.	5	175.00	
" & Core including Patching & Sample Prep up to 6" Thick	in.	\$	90.00	
Care including Perching & Sample Prep from 6" to 10" Thick	to.	5	105.00	
3" @ Care(Per Inch)	In.	Ş	5.00	
4" & Core(Per Inch)	In.	\$	6.00	
6° ⊕ Core(Per Inch)	In.	\$	8.00	
- 222			V 6	
Laboratury Testing Services - Flexible Base Material	Strict.	Ľ.	nit Rate	
Tex 113-E Proctor	Ea.	5	300.00	
Sample Preparation (Tex 101-E)	£a.	Š	50.00	
Attarberg Limits	Eq.	5.	75.00	
Sieve Analysis (Tex 110-E, Pt. 1 Dry)	Ea.	\$	50.00	
Sieve Analysis (Tex 110-E, Pt. 2 Wet)	£a.	9	80.00	
Moisture Content (Tex 103-E)	Ea.	5	20.00	
Thickness (Tex 140-E)	Eq.	S	50.00	
Wet Boll Mill Test (Tex 115-E)	Ea.	\$	250.00	
Texas Trioxial (Tex 117-E, Tex 118-E, Tex 131-E)	Ea.	3	2,250.00	