



May 14, 2024

Transportation Consultants

The Honorable David Fuentes  
Commissioner, Hidalgo County Pct. No. 1  
**Attn: David Suarez, Chief Administrator**  
1902 Joe Stephens  
Weslaco, Texas 78596

**RE: Mile 6 Project Work Authorization No. 6 (WA)**  
**Limits: from Mile 11 to Mile 14 ½**  
**Contract No. C-18-195-07-31**

Dear Commissioner Fuentes:

As discussed, Hidalgo County and the State of Texas entered into an Advance Funding Agreement (AFA) on August 11, 2020, where the County will be responsible for the work associated with completing the Plans, Specifications, Estimate and acquire the roadway and outfall right-of-way (ROW) including compensable utility rights for the expansion of Mile 6.

**Current Federal & State Funding awarded to Hidalgo County at the RGVMPO:**

\$4,396,316 for the acquisition of ROW and compensable utilities from Mile 11 to SH 107.

\$22,612,489 for construction and construction engineering for this section of Mile 6.

L&G Engineering is resubmitting for your review and approval the subject Work Authorization No. 6 which constitutes part of the original submittal in an effort to work with budget constraints. L&G engineering will continue to work on the PS&E, Right-of-Way acquisition including compensable utilities, permitted utilities, etc. and related remaining engineering work associated with getting this project shovel ready. As per selection by the Hidalgo County Commissioner’s Court, on July 17, 2018, to have L&G Engineering perform the professional engineering services for the subject project, attached for your review and approval are two signed original WA No. 6 for the Mile 6 Project to perform engineering services in the amount of **\$940,476.59**. The following is the funding breakdown for L&G Engineering and our Sub-Consultant’s proposed fees associated with this Work Authorization.

• L&G Engineering ( <i>PRIME</i> ) .....	\$ 799,189.00
• Garza & Associates (SUB-CONSULTANT).....	\$ 73,125.00
• HLH Appraisal Services (SUB-CONSULTANT).....	\$ 27,750.00
• ETSI Group, LLC (SUB-CONSULTANT).....	\$ 40,412.59
<b>TOTAL</b>	<b>\$ 940,476.59</b>

Attached you will find the following:

- 1.) Two partially executed originals of Work Authorizations No. 6 with the following attachments:
  - Location Map
  - Exhibit A “Services to be provided by the Owner”
  - Exhibit B “Services to be provided by the Engineer”
  - Exhibit C “Work Schedule”
  - Exhibit D-1 “Fee Schedule”

Should you have any questions regarding this submittal, do not hesitate to call me at (956) 565-9813.

Sincerely,

  
Jacinto Garza, P.E.  
President/CEO

Attachments

cc: Jorge Pena, Hidalgo County Precinct #1 RPIC

**HIDALGO COUNTY**  
**Professional Engineering Services**  
**Contract # C-18-195-07-31**  
**Work Authorization Form**  
  
**WORK AUTHORIZATION NO. 6**

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 1 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 Engineering Services required for the ongoing of PS&E Development, Right-of-Way Acquisition Services, etc.

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 \$940,476.59. This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as *EXHIBIT "D-1" - Estimated Man-hour Breakdown*.

**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. 6 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 shall serve as a Notice to Proceed as per Article 3, Period of Service on the Agreement. This Work Authorization shall terminate upon completion of scopes of the work authorization, as identified on *EXHIBIT "C" - Work Schedule*.

**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. 1, Commissioner David Fuentes as to the content and detail of this Work Authorization No. 6.

**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.

**THE ENGINEER:  
L&G ENGINEERING**

**THE OWNER:  
HIDALGO COUNTY**

By:  \_\_\_\_\_  
Jacinto Garza, P.E.  
President

By: \_\_\_\_\_  
Richard Cortez,  
County Judge

**ATTEST:**

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

**LIST OF EXHIBITS**

- Location Map
- Exhibit A - Services to be provided by Owner
- Exhibit B - Services to be provided by Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Estimated Man-hour Breakdown

**EXHIBIT "A"**  
**Services to be provided by the County**

1. The County will issue work authorization to initiate all required services and designate the authorized representative for the coordination of each work authorization.
2. The County will provide copies of all subdivision plats of record and/or in the subdivision process.
3. The County will provide the Engineer with ongoing guidance, timely reviews, and decisions necessary to complete services required by the work authorization in order to permit the Engineer to maintain an agreed-upon project schedule.
4. The County will process all acceptable requests for payment in a timely manner.

## 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: PS&E, Right-of-Way Acquisition, Services, etc

LENGTH: 3.2 Miles

HIGHWAY: Mile 6

LIMITS: FROM MILE 11 TO MILE 14 1/2

### 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 Hidalgo County

CITY shall mean the City of N/A

LPA shall mean Hidalgo County

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

---

SECTION 7 - ROADWAY DESIGN CONTROLS  
ENGINEER SHALL CONTINUE TO COMPLETE THE REMAINING PS&E FOR THIS  
PROJECT

(Function Code 160)

Services  
Provided By:  
ENGINEER CITY/COUNTY

- |          |          |  |
|----------|----------|--|
| <u>Y</u> | <u>N</u> | 1. Geometric Design  |
| <u>N</u> | <u>N</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>N</u> | <u>N</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. <b>No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout.</b> |
|          |          | 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 CITY/COUNTY

<u>N</u>	<u>N</u>	2. General Guidelines for Project Development ( <i>continued</i> )
		<ul style="list-style-type: none"> <li>e. Upon approval of the schematic layout by Design Division (FHWA on Federal-aid projects), it shall be the basis for an exhibit at any required public hearing prior to final development of the project. If there are any changes to the schematic after the Design Division and FHWA approval and before the public hearing, four copies of the revised schematic, as displayed at the hearing, shall be submitted either prior to or accompanying the public hearing data. If there are no changes in the schematic as displayed at the hearing, only photographs of the schematic and other displays shall be submitted with the public hearing data.</li> <li>f. For all freeway construction projects, these schematics shall show the location and text of the proposed main lane guide signs. A schematic layout shall be submitted through the district to the Traffic Operations Division, Traffic Safety Section for approval and subsequent coordination with the FHWA. All signing shall be in conformance with the Texas MUTCD.</li> <li>g. On complex projects, informal contact through the district with the Design Division and FHWA personnel is encouraged with regard to development of preliminary design prior to official schematic submission.</li> <li>h. The engineer shall furnish a project tape that is compatible with the STATE's computer system, a project listing, and a cross section plot showing the original design sections containing the earthwork input and original cross sections for the project. <b>Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.</b></li> </ul>
<u>N</u>	<u>N</u>	3. Exhibit for Airway/Highway Clearance Permits
		4. Grading Design
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>a. Refine the horizontal and vertical alignment of main lanes, frontage roads, ramps, cross roads and direct connectors based upon the approved schematic layout. Determine vertical clearances at grade separations and overpasses, taking into account the appropriate super elevation rate.</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>b. Typical Sections</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>c. Design Cross Sections</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>d. Determine Cut and Fill Quantities</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>e. Slope Stability Analysis</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>f. Embankment Foundation Stability Analysis</li> </ul>
<u>Y</u>	<u>N</u>	<ul style="list-style-type: none"> <li>g. Embankment Settlement Analysis</li> </ul>
		5. Pavement Design
<u>N</u>	<u>N</u>	<ul style="list-style-type: none"> <li>a. Prior to initiating detailed plan preparations for a project, a preliminary investigation shall be made to determine the approximate section and pavement type to be used for the pavement structure. The Flexible Pavement Design Manual for flexible pavement, "Appendix F" of the Design Division, Operations and Procedures Manual, and the current AASHTO Guide for the Design of Pavement Structures, may be used for this purpose.</li> </ul>
<u>N</u>	<u>N</u>	<ul style="list-style-type: none"> <li>b. The typical section shall also reflect proposed geometric including pavement cross slopes, lane and shoulder widths, and slope rates whenever this data have not been previously shown on a schematic submission.</li> </ul>
		<ul style="list-style-type: none"> <li>c. Embankment and Subgrade                             <ul style="list-style-type: none"> <li>(1) Soil Core Holes (Show cost estimate with Function Code 110)                                     <ul style="list-style-type: none"> <li>(a) Along center line</li> <li>(b) Along center line of each roadway</li> </ul> </li> </ul> </li> </ul>
<u>N</u>	<u>N</u>	
<u>N</u>	<u>N</u>	

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

---

The location and minimum number of soil core holes required for this project are as follows: (To be determined when schematic is being completed)

Services  
Provided By:  
ENGINEER CITY/COUNTY

- |          |          |   |
|----------|----------|---|
| <u>N</u> | <u>N</u> | 5. Pavement Design ( <i>continued</i> )   |
|          |          | c. Embankment and Subgrade ( <i>continued</i> )   |
|          |          | (2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)   |
| <u>N</u> | <u>N</u> | d. Traffic Data for Pavement Design   |
| <u>N</u> | <u>N</u> | e. Basic Design Criteria  |
| <u>N</u> | <u>N</u> | f. Life Cycle Cost Analysis(es)   |
| <u>N</u> | <u>N</u> | g. Cost Data  |
| <u>N</u> | <u>N</u> | h. Pavement Material Properties   |
| <u>N</u> | <u>N</u> | i. Rehabilitation Investigations  |
| <u>N</u> | <u>N</u> | (1) Core Hole Survey (Show cost estimate with Function Code 110)  |
|          |          | (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 Client. |

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

---

SECTION 9 - SIGNING, MARKINGS AND SIGNALIZATION

(Function Code 162)

Services

Provided By:

