WORK AUTHORIZATION NO. 1

PROJECT: Construction Material Testing and Inspection for Williamson County North Campus Facilities

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated **November 10, 2016** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **Raba Kistner, 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 **$131,000.00.**

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, 2017**. 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 13th day of December, 2016.

ENGINEER:

RABA KISTNER, INC.

By: _____
Signature

Gabriel Ornelas, Jr., PE, PMP
Printed Name

Vice President
Title

COUNTY:

Williamson County, Texas

By: _____
Signature

DAN A 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 Raba Kistner, Inc. 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

To provide engineering services for construction material testing and inspection services for the Williamson County North Campus Facilities project; a collection of small industrial buildings ranging from 5,000 square foot to 50,000 square foot to be located at 3151 SE Inner Loop Georgetown, Texas.

To include, but not be limited to:

- Soil sampling and testing
- Earthwork inspection
- Reinforced Concrete inspection and testing,
- Structural steel inspection and testing
- Masonry inspection and testing
- S-ample and test concrete, asphalt, HMACP, crushed stone base
- Conduct inspection of structural items of construction
- Provide weld inspection and testing

Attachment C - Work Schedule

Work schedule is approximately 490 calendar days from notice to proceed.

Attachment D - Fee Schedule

COST ESTIMATE BREAKDOWN			Date:	October 17, 2016
			Proposal Number:	PAD16-147-00
Project Name:	North Campus Facilities - Williamson County			
Project Location:	2910, 3151, & 3189 S.E. Inner Loop			
Contact Name:	Dwayne Gossett			
Client:	Williamson County			
Address:	3101 SE Inner Loop			
City/State /Zip	Georgetown, Texas 78626			
Phone Number::	512-943-1611			
Fax Number:	512-930-3313			
E-Mail:	dgossett@wilco.org			
TESTING/OBSERVATION ITEM	UNIT COST	UNIT	ESTIMATED QUANTITY	COST EXTENSION
SOILS				
Laboratory Testing				
Moisture Density Relationship, TxDOT or ASTM	$249.00	each	6	$1,494.00
Atterberg Limits	$83.00	each	6	$498.00
Sieve Analysis washed through No. 200	$83.00	each	6	$498.00
Lime Series Curve	$435.00	each	2	$870.00
Field Testing/Observation				
Field Lime Gradations	$63.00	each	12	$756.00
In-Place Nuclear Densities	$25.00	each	680	$17,000.00
Materials Technician	$50.00	hour	512	$25,600.00
Vehicle Travel Charge	$40.00	trip	98	$3,920.00
Subtotal				**$50,636.00**
REINFORCING STEEL OBSERVATIONS				
Field Observation/Testing				
Materials Technician	$50.00	hour	128	$6,400.00
Vehicle Travel Charge	$40.00	trip	32	$1,280.00
Subtotal				**$7,680.00**
CONCRETE SAMPLING AND TESTING				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	300	$5,100.00
Field Testing/Observation				
Materials Technician	$50.00	hour	190	$9,500.00
Materials Technician (overtime)	$70.00	hour	30	$2,100.00
Vehicle Travel Charge	$40.00	trip	65	$2,600.00
Subtotal				**$19,300.00**
DRILLED PIER OBSERVATIONS				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	95	$1,615.00
Field Testing/Observation				
Materials Technician	$50.00	hour	128	$6,400.00
Materials Technician (overtime)	$70.00	hour	32	$2,240.00
Geotecnical Engineer	$135.00	hour	4	$540.00
Vehicle Travel Charge	$40.00	trip	17	$680.00
Subtotal				**$11,475.00**
MASONRY OBSERVATION, SAMPLING AND TESTING				
Laboratory Testing				
Mortar Cubes (Visual Observation by Proportions)	$24.00	each	0	$0.00
Compressive Strength Grout	$17.00	each	165	$2,805.00
Field Testing/Observation				
Materials Technician	$50.00	hour	120	$6,000.00
Vehicle Travel Charge	$40.00	trip	32	$1,280.00
Subtotal				**$10,085.00**

COST ESTIMATE BREAKDOWN			Date:	October 17, 2016
			Proposal Number:	PAD16-147-00
Project Name:	North Campus Facilities - Williamson County			
THROUGH WALL FIRESTOP CAULKING PENETRATION OBSERVATIONS				
Field Testing/Observation				
Materials Technician	$50.00	hour	32	$1,600.00
Vehicle Travel Charge	$40.00	trip	8	$320.00
Subtotal				**$1,920.00**
STRUCTURAL STEEL INSPECTION				
Field Testing/Observation				
CWI Inspector	$95.00	hour	98	$9,310.00
Non Destructive Testing (Ultrasonic Testing)	$104.50	hour	8	$836.00
Vehicle Travel Charge	$40.00	trip	16	$640.00
Subtotal				**$10,786.00**
ASPHALT OBSERVATION, SAMPLING AND TESTING				
Laboratory Testing				
Bag Sample (Extraction, Gradation, A/C content,	$459.00	each	10	$4,590.00
Molding Specimens, Laboratory Density of Molded				
Specimens, Stability Test, Hveem, Maximum				
Theoretical Specific Gravity)				
Density of Asphalt Cores	$51.00	each	20	$1,020.00
Field Testing/Observation				
Materials Technician	$60.00	hour	40	$2,400.00
Coring	$92.00	hour	10	$920.00
Vehicle Travel Charge	$40.00	trip		$0.00
Subtotal				**$0.00**
FLOOR FLATNESS TESTING (If required - no requirements in Project Specifications)				
Floor Flatness Testing	$400.00	each	0	$0.00
Subtotal				**$0.00**
PROJECT ADMINISTRATION				
Project Manager	$175.00	hour	8	$1,400.00
Project Engineer (Review Reports)	$135.00	hour	30	$4,050.00
Subtotal				**$9,300.00**
Reporting and Report Distribution		10% of total cost		$0.00
		GRAND TOTAL		**$130,512.00**

