

**HIDALGO COUNTY**  
**Professional Engineering Services**  
**Agreement #C-18-273-11-20**

**WORK AUTHORIZATION NO. 1**

**THIS WORK AUTHORIZATION** is made pursuant to the terms and conditions of Article 7 of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **B2Z ENGINEERING LLC**, professional engineers of Mission, Texas, hereinafter called "**Engineer**".

**PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is to provide the Preliminary Design and Construction Phase Services of the Hidalgo County Sheriff's Office Detention Barracks.

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 **\$74,265.52**. 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 Articles 5 and 6 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 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**

Acknowledgement and Confirmation by Hidalgo County Precinct No.2, Commissioner, Eduardo Cantu, as to content and detail of this **Work Authorization No. 1**.

**HIDALGO COUNTY  
COMMISSIONER PRECINCT No. 2:**

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 \_\_\_\_\_, 201\_\_.

**THE ENGINEER:  
B2Z ENGINEERING**

**THE OWNER:  
HIDALGO COUNTY**

  
\_\_\_\_\_  
By: Nicholas Muñoz, Vice President

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

**ATTEST:**

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

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

### **SECTION I - PROJECT DESCRIPTION**

The services designated herein as “Services provided by the ENGINEER” shall include the performance of all engineering services for the following described facility:

COUNTY/CITY: HIDALGO COUNTY

PROJECT/DESCRIPTION: Preliminary Design & Construction Phase Services of the Hidalgo County Sheriff’s Office Detention Barracks (FC102 & FC320)

ENGINEER shall mean B2Z Engineering

STATE shall mean the State of Texas

COUNTY shall mean Hidalgo County

ARCHITECT shall mean Architect of Record

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

### **SECTION 2 – PRELIMINARY DESIGN VALUES**

(Function Code 102)

#### **Preliminary Design Values**

The ENGINEER will work with the COUNTY and ARCHITECT to establish basic design concepts, project controls and general scope of Projects.

- 1) Review of existing materials (drawings, programs, maps, budgets, schedules, surveys, project requirements, and TCJS requirements) to familiarize the team with the project and work complete to date.
- 2) Prepare our Project Management Plan and Project Management software to address the needs of the COUNTY and project.
  - a) Identify all project stakeholders and assist the County in development of Steering and Governing Committee's for the project.
  - b) Assist the County in the development of the guiding principles and project imperatives which will become the basis of all future decisions regarding the project.
  - c) Review of the Contractor procurement methodology options with consideration to state and local public procurement regulations.
  - d) Development of risk analysis to identify project risks and suggested mitigation strategies.
  - e) Development of baseline project schedule.
  - f) Development of Communication Plan.
  - g) Development of document control framework.

#### **Uncontrolled Mapping (w/Contours & GIS Info)**

The ENGINEER will investigate the existing structures and coordinate with the Owner on establishing the best-fit alignments and mapping proposed geometry for Projects. Preliminary Location Exhibit will be developed.

#### **Preliminary Cost Estimates**

The ENGINEER will calculate preliminary construction cost estimates for of the various phases of the Project.

- 1) Compilation of a project budget for the entire project. The new budget will be compared with the existing budget to identify issues for discussion and resolution.

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

### **Meetings, Coordination & Support for Project Development**

The ENGINEER shall provide coordination services and shall assist in meetings and workshops with the COUNTY, ARCHITECT, and all other affected parties. 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.

- 1) Coordinate with the Hidalgo County Sheriff's Office department's for coordination of all systems for the project.
  - a. Maintenance
  - b. IT
  - c. Staffing
  - d. Intake
  - e. Kitchen
  - f. Infirmary
  - g. Laundry
  - h. Central Communication
  - i. State Compliance
  - j. Fire Marshal
- 2) Consultation with the County consultant contracts (Architect & Design Team, Geotechnical, Environmental, Surveyor, Commissioning & Inspections, etc.).
- 3) Assistance to the Planning Department as needed to facilitate any required master plan amendments, zoning changes, permitting requirements, and procurement restrictions.
- 4) Meet with Utility companies to understand specific requirements and risks. Coordinate the requirements with design team.
- 5) Conduct design meetings once a month to discuss progress, review designs and documents, and provide direction.
- 6) Report to the Governing and Steering Committees on progress and decisions needing to be made.
- 7) Coordinate a design review at 30%, 60%, 90% to review:
  - a. Constructability
  - b. Program adherence
  - c. Budget Adherence
  - d. Building code
  - e. ADA

