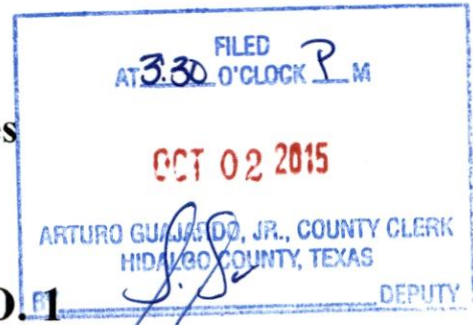


HIDALGO COUNTY
Professional Engineering Services
Contract # C-15-336-09-29
Work Authorization Form

WORK AUTHORIZATION NO. 1



THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article I. of the Agreement 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. d/b/a L & G Engineering**, professional engineers of Mercedes, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide the Environmental Assessment, Public Involvement, Schematic Design and Design Survey for Phase I of the Eldora Road Project.

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 **\$893,158.96**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D" Fee Schedule**.

PART 3. PAYMENT

Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with **Article 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 "Eddie" Cantu, as to content and detail of this **Work Authorization No. 1**.

**HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 2**

BY: Eddie Cantu

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below.

**THE ENGINEER:
L&G ENGINEERING**

Jacinto Garza
By: **Jacinto Garza, P.E.
President**

**THE OWNER:
HIDALGO COUNTY**

Ramon Garcia
By: **Ramon Garcia,
County Judge**

ATTEST:

Arturo Guajardo, Jr.
By: **Arturo Guajardo, Jr., County Clerk**

APPROVED BY
COMMISSIONERS' COURT
ON: 9/29/15

LIST OF ATTACHMENTS

- Exhibit A – Services to be Provided by the Owner
- Exhibit B – Services to be Provided by the Engineer
- Exhibit C – Work Schedule
- Exhibit D – Fee Schedule

EXHIBIT "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 improvements to Eldora Road located within the City of Pharr, and within the limits of FM 3662 (Jackson Rd) and I Road in 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 Exhibit "C" attached to this Work Authorization.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by **Engineer**.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 1 - 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

CONTROL: _____

PROJECT/DESCRIPTION: Environmental Assessment, Public Involvement,
& Schematic Design for the Eldora Road Project

LENGTH: 2.3 Miles

HIGHWAY: Eldora Road Project

LIMITS: From FM 3662 (Jackson Rd) to I Road

EXISTING FACILITY

PROJECT CLASSIFICATION

(Place an "X" in only one Project Classification)

- Surface Treatment
- Overlay
- Rehabilitation Existing Road (Scarify & Reshape)
- Convert Non-Freeway to Freeway
- Widen Freeway
- Widen Non-Freeway
- New Location Toll Freeway
- New Location Non-Freeway
- Interchange (New or Reconstruct)
- Bridge Widening or Rehabilitation
- Bridge Replacement
- Upgrade to Standards - Freeway
- Upgrade to Standards - Non-Freeway
- Miscellaneous Studies (Use Function Code 110 for All Tasks)

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean the Hidalgo County.

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 2 - ROUTE AND DESIGN STUDIES
(Function Code 110)

Services
Provided By:
ENGINEER COUNTY

<u>YES</u>	<u>NO</u>	1. Route Location Studies
<u>N/A</u>	<u>N/A</u>	2. Level of Service Analysis
<u>YES</u>	<u>NO</u>	3. Traffic Evaluations and Projections
<u>YES</u>	<u>NO</u>	4. Develop Roadway Design Criteria
<u>YES</u>	<u>NO</u>	5. Preliminary Cost Estimates
<u>YES</u>	<u>NO</u>	6. Design Schematic (See Section 6, page 6-1 for schematic layout requirements)
<u>YES</u>	<u>NO</u>	7. Preliminary Right-of-Way Requirements
<u>YES</u>	<u>NO</u>	8. Design Concept Conference
<u>NO</u>	<u>N/A</u>	9. Soil Core Hole Drilling
<u>N/A</u>	<u>N/A</u>	a. Pavement (See Section 6, pages 6-3 thru 6-4 for requirements)
<u>NO</u>	<u>N/A</u>	b. Retaining Walls (See Section 9, page 9-1 thru 9-2 for requirements)
<u>N/A</u>	<u>N/A</u>	c. Miscellaneous Structures (See Section 9, page 9-4 for requirements)
<u>N/A</u>	<u>N/A</u>	d. Bridges (See Section 10, page 10-3 for requirements)

