

**WORK AUTHORIZATION NO. 4**

**PROJECT: P562 (Parks Bond A) Expo Center Various Improvements  
On-Call Materials Testing and Geotechnical Engineering Services**

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated May 5, 2020 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **Kleinfelder, Inc.** (the "Engineer").

Part 1. 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 **\$5,500.00.**

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 10, 2022.** 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 \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

ENGINEER: Kleinfelder, Inc.

\_\_\_\_\_

COUNTY:

Williamson County, Texas

By: Kelly Daniel  
Signature

Kelly Daniel  
Printed Name

Operations Manager  
Title

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
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**

Williamson County Facilities is constructing improvements at the Wilco Expo Center. The improvements will consist of new asphalt pavements for the proposed Tarmac Area (scope 2). The Earthwork associated with this scope shall be performed in accordance with the Geotechnical Soils Report. Also, included will be new 18" curb & gutter and an 18" ribbon curb perimeter.

The following information will be provided by Williamson County for the use develop of the scope of services:

- Review of the project drawings from Parkhill Smith and Cooper (Civil Drawings)
- Review of the Geotechnical Soils Report (Kleinfelder Project No. 20211543.004a)

## **Attachment B - Services to be Provided by Engineer**

### **GENERAL REQUIREMENTS**

**Coordination.** Engineer shall coordinate issues through County's PM. County will communicate, in writing, resolution of issues and provide A/E direction through County's PM.

**Level of Effort.** Engineer shall base the level of effort at each phase on the prior work developed in earlier phases without unnecessary repetition or re-study.

### **Scope of Work**

Engineer will perform Special Inspection and Testing Services for the above-referenced project. Engineer will provide only the construction materials testing and Special Inspections in accordance with the project plans and specifications. The need for testing services will be identified and scheduled by the counties project manager or a designated representative.

### **Soils Observation and Testing**

Engineer will staff the project with a soils inspector to observe and test the soil during excavation, grading, and flexible base placement. Services will include in-situ density testing by nuclear method and proof rolling inspections prior to placement of flexible base course and asphalt paving. Backfill material and compaction effort will need to be observed for appropriate compaction, moisture content, and debris. Compaction testing will be performed to verify that in-place soil density and moisture content of prepared subgrade & engineered fills are within the project specifications. Engineer's personnel will sample materials for transportation to our laboratory to provide moisture density relationships (Proctors) as needed and described in our fee schedule.

If additional testing or engineering oversight is required, engineer can perform these services after receiving appropriate authorization from the owner's representative.

### **Hot-Mix Asphaltic Concrete (HMAC) Placement**

Engineer will provide a technical professional to implement an appropriate field and laboratory testing program to report that the HMAC paving provided at the project site is in conformance with project specifications. Engineer's services may include: Rolling pattern observation and nuclear density testing during placement for compaction control and three HMAC core samples for field density core testing. Asphalt field and laboratory testing will be completed in accordance with the units shown on Exhibit D of the proposal submitted by Engineer dated July 15, 2021, Fee Schedule.

Engineer will provide project with a project manager to serve as coordinator of services. Engineer's project manager will review the field and laboratory reports during the assessment and construction phases. Items found in non-compliance with the project requirements will be brought to the immediate attention of the construction manager for delivery to the general contractor's construction superintendent, designated design professionals, and your responsible

representative and noted in the deviations log. The project will be managed closely to identify potential budget and schedule impacts during the project. Engineer's project manager will also monitor field operations for possible out-of-scope items that develop during the course of the project that are not included in this proposal and cost estimate.

Services will not include: (1) supervision, direction, or acceptance of the contractor's work; (2) interpretation or modification of the project plans or specifications; (3) submittal of test results or reports to any regulatory agency (unless specifically requested in writing); or (4) job site safety.

## **Attachment C - Work Schedule**

A/E agrees to complete the professional design services called for in **Attachment A** of this Work Authorization within **Three Hundred Ninety-Six Days (396) calendar days** from the date of this Work Authorization.

The above time limits may, for good cause, be extended, in writing, by County as the Project proceeds.

The schedule below indicates various project milestones and target dates.  
Standard end-of-phase review periods for County shall be (10) business days minimum.