ENGINEER CITY/COUNTY

- |          |          |   |
|----------|----------|---|
| <u>Y</u> | <u>N</u> | 1. Signing and Markings Layout  |
|          |          | a. Requirements (Separate Layout)   |
|          |          | (1) Roadway layout  |
|          |          | (2) Center line with station numbering  |
|          |          | (3) ROW lines   |
|          |          | (4) Culverts and other structures that present a hazard to traffic  |
|          |          | (5) Location of utilities, if not shown on plan and profile   |
|          |          | (6) Existing signs to remain, to be removed, to be relocated  |
|          |          | (7) Proposed signs (illustrated and numbered)   |
|          |          | (8) Existing overhead sign bridges to remain, to be revised, removed or relocated   |
|          |          | (9) Proposed overhead sign bridges indicating location by plan layout (electrical details need not be shown on this layout)   |
|          |          | (10) Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation  |
|          |          | (12) Quantities of existing pavement markings to be removed   |
|          |          | (13) Proposed delineators and object markers  |
|          |          | b. For projects involving freeway to freeway or other types of directional interchanges, projects including left-hand ramps or connections, the following information must be provided: |
|          |          | (1) The location of interchanges, main lanes, grade separations, frontage roads and ramps   |
|          |          | (2) complete explanation of the sequence and methods of stage construction, where applicable, which would include the initial and ultimate proposed treatment of crossovers and ramps   |
|          |          | (3) The number of lanes in each section of proposed highway and the location of changes in numbers of lanes   |
|          |          | (4) The projected traffic volumes as provided by the STATE (20 year traffic projection, unless otherwise determined by the District Engineer)   |
|          |          | (5) Tentative ROW limits  |
|          |          | (6) Direction of traffic flow on all roadways   |
|          |          | (7) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations   |
| <u>Y</u> | <u>N</u> | 2. Summary of Small Signs Tabulation  |
| <u>N</u> | <u>N</u> | 3. Summary of Large Signs Tabulation including all Guide Signs  |
| <u>Y</u> | <u>N</u> | 4. Sign Detail Sheets   |
|          |          | a. All signs except route markers   |
|          |          | b. Design details for large guide signs   |
|          |          | c. Dimensions of letters, shields, borders, corner radii etc.   |
|          |          | d. Designation of shields attached to guide signs   |
|          |          | e. Designation of arrow used on exit direction signs  |

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

---

Services

Provided By:

ENGINEER CITY/COUNTY

- |          |          |   |
|----------|----------|---|
| <u>Y</u> | <u>N</u> | 5. Traffic Signals (5 FLASHING BEACONS)   |
|          |          | a. ETSI will produce a complete set of Plans, Specifications and Cost Estimates (PS&E) that cover the following flashing beacon designs at the following intersections:   |
|          |          | <ul style="list-style-type: none"><li>• Mile 6 West Road at Mile 12 North Road</li><li>• Mile 6 West Road at Mile 12.5 North Road</li><li>• Mile 6 West Road at Mile 13 North Road</li><li>• Mile 6 West Road at Mile 13.5 North Road</li><li>• Mile 6 West Road at Mile 14 North Road</li></ul>  |
| <u>Y</u> | <u>N</u> | 6. ETSI will prepare plans, specifications and cost estimates for FIVE FLASHING BEACONS, as follows:  |
|          |          | <ul style="list-style-type: none"><li>• <b>TASK 1 – General Notes for Flashing Beacon Design</b><br/>ETSI will prepare the general notes based on TxDOT's latest practices.</li><li>• <b>TASK 2 – Basis of Estimate</b><br/>ETSI will prepare Basis of Estimate sheet(s) with adequate number of columns to reflect the number of the above intersections and one column for the total quantities.<br/>ETSI will calculate quantities at 90% and 100% levels of completion or as directed by Engineer.</li><li>• <b>TASK 3 – Condition Diagram</b><br/>ETSI will collect from various agencies the existing geometries for the above intersections. Information from these plans will be verified in the field and then incorporated into the condition diagram sheets.<br/>ETSI will setup the condition diagram sheets that would show the existing configuration of each intersection, existing utilities and other elements in accordance with TxDOT design practices and as required by Engineer. ETSI will show which items are to be removed and which to are to remain.</li><li>• <b>TASK 4 – Proposed Flashing Beacon Plan Layout</b><br/>ETSI will setup proposed flashing beacon layout sheets that would show the proposed geometries of the above intersections along with the basic elements of the flashing beacon design, such as location of strain poles, span wire configurations, service drop locations, flasher indications in accordance with TxDOT Design practices and as required by Engineer.<br/>The proposed layouts will also show existing equipment to remain, existing equipment to be removed and proposed new equipment to be installed by the contractor.<br/>ETSI with assistance from the Engineer will contact the local power company for electrical service requirements at each of the above intersections.<br/>ETSI will produce submittals for Client's review at the 90% and 100% completion levels or as directed by Engineer.</li><li>• <b>TASK 5 – Electrical Schedules</b><br/>ETSI will prepare tables, depicting the electrical schedule for the wiring connections at each intersection.</li><li>• <b>TASK 6 – Intersection Signing, Pavement Markings and Curb Ramps</b><br/>While working on the proposed layouts, ETSI will also locate the cross walks and stop bars at the intersections, as they affect the flashing beacon design and furnish this information to Engineer. Curb ramps and cross walks will conform to current US Access Board's Proposed Accessibility Guidelines as well as ADA standards.</li></ul> |

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

---

Services

Provided By:

ENGINEER    CITY/COUNTY  
(continued)

Y

N

ETSI will produce submittals for Client's review at the 90% and 100% completion levels.

- **TASK 7 – Standard Sheets List**

ETSI will prepare a list of standard sheets for the 90% and 100% submittals. ETSI will also prepare the drill shaft tables on the TSFD standard sheet as well as the shipping parts list on the SP/SMA standard sheet.

- **TASK 8 – Specifications List and Cost Estimate**

ETSI will prepare a list with all pertinent specifications and special provisions as they relate to the above tasks. ETSI will also prepare cost estimates using Pharr District's average bid values at the 90% and 100% submittals.

- **TASK 9 – Coordination and Meetings**

ETSI will participate in one or more project progress meetings as requested by Engineer.

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

(Function Code 163)

Services  
 Provided By:  
ENGINEER CITY/COUNTY

- |  |  |
|--|--|
| <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><br><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><br><p><u>N/A</u>      <u>N/A</u></p><br><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><u>N/A</u>      <u>N/A</u></p> | <p>1. Retaining Walls</p> <p>a. Structural Details</p> <p>(1) Cast-in-Place Cantilever at _____ locations. (TxDOT Standard Retaining Wall)*</p> <p>(2) Tiedback Retaining Wall at _____ location. (TxDOT standard retaining wall)</p> <p>(3) Specialized Retaining Wall at _____ locations (Unique Design).*</p> <p>b. Alternate Patented Retaining Walls at all locations. (Layouts Only)**</p> <p>(1) Mechanically Stabilized Earth</p> <p>(2) Concrete Block Wall Systems</p> <p>c. Retaining Wall Layout (PLAN)</p> <p>(1) Designation of reference line</p> <p>(2) Beginning and ending retaining wall stations</p> <p>(3) Station of each retaining wall joint***</p> <p>(4) Offset from reference line</p> <p>(5) Horizontal curve data</p> <p>(6) Number of retaining wall panels and lengths***</p> <p>(7) Total length of wall</p> <p>(8) Indicate face of wall</p> <p>(9) All wall dimensions and alignment relations (alignment data as necessary)</p> <p>(10) Soil core hole locations</p> <p>d. Retaining Wall Layout (ELEVATION)</p> <p>(1) Top of wall elevations at each joint or intervals***</p> <p>(2) Existing and finished ground line elevations</p> <p>(3) Height of stem at each joint***</p> <p>(4) Wall panel designations***</p> <p>(5) Top of footing elevations***</p> <p>(6) Limits of measurement for payment****</p> <p>(7) Type, limits and anchorage details of railing (If applicable)</p> <p>(8) Top and bottom of wall profiles and soil core hole data plotted at correct station and elevation. The plot shall be at the same scale as the wall profile. Ground water elevations and the observation date shall be shown.</p> <p>e. Foundation Studies (Show cost estimate with Function Code 110)</p> <p>(1) The soil core holes shall be obtained at approximately 200 foot intervals along retaining wall alignments. The core holes shall extend 25 feet below the footing elevation.</p> <p>f. Stability Analysis (the ENGINEER shall estimate this task as part of his bid to complete the work).</p> <p>g. Estimate</p> <p>h. Summary of Quantities</p> <p>i. Typical X-section.</p> <p>j. General Guidelines for Retaining Walls</p> <p>(1) The ENGINEER shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. <b>The designer and checker shall check all calculations and initial each page.</b></p> <p>(2) The ground water level should be observed at the water strike.</p> <p>(3) For purposes of uniformity statewide, soil core hole data shall be shown on layouts as illustrated in the Bridges and Structures Foundation Exploration and Design Manual.</p> <p>(4) Foundation exploration shall conform to the requirements set forth in Administrative Circular No. 25-84, Administrative Circular 33-87 and Administrative Circular No. 25-92.</p> |
|--|--|

Services  
 Provided By:

## EXHIBIT "B"

### SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>Y</u>	<u>N</u>	<p>2. Traffic Control Plan, Detours and Sequence of Construction</p> <p>Traffic Control Plans (TCP) are required for all projects. A detailed TCP shall be developed when traffic handling during construction involves complications for which a feasible solution is not covered by the Texas MUTCD or the current Barricade and Construction (BC) Standards. The following items are required on all Traffic Control Plan Layouts:</p> <ol style="list-style-type: none"> <li>a. The sequence of construction and method of handling traffic during each phase.</li> <li>b. The existing and proposed traffic control devices that will be used to handle traffic during each construction sequence. Include signals, regulatory signs, warning signs, construction warning signs, guide signs, route markers, construction pavement markings, channelizing devices, portable changeable message signs, flashing arrow boards, barricades, barriers, etc.</li> <li>c. The proposed traffic control devices (stop signs, signals, flag person, etc.) at grade intersections during each construction sequence.</li> <li>d. Where detours are provided, typical cross sections shall be shown.</li> <li>e. Road construction work hours shall be developed after an investigation of the traffic volumes has been performed.</li> </ol>
<u>N</u>	<u>N</u>	<p>3. Illumination</p> <ol style="list-style-type: none"> <li>a. Preliminary Roadway Illumination Layout and Circuit Layout               <ol style="list-style-type: none"> <li>(1) For projects involving freeway to freeway or other types of directional interchanges and projects including left-hand ramps or connections, provide the following:                   <ol style="list-style-type: none"> <li>(a) The location of interchanges, main lanes, grade separations, frontage roads and ramps</li> <li>(b) A complete explanation of the sequence and methods of stage construction, where applicable, which would include the initial and ultimate proposed treatment of crossovers and ramps</li> <li>(c) The number of lanes in each section of proposed highway and the location of changes in the number of lanes</li> <li>(d) The projected traffic volumes as provided by the STATE (20 year traffic projection unless otherwise determined by the district engineer)</li> <li>(e) Tentative ROW limits</li> <li>(f) Direction of traffic flow on all roadways</li> <li>(g) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations</li> </ol> </li> </ol> </li> </ol>
<u>N</u>	<u>N</u>	<ol style="list-style-type: none"> <li>b. Final Roadway Illumination and Electrical Circuit Layouts               <ol style="list-style-type: none"> <li>(1) Roadway layout showing pavement edges, shoulders, curbs, retaining walls, etc.</li> <li>(2) Center line with station numbering.</li> <li>(3) ROW lines.</li> <li>(4) Symbol legend. Use department standard symbols for lighting and electrical.</li> <li>(5) Culverts and other structures that present a hazard to traffic.</li> <li>(6) Location of underground utilities, if not shown on plan profile.</li> <li>(7) Location of overhead electrical lines, both crossing and parallel to ROW.</li> <li>(8) Existing sign lighting circuits and roadway illumination to remain, to be removed, to be relocated.</li> <li>(9) Existing service poles, electrical circuits, ground boxes, etc.</li> <li>(10) Contact electric utility for service pole locations, voltage characteristics.</li> <li>(11) Location of proposed sign lighting circuits and roadway illumination.</li> <li>(12) Proposed electrical circuits.</li> <li>(13) Tabulation of all quantities including proposed, existing to be relocated, existing to be removed. The layout sheet quantities and lighting summary shall be shown. Tabulations to include estimated quantity with a column for final quantities.</li> </ol> </li> </ol>

Services  
Provided By:

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

<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
<u>N</u>	<u>N</u>	3. Illumination ( <i>continued</i> )
		c. General Guidelines for Illumination (If applicable) The ENGINEER shall submit to the COUNTY, well in advance of PS&E due date, the roadway illumination and electrical circuit layout sheets for review by the STATE. Two copies of the layout sheets are to be submitted. One copy will be returned to the Engineer showing corrections that are to be made by the ENGINEER. When final plan submission is made, the ENGINEER shall provide a written statement regarding completion of the corrections.
<u>Y</u>	<u>N</u>	4. Miscellaneous Drafting/Standards
<u>Y</u>	<u>N</u>	a. Erosion Control
		b. Landscape Development
<u>Y</u>	<u>N</u>	5. Compute and Tabulate Quantities
<u>Y</u>	<u>N</u>	6. Special Utility Details (Irrigation lines)
<u>N</u>	<u>N</u>	7. Miscellaneous Structures
		a. Type of Structure*
		(1) Overhead Sign Bridges (O.S.B.) Modifications or special O.S.B. designs shall be prepared using the same design assumptions that are used for the standard O.S.B structures.
<u>N</u>	<u>N</u>	(a) New O.S.B. structure(s)
<u>N</u>	<u>N</u>	(b) Structural evaluation of existing O.S.B. structure(s) that are to remain in place or to be relocated.
<u>N</u>	<u>N</u>	(2) High Mast Illumination Poles (HMIP)
<u>N</u>	<u>N</u>	(3) Traffic Signal Supports
<u>N</u>	<u>N</u>	(4) Conventional Illumination Poles
<u>N</u>	<u>N</u>	(5) Sound Barrier Walls
<u>N</u>	<u>N</u>	b. Checklist for Layouts
		(1) Reference appropriate O.S.B. standard
		(2) Drilled shaft size and length
		(3) Soil strength used for design {indicate basis and boring(s) used}
		(4) Design height
		(5) Tower heights
		(6) Leg spacings
		(7) Design wind speed
<u>N</u>	<u>N</u>	c. Foundation Studies (Show cost estimate with Function Code 110) The soils exploration requirements for miscellaneous structures on this project are as follows: (To be provided by the Engineer on an as-needed basis)
		8. Agreements
<u>Y</u>	<u>N</u>	a. Utility Agreements
<u>Y</u>	<u>N</u>	b. Exhibits for Utility Agreements
<u>N</u>	<u>N</u>	c. Railroad Agreements
		d. Railroad Exhibits
<u>N</u>	<u>N</u>	(1) Railroad Underpasses
<u>N</u>	<u>N</u>	(2) Railroad Overpasses
<u>N</u>	<u>N</u>	(3) Railroad Grade Crossing (Replanking)
<u>N</u>	<u>N</u>	(4) Railroad Grade Crossing Warning Systems (Signals)
<u>N</u>	<u>N</u>	(5) Other Miscellaneous Sketches for Railroads
<u>N</u>	<u>N</u>	e. Traffic Signal Agreements
<u>Y</u>	<u>N</u>	f. Exhibits for Traffic Signal Agreements
<u>Y</u>	<u>N</u>	9. Estimate
<u>Y</u>	<u>N</u>	10. Specifications and General Notes

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

**SECTION 11 - BRIDGE DESIGN**

(Function Code 170)

Services  
 Provided By:  
ENGINEER CITY/COUNTY

			<u>NUMBER REQUIRED</u>
		1. Preparation of Structural Details	
		a. New Structure(s)	
<u>N/A</u>	<u>N/A</u>	(1) Underpass(es)	_____
<u>N/A</u>	<u>N/A</u>	(2) Overpass(es)	_____
<u>N/A</u>	<u>N/A</u>	(3) Main Lanes	_____
<u>N/A</u>	<u>N/A</u>	(4) Direct Connector(s)	_____
<u>N/A</u>	<u>N/A</u>	(5) Ramp Bridge(s)	_____
<u>N/A</u>	<u>N/A</u>	(6) Waterway Structure(s)**	_____
<u>N/A</u>	<u>N/A</u>	(7) Pedestrian Structure(s)	_____
<u>N/A</u>	<u>N/A</u>	(8) Utility Structure(s)	_____
<u>N/A</u>	<u>N/A</u>	(9) Railroad Underpass(es)	_____
<u>N/A</u>	<u>N/A</u>	(10) Railroad Overpass(es)	_____
<u>N/A</u>	<u>N/A</u>	(11) Bridge Classification Culvert(s)**	_____
<u>N/A</u>	<u>N/A</u>	(11) Alternate Structural Designs	_____
<u>N/A</u>	<u>N/A</u>	(12) Alternate Foundation Design	_____
		Total New Structures =	_____
		b. Existing Structure(s)	
<u>N/A</u>	<u>N/A</u>	(1) Bridge Widening, Rehabilitation and/or Modification of Existing Structure(s)	_____
<u>N/A</u>	<u>N/A</u>	(2) Bridge Replacement	_____
<u>N/A</u>	<u>N/A</u>	(3) Raising Bridge Elevation	_____
<u>N/A</u>	<u>N/A</u>	(4) Bridge Classification Culvert(s) Widening and/or Modification of Existing Structures(s)	_____
<u>N/A</u>	<u>N/A</u>	(5) Railroad Overpass(es)	_____
<u>N/A</u>	<u>N/A</u>	(6) Railroad Underpass(es)	_____
		Total Existing Structures =	_____

\* Countour plots of bridge gores are required for projects involving ramps within the main bridge in order to ensure project transition. The Template data and vertical alignment necessary to generate the contour plots are also required.

\*\* In the early stages of a project, it sometimes cannot be determined whether a Waterway Bridge Structure or a Bridge Classification Culvert (20' minimum length) will be required. Therefore, the ENGINEER should be aware that either of these two types of bridges may be reclassified later in the project for the other type when more information is known that would dictate a change in structure classification.

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

---

Services  
Provided By:  
ENGINEER CITY/COUNTY

- N/A      N/A      2. Preparation of Bridge Layouts (each bridge)
- a. Bridge Layouts (PLAN)
    - (1) Horizontal curve information or bearing of centerline.
    - (2) Including horizontal, vertical, and template information of all roadways or railroads crossed.
    - (3) Bearing of center line or reference line.
    - (4) Skew angle(s).
    - (5) Slope for header banks and approach fills.
    - (6) Control stations at beginning and ending of bridge (with deck elevation), intersections, etc.
    - (7) Approach pavement and crown width.
    - (8) Bridge roadway width and curbs, face of rail, shoulders, or sidewalks.
    - (9) Approach slab and curb returns.
    - (10) Limits and type of riprap.
    - (11) Proposed features under structure.
    - (12) Location of profile grade line.
    - (13) North arrow.
    - (14) Typical bridge roadway section including preliminary proposed beam types and spacings.
    - (15) Cross slope and super elevation data.
    - (16) Minimum horizontal clearances when applicable.
      - (a) Dimensions to features that control clearances. (Calculate and indicate points of minimum vertical and horizontal clearances.
    - (17) Location of soil core holes (station and offset), shown on layout.
    - (18) Bent stations and bearings.
    - (19) Retaining wall locations.
    - (20) Traffic flow directional arrows.
    - (21) Railing types shown.
    - (22) Joint types and seal size, if used.
    - (23) Beam line numbers consistent with span details.
    - (24) Critical horizontal clearances (location of railroad tracks, nearby structures and utilities).
    - (25) Bearings of utilities.
  - b. Bridge Layouts (ELEVATION)
    - (1) Type of foundation.
    - (2) Finished grade elevations at beginning and end of bridge.
    - (3) Overall length of structure.
    - (4) Length, type of spans and units.
    - (5) Type of railing.
    - (6) Minimum calculated vertical clearance(s).
    - (7) Existing and proposed ground lines clearly marked.
    - (8) Grid elevations and stations.
    - (9) Bent numbers encircled.
    - (10) Stationing of bridge compatible with grid stations.
    - (11) Standard title.
    - (12) Profile grade data.
    - (13) Type of riprap.
    - (14) Soil Core Hole information with penetrometer test data shall be shown on the bridge layout at correct station, elevation and scale.
    - (15) Fixed/expansion condition of all bents.
    - (16)            Column "H" heights.
    - (17) Number, size and length of foundations.

