

**EXECUTED**

**WORK AUTHORIZATION NO. 2**

**THIS WORK AUTHORIZATION** is made pursuant to the terms and conditions of Article 6 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **S&B INFRASTRUCTURE, LTD.**, professional engineers of McAllen, Texas, hereinafter called the "**Engineer**".

**PART 1. Scope of Work.** The purpose of this Work Authorization is to *perform a Phase I - Route Analysis for the Military Hwy – US 83 Connector North, from the southern boundary of Hidalgo County Precinct 4 to FM 490 within Hidalgo County, Texas* (hereinafter referred to as the "**Project**").

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 *three hundred sixty-one thousand and four hundred fifty dollars (\$361,450)*. 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 Articles 5, 6, and 7 of the **Agreement**.

**PART 4. Period of Service.** This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and all work associated with this Work Authorization shall be performed within the time period identified in the *Work Schedule* attached hereto as **ATTACHMENT "C"**.

**PART 5. Responsibilities and Obligations.** This Work Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

S&B Infrastructure, Ltd.  
"Hidalgo County Loop (Pct 4)"

**PART 6. Acceptance and Acknowledgement.** This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of **29<sup>th</sup> day of March 2005.**

*5<sup>th</sup> day of April 2005*

**THE ENGINEER:  
S&B INFRASTRUCTURE, LTD.**

**BY:**   
\_\_\_\_\_  
**Charlotte L. Teague, PE, Project Manager, S&B Infrastructure, Ltd.**

**THE OWNER:  
HIDALGO COUNTY**

**BY:**   
\_\_\_\_\_  
**Oscar L. Garza, Jr., Commissioner, Precinct 4**

**LIST OF ATTACHMENTS**

ATTACHMENT "A"	-	Services to be Provided by the Owner
ATTACHMENT "B"	-	Services to be Provided by the Engineer
ATTACHMENT "B1"	-	Project Study Area Map
ATTACHMENT "C"	-	Work Schedule
ATTACHMENT "D"	-	Estimated Cost Proposal

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## **ATTACHMENT "A"**

### **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 **Project** for this work authorization. (The **Project** is further defined and more particularly identified in **ATTACHMENT "B"** attached to this work authorization).

### ***GENERAL***

The **Owner** will provide to the **Engineer** the following:

- (1) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 5, Article 6, and Article 7 of the Agreement.
- (2) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies that the **Engineer** cannot easily obtain.
- (3) Provide any available relevant data the **Owner** may have on file concerning the project.
- (4) 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 Agreement.
- (5) Assist with right-of-entry, as required.
- (6) Attend and participate in progress meetings as required and as coordinated and conducted by the **Engineer**.

### ***PHASE I:***

#### ***ADVANCE PROJECT DEVELOPMENT(APD), ROUTE ANALYSIS***

Specific work activities to be provided by the **Owner** for this work authorization/phase will include:

#### **FC 110      Route Analysis**

The **Owner** shall provide to the **Engineer** the following:

- (1) Any existing survey data, including field and aerial surveys, if available.
- (2) Existing right of way plans, if available.
- (3) Assist in preliminary utility investigations.
- (4) Reports or documents associated with the Project.
- (5) Traffic data projections of user type and frequency, etc., if available.
- (6) Attend preliminary concept conference; review and approve project design criteria.

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- (7) Review and approve the "Alternatives Analysis Report" prepared by the **Engineer** and more particularly identified in Attachment "B" of this work authorization.

**FC 120 Environmental Document Preparation & Public Involvement**

The **Owner** shall provide to the **Engineer** the following:

- (8) Assist the **Engineer** in the preparation of the project mailing list; provide representations at all public involvement meetings more particularly identified in Attachment "B" of this work authorization, approve agenda / exhibits, approve date and locations of each meeting, review and approve Public Meeting Report.

**FC 164 General Coordination**

The **Owner** shall attend/participate in progress meetings with the **Engineer** as required.