Add-Alternate No. 1				
SOILS				
Laboratory Testing				
Moisture Density Relationship, TxDOT or ASTM	$249.00	each	0	$0.00
Atterberg Limits	$83.00	each	0	$0.00
Sieve Analysis washed through No. 200	$83.00	each	0	$0.00
Lime Series Curve	$435.00	each	0	$0.00
Field Testing/Observation				
Field Lime Gradations	$63.00	each	4	$252.00
In-Place Nuclear Densities	$25.00	each	22	$550.00
Materials Technician	$50.00	hour	36	$1,800.00
Vehicle Travel Charge	$40.00	trip	9	$360.00
Subtotal				**$2,962.00**
REINFORCING STEEL OBSERVATIONS				
Field Observation/Testing				
Materials Technician	$50.00	hour	0	$0.00
Vehicle Travel Charge	$40.00	trip	0	$0.00
Subtotal				**$0.00**
CONCRETE				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	10	$170.00
Field Testing/Observation				
Materials Technician	$50.00	hour	10	$500.00
Non Destructive Testing (Ultrasonic Testing)	$85.00	hour		$0.00
Vehicle Travel Charge	$50.00	trip		$0.00
Subtotal				**$0.00**
ASPHALT				
Laboratory Testing				
Bag Sample (Extraction, Gradation, A/C content,	$459.00	each	1	$459.00
Molding Specimens, Laboratory Density of Molded				
Specimens, Stability Test, Hveem, Maximum				
Theoretical Specific Gravity)				
Density of Asphalt Cores	$51.00	each	2	$102.00
Field Testing/Observation				
Materials Technician	$50.00	hour	4	$200.00
Vehicle Travel Charge	$40.00	trip	1	$40.00
Subtotal				**$801.00**
PROJECT ADMINISTRATION				
Project Manager	$175.00	hour	0	$0.00
Project Engineer (Review Reports)	$135.00	hour	1	$135.00
Subtotal				**$300.00**
Reporting and Report Distribution		10% of total cost		$0.00
		GRAND TOTAL		**$4,853.00**

Add-Alternate No. 2				
SOILS				
Laboratory Testing				
Moisture Density Relationship, TxDOT or ASTM	$249.00	each	0	$0.00
Atterberg Limits	$83.00	each	0	$0.00
Sieve Analysis washed through No. 200	$83.00	each	0	$0.00
Time Series Curve	$435.00	each	0	$0.00
Field Testing/Observation				
Field Lime Gradations	$63.00	each	4	$252.00
In-Place Nuclear Densities	$25.00	each	18	$450.00
Materials Technician	$50.00	hour	21	$1,050.00
Vehicle Travel Charge	$40.00	trip	7	$280.00
Subtotal				**$2,032.00**
REINFORCING STEEL OBSERVATIONS				
Field Observation/Testing				
Materials Technician	$50.00	hour	0	$0.00
Vehicle Travel Charge	$40.00	trip	0	$0.00
Subtotal				**$0.00**
CONCRETE				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	5	$85.00
Field Testing/Observation				
Materials Technician	$50.00	hour	6	$300.00
Non Destructive Testing (Ultrasonic Testing)	$85.00	hour		$0.00
Vehicle Travel Charge	$50.00	trip		$0.00
Subtotal				**$0.00**
ASPHALT				
Laboratory Testing				
Bag Sample (Extraction, Gradation, A/C content,	$459.00	each	1	$459.00
Molding Specimens, Laboratory Density of Molded				
Specimens, Stability Test, Hveem, Maximum				
Theoretical Specific Gravity)				
Density of Asphalt Cores	$51.00	each	2	$102.00
Field Testing/Observation				
Materials Technician	$50.00	hour	4	$200.00
Vehicle Travel Charge	$40.00	trip	1	$40.00
Subtotal				**$801.00**
PROJECT ADMINISTRATION				
Project Manager	$175.00	hour	0	$0.00
Project Engineer (Review Reports)	$135.00	hour	1	$135.00
Subtotal				**$245.00**
Reporting and Report Distribution		10% of total cost		$0.00
		GRAND TOTAL		**$3,543.00**