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

- f. Security
  - g. Texas Commission on Jail Standard
- 8) Coordinate with the Information Management Services Department for the inclusion of specific requirements for the phone, data, and communication systems.
  - 9) Coordinate with the Facilities Management Division for the input and design review of building systems and equipment.
  - 10) Coordinate with Parks Maintenance Division for input and design review of the site, landscaping, and irrigation systems.
  - 11) Implement and maintain communication tools identified in the program management plan.
  - 12) Provide and maintain PMIS software as the central filing system for project official documents information and communications records. This will be turned over to the County at the end of the project as a record of all project files.
  - 13) Document and record meeting minutes for all design meetings, pre-construction meetings, construction meetings and post-construction meetings. The minutes will be the official project meeting record.
  - 14) Create a monthly report that will provide the County with the following:
    - a. Executive Summary
    - b. Discussion of major activities on the project
    - c. Outstanding issues
    - d. Budget changes (detailed description of change orders)
    - e. Schedule and related issues
  - 15) Assist the County in the preparation of formal contract documents for the award of the architect's contract.

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

### **SECTION 12 - CONSTRUCTION PHASE SERVICES**

(Function Code 320)

#### **Construction Management Services:**

The ENGINEER will provide support services for and during the planning/design/construction phase of the Project, or portions of the Project approved by the COUNTY. Specific services for CONSTRUCTION MANAGEMENT AND SUPPORT by the ENGINEER will include the following:

#### **Construction Bidding:**

- 1) The ENGINEER will prepare and assist the COUNTY with the needed procurement package based on a traditional or alternative delivery method (RFB, CSP, CMAR) selected for the various aspects of this project.
  - a) Preparation of documents for contractor selection to include:
    1. Request for Qualifications/Proposals
    2. Contract language to promote collaboration and limit liability
    3. Design guidelines and imperatives (project scope)
    4. Incentives
    5. Schedule
    6. Budget
  - b) Contractor Outreach
  - c) Pre-qualifying of Contractors
  - d) Assist in the preparation of advertisements and postings in publications and the County website
  - e) Conduct any pre-selection meetings with the contractors at large
  - f) Respond to all inquiries and questions in writing
- 2) The ENGINEER will assist the COUNTY on the tabulation of bids, make recommendations to the Owner as to the proper action on all bid proposals received.
- 3) Assist the County in the preparation of formal contract documents for the award of the construction contract.

#### **Construction Contract Administration and Oversight:**

- 1) In general, the ENGINEER will provide the management and engineering support/data required for consultation and advisement to the COUNTY and act as the COUNTY's representative as it relates to the various aspects of design, as well as construction as provided in the General Condition of the Construction Contract.
- 2) The ENGINEER will coordinate and conduct a pre-construction conference.

# EXHIBIT B

## Scope of Services to be provided by the Engineer

- 3) Defects and Deficiencies. The ENGINEER will use his best efforts to protect the COUNTY against defects and deficiencies in the work of the ARCHITECT and Contractor. The ENGINEER will promptly notify the COUNTY of any such defect or deficiency and take all steps possible to require the ARCHITECT or Contractor to correct the defect or deficiency.
- 4) Contractor Payment. The ENGINEER will review monthly pay applications as submitted by the Contractor and will coordinate with the Architect for the preparation of the monthly and final estimates for payment to the Contractor.
- 5) The ENGINEER will provide Project site inspection of the authorized construction contract as follows:
  - a) Project Manager. The ENGINEER will provide visits by the Project Manager or a competent representative of the ENGINEER to the site of construction for the purpose of monitoring the Contractor's progress and conformance to the construction contract plans and specifications.
  - b) Resident Engineer and/or Construction Inspector(s). The ENGINEER will furnish the services of a Resident Engineer and/or Construction Inspector(s) for on the site inspection construction to monitor/inspect the Contractor's daily progress and conformance to the contract plans and specifications.

