

Work Authorization Form

HIDALGO COUNTY
Professional Engineering Services for
“Geo-Technical/Construction Material Testing Services”
Agreement # C-20-687-12-29

WORK AUTHORIZATION NO. 4

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, **Raba Kistner, Inc.** professional engineers of McAllen, Texas, hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the “engineering services” to provide geotechnical drilling and engineering services including foundation design and construction recommendations for the proposed Sunflower Park.

The scope of services to be provided by the **Owner** is identified in **ATTACHMENT “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 **ATTACHMENT “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 \$37,240.00 for Geotechnical engineering services. This amount is based upon the costs outlined in the **Estimated Cost Proposal** attached hereto as **ATTACHMENT “D”**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Attachment “D”** of the Agreement.

PART 4. FUNDING

This Work Authorization No.4 shall be funded through funding source:

Account No. 1-1351-452-00-124-132-0-740

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 scopes 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

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

**HIDALGO COUNTY
COMMISSIONER 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 July 27, 2021, as indicated below and effective as of the 27th day of July 2021.

**THE ENGINEER:
RABA KISTNER, INC.**

By: _____
Katrin M. Leonard, PE, Vice President

**THE OWNER:
HIDALGO COUNTY**

By: _____
Richard Cortez, County Judge

ATTEST:

By: _____
Arturo Guajardo Jr., County Clerk

ATTACHMENT "A"
SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER

The following provides an outline of the services to be provided by the **Owner** in the development of the Proposed Sunflower Park Project located within Hidalgo County hereinafter denoted as the **Project**.

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 the 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 **Project**.
- 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 Attachment "C" attached to this Work Authorization.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by **Engineer**.

ATTACHMENT B

Scope of Services to be provided by the Engineer

HIDALGO COUNTY

**Professional Engineering Services for
“Geo Technical/Construction Material Testing
Services” Agreement # C-20-687-12-29**

Please refer to the attached proposal from Raba Kistner, Inc. (Proposal No. PMA21-034-00, dated June 11, 2021)



Raba Kistner, Inc.
800 East Hackberry
McAllen, TX 78501
www.rkci.com

Proposal No. PMA21-034-00
June 11, 2021

P 956.682.5332
F 956.682.5487
TBPE Firm F-3257
TBAE Firm BR 3427

Ms. Leticia H. Saenz, CPPB
Director of Administrative Operations
Hidalgo County Precinct No. 4
1051 N. Doolittle Road
Edinburg, Texas 78542

**Re: Proposal for Geotechnical Engineering Services
Proposed Sunflower Park Project
Hidalgo County Precinct No. 4
Near the Northwest Corner of the Intersection of
State Highway 107 and Sunflower Road
San Carlos, Hidalgo County, Texas**

Dear Ms. Saenz:

On the basis of your written request received by our office via electronic-mail attachment Thursday, June 3, 2021; the documents received by our office via electronic-mail attachment from Mr. Natanael Perez, Senior Project Manager with The Warren Group Architects, Inc., the project's architectural firm on Wednesday, June 9, 2021; and the *First Amended Professional Services Agreement to Contract No. C-20-687-12-29*, between Hidalgo County Precinct No. 4 (CLIENT) and **RABA KISTNER, Inc. (RKCI)**, we thank you for selecting **RKCI** to provide Geotechnical Engineering Services to Hidalgo County Precinct No. 4 for the above-referenced project. The broad objectives of our study will be to determine subsurface conditions at the subject site, and to provide foundation and pavement design and construction recommendations for the proposed park. Described in this letter are:

- our understanding of pertinent project characteristics;
- our proposed scope for field and laboratory study;
- our proposed scope for engineering evaluation and reporting;
- our tentative project schedule; and
- our project lump sum fee.

1.0 PROJECT DESCRIPTION

We understand that the proposed project consists of the design and construction of the following:

- 1) an approximate 14,000 ft², playground structure;
- 2) a basketball court;
- 3) five, rectangle-shaped, bleachers structures;
- 4) two, rectangle-shaped, dugouts with canopy structures;
- 5) two, rectangle-shaped, pavilion structures;
- 6) a circular-shaped, splash pad structure;

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- 7) two, recreational structures;
- 8) an equipment pad;
- 9) twelve, light pole structures;
- 10) three, water well structures; and
- 11) their associated parking, driveway, and walkway areas.

The proposed park is planned to be located within a partially developed tract of land, near the northwest corner of the intersection of State Highway 107 and Sunflower Road in San Carlos, Hidalgo County, Texas. The proposed structures are expected to create relatively light to moderate loads to be carried by the foundation systems, which are anticipated to consist of shallow and/or deep foundation systems. The pavement systems are anticipated to consist of flexible (asphalt) and/or rigid (concrete) pavements.