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

---

Services  
 Provided By:  
ENGINEER CITY/COUNTY

- |            |            |   |
|------------|------------|---|
| <u>N/A</u> | <u>N/A</u> | 2. Preparation of Bridge Layouts (each bridge) <i>(continued)</i>                             |
|            |            | c. Additional layout requirements for waterway structures and bridge classification culverts. |
|            |            | (1) Design and 100-year peak discharges.  |
|            |            | (2) Design and 100-year high water (HW) (Recorded HW and date if available)                   |
|            |            | (3) Natural and through-bridge velocities for design and 100-year floods.                     |
|            |            | (4) Calculated backwater for design and 100-year floods.                                      |
|            |            | (5) Direction of flow for waterway crossings.   |
|            |            | (6) Contours for water crossing.  |

- |            |            |  |
|------------|------------|--|
| <u>N/A</u> | <u>N/A</u> | 3. Bridge Classification Culvert, Estimate, Quantities, and Specifications (each bridge)   |
| <u>N/A</u> | <u>N/A</u> | 4. Foundation Studies (Show cost estimate with Function Code 110)  |
|            |            | The minimum number of soil core holes shall be obtained in accordance with Section 1-301 of the Bridges and Structures Foundation Exploration and Design Manual. Soil core holes shall be obtained at approximately (300 foot) intervals along bridge alignments. Texas cone penetrometer (TCP) tests shall be conducted in all soil types encountered at a maximum of (10 foot) intervals. If single column bents with single drilled shafts are planned, TCP values should be taken at close intervals in the upper (15 feet). |

- |            |            |   |
|------------|------------|---|
| <u>N/A</u> | <u>N/A</u> | 5. Bridge Total Quantities and Cost Estimates (each bridge)   |
| <u>N/A</u> | <u>N/A</u> | 6. Bridge Special Provisions and Specifications (each bridge)   |
| <u>N/A</u> | <u>N/A</u> | 7. Bearing seat elevations for each beam or girder. Top of cap elevations for non-beam type structures. |

- |            |            |  |
|------------|------------|--|
| <u>N/A</u> | <u>N/A</u> | 8. General Guidelines for Bridge Design  |
|            |            | a. The ENGINEER shall prepare a bridge layout of each bridge structure for Company's review and approval. The bridge layout shall be in conformance with the Bridges and Structures, Operation and Planning Manual and the Bridges and Structures, Detailing Manual. Soil core hole data is not required for submission of the preliminary bridge layout. <b>No bridge design work is to be performed until the COUNTY has given the engineer written approval of the preliminary bridge layout.</b> |

Several months may be required, after the preliminary bridge layout is submitted, for the district to obtain approval and/or permits from the following:

- TxDOT Design Division, when applicable:
  - Railroad Companies
  - FHWA
  - U.S. Army Corps of Engineers
  - U.S. Coast Guard
  - Bureau of Reclamation
  - Texas Parks and Wildlife
  - Others

Therefore, the bridge layout should be submitted at the earliest possible date and the ENGINEER's design schedule should reflect this.

- |    |  |
|----|--|
| b. | All bridge superstructure and substructure design will be reviewed by the Design Division for purposes of verifying structural integrity and optimization of design. |
| c. | The final bridge layout shall be in conformance with the Bridges and Structures, Operation and Planning Manual and the Bridges and Structures Detailing Manual.      |

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

---

Services  
Provided By:  
ENGINEER CITY/COUNTY

8. General Guidelines for Bridge Design (*continued*)
- d. The ENGINEER shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. All bridge design shall be in conformance with the Texas Department of Transportation Bridges and Structures Operation and Planning Manual, the current American Association of State Highway and Transportation Officials or American Railway Engineers Association Specifications for railway structures, Standard Specifications for Highway Bridges, including applicable interim specifications, and the Bridges and Structures, Foundation Exploration and Design Manual. The ENGINEER shall furnish design calculations to the Design Division. **The designer and checker shall check all calculations and initial each page.**
  - e. Structural steel or prestressed concrete shop drawings, form work drawings and false work drawings are not part of the design requirements. However, contract plans shall be in sufficient detail to permit the preparation of complete shop details for fabrication and erection.
  - f. Elements of the bridge (abutments, bents, slabs, etc.) shall be detailed to a metric scale of 1:20 (1/2 inch equals one foot architect scale) or 1:50 (1/4 inch equals one foot architect scale) to provide clear legible drawings when the drawings are reduced. Lettering shall be a minimum size of 4 millimeters (5/32 inch) height for hand lettering and 140 for lettering by computer-aided design and drafting (CADD).
  - g. Standard drawings for beams, diaframs, railings, armor joints, riprap, etc., shall be furnished to the ENGINEER upon request. These standards shall not be redrawn by the ENGINEER nor shall his title block be transferred to the standard drawings. Modifications to the standards, if necessary, shall be clearly identified and designated by "MOD" in the standard title. Specific special drawings prepared by the ENGINEER shall not be identified as standards.
  - h. Bridge layout sheets shall have the same vertical and horizontal scale. Usually a metric scale of 1:100 (1 inch = 10 feet) or 1:200 (1 inch = 20 feet) is used. Sections of existing and proposed structures usually have a metric scale of 1:50 (1 inch = 5 feet). Soil core holes shall be positioned and labeled on the bridge layout plan view. The core hole data shall be plotted at the correct station, at the same vertical scale, and at the proper elevation unless otherwise approved by the Design Division.
  - i. APPENDIX C, "GENERAL PLAN CHECKLIST", on pages C-1 thru C-5, more specifically relates various sheet types, details, summaries, standards, etc.
  - j. For purposes of uniformity statewide, soil core hole data shall be shown on layouts as illustrated in the Bridges and Structures Foundation Exploration and Design Manual.
  - k. Geometry and structural design errors found after acceptance of bridge plans shall be promptly corrected by the consultant at no cost to the Company.

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

---

**SECTION 12 - CONSTRUCTION PHASE SERVICES**  
(Function Code 320)

Services  
Provided By:  
ENGINEER LPA

NO      NO      **CONSTRUCTION MANAGEMENT SERVICES:**

The ENGINEER will provide engineering, geotechnical testing and support services for and during the construction of the Project or portions of the Project approved by the LPA. Specific (basic and special) services for CONSTRUCTION MANAGEMENT AND SUPPORT by the ENGINEER will include the following:

**Construction Bidding: 25% of the Work Authorization task**

NO      NO      1) The ENGINEER will furnish the LPA the necessary copies of approved plans, specifications, notices to bidders, and proposals as prepared under PS&E.

NO      NO      2) The ENGINEER will assist the LPA on the tabulation of bids, recommendations to the Owner as to the proper action on all bid proposals received, and the preparation of formal contract documents for the award of each construction contract.

**Construction Contract Administration and Inspection: 75% of the Work Authorization task**

NO      NO      3) In general, the ENGINEER will provide the management and engineering support/data required for consultation and advisement to the LPA and act as the LPA's representative as provided in the General Condition of the Construction Contract.

NO      NO      4) The ENGINEER will coordinate and conduct a pre-construction conference (if required).

NO      NO      5) Defects and Deficiencies. The ENGINEER will use his best efforts to protect the LPA against defects and deficiencies in the work of the Contractor. The ENGINEER will promptly notify the LPA of any such defect or deficiency, and take all steps possible to require the Contractor to correct the defect or deficiency.

NO      NO      6) Contractor Payment. The ENGINEER will review quantities as submitted by the Contractor and will coordinate with the LPA for the preparation of the monthly and final estimates for payment to the Contractor.

7) The ENGINEER will provide Project site inspection of the authorized construction contract as follows:

NO      NO      a) Project Engineer. The ENGINEER will provide visits by the Project Engineer 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 on a monthly basis.

NO      NO      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 TxDOT's PS&E specifications.

**Environmental Permit Compliance and Construction Monitoring**

NO      NO      8) Periodic field visits shall be conducted at the construction site during the construction of the culvert at the drainage crossings and the drainage ditch to ensure compliance of the General Conditions of NWP throughout the duration of construction and document and photograph field

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

---

visits. An administrative record of the environmental permit compliance activities during construction for final submittal to USACE upon construction completion will be completed and submitted to USACE. Once construction is completed, Engineer shall assist the LPA with the compliance certification which provides the USACE a signed certification documenting completion of construction activity and will submit the necessary paperwork to USACE.

The pre-construction meeting shall be attended. The General Contractor shall be provided with the General Conditions of the Nationwide Permits (NWP). The General Conditions of the NWP at the pre-construction meeting shall be reviewed with the Contractor.

**Miscellaneous Technical Activities:**

- |           |           |  |
|-----------|-----------|--|
| <u>NO</u> | <u>NO</u> | 9) Shop Drawings. The ENGINEER will review and check all shop or working drawings furnished by the Contractor.   |
| <u>NO</u> | <u>NO</u> | 10) Control of Materials & Equipment. The ENGINEER will provide inspection of all materials and equipment furnished/used by the Contractor as follows:   |
| <u>NO</u> | <u>NO</u> | a) Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.  |
| <u>NO</u> | <u>NO</u> | b) Observe and/or perform Project record testing and/or independent assurance testing as outlined in the construction contract specifications.   |
| <u>NO</u> | <u>NO</u> | 11) Change Orders. When applicable the ENGINEER will prepare the engineering data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the LPA. |
| <u>NO</u> | <u>NO</u> | 12) As Built Drawings. The ENGINEER will develop as built drawings to depict the work as actually constructed. The LPA will be furnished five (5) set of prints.   |
| <u>NO</u> | <u>NO</u> | <b><u>CONSTRUCTION MATERIAL TESTING:</u></b>   |

The ENGINEER will provide the LPA 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. All sampling frequencies and test procedures will be performed in general accordance with the Texas Department of Transportation TEX methods (or ASTM methods as required) as outlined in the Guide Schedule for Sampling and Testing (11/07). The construction material testing includes, but is not limited to the following:

- (a) Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
- (b) Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.
- (c) Field sampling and testing of fresh concrete, and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
- (d) Field compaction testing of asphalt to ensure proper compaction during lay down operations.
- (e) Field inspection, sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.
- (f) The ENGINEER will be responsible for concrete batching as well as the asphalt testing at the plants to insure delivery of acceptable material to the job site.

