

EXHIBIT “F”
HIDALGO COUNTY
Professional Engineering Services for Construction Material Testing Agreement
Agreement # C-23-0285-08-08/ARPA-22-124-094

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Professional Engineering Services Agreement No. C-23-0285-08-08, incorporated herein by reference, for the “**Construction Material Testing - Hidalgo County Precinct 4 Bentsen Stormwater Project**” made by and between HIDALGO COUNTY, action herein by and through the Commissioner’s Court, hereinafter called the “**Owner**,” and B2Z ENGINEERING, LLC., hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide Construction Material Testing services for and during the construction of the Project, or portions of the Project, as approved by the COUNTY

The **Engineer** is to provide the scope of Services as required by the Agreement with Owner.

The scope of services to be provided by the **Engineer** is identified in **Attachment “A”** – “*Scope of Services to be provided by Engineer*” attached hereto and incorporated by reference.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is **\$16,464.20**. This amount is based upon the costs outlined in the **Attachment “B”** – “*Fee Proposal*” attached hereto and incorporated by reference.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the **Professional Engineering Services for Construction Material Testing Agreement No. C-23-0285-08-08** between the **Owner** and the **Engineer**.

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 the scopes of the Work Authorization, within the**

limits of Agreement No. C-23-0285-08-08, provided in this Work Authorization; or on (_____ DATE _____). *If applicable:* Engineer shall conform to the approved “Work/Project Schedule”, attached hereto and incorporated by reference herein as **Attachment “C”**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties’ responsibilities and obligations provided under the **Agreement No. C-23-0285-08-08.**

PART 7. ACKNOWLEDGMENT AND CONFIRMATION

Acknowledgment and confirmation by **Hidalgo County Precinct 4, Commissioner Ellie Torres,** as to content and detail of this **Work Authorization No. 1.**

HIDALGO COUNTY PRECINCT No. 4

By: _____
Ellie Torres, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners’ Court on August 8th, 2023 as indicated below and effective as of **8th** day of **August, 2023.**

EXECUTED as of the day and year first written above.

APPROVED BY COMMISSIONERS’ COURT ON AUGUST 8TH, 2023.

Agenda Item No. 91857

Executive Office: _____

ENGINEER:
B2Z ENGINEERING, LLC

COUNTY:
COUNTY OF HIDALGO

Aisha Gonzalez, President

Hon. Richard F. Cortez, County Judge

ATTEST:

Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS:

Attachment “A” – Scope of Services to be provided by Engineer

Attachment “B” – Fee Proposal

Attachment “C” – Approved Work/Project Schedule (If applicable)



ATTACHMENT A

**PROJECT SPECIFIC SCOPE OF SERVICES
TO BE PROVIDED BY ENGINEER**

ATTACHMENT “A”
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER/
LABORATORY**

PROJECT DESCRIPTION

The services designated herein as “Services provided by the ENGINEER/LABORATORY” shall include the performance of all construction material testing services for the following described facility:

ENTITY: HIDALGO COUNTY

PROJECT/DESCRIPTION: BENTSEN ROAD STORMWATER PROJECT

ENGINEER/ENGINEER/LABORATORY shall mean B2Z Engineering, LLC

COUNTY shall mean the Hidalgo County

CONSTRUCTION PHASE SERVICES

The ENGINEER will provide Construction Material Testing services for and during the construction of the Project, or portions of the Project, as approved by the COUNTY.

CONSTRUCTION MATERIAL TESTING:

The ENGINEER/LABORATORY will provide the COUNTY with construction material testing services for the Project. The services to be provided include sampling and testing of all construction materials as required by the project plans and specifications. All sampling frequencies and test procedures will be performed in general accordance with the Texas Department of Transportation TEX methods (or ASTM methods as required) as outlined in the Guide Schedule for Sampling and Testing (11/07). The construction material testing includes, but is not limited to the following:

- 1) Attend the COUNTY'S and respective Party's pre-construction and construction meetings as requested to establish coordination and lines of communication for proposed construction materials testing during construction activities.
- 2) Consult and advise with the COUNTY during construction.
- 3) Sampling and ENGINEER/LABORATORY testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Drainage Structures/Misc.) to determine compliance of these materials with project plans and specifications.
- 4) Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.
- 5) Field sampling and testing of fresh concrete, and ENGINEER/LABORATORY testing of hardened concrete to determine compliance with project plans and specifications.
- 6) Field compaction testing of asphalt to ensure proper compaction during lay down operations.
- 7) Field inspection, sampling and ENGINEER/LABORATORY testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.
- 8) The ENGINEER/LABORATORY will be responsible for concrete batching as well as the asphalt testing at the plants to insure delivery of acceptable material to the job site.
- 9) Any additional ENGINEER/LABORATORY testing as required/requested by the COUNTY and the project plans and specifications.
- 10) Providing accurate and timely reports to the COUNTY and all/other recipients as designated by the COUNTY.
- 11) The ENGINEER/LABORATORY will verify the concrete and asphalt designs to assure it is in accordance with TxDOT specifications to be developed by the contractor.