Work Authorization Execution Date	<b>08/10/21</b>
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### **Phase I - CONSTRUCTION MATERIALS AND TESTING**

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Contractor Notice to Proceed	08/10/21
Construction Completion	08/10/22

### **Phase II - PROJECT CLOSE-OUT**

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Record Documents deliverables	08/10/22
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Agreement Termination Date	<b>09/10/22</b>
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#### **Attachment D - Fee Schedule**

Engineer proposes to perform the Scope of Services for a **Not To Exceed fee of \$5,500**. Invoices will be issued on a monthly basis and upon completion of the project. These amounts will not be exceeded without prior approval. The County and Engineer may subsequently agree in writing to provide for additional services to be rendered under this agreement for additional, negotiated compensation. The schedule summarized above may be significantly impacted by work limitations imposed by government mandates and general health concerns related to COVID-19. If the work is limited due to these concerns, our schedule will be extended. We will notify Williamson County immediately if this occurs



PROFESSIONAL STAFF RATES\*

Staff Professional.....	\$	114/ hour
Project Professional or Professional Engineer.....	\$	145/ hour
Project Manager.....	\$	145/ hour
Senior Project Manager.....	\$	166/ hour

TECHNICAL STAFF RATES

Technician .....	\$	60/ hour
Senior Inspector.....	\$	100/ hour
Construction Manager.....	\$	145/ hour

ADMINISTRATIVE STAFF RATES

Administrator .....	\$	67/ hour
Project Administrator.....	\$	82/ hour



KLEINFELDER FEE SCHEDULE – WILLIAMSON COUNTY FOR  
GEOTECHNICAL and MATERIALS LABORATORY TESTING SERVICES

### SOIL TESTS

<b>SOIL DENSITY TESTS</b>				
<u>Test</u>	<u>Standard Test Method†</u>	<u>Fee</u>		
Standard Proctor, 4" Mold	D698, T99	\$ : 240.00	:	each
Standard Proctor, 6" Mold	D698, T99	\$ : 240.00	:	each
Modified Proctor, 4" Mold	D1557, T180	\$ : 260.00	:	each
Modified Proctor, 6" Mold	D1557, T180	\$ : 260.00	:	each
Proctor Check Point	T272	\$ : 125.00	:	each
Proctor Oversize Correction	D4718	\$ : 70.00	:	each
Treated Soil Proctor	D558	\$ : 320.00	:	each
Minimum and Maximum Relative Density	D4254, D4253	\$ : 400.00	:	each
Moisture/Density, TEX 113-E	TEX-113-E	\$ : 275.00	:	each
Moisture/Density, TEX 114-E	TEX-114-E	\$ : 275.00	:	each
Nuclear Density Test	D6938, TEX-115-E	\$ : 28.00	:	each
Triaxial Test, TEX117E, Part I	TEX-117E	\$ : 2,250.00	:	each
Triaxial Test, TEX117E, Part II	TEX-117E	\$ : 1,950.00	:	each

  

<b>SOIL CLASSIFICATION AND INDEX TESTS</b>				
<u>Test</u>	<u>Standard Test Method†</u>	<u>Fee</u>		
Visual Classification	D2488	\$ : 20.00	:	each
Sieve Analysis, % Finer than 200 Sieve	D1140, TEX-111-E	\$ : 85.00	:	each
Sieve Analysis, Fine	D422, D6913, T88, TEX-110-E	\$ : 85.00	:	each
Sieve Analysis, Coarse	D422, D6913, T88, TEX-110-E	\$ : 85.00	:	each
Hydrometer Analysis ( <i>Requires a Sieve Analysis, not included</i> )	D422, D7928	\$ : 175.00	:	each
Water Content	D2216, D4363, TEX-103-E	\$ : 25.00	:	each
Atterberg Limits, Single Point	D4318, TEX-104, 105, 106-E	\$ : 79.00	:	each
Atterberg Limits, Multiple Point	D4318-A, T89, T90	\$ : 150.00	:	each
Soil Specific Gravity	D854, T100	\$ : 110.00	:	each
Soil Organic Content	D2974-C	\$ : 110.00	:	each
Soil pH	D4972, G51, TEX-128-E	\$ : 60.00	:	each
Soil Resistivity	G187	\$ : 160.00	:	each
Chloride Content		\$ : 60.00	:	each
Sulfate Content	TEX-145-E	\$ : 60.00	:	each

†Common ASTM, AASHTO and DOT test methods.

- Those beginning with A, B, C, D, E, F, or G are ASTM methods.
- Those beginning with T are AASHTO methods.

