

HIDALGO COUNTY
Professional Engineering Services
Agreement # C-21-0905-02-08
(ARPA-21-121-037)
WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the **Professional Engineering Services** Agreement No. C-21-0905-02-08, incorporated herein by reference, for the “Pct.1 – Hike and Bike Trail 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 **a feasibility study of the proposed Regional Hike & Bike Trail located within the cities of San Juan, Alamo, Donna, Weslaco, Elsa, Edcouch, and La Villa and within the unincorporated areas along the project limits in Hidalgo 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” – “Project Specific 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 **\$149,990.08**. 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-21-0905-02-08 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-21-0905-02-08, provided in this Work Authorization; or on** (_____). *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-21-0905-02-08.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

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

**HIDALGO COUNTY
COMMISSIONER PRECINCT No. 1:**

BY: _____

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 _____, 20__.

THE ENGINEER:
B2Z ENGINEERING, LLC

THE OWNER:
HIDALGO COUNTY

By: _____

By: Richard F. Cortez, County Judge

ATTEST:

By: Arturo Guajardo Jr., County Clerk

LIST OF ATTACHMENTS:

Attachment "A" – *Project Specific Scope of Services to be provided by Engineer*

Attachment "B" – *Fee Proposal*

Attachment "C"– *Approved Work/Project Schedule*



Attachment A

Project Specific Scope of
Services to be provided
by the Engineer

EXHIBIT "A"

Services to be provided by the Engineer

PROJECT INFO:

- **Project Name:** Regional Hike & Bike Trail Feasibility Study
- **Project Limits:** From City of Elsa to City of La Villa
From City of San Juan to City of Weslaco

GENERAL SCOPE OF WORK:

The work to be performed by the **Engineer** under this work authorization shall consist of providing Engineering Services required for a Feasibility Study of the proposed Regional Hike & Bike Trail located within the Cities of San Juan, Alamo, Donna, Weslaco, Elsa, Edcouch & La Villa and within the unincorporated areas along the project limits in Hidalgo County hereinafter denoted as the **Project**.

The **Engineer** will furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Work Authorization, except as otherwise specified in Exhibit A, "Services to be provided by the **Owner**."

Specific activities to be performed by the **Engineer**, as generally outlined in the Contract, including the following:

SECTION 2 – FEASIBILITY STUDIES

Services

Provided By:

ENGINEER COUNTY

YES NO Data Collection (sUAV)

The **Engineer** will work with the **Owner** to collect the latest aerial imagery along with the project limits, including, but not limited to, elevation data (i.e., LiDAR, contours, DTM, etc.)

YES NO Preliminary Design Values

The **Engineer** will work with the **Owner** to establish basic design concepts, project controls, and the general scope of the Project.

YES NO Uncontrolled Mapping (w/Contours & GIS Info)

The **Engineer** will investigate various routes and coordinate with the **Owner** on establishing the best-fit alignment and geometry.

- YES NO Preliminary Location Design Layout
- The **Engineer** will complete a finalized layout for the **Project** upon completion of route studies and all other tasks noted in this Work Authorization. The layout will include final alignment, crossing locations, proposed locations of potential parking access areas, and typical sections.
- YES NO Preliminary ROW Requirements
- The **Engineer** will research and identify affected property owners on the **Project** alignment utilizing the latest appraisal district file information from Hidalgo County Appraisal District and information from Carson Maps. The **Engineer** will document any easements affecting parcels.
- YES NO Preliminary Cost Estimates
- The **Engineer** will calculate preliminary construction cost estimates for the finalized locations and geometry of the **Project**. The cost estimates will be developed for two (2) paving scenarios of asphalt pavement and concrete options.
- YES NO Preliminary Environmental Analysis (for fatal flaws)
- The **Engineer** will perform “Preliminary Environmental Constraint Mapping to determine if any fatal flaws exist along the proposed alignment.
- YES NO Evaluation of Crossings at Major Roadways & Coordination w/ TxDOT
- The **Engineer** will coordinate with the **Owner** to establish design options for crossings at major roadways. The crossings will be part of the Design Visualization task of this Work Authorization. Coordination with TxDOT on crossing types/locations is also part of this task.
- YES NO Preparation of Project Fact Sheet (Total Project Cost)
- The **Engineer** will coordinate with and assist the **Owner** in preparing all necessary documents needed to ensure AARPA funding is utilized for this Project. The **Engineer** will also assist in the development of all the required attachments to the documents.
- YES NO Preliminary Engineering Report
- The **Engineer** will provide an Engineering report to the **Owner** to be used during the Schematic and PS&E phases of the Project.