**ATTACHMENT "B"**  
**Services to be Provided by the Engineer**

**GENERAL**

For this work authorization, the **Engineer** shall perform activities for the development of the following phase:

**PHASE I: ADVANCE PROJECT DEVELOPMENT (APD), ROUTE ANALYSIS**

The work to be furnished by the **Engineer** under this work authorization shall consist of engineering services required to *perform a Phase I - Route Analysis (3 alternative routes / selection of the preferred) for the Military Hwy – US 83 Connector North, from the southern boundary of Hidalgo County Precinct 4 to FM 490 within Hidalgo County, Texas* (hereinafter referred to as the "Project") The project study corridor is identified as shown in ATTACHMENT "B1". Note: This phase (Phase I) may require additional work authorizations and/or special services to provide the total requirements for a final report.

All documents for the **Project** shall be prepared in the English language and in English units.

The **Engineer** shall furnish all equipment, materials, supplies, and incidentals as needed to perform these services, except as otherwise specified in ATTACHMENT "A".

The **Engineer** shall perform all work efforts and prepare all deliverables in accordance with the applicable/current requirements of the American Association of State Highway and Transportation Officials (AASHTO), the American Society for Testing and Materials (ASTM), and the Texas Department of Transportation's (TxDOT) specifications, standards, and manuals. Whenever possible, TxDOT's standard drawings, standard specifications or previously-approved special provisions and/or special specifications will be used.

The **Engineer** shall provide traffic control in accordance with the Texas Manual of Uniform Traffic Control Devices (MUTCD) when performing any field activities associated with this Agreement.

The **Engineer** shall develop/submit a work schedule with milestone activities and/or deliverables identified.

The **Engineer** shall proactively manage the development of the **Project** in accordance with the general coordination requirements outlined under FC 164 shown at the end of this exhibit.

**PHASE I:**

**ADVANCE PROJECT DEVELOPMENT (APD), ROUTE ANALYSIS**

Specific work activities to be provided by the **Engineer** for this work authorization/phase will include (and, in accordance with Article 5.2 of the Agreement, work activities for FC 120, and FC 150 are considered *Special Services*):

**FC 110      Route Analysis**

- (1) The **Engineer** shall perform site visits for field reconnaissance; site visits to be performed by designers and environmental staff to identify constructibility issues, including constraints and potentially significant structures.

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- (2) The **Engineer** shall gather data to include, but not be limited to previous studies, land records, property and facility management records, land use, engineering data, permits, public safety requirements, and/or environmental requirements from previous studies.
- (3) The **Engineer** shall coordinate and conduct a preliminary concept conference.
- (4) The **Engineer** shall develop the project design criteria (roadway, drainage, etc.) in accordance with current TxDOT and/or AASHTO guidelines; preliminary typical sections shall be developed and conform to the approved project design criteria.
- (5) The **Engineer** shall determine a maximum of three alternative routes, and perform a route analysis.
- (6) The **Engineer** shall develop a constraints map as a conceptual schematic for the various alternative routes, including a conceptual centerline layout, within approved project design criteria, for each alternative route
- (7) The **Engineer** shall develop a preliminary traffic analysis with data provided by the Hidalgo County Metropolitan Planning Organization.
- (8) The **Engineer** shall prepare preliminary cost estimates for each alternative route.
- (9) The **Engineer** shall prepare a final report (**Alternatives Analysis Report**) including alternate alignment solutions and recommendations with associated cost estimates for each alternate solution and final recommendation; summarize each alternate solution in sufficient detail to indicate clearly the problems involved in order for **Owner** to make the appropriate comparisons to the **Engineer's** final recommendations and provide the required approvals for further project development; provide a formal and clearly outlined recommendation regarding the preferred alignment(s) of the project; prepare bound copies of the preliminary and / or final report, including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimates

## **FC 120 Environmental Document Preparation & Public Involvement**

- (10) The **Engineer** shall develop a *preliminary* environmental analysis, including a constraints matrix.
- (11) The **Engineer** shall coordinate and conduct preliminary public involvement to include:
  - *Two Stakeholder Meetings* – To present the route alternatives, discuss the project development process, and obtain input from the major stakeholders and agencies on constraints and issues; the **Engineer** shall meet individually with stakeholders along with the **Owner** as may be required; all input shall be studied / analyzed in the development of the **Project's** constraint matrix.
  - *One Public Information Workshop* – To present route analysis at 75% stage; to introduce project concept, project development process, and preliminary corridor/routes, and to solicit public comment.
  - *One Public Meeting (1)* – To introduce preferred route, and to solicit public comment.
- (12) The **Engineer** shall prepare a “Public Meeting Report”, incorporating agenda, minutes, comments, and conclusion regarding this phase of Project development. The “Public Meeting Report” shall be incorporated into the **Feasibility Study**.