## EXHIBIT "B"

### SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

---

- (g) Any additional laboratory testing as required/requested by the LPA and the project plans and specifications.
- (h) Providing accurate and timely reports to the LPA and all/other recipients as designated by the LPA.
- (i) The ENGINEER will verify the concrete and asphalt designs to assure it is in accordance with TxDOT specifications to be developed by the contractor.

**EXHIBIT “B”**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER**

**SECTION 13 - FC 600 – ACQUISITION PROVIDER SERVICES**

**(for EST. 29 PARCELS AND 7 EASEMENTS  
AND 0 RELOCATIONS/DISPLACEMENTS)**

(Services to be provided by L&G Engineering)

Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
		<b>1) PROJECT ADMINISTRATION</b>
<u>Y</u>	<u>N</u>	a) Negotiation of Scope of Services for Work Authorization i) Acquisition Provider will visit project site with COUNTY personnel if necessary.
<u>Y</u>	<u>N</u>	b) Project Presence at L&G Consultant Office Headquarters i) Full Project Office (1) No Joint Use of COUNTY or TxDOT facilities (2) Open during normal COUNTY and State work hours (3) Personnel available to answer questions (4) Availability of Project Files (5) At least one office staff member is required to be a current commissioned notary public.
<u>Y</u>	<u>N</u>	c) Overhead Costs i) Administrative costs
<u>Y</u>	<u>N</u>	d) Communication i) Provide monthly progress reports with invoice. ii) Participate in project review meetings as determined by the COUNTY. iii) Prepare initial property owner contact list for use by the COUNTY in distribution of Acquisition Provider introduction letters. iv) Prepare and Mail via Certified, Return Receipt Requested method, all introduction letters for each individual parcel.
<u>Y</u>	<u>N</u>	e) File Management i) Project and parcel files will be kept in the COUNTY’s Office, if necessary. Working files will be kept in the Acquisition Provider’s project administrative office, but documents generated or received by the Acquisition Provider will be forwarded to the COUNTY office as they are generated or received by the Acquisition Provider, if necessary. ii) Prepare payment transmittal request utilizing standard payment submissions forms with supporting documentation. iii) Maintain records of all payments including check number, amount, and date paid, etc. iv) Provide copies of all incoming and outgoing correspondence as generated if requested by COUNTY at provider conference. v) Maintain copies of all correspondence and contacts with property owners.
		<b>2) TITLE SERVICES</b>
<u>Y</u>	<u>N</u>	a) Secure preliminary title commitments from the Title Company that will be providing title insurance. Cost of preliminary title commitments will be paid by the Acquisition Provider (if requested by the title company) and will be included in the Acquisition Provider’s scope of work for payment and paid as a separate item.
<u>Y</u>	<u>N</u>	b) Secure title commitment updates in accordance with insurance rules and requirements for parcel payment submissions. Cost of title commitment updates will be paid by the Acquisition Provider (if requested by the title company) and will be included in the Acquisition Provider’s scope of work and paid as a separate item.
<u>Y</u>	<u>N</u>	c) Secure title insurance for all parcels acquired, insuring acceptable title to COUNTY OF HIDALGO. Written approval by the COUNTY required for any exception.

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

---

Services Provided By:		
<u>ENGINEER</u>	<u>CITY/COUNTY</u>	
		<b>3) APPRAISAL</b>
<u>Y</u>	<u>N</u>	a) Appraiser may be selected from TxDOT's list of state approved fee appraisers. This list will be available for review at all District offices or at the Right of Way Division Office at 118 E. Riverside Drive, Austin, Texas, upon request.
<u>Y</u>	<u>N</u>	b) Secure written permission (if necessary) from the owner to enter the property from which land is to be acquired. If the Acquisition Provider and/or the fee appraiser, after diligent effort, are unable to secure the necessary letter of permission from the property owner, a waiver must be obtained, in writing from the COUNTY/TxDOT. Maintain permission letters with appraisal reports.
<u>Y</u>	<u>N</u>	c) Prepare (if necessary) pre-appraisal contact with interest owner(s) for each parcel using acceptable COUNTY/TxDOT forms.
<u>Y</u>	<u>N</u>	d) Contact property owners or their designated representative to offer opportunity to accompany the appraiser on the appraiser's inspection of subject property. Maintain record of contact in file.
<u>Y</u>	<u>N</u>	e) Prepare complete appraisal report for each parcel to be acquired utilizing TxDOT Forms No. ROW-A-5 and ROW-A-6 as applicable. These reports shall conform to TxDOT/COUNTY policies and procedures along with the Uniform Standards of Professional Appraisal Practices.
<u>Y</u>	<u>N</u>	f) As necessary, prepare written notification to COUNTY/TxDOT of any environmental concerns associated with the right of way to be acquired which could require environmental remediation.
<u>Y</u>	<u>N</u>	g) All completed appraisals will be administratively reviewed by L&G Engineering ROW Office and recommended for approval by TxDOT.
<u>Y</u>	<u>N</u>	h) As necessary, the appraiser will appear and or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing /pre-trial meetings as directed by L&G Engineering and/or TxDOT.
<u>Y</u>	<u>N</u>	i) As necessary, the appraiser will coordinate with review appraiser regarding revisions, comments, or additional information that may be required.
<u>Y</u>	<u>N</u>	j) The cost of the appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY.
		<b>4) APPRAISAL REVIEW</b>
<u>Y</u>	<u>N</u>	a) Review Appraiser may be selected from TxDOT's list of state approved fee appraisers. This list is available for viewing at all District offices or the Right of Way Division office at 118 E. Riverside Drive, Austin, Texas upon request.
<u>Y</u>	<u>N</u>	b) Review all appraisal reports for each parcel to determine consistency of values, supporting documentation related to the conclusion reached and compliance with TxDOT/COUNTY policies and procedures and the Uniform Standards of Professional Appraisal Practices.
<u>Y</u>	<u>N</u>	c) Prepare and submit to TxDOT the Form ROW-RTA-10 "Tabulation of Values", for each appraisal.

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

---

Services  
 Provided By:  
ENGINEER    CITY/COUNTY

- |                                       |          |   |
|---------------------------------------|----------|---|
| <u>Y</u>                              | <u>N</u> | d) The cost of the review appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the review appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY.                             |
| <br>                                  |          |   |
| <b>5) APPRAISAL UPDATES</b>           |          |   |
| <u>Y</u>                              | <u>N</u> | a) Prepare complete appraisal update for the parcel to be acquired utilizing TxDOT Form No. ROW-A-5. These reports shall conform to COUNTY/TxDOT policies and procedures along with the Uniform Standards of Professional Appraisal Practices.  |
| <u>Y</u>                              | <u>N</u> | b) As necessary, prepare written notification to COUNTY/TxDOT of any environmental concerns associated with the right of way to be acquired which could require environmental remediation. All completed appraisals will be administratively reviewed by L&G Engineering Right of Way Office and recommended for approval by TxDOT.                 |
| <u>Y</u>                              | <u>N</u> | c) As necessary, the appraiser will appear or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing or pre-trial meetings as directed by the COUNTY/TxDOT.  |
| <u>Y</u>                              | <u>N</u> | d) The cost of the appraiser appearing as an expert witness for testimony at special commissioners hearing must be included in the proposed fee schedule for the appraiser. The cost of the appraiser's expert witness testimony for trial is not part of this contract, and shall be paid by the COUNTY.   |
| <u>Y</u>                              | <u>N</u> | e) As necessary, the appraiser will coordinate with the review appraiser regarding corrections and/or additional information that may be required.  |
| <br>                                  |          |   |
| <b>6) NEGOTIATION, TASKS AND FEES</b> |          |   |
| <u>Y</u>                              | <u>N</u> | a) Analyze appraisal and appraisal review reports and confirm the TxDOT's approved value prior to making offer for each parcel.   |
| <u>Y</u>                              | <u>N</u> | b) Analyze preliminary title report to determine potential title problems, propose methods to cure title deficiencies.  |
| <u>Y</u>                              | <u>N</u> | c) Prepare the initial offer letter, instruments of conveyance, and any other documents required or requested by COUNTY /TxDOT on applicable COUNTY /TxDOT forms.   |
| <u>Y</u>                              | <u>N</u> | d) Mail (Certified Mail Return Receipt Requested) initial offer letter, draft deed, Bill of Rights Brochures, Acknowledgement of Appraisal and Appraisal Reports to address confirmed with the Appraisal District of Hidalgo County. Maintain follow-up contacts and secure the necessary instruments upon acceptance of the offer for the closing. |
| <u>Y</u>                              | <u>N</u> | e) Provide a copy of the appraisal report for the subject property exclusively to the property owner or authorized representative at mailing of initial offer. Maintain original signed Receipt of Appraisal. (unless property owner refuses to sign it).   |
| <u>Y</u>                              | <u>N</u> | f) Respond to property owner inquiries verbally and in writing within two business days.  |
| <u>Y</u>                              | <u>N</u> | g) Prepare a separate negotiator contact report for each parcel per contact.  |