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 3
SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT
(Function Code 120)

Services
Provided By:
ENGINEER COUNTY

- | | | | |
|---|--|---|---|
| <p>1. Environmental Reports</p> <p>All Environmental Reports shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations, Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.</p> <p>a. Environmental Assessments</p> <p>(1) An Environmental Assessment shall be prepared, anticipating a Categorical Exclusion.</p> <p>(2) An Environmental Assessment shall be prepared, anticipating a Finding of No Significant Impact.</p> <p>(3) An Environmental Assessment shall be prepared, anticipating the need for a Draft Environmental Impact Statement.</p> <p>b. Environmental Impact Statement</p> <p>(1) A Draft Environmental Impact Statement shall be prepared. After appropriate interagency and public reviews within time limits prescribed by the Code of Federal Regulations, Title 23, Part 771 and 43 Texas Administrative Code 2.40-2.51, a Final Environmental Impact Statement shall be prepared.</p> <p>(2) A Section 4(f) Statement (Department of Transportation Act) shall be provided by the ENGINEER. The format and content of the statement is found in FHWA Technical Advisory T6640.8A.</p> | <p><u>N/A</u> <u>N/A</u></p> <p><u>YES</u> <u>NO</u></p> <p><u>N/A</u> <u>N/A</u></p> <p><u>N/A</u> <u>N/A</u></p> <p><u>N/A</u> <u>N/A</u></p> | <p>2. Public Involvement</p> <p>All public involvement procedures shall be in accordance with 43 Texas Administrative Code (TAC) 2.40-2.51, Code of Federal Regulations Title 23, Part 771 and Highway Design Operations and Procedures Manual, Part II-B.</p> <p>a. A public involvement meeting(s)/hearing(s) shall be scheduled, coordinated and conducted.*</p> <p>b. Technical assistance, meeting(s)/hearing(s) preparation, maintenance of contracts lists, minutes of meeting(s), exhibit preparation, and other tasks outlined by the COUNTY, shall be provided.</p> | <p><u>YES</u> <u>NO</u></p> <p><u>YES</u> <u>NO</u></p> |
| <p>3. Cultural Resources</p> <p>Formal consultation with the State Historic Preservation Office (SHPO) and the Texas Historical Commission (THC) will be conducted by the COUNTY.</p> <p>a. Historic Structure Studies</p> <p>A records search and reconnaissance survey shall be performed, and documentation prepared regarding identification efforts, National Register eligibility and potential impacts to historic properties in accordance with the state's historic structure requirements.</p> <p>b. Archeological Studies</p> <p>(1) Files searches shall be conducted to determine if known archeological sites are present; to identify whether these sites have been listed or determined eligible for the National Register of Historic Places or have been designated State Archeological Landmarks; and to identify the need (if any) to perform additional archeological investigations.</p> <p>(2) Archeological reconnaissance will be performed under a Texas Antiquities Permit (13 TAC 26) signed for the Sponsor by a professional archeologist with the STATE.</p> <p>(3) Archeological survey shall be performed under a Texas Antiquities Permit (13 TAC 26) signed for the Sponsor by a professional archeologist with the STATE.</p> | <p><u>YES</u> <u>NO</u></p> <p><u>YES</u> <u>NO</u></p> <p><u>YES</u> <u>NO</u></p> <p><u>YES</u> <u>NO</u></p> | | |

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services
Provided By:
ENGINEER COUNTY

