WORK AUTHORIZATION NO. 5

PROJECT: On Call Geotechnical and Lab Testing Services

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated **February 10, 2015** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **PaveTex Engineering and Testing, Inc.** (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 **$40,000.00.**

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 **September 30, 2016.** 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.

EXECUTED this 5th day of February, 2015.

ENGINEER:

PaveTex Engineering and Testing, Inc.

By: _____
Signature

Jimmy Baldwin
Printed Name

Vice President
Title

COUNTY:

Williamson County, Texas

By: _____
Signature

Dan Gattis
Printed Name

County Judge
Title

EXECUTED this ____ day of _____, 2015.

ENGINEER:

PaveTex Engineering and Testing, Inc.

By: _____
Signature

Jimmy Baldwin
Printed Name

Vice President
Title

COUNTY:

Williamson County, Texas

By: _____
Signature

Dan Gattis
Printed Name

County Judge
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

1. County will direct type of services to be provided.
2. County will provide timely reviews and decisions necessary to enable Pave Tex to maintain an agreed upon project schedule as developed in attached Attachment C.
3. County will provide points of contact, to be identified upon Notice to Proceed.
4. County will provide project management.

Attachment B – Services to be Provided by Engineer

1. Perform services and related reports associated with Attachment D.
2. Miscellaneous.

Attachment C – Work Schedule

PaveTex shall provide a work schedule for the assigned tasks. Work shall begin immediately upon receipt of agreement between County and PaveTex on the work schedule and authorization to proceed on assigned services.

Attachment D – Fee Schedule

PaveTex Engineering and Testing, Inc.

Field Technician	**Unit**	**Unit Cost**	
		Reg.	**OT**
1A	hr.	$58	$69
1B	hr.	$58	$69
Soils	hr.	$50	$61
Concrete	hr.	$50	$61
Nuclear Gauge Calibration	hr.	$75	
Concrete Plant/ Truck Inspection	hr.	$75	
Asphalt Distributor Calibration	hr.	$75	
Senior Professional Engineer	hr.	$195	
Professional Engineer	hr.	$145	
EIT	hr.	$85	
Project Manager	hr.	$98	
Administrative Assistant	hr.	$45	

Field Testing Equipment **(2 Hr Min, Tech Time Not Included)**	**Unit**	**Unit Cost**
HMAC Coring		
Coring Equipment Mobilization	trip	$75
0"-6" Depth & 6" ⌀ (incl. Patching & Sample Prep)	EA.	$95
> 6"-10" Depth & 6" ⌀ (incl. Patching & Sample Prep)	EA.	$110
> 10"-14" Depth & 6" ⌀ (incl. Patching & Sample Prep)	EA.	$150
> 14" Depth & 6" ⌀ (incl. Patching & Sample Prep)	EA.	$4/ in. over 14"
Concrete Coring		
Concrete Coring Equipment	hr.	$55.00
Concrete Core Bit Charges		
3" Diameter Core	in.	$5
4" Diameter Core	in.	$6
6" Diameter Core	in.	$8

PaveTex Rate Schedule: Page 1 of 5 – January 2015

Soils & Aggregates (100-E Series)			
Test For	**Test Method**	**Unit**	**Unit Cost**
Sample Preparation	**Tex-101-E**	**EA.**	**$50**
Moisture Content	**Tex-103-E**	**EA.**	**$25**
Atterberg Limits	**Tex-104-E, 105-E & 106-E**	**EA.**	**$75**
Linear Bar Shrinkage	**Tex-107-E**	**EA.**	**$75**
Sieve Analysis	**Tex-110-E, Pt. 1**	**EA.**	**$55**
Sieve Analysis	**Tex-110-E, Pt. 2**	**EA.**	**$85**
Moisture- Density Relationship	**Tex-113-E**	**EA.**	**$350**
Moisture- Density Relationship	**Tex-114-E**	**EA.**	**$250**
Wet Ball Mill	**Tex-116-E**	**EA.**	**$250**
Texas Triaxial Compression	**Tex-117-E, Pt. 1**	**EA.**	**$1,100**
Full Triaxial Testing *	*** See Note**	**EA.**	**$1,700**
Soil- Cement Testing	**Tex-120-E, Pt. 1**	**EA.**	**$1,100**
Soil- Cement Testing	**Tex-120-E, Pt. 2**	**EA.**	**$300**
Soil- Lime Testing	**Tex-121-E, Pt. 1**	**EA.**	**$1,100**
Soil- Lime Testing	**Tex-121-E, Pt. 2**	**EA.**	**$300**
Lime-Fly Ash Compression	**Tex-127-E**	**EA.**	**$1,100**
Soil pH	**Tex-128-E**	**EA.**	**$50**
Resistivity	**Tex-129-E**	**EA.**	**$300**
Tube Suction Test	**Tex-144-E**	**EA.**	**$100**
Sulfate Content	**Tex-145-E**	**EA.**	**$225**
Conductivity of Soils	**Tex-146-E**	**EA.**	**$25**
Hydrometer Analysis	**AASHTO T 88**	**EA.**	**$450**
California Bearing Ratio	**AASHTO T 193/ ASTM C 1883**	**EA. point**	**$300**
**** Full Triaxial Testing includes the following: Washed Gradation, Atterberg Limits, Moisture- Density Relationship, Wet Ball Mill & Texas Triaxial***			

