

EXHIBIT “F”
HIDALGO COUNTY
Professional Engineering Services
Agreement # C-24-0074-03-19

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Professional Engineering Services Agreement No. C-24-0074-03-19, incorporated herein by reference, for the “[ARPA-23-330-344] – **Geotechnical and Construction Material Testing Services – Hidalgo County Juvenile Mental Health Facility**” made by and between HIDALGO COUNTY, action herein by and through the Commissioner’s Court, hereinafter called the “**Owner,**” and L&G CONSULTING ENGINEERS, INC., hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide Geotechnical Drilling and Miscellaneous Field Services, Geotechnical Laboratory Testing Services, Geotechnical Engineering Services and Construction Material Testing (CMT) Services.

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 **\$23,954.20**. 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 Agreement No. C-24-0074-03-19** 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-24-0074-03-19 , 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-24-0074-03-19**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County Precinct 1, Commissioner David L. Fuentes**, as to content and detail of this **Work Authorization No. 1**.

HIDALGO COUNTY PRECINCT No. 1

By: _____
David L. Fuentes, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners’ Court as indicated below and effective as of the **19TH day of MARCH, 2024**.

EXECUTED as of the day and year first written above.

APPROVED BY COMMISSIONERS’ COURT ON MARCH 19TH, 2024.

Agenda Item No. 94535

Executive Office: _____

ENGINEER:
L&G CONSULTING ENGINEERS, INC.

COUNTY:
COUNTY OF HIDALGO

Jacinto Garza, 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

GENERAL SCOPE OF WORK

The work to be performed by the **Engineer** under this Work Authorization shall consist of; Geotechnical Drilling and Miscellaneous Field Services, Geotechnical Laboratory Testing Services, Geotechnical Engineering Services and Construction Material Testing (CMT) Services for the Hidalgo County Mental Health Facility project hereinafter denoted as the **Project**.

The **Engineer** shall provide all services required (as noted under this Work Authorization) for usage by the **Owner** in the preparation of plans, specification and estimate, and related documents for the **Project**. The **Engineer** shall maintain a direct line of communication and coordinate with the **Owner** throughout the project.

The **Engineer** shall furnish all equipment, materials, supplies, and incidentals as needed to perform the services required, except as otherwise specified to be provided by the **Owner**.

Specific activities to be performed by the **Engineer** include the following:

I. Geotechnical Drilling Services and Miscellaneous Field Services

The **Engineer** will coordinate with the **Owner** for verification of project vicinity map indicating general boring site locations.

The **Engineer** will provide drilling/excavation and sampling of subsurface materials as follows in accordance with this Work Authorization and in conformance with ASTM guidelines:

- Structural Boring – Two (2) Borings will be drilled at approximate location of the building structure on the project (Borings will be advanced to a depth of approximately 20 feet below the existing top of natural ground) (Boring Designation B-01 through B-02)

The **Engineer** will stake the boring locations and provide utility clearances prior to performing the field exploration portion of the project. The **Owner** will be responsible to provide any necessary permits or authorization to access areas (right of entry) where borings are to be drilled. All borings will be located in the field by a representative of the **Engineer**. All boring locations will be documented with GPS coordinates. Field survey and tie-down locations of all borings will be the responsibility of the **Owner**.

The borings will be advanced to the specified depth(s) and in-situ soil testing will be performed in general accordance with ASTM and/or TxDOT Standard Test Procedures and Geotechnical Manual (ASTM D1586 – Standard Penetration Testing (SPT) and/or Tex-132-E – Texas Cone Penetration (TCP)). In addition, where applicable, thin-walled Shelby tube samples may be collected (ASTM D1587 – Thin Walled Tube Sampling). The soils will be sampled as needed to verify subsurface materials and strata changes. Final drilling depths and elevations will be based on topographic conditions at the time of drilling operations.

Engineer: L&G Consulting Engineers, Inc. (Lab Division)

Owner: Hidalgo County

All samples will be removed from the sample apparatus during drilling operations. The **Engineer** will conduct various field tests on the recovered samples, visually classify the samples, and record the appropriate data on a field boring log. The samples will be appropriately packaged to minimize loss of natural moisture content and to reduce the possibility of damage during transportation to the soil testing laboratory facility.

Drilling services will include an initial water strike depth and a 24-hour water level reading at each boring location. Following completion of drilling and sampling, all boreholes will be backfilled with soil cuttings from the completed borings. If there is insufficient soil cuttings available, alternate fill will be used to backfill the completed boreholes.