YES NO Coordinate & Outreach with Affected Municipalities

The **Engineer** will coordinate with the **Owner** to plan meetings with cities and counties to support the **Project**. In meetings, the **Engineer** will assist in the presentation of project data and visualization. This task may also include informal correspondence (phone, fax, email, etc.)

YES NO Meetings & Coordination in Support for Project Development Activities

The **Engineer** shall provide coordination services and assist in meetings and workshops with Hidalgo County, Hidalgo County Drainage District No. 1, and Hidalgo County Irrigation Districts. The **Engineer** shall serve as representative for the **Owner** in coordination items. The **Engineer** shall coordinate with the **Owner's** staff on all **Project** related items.



Attachment B

Fee Proposal



EXHIBIT "B"
FEE PROPOSAL

Hidalgo County Precinct 1: Hike & Bike Trail(s) Project

WA#1 - Feasibility Study

WA #1 - Feasibility Study		MANHOURS							
		Project Manager	Senior Engineer	Project Engineer	Sr. Engineering Tech	UAS Pilot	Admin/ Clerical	Total	Subtotal
TASKS									
Segment 1 : Delta Area (5.9 Miles)									
1	Data Collection (sUAV)					12		12	\$1,012.56
2	Preliminary Design Values	1		1	2			4	\$590.66
3	Uncontrolled Mapping (w/Contours & GIS Info)	7		15	23			45	\$6,328.50
4	Preliminary Location Design Layout	1	1	7	6			15	\$2,103.24
5	Preliminary R.O.W. Requirements				18		2	20	\$2,275.18
6	Preliminary Cost Estimate	3	2	7	1		2	15	\$2,265.72
7	Preliminary Environmental Analysis (for fatal flaws)	2		5				7	\$1,128.17
8	Evaluation of Crossings at major Roadways & Coordination w/TxDOT	4	5	8				17	\$2,943.88
9	Preparation of Project Fact Sheet (Total Project Cost)	2	1	4				7	\$1,181.30
10	Preliminary Engineering Report	2	3	6	16		8	35	\$4,300.24
11	Coordinate & Outreach with Affected Municipalities	11		7			2	20	\$3,459.52
12	Meetings & Coordination in Support for Project Development Activities	10	4	12	2		2	30	\$4,962.72
							SUB-TOTAL	227	\$32,551.69
Segment 2 : Main Route (10.5 Miles)									
1	Data Collection (sUAV)					21		21	\$1,771.98
2	Preliminary Design Values	2		2	4			8	\$1,181.32
3	Uncontrolled Mapping (w/Contours & GIS Info)	13		26	41			80	\$11,288.17
4	Preliminary Location Design Layout	2	2	12	11			27	\$3,806.46
5	Preliminary R.O.W. Requirements				32		3	35	\$4,006.57
6	Preliminary Cost Estimate	5	3	12	3		3	26	\$3,893.92
7	Preliminary Environmental Analysis (for fatal flaws)	4		9				13	\$2,115.71
8	Evaluation of Crossings at major Roadways & Coordination w/TxDOT	7	9	14				30	\$5,200.23
9	Preparation of Project Fact Sheet (Total Project Cost)	4	2	7				13	\$2,221.97
10	Preliminary Engineering Report	2	3	6	16		8	35	\$4,300.24
11	Coordinate & Outreach with Affected Municipalities	20		12			2	34	\$6,075.26
12	Meetings & Coordination in Support for Project Development Activities	18	7	22	3		2	52	\$8,769.14
							SUB-TOTAL	374	\$54,630.97
Segment 3 : Weslaco Route (3.8 Miles)									
1	Data Collection (sUAV)					8		8	\$675.04
2	Preliminary Design Values	1		1	2			4	\$590.66
3	Uncontrolled Mapping (w/Contours & GIS Info)	5		10	15			30	\$4,250.25
4	Preliminary Location Design Layout	1	1	5	4			11	\$1,584.46
5	Preliminary R.O.W. Requirements				12		1	13	\$1,493.87
6	Preliminary Cost Estimate	2	1	4	1		1	9	\$1,368.81
7	Preliminary Environmental Analysis (for fatal flaws)	1		4				5	\$775.03
8	Evaluation of Crossings at major Roadways & Coordination w/TxDOT	3	3	5				11	\$1,921.96
9	Preparation of Project Fact Sheet (Total Project Cost)	1	1	3				5	\$828.16
10	Preliminary Engineering Report	2	3	6	16		8	35	\$4,300.24
11	Coordinate & Outreach with Affected Municipalities	7		5			2	14	\$2,328.22
12	Meetings & Coordination in Support for Project Development Activities	6	3	8	1		2	20	\$3,237.64
							SUB-TOTAL	165	\$23,354.34