Bituminous (200-F Series)			
Test For	**Test Method**	**Unit**	**Unit Cost**
Dry Sieve Analysis	Tex-200-F, Part I	EA.	$50
Washed Sieve Analysis	Tex-200-F, Part II	EA.	$85
Bulk Specific Gravity & % Absorption	Tex-201-F	EA.	$85
Apparent Specific Gravity	Tex-202-F	EA.	$85
Sand Equivalent	Tex-203-F	EA.	$85
Mix Design	Tex-204-F	EA.	$2,500
Mixing	Tex-205-F	set of 3	$75
Molding (TGC)	Tex-206-F	set of 3	$60
Laboratory-Molded Density	Tex-207-F, Part I	set of 3	$40
In-Place Density (Core Testing)	Tex-207-F, Part I	EA.	$25
In-Place Density (Nuclear Method)	Tex-207-F, Part III (Min. of 3)	EA.	$30
In-Place Air Voids (Core Lock)	Tex-207-F, Part VI	set of 2	$75
Hveem Stability	Tex-208-F	set of 3	$120
Asphalt Content by Extraction & Gradation	Tex-210-F	EA.	$175
Asphalt Recovery from Abson Process	Tex-211-F	EA.	$250
Moisture Content	Tex-212-F	EA.	$25
Deleterious Material	Tex-217-F	EA.	$50
Decantation	Tex-217-F, Part II	EA.	$100
Flakiness Index	Tex-224-F	EA.	$100
Indirect Tensile Strength	Tex-226-F	EA.	$50
Theoretical Maximum Specific Gravity	Tex-227-F	EA.	$60
Drain-down Test	Tex-235-F	EA.	$75
Asphalt Content by Ignition Oven & Gradation	Tex-236-F	EA.	$175
Ignition Oven Correction Factors	Tex-236-F	EA.	$500
Hamburg Wheel-Tracking Test	Tex-242-F	EA.	$500
Cantabro Loss	Tex-245-F	EA.	$200
Overlay Test	Tex-248-F	EA.	$750
Flat and Elongated Particles	Tex-280-F	EA.	$100

Concrete (400-A Series)			
Test For	**Test Method**	**Unit**	**Unit Cost**
Sieve Analysis of Fine and Coarse Aggregate & Fineness Modulus	Tex-401-A & Tex-402-A	EA.	$85
Saturated Surface-Dry Specific Gravity & Absorption of Aggregates	Tex-403-A	EA.	$85
Unit Weight	Tex-404-A	EA.	$85
Material Finer than 75 Micrometer (No. 200) Sieve in Mineral Aggregates (Decantation)	Tex-406-A	EA.	$100
Acid Insoluble Residue for Concrete Aggregate	Tex-406-A, Part III	EA.	$350
Organic Matter Content	ASTM D 5268	EA.	$100
Organic Impurities in Fine Aggregate for Concrete	Tex-408-A	EA.	$100
Los Angeles Abrasion	Tex-410-A	EA.	$300
Magnesium or Sodium Sulfate Soundness	Tex-411-A	EA.	$300
Concrete Cylinder Compressive Strength	Tex-418-A	EA.	$22
Concrete Flexural Beam Compressive Strength	Tex-419-A	EA.	$22
Pressure Slake	Tex-431-A	EA.	$250
Freezer Thaw	Tex-432-A	EA.	$250
24 Hr Water Absorption	Tex-433-A	EA.	$85
Polish Test for Coarse Aggregate	AASHTO T 278 & 279/ Tex-438-A	EA.	$1,200
Coarse Aggregate Angularity (Crushed Faces)	Tex-460-A	EA.	$30
Micro-Deval Abrasion	Tex-461-A	EA.	$300
Moisture Susceptibility	Tex-530-C	EA.	$50
Alkali-Silica Reactivity (ASR)	AASHTO T 303 (ASTM C 1260)	EA.	$1,200
	ASTM C1567		

Asphalt (500-C Series)			
Test For	**Test Method**	**Unit**	**Unit Cost**
Boil Test	**Tex-530-C**	**EA.**	**$50**
Penetration	**AASHTO T 49**	**EA.**	**$50**
Ductility	**AASHTO T 51**	**EA.**	**$200**
Softening Point	**AASHTO T 53**	**EA.**	**$150**
Distillation of Cutback Asphalt Products	**AASHTO T 78**	**EA.**	**$150**
Rolling Thin-Film Oven (RTFO)	**AASHTO T 240**	**EA.**	**$250**
Elastic Recovery	**AASHTO T 301**	**EA.**	**$250**
Dynamic Shear Rheometer (DSR)	**AASHTO T 315**	**EA.**	**$100**
-Additional DSR Readings		**EA.**	**$50**
Rotational Viscosity	**AASHTO T 316**	**EA.**	**$50**
Rubber Property—Resilience by Vertical Rebound	**ASTM D 2632**	**EA.**	**$50**