MISCELLANEOUS/OTHER:

ATTACHMENT “A”
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER/
LABORATORY**

- 1) Act for COUNTY in professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of the profession.
- 2) Perform all technical services under the general direction of a Licensed Professional ENGINEER/LABORATORY in the State of Texas and in substantial accordance with the basic requirements of the appropriate Standards of the American Society of Testing and Materials, where applicable, or other standards designated by COUNTY.
- 3) Employ testing machines which have been calibrated within a period not exceeding twelve (12) months from the time of use by device of accuracy traceable to the National Institute of Standards and Technology (NIST) of the United States Department of Commerce, and, upon request, submit to the COUNTY or its authorized representative documentation of such calibration.
- 4) Retain all pertinent records relating to the services performed for a period of five (5) years following submission of all reports, during which period the records will be made available to the COUNTY within a reasonable time.
- 5) The ENGINEER will coordinate with the Design Engineer of Record to review and check all shop or working drawings furnished by the Contractor.
- 6) The ENGINEER will track Utility Relocations and develop as built drawings to depict the location of the utility and the work as actually constructed. The COUNTY will be furnished five (5) set of prints.
- 7) The ENGINEER will provide Monthly Reports/Presentations to the COUNTY.
- 8) The ENGINEER will provide inspection of all materials and equipment furnished/used by the Contractor as follows:
 - a. Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.
 - b. Observe and/or perform Project record testing and/or independent assurance testing as outlined in the construction contract specifications.

NOTE: Change in and/or additional services to Scope will require prior approval from the COUNTY prior to undertaking.



ATTACHMENT B

FEE PROPOSAL

ATTACHMENT "B"

Hidalgo County Precinct No. 4 Bentsen Road Stormwater Project ARPA-22-124-094 Construction Materials Testing							
Subgrade (Cut and Restore)							
<ul style="list-style-type: none"> • Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications. • Field density testing of soils and base materials to ensure proposer compaction as required by project plans and specifications. 							
	TxDOT Test	TxDOT Guide Specs	Additional Assumptions	Unit	Qty.	Contract Rate	Total
Pulverization Gradation	Tex-101-E (Part III)	Each 4,500 CY		Each	1	\$100.00	\$100.00
Atterberg Limits of Soil	ASTM D4318	Each 5,000 CY		Each	1	\$135.00	\$135.00
Gradation	Tex-110-E	Each 5,000 CY		Each	1	\$90.00	\$90.00
Moisture/Density	Tex-121-E (Part II)	Every 20,000 CY		Each	1	\$225.00	\$225.00
In-Place Density	Tex-115-E	Every 3,000 CY		Each	3	\$28.00	\$84.00
Test Reports			LL/Pl, MD, FD	Each	4	\$25.00	\$100.00
Tech Time (Soils)			Pl, Gr, MD, & FD	Hour	11	\$83.91	\$923.01
# of Trips (Tech)			2 Trips (22 Miles RT)	Mile	44	\$0.625	\$27.50
Admin/Clerical				Hour	2	\$66.55	\$133.10
Item Subtotal							\$1,817.61
12" Flex Base (Cut and Restore)							
<ul style="list-style-type: none"> • Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications. • Field density testing of soils and base materials to ensure proposer compaction as required by project plans and specifications. 							
	TxDOT Test	TxDOT Guide Specs	Additional Assumptions	Unit	Qty.	Contract Rate	Total
Atterberg Limits of Soil	ASTM D4318	Each 5,000 CY		Each	1	\$135.00	\$135.00
Gradation	Tex-110-E	Each 5,000 CY		Each	1	\$90.00	\$90.00
Moisture/Density	TEX-113-E	Every 20,000 CY		Each	1	\$225.00	\$225.00
In-Place Density	Tex-115-E	Every 3,000 CY		Each	6	\$28.00	\$168.00
Test Reports			Pl, Gr, MD, & FD	Each	4	\$25.00	\$100.00
Tech Time (Soils)			Pl, Gr, MD, & FD	Hour	12	\$83.91	\$1,006.92
# of Trips (Tech)			3 Trips (22 Miles RT)	Mile	66	\$0.625	\$41.25
Admin/Clerical				Hour	2	\$66.55	\$133.10
Item Subtotal							\$1,899.27
Pipe Backfill and Bedding							
<ul style="list-style-type: none"> • Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications. • Field density testing of soils and base materials to ensure proposer compaction as required by project plans and specifications. 							
	TxDOT Test	TxDOT Guide Specs	Additional Assumptions	Unit	Qty.	Contract Rate	Total
Atterberg Limits of Soil	ASTM D4318	Each 5,000 CY		Each	2	\$135.00	\$270.00
Gradation	Tex-110-E	Each 5,000 CY		Each	2	\$90.00	\$180.00
Moisture/Density	TEX-113-E	Every 20,000 CY		Each	2	\$225.00	\$450.00
In-Place Density	Tex-115-E	Every 3,000 CY		Each	49	\$28.00	\$1,372.00
Test Reports			LL/Pl, MD, FD	Each	20	\$25.00	\$500.00
Tech Time (Soils)			Pl, Gr, MD, & FD	Hour	48	\$83.91	\$4,027.68
# of Trips (Tech)			18 Trips (22 Miles RT)	Mile	396	\$0.625	\$247.50
Admin/Clerical				Hour	10	\$66.55	\$665.50
Item Subtotal							\$7,712.68

