

# EXHIBIT D

## -Work Authorization Form

**HIDALGO COUNTY**  
**Professional Engineering Services**  
**"Construction Material Testing"**  
**"MILE 17.5 (Paving & Drainage Improvements)"**  
**Agreement # C-16-248-07-06**

### WORK AUTHORIZATION NO. 1

**THIS WORK AUTHORIZATION** is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **Terracon Consultants, Inc.** professional engineers of Pharr, Texas, hereinafter called "**Engineer**".

#### **PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is for the "engineering services" to provide "construction materials testing" for the Mile 17 ½ (Paving & Drainage improvements) Project.

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The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

#### **PART 2. ESTIMATED COST**

The estimated cost for services under this Work Authorization is **(\$13,760.00)**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D"**.

#### **PART 3. PAYMENT**

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/**Section 4** of the Agreement.

#### **PART 4. FUNDING**

This **Work Authorization No. 1** shall be funded through funding source:

Account No. \_ \_ \_ \_ \_

Requisition Number \_\_\_\_\_ (**MUST BE INCLUDED AFTER CC APPROVAL**)

#### **PART 5. PERIOD OF SERVICE**

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization.

**PART 6. RESPONSIBILITIES AND OBLIGATIONS**

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

**PART 7. ACKNOWLEDGEMENT AND CONFIRMATION**

Acknowledgement and Confirmation by **Hidalgo County Precinct No.4**, as to content and detail of this **Work Authorization No. 1**.

**HIDALGO COUNTY PRECINCT No. 4:**

By: \_\_\_\_\_  
Joseph Palacios, Commissioner

**PART 8. ACCEPTANCE AND APPROVAL**

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on \_\_\_\_\_ as indicated below and effective as of \_\_\_\_\_ day of \_\_\_\_\_, 2016.

**THE ENGINEER:  
TERRACON CONSULTANTS, INC.**

**THE OWNER:  
HIDALGO COUNTY**

By: \_\_\_\_\_  
Jorge A Flores, P.G./Principal

By: \_\_\_\_\_  
Ramon Garcia, County Judge

**ATTEST:**

By: \_\_\_\_\_  
Arturo Guajardo Jr., County Clerk

**LIST OF ATTACHMENTS**

- ATTACHMENT "A"** - Service to be provided by the Owner
- ATTACHMENT "B"** - Services to be provided by the Engineer
- ATTACHMENT "C"** - Work Schedule
- ATTACHMENT "D"** - Cost Proposal

# EXHIBIT A

## -Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

### **General:**

The Owner will provide to the Engineer the following:

- 1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
- 2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
- 3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
- 4) Provide any available relevant data the Owner may have on file concerning the projects.
- 5) Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
- 7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.



**Proposal for Materials Testing Services**  
Mile 17 ½ (Paving & Drainage Improvements) ■ McAllen, Texas  
June 10, 2016 ■ Terracon Proposal No. P88161121

**A.2 Project Description**

ITEM	DESCRIPTION
<b>Pavements</b>	Development will include construction of flexible pavements for the proposed new road.
<b>Grading</b>	Refer to civil grading plans.
<b>Cut and fill slopes</b>	Refer to civil plans.
<b>Construction Type</b>	Flexible pavement systems.

Should any of the above information be inconsistent with the planned construction please let us know so that we may make any necessary modifications to this proposal.

**B. SCOPE OF SERVICES**

Terracon will perform materials testing in general accordance with the project specifications. The time required for quality control testing during the construction phase on the project is directly related to the contractor’s scheduling and performance. Therefore, our fee for materials testing and observation services will be based upon applicable unit prices and hourly rates. Our anticipated scope of services is as follows:

- Field density/moisture testing and laboratory evaluation of soils; and
- Field testing and laboratory evaluation of asphaltic concrete materials used during pavement construction.