- | | | |
|------------|-----------|--|
| <u>YES</u> | <u>NO</u> | 4. Noise and Air Quality Analyses |
| | | a. Noise Analysis |
| | | A noise analysis shall be prepared, including predicted noise levels and the consideration and evaluation of noise mitigation, in accordance with the STATE'S Noise Guidelines. The noise analysis or a summary of the noise analysis shall be included in the environmental document for the project. |
| <u>YES</u> | <u>NO</u> | b. Air Quality Analysis |
| | | An air quality analysis shall be prepared in accordance with the STATE'S Air Quality Guidelines. The air quality analysis or a summary of the air quality shall be included in the environmental document for the project. |
| <u>YES</u> | <u>NO</u> | 5. Ecological Investigations |
| | | A wetland survey and if necessary, a wetland delineation shall be conducted and a "wetland finding" shall be provided if necessary. As part of the environmental phase of the project, the consultant should notify the District if it is believed that a Section 404 or Section 9 permit is required, and provide the technical data to the District for application to the U.S. Army Corps of Engineers and/or the U.S. Coast Guard. |
| | | A determination should be made if there are potential federally listed endangered or threatened species that could be impacted. The District will be notified as soon as possible that Section 7 or 10 consultations may be required. Supporting data will be furnished to the district when consultation with the U.S. Fish and Wildlife Service is undertaken. |
| <u>YES</u> | <u>NO</u> | 6. Hazardous Materials |
| | | The consultant shall perform an Environmental Site Assessment for hazardous materials impact in accordance with the American Society for Testing and Materials (ASTM) 1528.93 (Transaction Screen Process). |
| <u>YES</u> | <u>NO</u> | 7. General Guidelines for Preparation of Environmental Documents |
| | | a. The Biological Impact Evaluation Report will be prepared and submitted electronically to TxDOT. |
| | | b. All cultural resource reports (i.e. Archeological and Historical Project Coordination Requests (PCRs), background and reconnaissance surveys) will be submitted electronically to TxDOT. |
| | | c. The draft administratively complete document will be submitted to TxDOT electronically through their FTP site. |
| | | d. The administratively complete document will be prepared in accordance with the content and format of FHWA Technical Advisory T6640.8A and the TxDOT Administrative Code 43 TAC §2.44. |
| | | e. The administratively complete document will be submitted to TxDOT electronically through their FTP site. |
| | | f. Upon completion and approval of the administratively and technically complete document, the Engineer will provide one (1) hard copy to the Client, one (1) hardcopy to the district, and (3) hardcopies to TxDOT ENV. |
| | | g. Exhibits in the environmental document shall be color copies and text shall be black and white. |

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

SECTION 6 - ROADWAY DESIGN CONTROLS

(Function Code 160)

Services
Provided By:
ENGINEER COUNTY

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|------------|-----------|--|
| <u>YES</u> | <u>NO</u> | 1. Geometric Design |
| <u>YES</u> | <u>NO</u> | a. Horizontal and Vertical Alignment |
| | | b. Schematic Layout |
| | | (1) The location of interchanges, main lanes, grade separations, frontage roads and ramps. |
| | | (2) Develop vertical and horizontal alignment of main lanes, ramps and cross roads at proposed interchanges or grade separations. Frontage road alignment data need not be shown on the schematic; however, it should be developed in sufficient detail to determine ROW needs. The degree of horizontal curves and vertical curve data, including "K" values, shall also be shown for ease of checking. |
| | | (3) For freeways, show the location and text of the proposed main lane guide signs. Lane lines and/or arrows indicating the number of lanes shall also be shown. |
| | | (4) A complete explanation of the sequence and methods of stage construction, if proposed, including the initial and ultimate proposed treatment of crossovers and ramps. |
| | | (5) The tentative ROW limits. |
| | | (a) Provide a roadway Design System (RDS) or (GEOPAK) computer tape of the preliminary earthwork to verify ROW requirements. |
| | | (b) Provide a graphics file containing the approved schematic. |
| | | (6) The geometric (pavement cross slopes, lane and shoulder widths, slope rates for fills and cuts) of the typical sections of proposed highway main lanes, ramps, frontage roads, and cross roads. |
| | | (7) The current and projected traffic volumes as provided by the TxDOT (20 year traffic projection, unless otherwise determined by the District Engineer). |
| | | (8) The control of access lines if Interstate or designated under House Bill 179. |
| | | (9) Direction of traffic flow on all roadways. |
| | | (10) Location and width of median openings for highway without access control. |
| | | (11) The geometric of speed change (acceleration, deceleration, climbing) lanes. |
| <u>YES</u> | <u>NO</u> | 2. General Guidelines for Project Development |
| | | a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable. The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout. |
| | | b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE. |
| | | c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout. |
| | | d. Handling of traffic during construction shall be a consideration in the development of preliminary designs. |