2.0 GEOTECHNICAL ENGINEERING SERVICES

On the basis of the information provided to us by the project’s architectural firm, geologic evidence, and our experience with subsurface conditions in the vicinity of this site, we propose to conduct the following drilling scheme.

Proposed Structure	Number of Borings	Depth, ft. *
Playground	2	25
Basketball Court	1	25
Bleachers	4	25
Dugouts	2	25
Pavilions	2	25
Splash Pad	1	25
Recreational Structures	1	25
Equipment Pad	1	25
Light Poles	12	30
Water Wells	3	15
Walkway Areas	4	5
Pavement Areas	2	5

* below the existing ground surface elevation, or auger refusal, whichever occurs first.

Borings will be located in the field utilizing tape and right angle measurements from existing benchmarks. Our scope of services does not include surveying of the boring locations. However, **RKCI** recommends that the final boring locations be surveyed in the field by the CLIENT or their representative.

Samples will be taken using conventional split-spoon and/or Shelby tube sampling techniques in general accordance with applicable American Society for Testing and Materials (ASTM) standards. Representative portions of the samples will be sealed, identified, packaged, and transported to our laboratory for subsequent testing and classification.

Upon completion of drilling activities, water level readings, if applicable, will be recorded in the open boreholes and the boreholes will be backfilled using the auger cuttings generated during the drilling operations.

2.1 LABORATORY STUDY

Upon completion of the subsurface exploration, a general testing program will be designed to define the classification and shrink/swell characteristics of the subsurface strata. The laboratory testing is anticipated to include moisture content tests, Atterberg Limits (plasticity) tests, corrosivity tests (including electrical resistivity, pH, chloride and sulfate content determinations), unconfined compressive strength determinations, and grain size analyses. The laboratory testing will be performed in general accordance with applicable ASTM standards. For pavement design analysis, a California Bearing Ratio (CBR) test value will be assumed based on the laboratory test results performed to determine the classification and estimation of the strength characteristics of the subgrade soils.

2.2 ENGINEERING ANALYSIS AND REPORT

The results of the field and laboratory phases of the study will be reviewed by our staff of engineers. The results of our review, together with the supporting field and laboratory data, will be presented in a written engineering report. Included therein will be recommendations concerning the design and construction of the foundation and pavement systems for the proposed park. The Geotechnical Engineering Report may also include the following information and recommendations:

- A summary of the field and laboratory sampling and testing program;
- Boring logs and laboratory testing results;
- A review of the general site conditions including a description of the site, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered.
- Foundation design considerations and recommendations, including:
 - expansive, soil-related movements using an empirical method for predicting the Potential Vertical Rise (PVR) developed by the Texas Department of Transportation (TxDOT);

- methods for reducing expansive, soil-related movements to about 1 inch, which is the typical tolerance for ground-supported floor slabs in this region;
 - shallow and/or deep foundation recommendations;
 - available soil-bearing pressures;
 - settlement estimations, where applicable; and
 - groundwater considerations.
- Foundation construction considerations, including:
 - site drainage;
 - site preparation;
 - select fill materials;
 - shallow and/or deep foundation excavations;
 - potential reuse of on-site materials as select fill materials;
 - excavation considerations; and
 - fill placement compaction requirements.
 - Seismic region condition evaluations.

Also included in the report will be general guidelines for the construction of pavements for the proposed parking, driveway, and walkway areas. These guidelines will be based on the results of classification testing completed on specimens from the pavement areas and on our experience with similar soils.

Since site grading plans can result in changes in the foundation and pavement subgrade conditions, final site grading plans will be helpful information in the preparation of engineering recommendations. In the absence of final site grading information, we will prepare recommendations based on the existing ground surface elevations. Also, specific information concerning anticipated traffic loadings and frequencies for the pavement areas will be critical in the preparation of pavement recommendations.

The final report will be submitted only in a PDF format via electronic-mail attachment. Upon the CLIENT's request, we will reproduce the report in a spirally-bound copy.

2.3 TENTATIVE PROJECT SCHEDULE

Based on our present workload and weather permitting, it is anticipated that the field exploration phase of this study can begin within three working days of receiving written authorization to proceed, provided that the site is accessible to our truck-mounted drill rig and the CLIENT has supplied us with all available information regarding existing utilities and below-grade structures on site. The field exploration and laboratory testing phases of the study are expected to take approximately twenty working days to complete. The engineering report will be submitted within an additional fifteen working days following completion of the laboratory testing. The above schedule does not account for delays due to inclement weather. We will be pleased to provide the design team with verbal design information as the data becomes available.