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

---

Services  
 Provided By:  
ENGINEER CITY/COUNTY

- |          |          |   |
|----------|----------|---|
| <u>Y</u> | <u>N</u> | h) Maintain parcel files of original documentation related to the purchase of the real property or property interests.  |
| <u>Y</u> | <u>N</u> | i) Advise property owner on the Administrative Settlement process. Transmit to TxDOT any written counter offer from property owners including supporting documentation, and provider recommendation with regard to Administrative Settlements in accordance with COUNTY /TxDOT policy and procedures. |
| <u>Y</u> | <u>N</u> | j) Prepare final offer letter, documents of conveyance as necessary.  |
| <u>Y</u> | <u>N</u> | k) Appear and provide Expert Witness testimony as an Acquisition Provider when requested.   |
| <u>Y</u> | <u>N</u> | l) Meet at the L&G Engineering ROW office in Mission once per week as agreed-upon with the Right of Way Acquisition Manager/Administrator.  |
| <u>Y</u> | <u>N</u> | m) Provide a monthly progress report per parcel by the 25th of the month with invoice.  |
| <u>Y</u> | <u>N</u> | n) The consultant shall, as part of this proposal, estimate 20% of the parcels identified on Page 37 may result in condemnation. The consultant shall be available for any meeting/hearings as requested by the COUNTY Attorney.  |
|          |          | <b>7) CLOSING SERVICE FEES</b>  |
| <u>Y</u> | <u>N</u> | a) Coordinate with COUNTY and Title Company to obtain an updated title commitment along with other Forms and certified copy of the instrument of conveyance necessary when requesting the Parcel Payment from the COUNTY.   |
| <u>Y</u> | <u>N</u> | b) Acquisition Provider shall attend closings and provide closing services in conjunction with Title Company.   |
| <u>Y</u> | <u>N</u> | c) Acquisition Provider shall record all original instruments immediately after closing at the respective County Clerk's Office, except for donations which must be forwarded to TxDOT for acceptance by the Texas Transportation Commission.   |
|          |          | <b>8) RELOCATION ASSISTANCE SERVICES (separate Work Authorization will be issued once relocations have been identified, unless noted otherwise).</b>  |
| <u>Y</u> | <u>N</u> | a) The amount of relocations or displacements as identified. L&G will provide relocation advisory services. L&G will compute replacement housing supplements (owner occupant and/or tenants)  |
| <u>Y</u> | <u>N</u> | b) L&G will provide advisory services to business displacements and relocate them effectively.  |
| <u>Y</u> | <u>N</u> | c) TxDOT will review, approve and pay for all relocation costs as per the Agreement.  |
|          |          | <b>9) CONDEMNATION SUPPORT</b>  |
| <u>Y</u> | <u>N</u> | a) Pre-Hearing Support  |
|          |          | i) Upon receipt of a copy of the final offer, request an updated title commitment for Eminent Domain from the Title Company.  |
|          |          | ii) Prepare a Bisection Clause for the original set of Legal Descriptions supplied by Surveyor, if applicable.  |
|          |          | iii) Use the information from the Title Commitment to join all interested parties on the necessary forms. <u>Spouses of owners must also be joined.</u>   |

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

---

Services

Provided By:

ENGINEER CITY/COUNTY

- iv) Upon completion of the necessary forms, prepare a packet containing 2 copies each of the following documents: Title Commitment, Negotiator's Reports, Appraisal Acknowledgment, Preappraisal Contact Sheet, signed and sealed property description, and plat, Final Offer Letter, any correspondence from the land owner or representatives, along with one copy of the appraisal report. Submit packet to the COUNTY Office for submission to the COUNTY Attorney's office.
  - v) Upon receipt of concurrence for the Appraisal Witness, request the update of appraisal.
  - vi) Upon receipt of packet prepared by the COUNTY Attorney which will include Petition for Condemnation, Lis Pendens, Order Appointing Special Commissioners, Order Setting Hearing, Oath of Special Commissioner, and Notice of Hearings, developed by the COUNTY Attorney; the attorney shall file the original petition with the COUNTY Court at Law or other appropriate Court for a cause number to be assigned.
  - vii) The COUNTY attorney shall file the Lis Pendens including the cause number with the COUNTY Clerk's Office.
  - viii) Upon assignment of a court, the COUNTY Attorney shall file the Order Appointing Commissioners with the judge retaining a copy of the Order for the files.
  - ix) Following appointment of Special Commissioners by the judge, the COUNTY shall secure the following documents: Oath of Commissioners signed by the Commissioners, Order Setting Hearing, 2 copies of the Notice of Hearing signed by the Commissioners.
  - x) The COUNTY shall file all originals with the court and send copies marked "copy" to L & G Engineering.
  - xi) The COUNTY Attorney shall send a copy of the petition to the Title Company so that the Title Company can make sure the appropriate parties were joined and that no changes in title have occurred.
  - xii) The COUNTY Attorney shall set the Special Commissioners Hearing after the updated appraisal has been submitted, if there is no change in value. If there is an increase in value, COUNTY will approve the new value and the COUNTY's provider will present a revised offer and a final offer letter and submit a copy of the final offer letter.
  - xiii) The COUNTY Attorney shall coordinate a pre-hearing conference prior to the hearing (the day before or earlier) to discuss facts of the case with the COUNTY, Appraiser, and Negotiator.
  - xiv) After the hearing is set, the COUNTY Attorney shall serve Notices of Hearing to the indicated parties at least 11 days prior to the Commissioner's hearing. If it is necessary to join the Federal Government, be advised that they have an additional 60 days to prepare for the Hearing.
  - xv) Once the notices have been served, the COUNTY Attorney shall file the original notices with the court and send copies stamped "copy" to L&G Engineering ROW Office.
  
  - xvi) The COUNTY's Attorney shall send a reminder letter 2-3 weeks in advance to the COUNTY Administration offices, Acquisition Provider, the three special commissioners and court reporter concerning Hearing dates.
- Y      N
- b) Post Hearing Support (by COUNTY Attorney)
    - i) For the hearing, prepare the necessary forms and Special Commissioners time sheets and submit forms to Hidalgo COUNTY clerk's office.
    - ii) Obtain the signatures of Special Commissioners on the Award of Commissioners and file with the court for the judge's signatures within 48 hours of the Hearing.
    - iii) Give timesheets to Judge. The amount paid to the Special Commissioners is determined by the Judge.
    - iv) Obtain and distribute 3 certified copies of the award as follows: 1 certified copy to the title company with a request for a commitment, 1 certified copy to the COUNTY, 1 certified copy to L&G Engineering with the Commitment to request the warrant in the amount of the Special Commissioners Award.

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

---

Services  
 Provided By:  
ENGINEER CITY/COUNTY

- v) Send the Commitment and the Award to COUNTY, along with individual special commissioner's billing requesting the payment for their fees.
- vi) File COUNTY warrant in the registry of the court. File a Notice of Deposit with the court and send certified copies to each defendant notifying them of the date of the deposit. The Date of Deposit is the Date of Take.
- vii) Take photograph of the interest to be acquired (if necessary) on the day of deposit for relocation verification.
- viii) Send written notices of the date of deposit to the COUNTY Administration office and all interested parties.
- ix) Appear as Expert Witness as requested. Sub-contractors must also appear as Expert Witnesses as requested.
- x) All acquisition negotiations file indicating all "due diligence" provided by the Acquisition Provider will be directed to the COUNTY Attorney's office for his further handling in accordance to the Eminent Domain process by the COUNTY.

**10) COMPENSABLE UTILITIES**

Utility Accommodation is an integral factor in road construction and design. Coordination of utility adjustments is a necessary function within planning, design, acquisition and construction and requires the administration of property rights issues, utility policy, and reimbursement of eligible utility adjustments. It includes the following tasks:

- |          |          |  |
|----------|----------|--|
| <u>Y</u> | <u>N</u> | a) Preliminary Design Consultations <ul style="list-style-type: none"> <li>i) Conduct Field Investigation and review Certificate of Convenience and Necessity boundaries to identify utility providers within the project area. Communications through letter, phone calls and email to establish a contact list. Coordinate data gathering by surveyors and design team. Introduce project to utility providers.</li> </ul> |
| <u>Y</u> | <u>N</u> | b) Field Observations and Verifications <ul style="list-style-type: none"> <li>i) Provide maps to Utility providers to "redline" and identify conflicts. Coordinate exposures and data collection by surveyor. Provide and confirm utility data on project maps. Order Utility Location Service.</li> </ul>  |
| <u>Y</u> | <u>N</u> | c) Exchange of Information with Utility Providers <ul style="list-style-type: none"> <li>i) Provide project schedule.</li> <li>ii) Request schedules for utility adjustments.</li> <li>iii) Identify who is responsible for utility process.</li> </ul>  |
| <u>Y</u> | <u>N</u> | d) Confirmation of Property Interests <ul style="list-style-type: none"> <li>i) Request Documents.</li> <li>ii) Coordination of data on maps and citation of property interest documents.</li> <li>iii) Confirm utilities are within easements.</li> </ul>   |
| <u>Y</u> | <u>N</u> | e) Coordination of Agreements <ul style="list-style-type: none"> <li>i) Identify utilities that are compensable.</li> <li>ii) Determine parties and agreements necessary to complete compensable process.</li> <li>iii) Coordinate execution and processing of Standard Utility Agreements.</li> </ul>   |
| <u>Y</u> | <u>N</u> | f) Utility Meetings throughout project development <ul style="list-style-type: none"> <li>i) Set up and coordinate utility meetings during planning, design, acquisition and construction phases.</li> <li>ii) Attend and participate in meetings by other parties.</li> </ul>   |

Services

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

---

Provided By:  
ENGINEER CITY/COUNTY

**11) PAYMENT SCHEDULE**

- |          |          |  |
|----------|----------|--|
| <u>Y</u> | <u>N</u> |  |
|----------|----------|--|
- a) Project Administration
    - i) Payment and Milestones
      - (a) Full Project Office
        - (1) Lump Sum Basis (assume 1 year project presence)
        - (2) Initial payment of 25% upon establishment of a project office with functional phone and utility services.
        - (3) Remainder paid out in equal monthly installments of 15% starting the following month.
        - (4) Monthly billing to COUNTY OF HIDALGO will be required.
  - b) Title Services
    - ii) Payment
      - (a) Per Parcel basis.
    - iii) Milestones
      - (a) 100% upon securing initial title commitment.
  - c) Appraisal Services
    - i) Payment
      - (a) Per Parcel Basis
    - ii) Milestones
      - (a) 100% paid upon delivery of complete and acceptable appraisal report
  - d) Appraisal Review
    - i) Payment
      - (a) Per Parcel Basis
    - ii) Milestones
      - (a) 100% upon submission of ROW-A-10
  - e) Appraisal Update
    - i) Payment
      - (a) Per Parcel Basis
    - ii) Milestones
      - (a) 100% upon delivery of complete and acceptable appraisal update.
  - f) Negotiation, Task, and Fees
    - i) Payment
      - (a) Per Parcel Basis
    - ii) Milestones
      - (a) 80% upon presentation of initial offer.
      - (b) 20% upon successful negotiation and all instruments are recorded.
  - g) Closing Service Fees
    - i) Payment
      - (a) Per Parcel Basis
    - ii) Milestones
      - (a) 100% upon recordation of instrument of conveyance.
  - h) Relocation Assistance
    - i) Payment
      - (a) Per Relocation
    - ii) Milestones
      - (a) 100% upon issuance of 90-day vacancy letter.
  - i) Compensable Utilities
    - i) Payment
      - (a) By percent complete

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

---

**PROJECT MANAGEMENT & ADDITIONAL RESONSIBILITIES**

**Easements, Letters of Permission, Etc.**

The ENGINEER shall be responsible for delineating easements. The ENGINEER will be responsible for securing the necessary legal instruments.