PROFESSIONAL STAFF RATES\*

Staff Professional.....	\$	114/ hour
Project Professional or Professional Engineer.....	\$	145/ hour
Project Manager.....	\$	145/ hour
Senior Project Manager.....	\$	166/ hour

TECHNICAL STAFF RATES

Technician .....	\$	60/ hour
Senior Inspector.....	\$	100/ hour
Construction Manager.....	\$	145/ hour

ADMINISTRATIVE STAFF RATES

Administrator .....	\$	67/ hour
Project Administrator.....	\$	82/ hour



### SOIL TESTS (continued)

#### **SOIL STRENGTH AND PERMEABILITY TESTS**

<b>Test</b>	<b>Standard Test Method<sup>†</sup></b>	<b>Fee</b>	
Pocket Penetration Value		\$ 30	each
Unconfined Compressive Strength	D2166, T208	\$ 140	each
Direct Shear, 1 Point	D3080, T236	\$ 150	each
Direct Shear, 3 Points	D3080, T236	\$ 390	each
Direct Shear, Residual Strength, Each Pt	D3080-Modified	\$ 250	each
Consolidation without Time Rate Plots	D2435-Modified	\$ 345	each
Consolidation with 2 Time Rate Plots	D2435-A, T216-A	\$ 450	each
Consolidation, All Loads with Time Rates	D2435-B, T216-B	\$ 630	each
Collapse Potential	D5333	\$ 250	each
One Dimensional Swell – Wetting After Loading, Series	D4546-A	\$ 300	each
One Dimensional Swell – Wetting After Loading	D4546-B	\$ 175	each
One Dimensional Swell – Loading After Wetting	D4546-C	\$ 475	each
Expansion Index	D4829	\$ 195	each
Denver Swell Test		\$ 125	each
Permeability, Rigid Wall	D2434	\$ 450	each
Permeability, Flexible Wall	D5084-C	\$ 390	each
Triaxial Compression, CU, 1 Point	D4767, T297	\$ 500	each
Triaxial Compression, CU, 3 Points	D4767, T297	\$ 1,350	each
Triaxial Compression, UU, 1 Point	D2850, T296	\$ 210	each
Triaxial Compression, UU, 3 Points	D2850, T296	\$ 630	each
Triaxial Compression, UU Saturated, 1 Point	D2850-Modified	\$ 300	each
Triaxial Test, TEX117E, Part I	TEX-117-E	\$ 1,950	each
Triaxial Test, TEX117E, Part II	TEX-117-E	\$ 1,950	each

### AGGREGATE TESTS

<b>Test</b>	<b>Standard Test Method<sup>†</sup></b>	<b>Fee</b>	
Acid Solubility	TEX-612-J	\$ 175.00	each
Clay Lumps and Friable Particles, per size <i>*(see note below)</i>	C142, T112	\$ 105.00	each
Coarse Specific Gravity & Absorption	C127, T85	\$ 80.00	each
Fine Specific Gravity & Absorption	C128, T84	\$ 105.00	each
Flat and Elongated Particles, per size <i>*(see note below)</i>	D4791	\$ 80.00	each
Fractured Faces, per size <i>*(see note below)</i>	D5821, T335	\$ 105.00	each
Los Angeles Abrasion, Large Aggregate	C535, TEX-410-A	\$ 350.00	each

<sup>†</sup>Common ASTM, AASHTO and DOT test methods.

- Those beginning with A, B, C, D, E, F, or G are ASTM methods.
- Those beginning with T are AASHTO methods.

Los Angeles Abrasion, Small Aggregate	: C131, T96, TEX-410-A	: \$	: 320.00	: each
Mortar Sand Strength	: C87, CTM515	: \$	: 580.00	: each
Organic Impurities	: C40, T21, TEX-408-A	: \$	: 65.00	: each
Sand Equivalent, 1 point	: D2419, T176	: \$	: 75.00	: each
Sand Equivalent, 3 points	: D2419, T176	: \$	: 140.00	: each
Sieve Analysis, % Finer than 200 Sieve	: C117, T11	: \$	: 75.00	: each
Sieve Analysis, Fine	: C136, T27	: \$	: 85.00	: each
Sieve Analysis, Coarse	: C136, T27	: \$	: 85.00	: each
Soundness of Aggregate, per size	: C88, T104	: \$	: 330.00	: each
Unit Weight	: C29, T19	: \$	: 65.00	: each
Water Content	: D2216, C566, T255	: \$	: 25.00	: each
Texas Wet Ball Mill	: TEX-116-E	: \$	: 300.00	: each
Decantation Wash	: TEX-406-A	: \$	: 60.00	: each
Uncompacted Void Content of Fine Aggregate	: C1252, T304	: \$	: 135.00	: each
*Tests are billed by each size fraction tested. The quantity of fractions tested is dependent on the sample gradation and test method.				