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 “Hidalgo County Loop (Pct 4)”

## **FC 150 Field Surveying and Photogrammetry**

- (13) For the purposes of this phase of the **Project**, the **Engineer** shall obtain aerial photogrammetry with a high level uncontrolled flight obtaining a mosaic in electronic format. This mosaic shall be used as the map background for the purposes of the route alternative analysis, conceptual schematic/constraints mapping (see item (6) under FC 110).
- (14) **Right of Entry:** It shall be the responsibility of the **Engineer** to secure written permission, as provided by the **Owner**, to enter private property for purposes of survey, environmental and engineering investigations. The **Engineer** shall contact the property owner prior to any entry onto the property owner's property. The property owner shall be informed, by the **Engineer**, the name of the survey party chief or other primary person of contact during each entry.

(The following (FC 164) is not considered *Special Service*.)

## **FC 164 Project Management**

The **Engineer** shall provide the following management activities in the development of the **Project**:

### ***Progress Meetings***

- (1) The **Engineer** shall formally meet with the **Owner** on an every-other-month basis to review the progress of the **Project**. The **Engineer** shall prepare minutes for each progress meeting, and provide a copy to the **Owner**.

### ***Quality Control / Quality Assurance***

- (2) In addition to peer review and **Project Manager** review, the **Engineer** shall perform quality control and assurance (QC/QA) on all deliverables with an independent engineer, within the **Engineer's** firm, who will assure that the project constructibility requirements (details, specifications, plan notes, etc.) are met at each milestone submittal.

### ***Internal Coordination***

- (4) The **Engineer's Project Manager** shall provide internal coordination for the development of **Project** progress reports and budget reports, responses to requests for information, and review/preparation of billing and invoicing, as well as coordination with all **Project Team** members in the development of the project, including quality control / quality assurance, internal project meetings and providing technical assistance.



RAUL LONGORIA  
OMASSA  
ALAMO

US 80

GARDNER

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PURPOSES OF INTERIM REVIEW ONLY  
UNDER THE AUTHORITY OF:  
SHARLOTTE LYNN TEGLOE, P. E.  
TEXAS REGISTRATION 62160  
DATE: 1/4/2005  
IT IS NOT TO BE USED FOR BIDDING,  
CONSTRUCTION, OR PERMIT PURPOSES.

MAPPING BACKGROUN  
HIDALGO COUNTY, TX

Work Authorization No.  
Hidalgo

**S&B**  
SURVEYING & BOUNDARY  
TECHNICAL SERVICES

**BIDDALG  
MILITA  
CONTR  
PROJEK  
PHASE**



SCALE: 1"=6,000'

LEGEND



PROPOSED STUDY COF



AIRPORT

FM 490

US 281

RAMSEYER



## ATTACHMENT "C"

### Work Schedule

A detailed work schedule, identified and more particularly described in Article 2.3 of this Agreement, shall be prepared by the **Engineer** to be submitted and approved at the *Preliminary Concept Conference*. The work schedule will provide specific work sequence and definite review times by the **Owner** and the **Engineer** of the work performed.

- **"Alternatives Analysis Report"** - *to be provided within 6 months of receiving the aerial flight data.*

The **Engineer** will diligently pursue the completion of this work authorization as defined by the milestones and deliverable due dates outlined the associated work schedule.

The **Engineer** will inform the **Owner** (in reasonable advance of the delay) should the **Engineer** encounter delays that would prevent the performance of all work in accordance with the established work schedule.