Add-Alternate No. 3				
SOILS				
Laboratory Testing				
Moisture Density Relationship, TxDOT or ASTM	$249.00	each	0	$0.00
Atterberg Limits	$83.00	each	0	$0.00
Sieve Analysis washed through No. 200	$83.00	each	0	$0.00
Lime Series Curve	$435.00	each	0	$0.00
Field Testing/Observation				
Field Lime Gradations	$63.00	each	4	$252.00
In-Place Nuclear Densities	$25.00	each	28	$700.00
Materials Technician	$50.00	hour	32	$1,600.00
Vehicle Travel Charge	$40.00	trip	8	$320.00
Subtotal				**$2,872.00**
REINFORCING STEEL OBSERVATIONS				
Field Observation/Testing				
Materials Technician	$50.00	hour	0	$0.00
Vehicle Travel Charge	$40.00	trip	0	$0.00
Subtotal				**$0.00**
CONCRETE				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	5	$85.00
Field Testing/Observation				
Materials Technician	$50.00	hour	6	$300.00
Non Destructive Testing (Ultrasonic Testing)	$85.00	hour		$0.00
Vehicle Travel Charge	$50.00	trip		$0.00
Subtotal				**$0.00**
ASPHALT				
Laboratory Testing				
Bag Sample (Extraction, Gradation, A/C content,	$453.00	each	1	$453.00
Molding Specimens, Laboratory Density of Molded				
Specimens, Stability Test, Hveem, Maximum				
Theoretical Specific Gravity)				
Density of Asphalt Cores	$51.00	each	2	$102.00
Field Testing/Observation				
Materials Technician	$50.00	hour	4	$200.00
Vehicle Travel Charge	$40.00	trip	1	$40.00
Subtotal				$795.00
PROJECT ADMINISTRATION				
Project Manager	$175.00	hour	0	$0.00
Project Engineer (Review Reports)	$135.00	hour	1	$135.00
Subtotal				**$245.00**
Reporting and Report Distribution		10% of total cost		$0.00
		GRAND TOTAL		**$3,992.00**

Add-Alternate No. 4				
SOILS				
Laboratory Testing				
Moisture Density Relationship, TxDOT or ASTM	$249.00	each	0	$0.00
Atterberg Limits	$83.00	each	0	$0.00
Sieve Analysis washed through No. 200	$83.00	each	0	$0.00
Lime Series Curve	$435.00	each	0	$0.00
Field Testing/Observation				
Field Lime Gradations	$63.00	each	2	$126.00
In-Place Nuclear Densities	$25.00	each	8	$200.00
Materials Technician	$50.00	hour	16	$800.00
Vehicle Travel Charge	$40.00	trip	4	$160.00
Subtotal				$1,286.00
REINFORCING STEEL OBSERVATIONS				
Field Observation/Testing				
Materials Technician	$50.00	hour	0	$0.00
Vehicle Travel Charge	$40.00	trip	0	$0.00
Subtotal				$0.00
CONCRETE				
Laboratory Testing				
Concrete Compressive Strength Cylinders	$17.00	each	0	$0.00
Field Testing/Observation				
Materials Technician	$50.00	hour	0	$0.00
Non Destructive Testing (Ultrasonic Testing)	$85.00	hour		$0.00
Vehicle Travel Charge	$50.00	trip		$0.00
Subtotal				$0.00
ASPHALT				
Laboratory Testing				
Bag Sample (Extraction, Gradation, A/C content,	$453.00	each	1	$453.00
Molding Specimens, Laboratory Density of Molded				
Specimens, Stability Test, Hveem, Maximum				
Theoretical Specific Gravity)				
Density of Asphalt Cores	$51.00	each	2	$102.00
Field Testing/Observation				
Materials Technician	$50.00	hour	4	$200.00
Vehicle Travel Charge	$40.00	trip	1	$40.00
Subtotal				$795.00
PROJECT ADMINISTRATION				
Project Manager	$175.00	hour	0	$0.00
Project Engineer (Review Reports)	$135.00	hour	1	$135.00
Subtotal				$245.00
Reporting and Report Distribution		10% of total cost		$0.00
		GRAND TOTAL		$2,326.00

General:

1. We understand that Williamson County will require the services of experienced engineering technicians as scheduled by you or your representatives. Client will incur a 3 hour minimum charge per each site visit. We request twenty-four (24) hour notification to properly schedule our work.

2. Service charges are based on the hourly rates stated herein and will be assessed from the time the Engineer or Technician leaves our office until he returns from the project.

3. A vehicle travel charge will be assessed for round trip travel from our office to the project site, material supplier, etc. and back to our office.

4. Our total cost of services is based upon the assumption that this project will require a technician on site during normal work hours. Services requested during days and/or hours requiring overtime rates may significantly increase the total cost of services shown herein. Normal work hours are defined as Monday through Friday, 7:00 am to 5:00 pm. Overtime rates at 1.4 times the normal hourly rate will be assessed after eight (8) hours of continuous work per day.