### CONCRETE TESTS

<u>Test</u>	<u>Standard Test Method†</u>	<u>Fee</u>		
Concrete Compression	C39	\$	25.00	each
Concrete Core Compression	C42	\$	70.00	each
Concrete Cylinder Unit Weight	C567	\$	105.00	each
Concrete Flexural Strength	C78	\$	105.00	each
Shotcrete Compression	C1140	\$	80.00	each
CLSM Compression	D4832	\$	45.00	each

### MASONRY TESTS

<u>Test</u>	<u>Standard Test Method†</u>	<u>Fee</u>		
Masonry Grout Compression	C1019	\$	25.00	each
Masonry Mortar Compression	C942	\$	25.00	each

†Common ASTM, AASHTO and DOT test methods.

- Those beginning with A, B, C, D, E, F, or G are ASTM methods.
- Those beginning with T are AASHTO methods.

## ASPHALT TESTS

<u>Test</u>	<u>Standard Test Method<sup>†</sup></u>	<u>Fee</u>		
Air Voids Determination ( <i>calculation only</i> )	D3203	\$	50.00	each
Gradation of Extracted Aggregate	D5444	\$	120.00	each
AC Core Thickness	D3549	\$	15.00	each
AC Content by Extraction	D2172	\$	210.00	each
Hveem Stability	D1560	\$	340.00	each
Hveem Stability without Compaction	D1560	\$	175.00	each
AC Content by Ignition Oven	D6307, T308	\$	150.00	each
AC Moisture Content	T329	\$	55.00	each
AC Content by Nuclear Gauge	D4125	\$	220.00	each
Marshall Stability and Flow ( <i>does not include compaction</i> )	D6927	\$	160.00	each
AC Core Unit Weight & Thickness	D1188, D2726, D3549	\$	55.00	each

## **DESIGN AND DENSITY TESTS**

<u>Test</u>	<u>Standard Test Method<sup>†</sup></u>	<u>Fee</u>		
Maximum Theoretical Specific Gravity	D2041	\$	150.00	each
Mix Design, Hveem Method		\$	5,400.00	each
Mix Design, Marshall Method		\$	3,000.00	each
Mix Design, Superpave Method		\$	6,000.00	each

## SAMPLE PREPARATION

### **SAMPLE PREPARATION**

<u>Test</u>	<u>Standard Test Method<sup>†</sup></u>	<u>Fee</u>		
Rock Sample Preparation	D4543	\$	100	each
Sample Crushing		\$	150	each
Sample Cutting and Trimming		\$	35	each
Sample Mixing and Processing		\$	105	each
Sample Preparation		\$	55	each
Sample Preparation, per hour		\$	105	each
Sample Remolding		\$	80	each
Contamination Fee		\$	250	each
Sample Disposal Fee		\$	10	each

## MISCELLANEOUS

<u>Test</u>	<u>Standard Test Method<sup>†</sup></u>	<u>Fee</u>		
Hydraulic Ram Calibration		\$	300.00	each
Vehicle Charge, per trip		\$	50.00	each

**\*\* Other test methods quoted upon request**

**<sup>†</sup>Common ASTM, AASHTO and DOT test methods.**

- Those beginning with A, B, C, D, E, F, or G are ASTM methods.
- Those beginning with T are AASHTO methods.

### BASIS OF CHARGES

1. Listed herein are typical prices for services most frequently performed by Engineer. Prices for other services provided by the firm or other services not listed will be given upon request, as well as special quotations for programs involving volume work.
2. A two-hour minimum charge will be made for all field services. Technical professional time for field services is billed portal-to-portal, in hourly increments following the minimum 2 hours.
3. Hours worked before 7 a.m. / after 5 p.m. Monday through Friday and time worked in excess of 8 hours per day will be charged at 1.5 times the hourly rate. Additionally, weekend (Saturday and Sunday) and holiday work will be charged at 1.5 times the hourly rate.
4. We are protected by Worker's Compensation Insurance (and/or Employer's Liability Insurance), and by Public Liability Insurance for bodily injury and property damage, and will furnish certificates thereof upon request. We assume the risk of damage to our own supplies and equipment. If your contract or purchase order places greater responsibilities upon us or requires further insurance coverage, we, specifically directed by you, will take out additional insurance (if procurable) to protect us at your expense, but we shall not be responsible for property damage from any cause, including fire and explosion, beyond the amounts of coverage of our insurance.
5. The attached schedule of fees will be valid for one calendar year.