**EXHIBIT "B"
FEE PROPOSAL**

Hidalgo County Precinct 1: Hike & Bike Trail(s) Project

WA#1 - Feasibility Study

<i>WA #1 - Feasibility Study</i>		MANHOURS							Total	Subtotal
		Project Manager	Senior Engineer	Project Engineer	Sr. Engineering Tech	UAS Pilot	Admin/ Clerical			
TASKS										
Segment 4 : Donna Route (6.2 Miles)										
1	Data Collection (sUAV)					13		13	\$1,096.94	
2	Preliminary Design Values	1		1	3			5	\$709.42	
3	Uncontrolled Mapping (w/Contours & GIS Info)	8		16	24			48	\$6,800.40	
4	Preliminary Location Design Layout	1	1	7	6			15	\$2,103.24	
5	Preliminary R.O.W. Requirements				19		2	21	\$2,393.94	
6	Preliminary Cost Estimate	3	2	7	2		2	16	\$2,384.48	
7	Preliminary Environmental Analysis (for fatal flaws)	2		6				8	\$1,268.80	
8	Evaluation of Crossings at major Roadways & Coordination w/TxDOT	4	5	8				17	\$2,943.88	
9	Preparation of Project Fact Sheet (Total Project Cost)	2	1	5				8	\$1,321.93	
10	Preliminary Engineering Report	2	3	6	16		8	35	\$4,300.24	
11	Coordinate & Outreach with Affected Municipalities	12		7			2	21	\$3,672.03	
12	Meetings & Coordination in Support for Project Development Activities	11	4	13	2		2	32	\$5,315.86	
								SUB-TOTAL	239	\$34,311.16
Labor Hours		195	70	321	301	54	64	1005		
Hourly Base Rates		\$ 68.00	\$ 62.00	\$ 45.00	\$ 38.00	\$ 27.00	\$ 22.00			
Contract Rate FY2021		\$ 212.51	\$ 193.76	\$ 140.63	\$ 118.76	\$ 84.38	\$ 68.75			
Total Labor Costs		\$ 41,439.45	\$ 13,563.20	\$ 45,142.23	\$ 35,746.76	\$ 4,556.52	\$ 4,400.00		\$ 144,848.16	

Direct Expenses

Aerial Drone Flight (\$250.00/hr.)	\$ 4,500.00
Mileage (\$0.56/mile)	\$ 641.92

Total Direct Expenses \$ 5,141.92

WA#1 - Total Cost

\$ 149,990.08



Attachment C

Approved Work/
Project Schedule

**EXHIBIT "C"
WORK SCHEDULE**

TASK AND DESCRIPTION	2022											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Segment 1 : Delta Area (5.9 Miles)												
Data Collection (sUAV)		█										
Route Studies, Geometrics, Proje Exhibits, Cost Estimates			█	█								
Preliminary Locatin Design Layout				█	█							
Coordinate & Outreach with Affected Municipalities			█	█	█	█	█					
Preliminary Engineering Report/Final Schematic Layout								█				
Meetings & Coordination in Support for Project Development Activities		█	█	█	█	█	█					
Segment 2 : Main Route (10.5 Miles)	█	█	█	█	█	█	█	█	█	█	█	█
Data Collection (sUAV)		█										
Route Studies, Geometrics, Proje Exhibits, Cost Estimates			█	█								
Preliminary Locatin Design Layout				█	█							
Coordinate & Outreach with Affected Municipalities			█	█	█	█	█					
Preliminary Engineering Report/Final Schematic Layout								█				
Meetings & Coordination in Support for Project Development Activities		█	█	█	█	█	█					
Segment 3 : Weslaco Route (3.8 Miles)	█	█	█	█	█	█	█	█	█	█	█	█
Data Collection (sUAV)		█										
Route Studies, Geometrics, Proje Exhibits, Cost Estimates			█	█								
Preliminary Locatin Design Layout				█	█							
Coordinate & Outreach with Affected Municipalities			█	█	█	█	█					
Preliminary Engineering Report/Final Schematic Layout								█				
Meetings & Coordination in Support for Project Development Activities		█	█	█	█	█	█					
Segment 4 : Donna Route (6.2 Miles)	█	█	█	█	█	█	█	█	█	█	█	█
Data Collection (sUAV)		█										
Route Studies, Geometrics, Proje Exhibits, Cost Estimates			█	█								
Preliminary Locatin Design Layout				█	█							
Coordinate & Outreach with Affected Municipalities			█	█	█	█	█					
Preliminary Engineering Report/Final Schematic Layout								█				
Meetings & Coordination in Support for Project Development Activities		█	█	█	█	█	█					