Asphalt Concrete Pavement (Cut and Restore)							
<ul style="list-style-type: none"> Field compaction testing of asphalt to ensure proper compaction during lay down operations. Field sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications. 							
	TxDOT Test	TxDOT Guide Specs	Additional Assumptions	Unit	Qty.	Contract Rate	Total
Complete Mix			Truck Sample				
Asphalt Content (%)	Tex-236-F	1 Per Lot Per Design		Each	1	\$95.00	\$95.00
Voids in Mineral Aggr. (VMA)	Tex-207-F	1 Per Sublot Per Design	with 227-F Rice Gravity	Each	1	\$90.00	\$90.00
Gradation	Tex-236-F	Min 1 Per 12 Sublots Per Design		Each	1	\$95.00	\$95.00
Lab Molded Density	Tex-207-F	1 Per Sublot Per Design		Each	3	\$90.00	\$270.00
Test Reports				Each	1	\$25.00	\$25.00
Tech Time (Aggr)			8 hours per 1 days (trips/test - CA/FA/Co)	Hour	8	\$83.91	\$671.28
Tech Time (Asph)			4 hours per 1 day	Hour	8	\$83.91	\$671.28
# of Trips (Tech)			2 Trips (22 Miles RT)	Mile	44	\$0.625	\$27.50
Admin/Clerical				Hour	1	\$66.55	\$66.55
						Item Subtotal	\$2,011.61
Hydraulic Cement Concrete - Driveway (Class A)							
<ul style="list-style-type: none"> Field sampling and testing of fresh concrete and laboratory testing of hardened concrete to determine compliance with project plans and specifications. Concrete batching as well as the asphalt testing at the plants to insure delivery of acceptable material to the job site (as required). 							
	TxDOT Test	TxDOT Guide Specs	Additional Assumptions	Unit	Qty.	Contract Rate	Total
Concrete							
*Strength Reports	Tex-418-A-447A	Each 60 CY(1 Set = 3 Cyl)	Adjust Per Str & Placement Conc.	Each	6	\$30.00	\$180.00
Tech Time (Conc)				Hour	8	\$83.91	\$671.28
# of Trips (Tech)			4 Trips (22 Miles RT)	Miles	88	\$0.625	\$55.00
Admin/Clerical				Hour	4	\$66.55	\$266.20
						Item Subtotal	\$1,272.48

*Concrete Strength testing includes strength testing of cylinder specimens (breaks) as well as preparation, holding and curing of strength specimen costs

Project Administrative Fee is assessed on a per invoice basis and involves engineering review, evaluation, management and administration

Summary

Sub-Total (CMT Items) =	\$14,713.65
Sr. Engineering Tech (10 hrs x 109.95 Hr.)	\$1,099.50
Project Engineer (5 hrs x 130.21 Hr.)	\$651.05
Constuction Materials Testing Total:	\$16,464.20



ATTACHMENT C

APPROVED WORK/PROJECT SCHEDULE

ATTACHMENT "C"
WORK SCHEDULE

The Work Schedule will mirror the Contractors work schedule for this Work Authorization.