**Coordination of Utilities**

The ENGINEER shall furnish the COUNTY prints of a project layout which will be distributed by ENGINEER to various utility companies to determine which utilities are in the limits of the project. These shall be preliminary layouts. Upon completion of the preliminary drainage plans and U&D sheets, the ENGINEER shall distribute to the various utility companies and request return. Upon return of these prints, the ENGINEER will schedule a meeting with the various utility companies to discuss potential conflicts and conformance with the State's Utility Accommodation Policy. The ENGINEER is responsible for coordination with the various utility companies for exposing potential conflicts and field ties to uncover utilities in potential conflict areas.

**Meetings**

Meetings will be held with the FHWA, State Officials, local governments, property owners, utility owners, railroad companies, other consulting firms, etc., as needed or required by the COUNTY. The ENGINEER shall coordinate through the COUNTY for the development of this project with any local entity having jurisdiction or interest in the project (i.e., city, county, etc).

**Specifications, Special Provisions, Special Specifications**

Use the State's standard specifications or previously approved special provisions and/or special specifications. If a special provision and/or special specification is developed for this project, it shall be in the State's format and incorporate references to approved State test procedures.

**Project Manager/Engineer Communication**

The ENGINEER shall designate one Texas Registered Professional Engineer to be responsible throughout the project for project management and all communications, including billing, with the COUNTY's Director. Any replacements to the ENGINEER's designated Project Manager/Engineer must be approved by the COUNTY.

Engineering documents produced for the department's engineering projects shall be signed, sealed and dated or CADD sealed in accordance with Administrative Order No. 5-89 and Administrative Circular No. 26-91.

**Design Responsibilities**

The ENGINEER is responsible for design errors and/or omissions that become evident before, during or after construction of the project. The ENGINEER's responsibility for all questions arising from design errors and/or omissions will be determined by the COUNTY and all decisions shall be final and binding. This would include, but not necessarily be limited to:

1. All design errors and/or omissions resulting in additional design work to correct the errors and/or omissions.
2. Preparation of design documents and detail drawings necessary for a field change due to design errors and/or omissions.
3. Revision of original tracings to the extent required for a field change due to design errors and/or omissions.

The ENGINEER shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of the work by the COUNTY will not relieve the ENGINEER of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities.

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

---

**Document and Information Exchange**

Data, Plan Sheets, General Notes and/or Specifications provided to the COUNTY shall be furnished on 8GB USB flash drives. Each 8 GB flash drive shall have a file titled Table of Contents. The Table of Contents shall indicate the locations of files within the directory structure of the documentation.

General Notes and specifications shall be provided in MS Office 2007 format. Plan sheets shall be provided in Microstation DGN or GEOPAK GPK format. PDF copies of plan sheets shall also be provided.

Two copies of the documentation shall be provided to the COUNTY.

If required, the ENGINEER shall provide to the COUNTY, a CD that contains all the plan sheets for the project. The graphics tape shall be compatible with the COUNTY's computer system.

CD Tape Required (YES or NO): YES

**Proposal Time**

The time indicated in the proposal and the contract shall include time necessary for reviews, approval, etc.

**Office Location**

The ENGINEER will perform the services to be provided under this agreement out of their office or offices listed below:

<u>Service</u>	<u>Office Location</u>
PS&E	Mission Office
ROW Acquisition	Mission Office
Compensable Utilities	Mission Office

The work effort will be managed out of the \_\_\_\_\_ Mission \_\_\_\_\_  
(City)  
office located at 900 S Stewart Rd \_\_\_\_\_,  
(Address)  
Mission \_\_\_\_\_, Texas \_\_\_\_\_.  
(City) (State)

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

---

**APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE**

1. Title Sheet  
Detailed Index of Sheets
2. Typical Sections
3. General Notes and Specifications Data
4. Estimate and Quantity Sheets
5. Storm Water Pollution Prevention Plan (SW3P) Sheets
6. Traffic Control Plans
  - a. Sequence of Construction Layouts
  - b. Detour Plan/Profile/Typical Sections/Quantities
7. Roadway Layouts
  - a. Roadway Plan/Profile Sheets
  - b. Intersection Plan/Profile Sheets
  - c. Intersection Layouts
  - d. Alignment Layouts/Data
  - e. Ramp Layouts/Profiles
  - f. Connection Roads/U-turns Layouts/Profile
8. Roadway Details
  - a. Concrete Pavement Details/Standards
  - b. Concrete Pavement Terminal Anchorage Details/Standards
  - c. Bridge Approach Details/Standards
  - d. Bridge Terminal Anchorage Details/Standards
  - e. Roadway/Median Barrier Details/Standards
  - f. Curb Details
  - g. Driveway Details/Typical Sections/Standards
9. Signing Layouts and Marking Layouts
10. Traffic Signal Layouts
11. Lighting Layouts
12. Illumination Detail Standards (HMID, HMIF, HMIP, RID)
13. Utility Layouts/Profiles
14. Drainage Area Maps and Hydraulic Data
  - a. General Drainage Area Maps
  - b. Stage-Discharge Curves
  - c. Main Cross-Drainage Culvert/Bridge Hydraulic Data
  - d. Drainage Area Maps/Culverts/Storm Sewer
  - e. Hydraulic Data/Culverts/Inlets/Storm Sewer/Pumps
15. Detailed Drainage Plans
  - a. Drainage Plan/Profile Sheets (Storm Sewer Plan/Profile Sheets)
  - b. Channel Plan/Profiles/Typical Sections
  - c. Box Culvert Plan/Profile
  - d. Pipe Sewer/Culvert Cross Sections

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

---

**APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE (Continued)**

16. Drainage Structural Details/Standards
  - a. Inlet Details/Standards
  - b. Manhole Details/Standards
  - c. Junction Box Details/Standards
  - d. Safety End Treatment Details/Standards
  - e. Box Culvert Details/Standards
  - f. Culvert Wingwall Details/Standards
  - g. Excavation-Backfill Diaphragms
  - h. Riprap Details/Standards
  - i. Temporary Pollution and Erosion Control Details
  
17. Pumphouse Layouts
  
18. Pumphouse Details
  
19. Pumphouse Standard Details
  
20. Bridge Layouts/Profile/Typical Sections\*
  
21. Bridge Details\*
  - a. Summary of Bridge Quantities
  - b. Abutments
  - c. Interior Bents
  - d. Spans
  - e. Special details for the specific bridge
  
22. Bridge Standard Details\*
  
23. Bridge Railing Standards
  
24. Retaining Wall Layouts/Profiles\*\*
  
25. Retaining Wall Details\*\*
  
26. Retaining Wall Standard Details\*\*
  
27. Guard Fence/Standards and Signal Pole Standards
  
28. Signal/Electrical Details/Standards and Signal Pole Standards
  
29. Signing/Markers/Striping Details/Standards
  
30. Barricade/Construction/Beacon Standards
  
31. Miscellaneous Standards
  - a. Chain Link Fence Standards
  - b. Bridge End Detail/Standards
  - c. Roadway Clearance Details/Standards
  - e. Attenuator Standards

**NOTE:** Variations of these plan sheet sequence guidelines may be permitted if approved in writing by the County.

## APPENDIX B - PLAN PREPARATION PROCEDURES

1. Title Sheet  
The ENGINEER shall be responsible for completing the title sheet as required and formatted by the STATE and as discussed in Part V of the Highway Design, Operations and Procedures Manual. Refer to Section K - Plans, 1 - Title Sheets, page 5-24, for the procedure to be used regarding all plans prepared by the ENGINEER.
2. Project Layout  
The project layout shall clearly depict the entire project as it is proposed and will usually be drawn at a scale of 1 inch=100 feet or 1 inch=200 feet, depending on the size of the project.
3. Typical Sections  
See Part IV of the Highway Design, Operations and Procedures Manual.
4. Sequence of Work Sheets (Traffic Control Plan)  
Clarity and completeness should be the rule to follow in preparing these sheets, with particular attention given to location of construction signs and barricades, lane widths, protection of drop offs, etc. For a reference guide use the Texas Department of Transportation, Texas Manual on Uniform Traffic Control Devices. Usual scale of 1 inch=100 feet and/or 1 inch=50 feet for special locations. A narrative sequence shall be included in the special provisions for the project. Staging of structural elements shall be considered. Provisions for drainage shall be considered, included and indicated during all stages of construction operations.
5. Removal Item Sheets  
These sheets indicate removal of existing facilities necessary to the proposed construction. (1 inch=40 feet) (use same scale as plan/profile sheets).
6. Summary Sheets  
Summary Sheets are required to indicate type, quantity and/or location of work for individual items of the proposed project.
7. Alignment Layout Sheets  
These sheets indicate the horizontal alignment with curve data and coordinates usually tabulated thereon. On some projects, depending on size, this information may be included on the plan profile sheets. Usual scale (1 inch=100 feet) or (1 inch=40 feet).
8. Plan Profile Sheet  
Clarity and completeness should be the rule to follow in preparation of these sheets. Usual scale (1 inch=40 feet or 1 inch=50 feet) or (1 inch=20 feet), depending on project complexity.
9. Drainage Area Maps  
Usual scale (1 inch=100 feet) and/or (1 inch=200 feet) supplemented by large scale area maps as necessary.
10. Drainage Plan Profile Sheets  
These sheets may be required on some projects to clearly depict location of inlets, storm sewer lines, and profile of storm sewer lines and laterals. Usual scale (1 inch=40 feet or 1 inch=50 feet) or (1 inch=20 feet). Storm sewer design does include redesign of storm sewers imposed by utility constraints developing after initial reviews by the STATE and consequential redesign and adjustments.
11. Runoff, Inlet, Storm Sewer and Culvert Sheets  
Use standard sheets.