Experienced field/laboratory personnel will be provided for testing services. All field/laboratory materials testing/inspection will be performed under the direction of a Texas Registered Professional Engineer. A detailed scope of services envisioned to complete the testing is as follows:

**SOILS**

The field services will be supported by appropriate laboratory evaluation of soils used as fill or backfill on the site. The laboratory testing will include laboratory moisture-density relationship (Proctor), with sieve analysis and Atterberg limits determinations for classification and/or determination of import fill suitability. Laboratory material evaluations will be conducted as specified for each type of soil encountered during fill placement. The testing will be performed to check compliance with project specifications. The project contractor and construction manager personnel on the site will be informed of our field observations and test results. Written reports of test results will be prepared on a regular basis throughout the project duration and distributed per your directive.

## Proposal for Materials Testing Services

Mile 17 ½ (Paving & Drainage Improvements) ■ McAllen, Texas

June 10, 2016 ■ Terracon Proposal No. P88161121



### ASPHALT

Observations/testing will be performed by, or under the direction of TxDOT Level 1A and 1B certified engineering technicians or equivalent qualified engineering technicians on as requested basis during placement of asphalt at the project. The asphalt will be sampled and submitted to our laboratory for mix properties, asphalt content and aggregate grain size distribution to verify compliance with project specifications. Asphalt cores will confirm thickness and nuclear gauge density.

### PROJECT MANAGEMENT

The project manager will be the point of contact for the project and his duties could include the following:

- a) Attend construction meetings, on as scheduled basis
- b) Review concrete mixes submitted, on as scheduled basis
- c) Coordinate field and laboratory testing,
- d) Communicate with Terracon field technicians, Contractor, and Owner's site representative,
- e) Review laboratory and field test reports,
- f) Control our budget and invoice.
- g) Performing site visits to the project site.
- h) Provide technical assistance.

## C. COMPENSATION

We estimate the fee of our services to be **\$13,760**. A breakdown of the fee is outlined in the attached Table 1. **Please recognize that this is an estimate.** We will only invoice for the actual services and required laboratory tests. In the event that construction activities do not require the time we have estimated, the fee will be lower than our estimated fee. If more services are required due to conditions such as scheduling, inclement weather, or retesting, this fee estimate may be exceeded.

If it becomes apparent to Terracon that the requested services cannot be performed within the estimated fee and proposed testing and observation quantities, we will submit a written request for a change order. Our estimated fee and any services due to change orders will be provided at the unit rates shown in Table 1.

Please be aware that we will be unable to distribute field and laboratory reports until a signed contract is received.

## Exhibit C – Work Schedule

Terracon's work schedule is directly related to the contractor's scheduling and performance. It is the responsibility of the contractor or your designated representative to notify Terracon, in advance (minimum of 24 hour notice), for testing services required on this project. Our services will be performed on an as requested basis.

Proposal for Materials Testing Services

Mile 17 1/2 (Paving & Drainage Improvements) ■ McAllen, Texas

June 10, 2016 ■ Terracon Proposal No. P88161121



TABLE 1  
ESTIMATED FEE SUMMARY

Our fee estimate is in accordance with the time and tests performed as shown below.

**SOILS**

Estimate 150 hours field testing and observation @ \$43/hour.....	\$ 6,450
Estimate 3 standard proctors @ \$200/test.....	\$ 600
Estimate 1 modified proctors @ \$200/test.....	\$ 200
Estimate 4 Atterberg Limits @ \$60/test .....	\$ 240
Estimate 4 sieve analysis (-200) @ \$60/test.....	\$ 240
Estimate 130 nuclear density tests (every 300 linear feet at every 6" lift) @ \$12/test .....	\$ 1,560
Estimate 50 vehicle trips @ \$20/trip .....	\$ 1,000
<i>Sub-Total (Soils)</i> .....	<i>\$ 10,290</i>

**ASPHALT**

Estimate 30 hours asphalt observation @ \$43/hour.....	\$ 1,290
Estimate 2 asphalt mix verification @ \$250/test.....	\$ 500
Estimate 10 asphalt cores @ \$40/core.....	\$ 400
Estimate 10 vehicle trips @ \$20/trip.....	\$ 200
<i>Sub-Total (Asphalt)</i> .....	<i>\$ 2,390</i>

Project Manager 12 hours @ \$90/hour ..... \$ 1,080

**Total Cost ..... \$ 13,760**