This proposal does not include activities and corresponding costs that may be associated with the following:

- Providing an ATV mounted drill rig, dozer or special equipment to clear areas of vegetation and debris or re-grading the site to gain access to the boring locations;
- Re-grading the site or portions of the site after drilling activities are completed;
- Site safety meetings that may be required;
- Encountering hazardous or contaminated soils or substances during our field activities.

The **Engineer** will notify the **Owner** should these services become necessary to complete field exploration activities, and if approved by the **Owner**, additional negotiated fee and scope will be incorporated through Supplemental Work Authorization.

II. Geotechnical Laboratory Testing Services

Geotechnical Laboratory Testing will be performed by the **Engineer** on the samples recovered during the field study to evaluate their physical and engineering properties. Laboratory testing will be performed in general accordance with ASTM and/or TxDOT Standard Test Procedures. Testing shall include the following test procedures:

- (1) Atterberg Limits (ASTM D4318 or Tex-104-E, 105-E, 106-E)
- (2) Gradation (-200) (ASTM D1140 or Tex-111-E)
- (3) Full Sieve Analysis (Tex-110-E)
- (4) Lab. Determination of Moisture in Soils (ASTM D2216 or Tex-103-E)
- (5) Sulfate Content of Soil (ASTM C1580 or Tex-145-E)
- (6) Lime Series Testing – pH Relation (Tex-121-E, Part III)

III. Geotechnical Engineering Services

The **Engineer** will utilize information gathered from the field and laboratory testing to provide the **Owner** with Geotechnical Engineering results and analyses for the **Project**. The findings and conclusions derived from the results and analyses will be presented in an engineering report and provided to the **Owner** (electronic .pdf medium only). The report will include a boring location plan, boring logs with laboratory classification of recovered soil samples at the boring locations and subsurface water conditions encountered. The report will provide analyses and/or engineering recommendations as follows:

Engineer: L&G Consulting Engineers, Inc. (Lab Division)

Owner: Hidalgo County

1	Structural Evaluation of Borings / Calc. Shear Strength Models / Soil Profiles
2	Shallow Foundation Analysis & Recs (All BC, PVR, WRI, PTI, Modulus)
3	Pavement Eng Analysis & Recommendations (Parking Lot & Drives)
3	Construction Recommendations based on Geotechnical Investigation/Analyses
4	Geotechnical Report (Including Soil Survey/Geog./All Analyses)
5	Meetings/Coordination

The report will provide general comments and applicable recommendations regarding construction methods, sequences, and potential difficulties that may arise during overall construction as it relates to the soil aspects of this project. This information may serve to guide both geometric modeling and foundation selection and design as well as provide assistance in the preparation of specifications for the project.

IV. Construction Material Testing (CMT) Services

The **Engineer** shall provide Construction Material Testing (CMT) services during the proposed construction of the Project. The CMT services to be provided include sampling and testing of all construction materials as required by the project contract documents, plans and specifications. All sampling frequencies and test procedures will be performed in general accordance with required project specifications. CMT services may include:

- (a) Sampling and laboratory testing of soils and soil foundation materials proposed for use in the construction of Project to determine compliance of these materials with project plans and specifications.
- (b) Field density testing of soils and soil foundation materials to ensure proper compaction as required by project plans and specifications.
- (c) Field sampling and testing of fresh concrete, and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
- (d) Field compaction testing of asphalt to ensure proper compaction during lay down operations.
- (e) Field inspection, sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.

Engineer: L&G Consulting Engineers, Inc. (Lab Division)

Owner: Hidalgo County



ATTACHMENT B

FEE PROPOSAL

**ATTACHMENT B
Fee Proposal**



Geotechnical Engineering, Report & Summary

L&G Consulting Engineers, Inc. (Division: L&G ENGINEERING LAB)

		MANHOURS					Total
		Senior Project Manager	Senior Engineer (Geotechnical)	Project Engineer	Engineering Tech / GIS	Admin/Clerical	
WA #1 - Hidalgo County Mental Health Facility							
Client: Hidalgo County							
TASK							
1	Structural Evaluation of Borings / Calc. Shear Strength Models / Soil Profiles			2			2
2	Shallow Foundation Analysis & Recs (All BC, PVR, WRI, PTI, Modulus)			4			4
3	Pavement Eng Analysis & Recommendations (Parking Lot & Drives)			4			4
3	Construction Recommendations based on Geotechnical Investigation/Analyses		2	2			4
4	Geotechnical Report (Including Soil Survey/Geog./All Analyses)		2	6	2	2	12
5	Meetings/Coordination	2	2				4
Subtotal		2	6	18	2	2	30
Labor Hours		2	6	18	2	2	30
Contract Rate (Contract Rates)		\$ 292.99	\$ 229.45	\$ 197.68	\$ 95.31	\$ 77.66	
Total Labor Costs		\$ 585.98	\$ 1,376.70	\$ 3,558.24	\$ 190.62	\$ 155.32	\$ 5,866.86