EXHIBIT "B"
SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

Services
Provided By:
ENGINEER COUNTY

- | | |
|--|--|
| <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> <p><u>NO</u> <u>N/A</u></p> | <p>5. Pavement Design (<i>continued</i>)</p> <p>c. Embankment and Subgrade (<i>continued</i>)</p> <p style="padding-left: 20px;">(2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)</p> <p>d. Traffic Data for Pavement Design by STATE</p> <p>e. Basic Design Criteria</p> <p>f. Life Cycle Cost Analysis(es)</p> <p>g. Cost Data</p> <p>h. Pavement Material Properties</p> <p>i. Rehabilitation Investigations</p> <p style="padding-left: 20px;">(1) Core Hole Survey (Show cost estimate with Function Code 110)</p> <p style="padding-left: 40px;">(a) Determine type and depth of existing material, pavement, etc. The Engineer will determine whether to salvage ACP and FLEXBASE as well as their properties and provide this information to TxDOT.</p> |
|--|--|

**EXHIBIT D
WA#1 ~ FEE PROPOSAL**

**Eldora Road Project
HIDALGO COUNTY PRECINCT #2**

TASK	MANHOURS							L&G TOTAL HOURS	Total Line Item Cost
	Senior Project Manager	Senior Engineer	Project Engineer	Senior Engineering Technician	Senior Environmental Scientist/Specialist	Admin / Clerical			
WA #1 - Eldora Environmental Assessment, Public Involvement, & Schematic Design									
1 Environmental Document for TxDOT/FHWA	20				1144	436	1600	\$	199,851.52
2 Public Involvement for the Project with Stakeholders and 1 Public Meeting	26	95	138			26	285	\$	41,627.68
3 Archeological and Historical Research					378	150	528	\$	64,996.44
4 Engineering Technical Support at Public Meetings with Layouts, Etc.	55	140	150	148		26	519	\$	71,501.52
5 Schematic for Roadway (TxDOT/FHWA)	70	396	510	400			1376	\$	189,045.96
6 Hydrological Map for Outfall Drain Ditch (HCDD#1)	44	213	233	198			688	\$	96,002.78
7 Office Surveys for Schematic (Prel. Ownership Identification and Property Rights)	54	112	131	90		87	474	\$	61,997.58
8 Preliminary Compensable Utilities Identification on Schematic	28	74	82	67			251	\$	36,004.44
9 Update Schematic Based on Comments as Provided by TxDOT/FHWA	60	128	164	120			472	\$	67,998.32
10 Engineering Technical Support at Public Hearing with Layouts, Etc.	10	40	64	30		36	180	\$	22,505.04
11 Public Involvement for 1 Public Hearing	23	51	192			48	314	\$	41,627.68
Subtotal Hours	390	1249	1664	1053	1522	809	6687		
Hourly Base Rate	\$ 70.00	\$ 58.00	\$ 43.00	\$ 30.00	\$ 49.00	\$ 20.00			
FY 15 Contract Hourly Rate w/ OH Mult. (178.12%) & Fixed Fee (12.00%)	\$ 211.40	\$ 175.16	\$ 129.86	\$ 96.64	\$ 147.98	\$ 60.40			
Total Labor Costs	\$ 82,446.00	\$ 218,774.84	\$ 216,087.04	\$ 101,761.92	\$ 225,225.56	\$ 48,863.60	\$ 893,158.96	\$	893,158.96

Total Project Fee (Work Authorization #1): \$893,158.96