### **Miscellaneous Technical Activities:**

- 1) The ENGINEER will coordinate various aspects of the project development component as directed by the COUNTY.
- 2) The ENGINEER will act as an agent of the COUNTY when dealing with the ARCHITECT hired by the COUNTY.
- 3) The ENGINEER will coordinate with the COUNTY on a bi-weekly basis to ensure that the project is meeting all defined project goals.
- 4) The ENGINEER will perform other various coordination tasks as directed by the COUNTY to push the project through various aspects of project development.
  - a) Administer the construction contract.
  - b) Assist the contractor to confirm that all permits have been obtained to maintain the schedule.
  - c) Track construction progress and compliance with the construction schedule.
  - d) Track and control project construction contingency funds
  - e) Facilitate the integration of the various County departments, government agencies and public and private utilities into the process as needed to maintain the schedule.
  - f) Daily project oversight to document and photograph the activity for a permanent record to be stored in PMIS.

# EXHIBIT B

## Scope of Services to be provided by the Engineer

- i. Field reports will be documented in PMIS and will include but not limited to:
  - 1. Weather
  - 2. Work logs with man hour quantities.
  - 3. General Notes, Issues and Concerns
  - 4. Site Safety Observations
  - 5. Quality Control Observations
  - 6. Delays
  - 7. Equipment on site
- g) Receive, review and direct all project documentation. This includes submittals, shop drawings, product data, samples, CMT reports, RFI's and any other required documentation for compliance with the Owner's design guidelines. All documentation will be stored in PMIS and will be turned over to County at the conclusion of project.
- h) Review Contract Change Directives (CCD's) and Proposed Change Orders (PCO's). Prepare and process Change Orders (CO's) as needed.
- i) Review and verify all Contractor pay requests.
- j) Verify stored material with architect prior to approval of payment.
- k) Participate in the creation of the final punch list with the architect during the architect's evaluation of substantial completion. Once the certificate of substantial completion is issued, we'll monitor the completion of the punch list work. The project manager will participate in the architect's final inspection and acceptance of the work.
- l) Act as liaison and central point of communication between contractor, architect, the County and other affected stakeholders.
- m) Conduct bi-weekly OAC (owner, architect, and contractor) construction progress meetings.
- n) Interact daily with the contractor to resolve potential problems or issues before they turn into change orders or cause delays
- o) Obtain and review record drawings from the architect.
- p) Conduct a 6-month warranty walk through with the contractor, noting required repairs and warranty issues. Follow up with contractor to insure completion of all open items.
- q) Conduct an 11-month warranty walk through with the contractor, noting required repairs and warranty issues. Following up with contractor to insure completion of all open items.

# **EXHIBIT B**

## **Scope of Services to be provided by the Engineer**

### **CONSTRUCTION MATERIAL TESTING:**


The ENGINEER 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. The construction material testing includes, but is not limited to the following:

- 1) Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project to determine compliance of these materials with project plans and specifications.
- 2) Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.
- 3) Field sampling and testing of fresh concrete, and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
- 4) Field compaction testing of asphalt to ensure proper compaction during lay down operations.
- 5) Field inspection, sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.
- 6) Any additional laboratory testing as required/requested by the County and the project plans and specifications.
- 7) Providing accurate and timely reports to the Contractor and the County and all/other recipients as designated by the County.