3.0 LUMP SUM COST

The total lump sum cost for the Geotechnical Engineering Study outlined herein is **\$37,240.00**. Please refer to Attachment D for the breakdown of charges. Should unusual subsurface conditions be encountered in the field which indicate the desirability of significantly broadening the scope of the study, we will contact you to receive written authorization before proceeding with any additional work. Additional services will be billed on a unit basis in accordance with the negotiated fees established in the *Service Contract*, agreed upon by both parties.

RKCI has been provided with a site plan of the project site by the project's architectural firm, illustrating the location of the proposed structures. It is our understanding that access to all boring locations for a conventional, truck-mounted drilling rig and underground utility clearance will be provided by the CLIENT prior to our field exploration services.

It should be noted that our study scope (and project cost) do not include plan review or earthwork and foundation excavation observations during the construction of the project. However, plan review and construction observation costs should be included in the project budget.

It should also be noted that our study scope (and project cost) do not include professional time or travel expenses for participation in multiple design team meetings. If these services are required, they will be billed at our standard billing rates for professional time plus expenses.

4.0 ACCEPTANCE

We appreciate the opportunity of submitting this proposal and look forward to working with the Hidalgo County Precinct No. 4 in the development of this project, which will be carried out in accordance with this letter and the executed contract between Hidalgo County Precinct No. 4 and **RKCI**.

Proposal No. PMA21-034-00
June 11, 2021

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Please return one signed original of this contract to provide written authorization for our firm to perform work on the services outlined herein. Our invoices are due and payable upon receipt at P.O. Box 971037, Dallas, Dallas County, Texas 75397-1037.

Very truly yours,

RABA KISTNER CONSULTANTS, INC.

Accepted By:



Adamari Davila
Graduate Engineer

(Signature)

(Typed or Printed Name)



Mark Wolf, P.E.
Project Engineer

(Title)

(Date)

Copies submitted: Above (1)

ATTACHMENT D
Cost Proposal

HIDALGO COUNTY
Professional Engineering Services for
"Geo Technical/Construction Material Testing
Services" Agreement # C-20-687-12-29

Please refer to Attachment I from Raba Kistner, Inc. (Proposal No. PMA21-034-00, dated June 11, 2021)

Attachment D

PROJECT TYPE: Geotechnical Engineering Services
 PROJECT NAME: Proposed Sunflower Park - Hidalgo County Precinct No. 4
 DATE: Friday, June 11, 2021

ATTN: Ms. Letcia H. Saenz, CPPB
Director of Administrative Operations
Hidalgo County Precinct No. 4
1051 N. Doolittle Road
Edinburg, Texas 78542

Structures	Number	Depth	Soil	Total
Playground	2	25	50	50
Basketball Court	1	25	25	25
Bleachers	4	25	100	100
Dugouts	2	25	50	50
Pavilions	2	25	50	50
Splash Pad	1	25	25	25
Recreational	1	25	25	25
Equipment Pad	1	25	25	25
Light Poles	12	30	360	360
Water Wells	3	15	45	45
Walkway Areas	4	5	20	20
Pavement Areas	2	5	10	10
Totals	35	255	535	785

<u>FIELD OPERATIONS</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
Mobilization of Drill Rig	1 ls.	\$350.00	\$350.00
Drilling/Sampling 0 to 50 ft	785 l.f.	\$12.00	\$9,420.00
Trip Charge	9 trip	\$17.00	\$153.00
Field Coordination	7 hrs.	\$105.00	\$735.00
Field Boring Layout & Travel Time	10 hrs.	\$52.00	\$520.00
Field Logging Services	79 hrs.	\$52.00	\$4,108.00
Field Operations Subtotal:			\$15,286.00

<u>LABORATORY TESTS</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
Atterberg Limits (PI) (29*2)+(6*1.5)	67 ea.	\$96.25	\$6,448.75
Minus 200-mesh Sieve (29*2)+(6*1)	64 ea.	\$65.00	\$4,160.00
Unconfined Compression	29 ea.	\$56.25	\$1,631.25
Moisture Content (14*8)+(12*9)+(3*6)+(6*3)	256 ea.	\$12.00	\$3,072.00
Corrosivity (res., ph, sulfate & chloride content)	2 ea.	\$451.00	\$902.00
Laboratory Testing Subtotal:			\$16,214.00

<u>ENGINEERING AND REPORT</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
Geotechnical Engineer (PE)	10 hrs.	\$142.00	\$1,420.00
Jr. Geotechnical Engineer (EIT)	30 hrs.	\$105.00	\$3,150.00
Drafting	7 hrs.	\$60.00	\$420.00
Secretary/Word Processor (NS)	15 hrs.	\$50.00	\$750.00
Engineering and Report Writing Subtotal:			\$5,740.00

TOTAL: \$37,240.00