LINE ITEM EXPENSES

Printing Reproduction (None - Electronic Copies Only)	\$ -
*L&G Consulting Engineers, Inc. (Sub-Total for Geo. Field & Lab Services)	\$ 5,587.34
* - (Please see page 2, for detailed estimates of testing)	
L&G Consulting Engineers, Inc. (Sub-Total for CMT Services - Lump Sum)	\$ 12,500.00
Total Expenses	\$ 18,087.34

L&G Total Cost **\$ 23,954.20**

ATTACHMENT B
Geotechnical Field and Laboratory Services
WA #1 - Hidalgo County Mental Health Facility
Prepared for Hidalgo County

	SERVICES	UNITS	UNITS	UNIT COST	TOTAL COST
I.	Project Management / Review				
	A. Principal / Project Manager / Review	Hours			
	B. Senior Project Engineer (Staff)	Hours			\$ -
	C. Typing and Clerical (Report)	Hours			
	D. Lodging	Day			
	E. Mileage	Mile			
	F. Air Travel	Trip			
II.	Utility Clearances / Boring Locates				
	A. Technician (Locate Borings)(Util Clr)	Hours	2	\$ 77.66	\$ 155.32
	B. Staff Engineer/Geologist/Scientist	Hours			
	C. Rebar (stakes with impalement covers)	Cost +12.5%			
	D. Vehicle Charge	Mile			
	E. Mileage	Mile	30	\$ 0.66	\$ 19.65
	F. Survey Locate Borings (X,Y,Z)	LS			\$ -
	G. Clear Site for Access (Dozer)	LS			\$ -
III.	Field Exploration				
A	Mobilization/Demobilization	Day	1	\$ 468.56	\$ 468.56
B	Field Exploration				
	1. ASTM Drill & SPT/Tube Sampling (SS)	Feet	40	\$ 32.97	\$ 1,318.80
	2. TxDOT TCP Field Test (BL/ft)	Ea.			\$ -
	3. Field Logger/Eng Tech (Soil & Agg Tech)	Hour	4	\$ 77.66	\$ 310.64
	4. 24 Hr. Water Level Observations	Hour	2	\$ 77.66	\$ 155.32
	5. Piezometers	Each			\$ -
	6. Supp. Vehicle-Trailer, Tools H2O Supply	Mile	30	\$ 1.75	\$ 52.50
	7. Vehicle Charge	Mile	60	\$ 0.66	\$ 39.30
C	Miscellaneous Field Services				
IV.	Engineering Data Analysis / Report				
	1. Staff Engineer	Hours			
	2. Sr. Eng Tech / Geo Eng (Soil Classification)	Hours	2	\$ 141.20	\$ 282.40
	3. Sr. Eng Tech / Geo Eng (Logs & Summ.)	Hours	2	\$ 141.20	\$ 282.40
	4. Moisture Content	Ea.	14	\$ 11.20	\$ 156.80
	5. Atterberg Limits	Ea.	10	\$ 84.51	\$ 845.10
	6. -200 Determination	Ea.	8	\$ 70.51	\$ 564.08
	7. Sieve Analysis (w/ Hydrometers)	Ea.	2	\$ 101.59	\$ 203.18
	8. Soils Sulfate Content	Ea.	2	\$ 91.66	\$ 183.32
	9. Lime Series Testing (5 Pt.)	Ea.	1	\$ 549.97	\$ 549.97
Project Sub-Total (Geo Field and Lab)					\$ 5,587.34



ATTACHMENT C

APPROVED WORK/PROJECT SCHEDULE

ATTACHMENT C

Work Schedule

Geotechnical

Work will be planned to commence approximately 2 weeks after Notice to Proceed (NTP). Field work will take one (1) day to complete and lab testing will take approximately 2 weeks. Report will be completed 2 weeks after the completion of lab testing (Overall from NTP to Report time is estimated at 1.5 months).

Construction Material Testing (CMT)

Work will begin upon commencement of the construction of the project. Work will continue throughout the duration of the construction as needed.

Engineer: L&G Consulting Engineers, Inc. (Lab Division)

Owner: Hidalgo County