## APPENDIX B - PLAN PREPARATION PROCEDURES (Continued)

12. Culvert Cross Sections and Details  
District standard reproducible sheets can be furnished (one each) to the ENGINEER for modification of special designs.
13. Manhole and Inlet Details  
District standard reproducible sheets can be furnished (one each) to the ENGINEER.
14. Miscellaneous Detail  
Curb, Sidewalk, Driveways, etc.
15. Intersection Details
16. Marking Layouts and/or Details  
Layouts of the entire project with markings depicted thereon. Usual scale 1:500 (1 inch=40 feet or 1 inch=50 feet). On some projects typical details might suffice.
17. Structural Details  
Bridge layout sheets shall have the same horizontal and vertical scale. Usually (1 inch = 10 feet) (1 inch = 20 feet). Sections of existing and proposed structures usually have a scale of (1 inch = 5 feet). Elements of the bridge (abutments, bents, slabs, etc.) shall be detailed to a (1/2 inch = 1 foot) or (1/4 inch equals 1 foot) architect scale to provide clear legible drawings when reduced. Letters shall be a minimum size of 4 millimeters (5/32 inch) height for hand lettering and 140 for lettering by computer-aided design and drafting (CADD).
18. Overhead Sign Bridge Layouts  
A maximum of four structures may be shown on each layout sheet. The reference to the appropriate overhead sign bridge (OSB) standard and the following requirements shall be shown on the layout:
  - (1) Drilled shaft size and length
  - (2) Soil strength used for design {indicate basis and boring(s) used}
  - (3) Design height
  - (4) Tower height
  - (5) Leg spacings and
  - (6) Design wind speed.

The wind speed design map need not be included in the project plans. Designation of tower member size and anchor bolt size shall not be shown. For OSBs which require special design, the design shall be in accordance with the AASHTO sign specifications (see Item 22 of References on page 49) and to the same loading requirements as for normal standard structures. Structures (special or standard) which will have changeable message signs shall be analyzed by the ENGINEER.



**EXHIBIT "D-1"**  
**ESTIMATED MAN-HOUR BREAKDOWN**

**MILE 6 PROJECT ~ from Mile 11 to Mile 14 1/2**

		Senior Project Manager	Senior Engineer	Senior Environmental Scientist /Specialist	Project Engineer	Senior Engineer Tech	CADD Operator/GIS Analyst	Admin / Clerical	TOTAL HOURS	Sub-Contract Amounts / ROW COST	TOTAL LINE ITEM COST
<b>CONTRACT RATE</b>		215.34	180.42	171.69	139.68	116.40	78.57	58.20			
<b>WORK AUTHORIZATION NO. 6 - WITH HIDALGO COUNTY Pct. No. 1</b>											
<b>PHASE II - Right-of-Way Acquisition, and PS&amp;E (Section I)</b>											
<b>Function Code</b>	<b>Description of Work</b>										
164	Project Management	21	95		153			25	294		\$ 44,488.00
600	Right-of-Way Costs - Acq. Services - est. 29 RDWY Parcels and 7 Easements	(See fee breakdown on Page 2 of 4)									\$ 550,250.00
601	Est. Compensable Utility Mngmt for Acq. of Property Rights and Compensation for Utility Adjust(s)	15	33		54	74		22	198		\$ 26,620.00
160	PS&E Development Roadway	150	350		220	278	375	80	1453		\$ 192,656.00
	Permanent Multiway control signs and Signals and Temporary Signal Designs									\$ 40,412.59	\$ 40,412.59
160	PS&E Development for Irrigation Structures ,Siphon and Irrigation Bypass	19	30		36	61	75	15	236		\$ 28,398.00
160	Engineering Fee to Create 1 set of Plans and Submit through TxDOT	10	16		18	19	21	11	95		\$ 12,056.00
320	Bid Documents to local let at County and TxDOT approval	15	25		36	50		20	146		\$ 19,753.00
163	Permitted Utilities Coordination to adjust utilities on the Roadway	12	20	28	32	43	55	18	208		\$ 25,843.00
<b>SUB-TOTAL</b>		<b>242</b>	<b>569</b>	<b>28</b>	<b>549</b>	<b>525</b>	<b>526</b>	<b>191</b>	<b>2630</b>	<b>\$ 40,412.59</b>	<b>\$ 940,476.59</b>

Sub-Total Man-hours Fee with Subconsultant Fee: **\$ 940,476.59**

**TOTAL PROJECT FEE: \$ 940,476.59**

Hidalgo County/L&G Engineering  
Mile 6 WA#6 (C-18-195-07-31)

# EXHIBIT "D-1"

## FEE SCHEDULE - L&G ENGINEERING's ROW ACQUISITION SERVICES

**Mile 6 Project**  
**Limits: From Mile 11 to Mile 14 1/2**  
**CSJ: 0921-02-447**

The following is an estimated Parcel No. Cost for completing the subject project's Right-of-Way Acquisition Services as outlined in Exhibit B according to the Exhibit D "Fee Schedule" of the contract. The parcels are estimated from the approved Schematic. **The work and payment, for these services will be accomplished by L&G Engineering and approved and paid for by Hidalgo County Pct. 1- on a percent complete basis as approved by Hidalgo County Pct. 1.** L&G Engineering will be completing the work on the approximate schedule provided in Exhibit C of this Work Order or as approved by Hidalgo County Pct. 1. The Parcels and Easements will be acquired either by completing the entire negotiation of the parcel or by modifying the approved schematic to acquire the parcels. This is a lump sum cost proposal.

### RIGHT-OF-WAY ACQUISITION SERVICES

Estimated Number of Parcels	Project Admin (Per Parcel)	Title Services Per Parcel	Appraisal Services Per Parcel	Appraisal Review Per Parcel	Appraisal Update	Negotiation Fees Per Parcel	Closing Services Per Parcel	**Relocation (Residential/ Business)	Grand Total of Task
29	\$4,450.00	\$2,100.00	\$3,250.00	\$1,050.00		\$5,000.00	\$300.00		\$468,350.00
7 Easements	\$4,450.00	\$0.00	\$1,500.00	\$750.00		\$5,000.00	\$0.00		\$81,900.00
<b>Sub Total of Tasks</b>	\$160,200.00	\$60,900.00	\$104,750.00	\$35,700.00	*	\$180,000.00	\$8,700.00	**	<b>\$550,250.00</b>

(\*) Appraisal Update costs included in Project Administration.

(\*\*) Relocation assistance cost or displacements included in Project Administration.

- Any condemnation support required will be provided by L&G Engineering as part of the administrative costs.



1419 Dove Avenue, McAllen, Texas 78504  
Office (956) 687-7295 / leonel3@garza-associates.com

## APPRAISAL SERVICES BID

November 20, 2023

L & G Consulting Engineers  
C/o Luana Gonzalez  
900 S. Stewart Road, Suite 9, Mission, Texas 78572  
Office (956) 585-1909

**Project:** Mile 6 (Mile 11 to Mile 14 ½)  
**Projected Time Frame:** To Be Established by Client  
**Price:** 29 Appraisal Reports (Fee Simple) at \$ 2,250 / Each  
7 Appraisal Reports (Easement) at \$ 1,125 / Each  
**Total Cost:** \$ 73,125

**Eminent Domain  
Prep. / Testimony / Support:** \$150.00 Per Hour

**Expert Witness / Trial:** \$250.00 Per Hour

### Client & Intended User

The client and intended user of this report is identified as the L&G Engineering & Transportation Consultants

### Intended Use

The intended use of the reports is to provide a market valuation of the proposed acquisition area which shall be purchased in the name of Hidalgo County.

### Scope of the Assignment

The scope of the assignment is to determine the market value of the part to be acquired and any contributory value of improvements located within the part to be acquired. A review of the remainder, if any, shall be performed to determine if there is a diminution of market value that is compensable. Reports shall conform to standards set forth by the Texas Department of Transportation, Senate Bill-18 and the County of Hidalgo.

Thank you for the opportunity:

Leonel Garza III  
Certified Real Estate Appraiser  
TX-1328375-G

**HLH APPRAISAL SERVICES**  
**Specializing in Appraisal Review of Road and Highway Projects**

November 20, 2023

Ms. Luana M. Gonzalez  
Right of Way Administrator  
L & G Engineering  
900 South Stewart Road  
Suite 10  
Mission, TX. 78572

**RE- PROPOSED EXHIBIT D -FEE SCHEDULE**

Hidalgo County  
Mile 6 Road  
From Mile 11 to Mile 14 1/2  
29 Parcels & 7 Easement Parcels

Dear Ms. Gonzalez:

Reference is made to the above project and the fee proposal for the appraisal review of 29 parcels and 7 Easement Parcels. The following are an estimated time and fee schedule for the 29 parcels and 7 Easement Parcels.

- Completed appraisal review on TxDOT's electronic version of Form ROW-A-10 shall be submitted to you no later than 3 days following my receipt of the appraisal report provided the report is acceptable and does not have to be returned for extensive corrections/review. This is the 3-day turnaround required by TxDOT on all PREAS Projects. Depending on the timely receipt of appraisal reports from the primary appraiser, this project shall be completed no later than 60 days from the release.
- The fee proposal is \$800 per parcel review for a total of \$23,200. The fee proposal for the 7 Easement parcels is \$650 each totaling \$4,550.00. The complete total is \$27,750. If any updated appraisal reviews are necessary, an update will be accomplished for the same fee amount as the original fee of \$800.

Please be advised that I will work directly with the appraiser to resolve any questions or discrepancies. As always, I intend to submit the appraisal reviews in a timely manner to meet your project deadlines.

Thank you for this appraisal review bid request.

Sincerely,

  
Harvey L. Heerssen  
TX. State Certified General Appraiser  
No. TX-1327190-G

HLH: hh

**6107 Aberton Forest Drive, Houston, TX. 77084. 281-799-5652. [heerssen@sbcglobal.net](mailto:heerssen@sbcglobal.net)**