**EXHIBIT "C"**  
**PROJECT SCHEDULE**

**Hidalgo County Sheriff's Office**  
**Detention Barracks**  
**Hidalgo County Pct No. 2**

TASK AND DESCRIPTION	2018		2019									
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
<b>WA #1</b>												
<b>Preliminary Design Values</b>												
Review of Existing Materials (As Builds, Surveys, Budgets, Schedules Etc.) & TCJS Requirements												
Establish HCSO Project Imperatives												
Develop Project Management Plan - Stakeholder Register & Directory, Steering & Governing Committee, Baseline Schedule, Project Risk Register, Communication Plan, Document Control Framework, PMIS, Exhibits, Procurement Methodology, Addtl. Consultant Requirements												
<b>Preliminary Cost Estimate</b>												
Prepare Preliminary Project Budget												
<b>Meetings, Coordination &amp; Support for Project Development (Preliminary Design)</b>												
Preliminary Design Meetings (HCSO, Architect & Design Team, Surveyor, TCJS, Addtl. Consultants)												
Assistance, preparation and coordination of formal Architect contract documentation (AIA Documents) w/ Purchasing and Legal												

 B2Z Engineering



**EXHIBIT D  
FEE PROPOSAL**

**Contract # C-18-273-1120**

**Hidalgo County Sheriff's Office Detention Barracks**

**Work Authorization No. 1**

		MANHOURS								
TASKS		Project Manager	Deputy Project Manager	Construction Inspector	Construction Record Keeper	UAS Pilot	CADD Operator	Admin/ Clerical	Total Hours	Total Line Item Cost
<b>1.0</b>	<b>Preliminary Design Values</b>									
1.1	Review of Existing Materials (As Builds, Surveys, Budgets, Schedules Etc.) & TCJS Requirements	40	32		8			8	88	\$12,778.88
1.2	Establish HCSO Project Imperatives	4	4		2			2	12	\$1,554.72
1.3	Develop Project Management Plan - Stakeholder Register & Directory, Steering & Governing Committee, Baseline Schedule, Project Risk Register, Communication Plan, Document Control Framework, PMIS, Exhibits, Procurement Methodology, Addtl. Consultant Requirements	80	40		20		16	24	180	\$24,521.28
<b>2.0</b>	<b>Preliminary Cost Estimate</b>									
2.1	Prepare Preliminary Project Budget	24	20		4			4	52	\$7,648.96
<b>3.0</b>	<b>Meetings, Coordination &amp; Support for Project Development (Preliminary Design)</b>									
3.1	Preliminary Design Meetings (HCSO, Architect & Design Team, Surveyor, TCJS, Addtl. Consultants)	28	40		8			12	88	\$11,755.52
3.2	Assistance, preparation and coordination of formal Architect contract documentation (AIA Documents) w/ Purchasing and Legal	40	4		2			10	56	\$8,928.16
<b>Labor Hours</b>		<b>216</b>	<b>140</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>16</b>	<b>60</b>	<b>476</b>	
Hourly Base Rates		\$ 58.00	\$ 38.00	\$ 26.00	\$ 25.00	\$ 25.00	\$ 21.00	\$ 20.00		
Contract Rate FY2018		\$ 190.24	\$ 124.64	\$ 85.28	\$ 82.00	\$ 82.00	\$ 68.88	\$ 65.60		
<b>Total Costs Work Authorization #1 (WA#1)</b>		<b>\$ 41,091.84</b>	<b>\$ 17,449.60</b>	<b>\$ -</b>	<b>\$ 3,608.00</b>	<b>\$ -</b>	<b>\$ 1,102.08</b>	<b>\$ 3,936.00</b>		<b>\$67,187.52</b>

<b>Direct Expenses</b>	Mileage: (\$0.56/mile) (50 miles roundtrip x 3 trips)(1 round trips Austin - 2000 miles)	\$	1,204.00
	Lodging (\$90/night x 1 nights x 2 rooms)	\$	180.00
	Per Diem (\$36/day x 2 days x 2 people)	\$	144.00
	Sentinel Consultants	\$	4,500.00
	Owner-Insite Project Management Software (3 months x \$350/month)	\$	1,050.00
	<b>Total Direct Expenses</b>	<b>\$</b>	<b>7,078.00</b>

**B2Z Engineering Total Cost**

**\$74,265.52**