HIDALGO COUNTY
Professional Engineering Services
Contract # C- 11-195-08-16
Work Authorization Form

WORK AUTHORIZATION NO. 1

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 preparation of ROW Mapping, Surveying, Right-of-Way Acquisition Services and Roadway Design for the Mile 2 North Project from Moorefield Road West to SH 364 (La Homa Road).

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 $490,606.33. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as ***EXHIBIT "D" - Fee Schedule.***

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Article 6** of the Agreement.

PART 4. FUNDING

This Work Authorization No. 1 shall be funded through funding source:
Account No. 1-1342-431-00-123-094-0-731
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scopes of the work authorization, 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. 3, Commissioner Joe Flores as to the content and detail of this Work Authorization No. 1.

HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 3

BY:_____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on June 28, 2011 as indicated below.

THE ENGINEER:
L&G ENGINEERING

_____
By: Jacinto Garza, P.E.
President

THE OWNER:
HIDALGO COUNTY

_____
By: Ramon Garcia,
County Judge

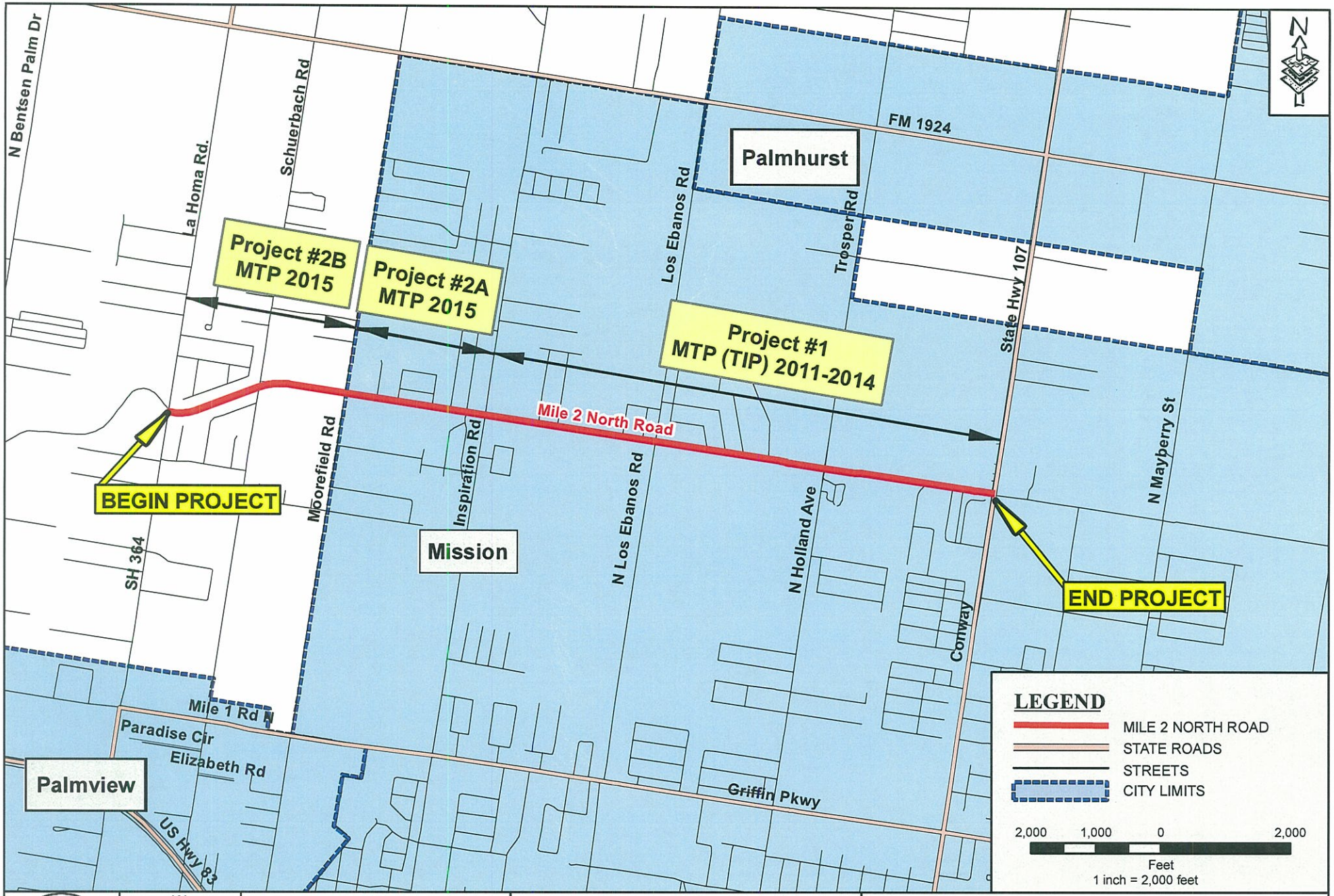
Approved by Commissioners' Court
on 8/16/11 RG

ATTEST:

_____
By: Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

Location Map
Exhibit A – Services to be provided by Owner
Exhibit B – Services to be provided by Engineer
Exhibit C – Work Schedule
Exhibit D – Fee Schedule



CITY OF MISSION, TEXAS FOUNDED IN 1908

THE COUNTY OF HIDALGO TEXAS

L&G Engineering
Transportation Consulting Engineers

MILE 2 NORTH ROAD PROJECT LOCATION MAP

APPROX. LENGTH: 2.5 MILES

PROJECT #1: FROM INSPIRATION RD TO SH 107 (CONWAY)
APPROX. LENGTH: 1.5 MILES
PROJECT #2A: FROM MOOREFIELD RD TO INSPIRATION RD
APPROX. LENGTH: 0.40 MILE
PROJECT #2B: FROM LA HOMA RD TO MOOREFIELD RD
APPROX. LENGTH: 0.60 MILE

G:\EA MAPS\Mile 2 Lahoma-Conway\Mile2N LOCATION 5-4-11

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 of 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 on-going 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.

GENERAL INSTRUCTIONS

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

CITY shall mean City of Mission.

PROJECT DESCRIPTION

The services designated herein as "Services provided by the Engineer" shall include the estimated general performance of all engineering services for the following described facility:

County/City: Hidalgo County /Mission, Texas

Control: _____

Project/Description: PS&E Design, Right-of-Way Mapping, and Acquisition Services for Mile 2 North

Length: Variable

Highway: Mile 2 North

Limits: from Moorefield Road West to La Homa Road (SH 364) (0.60 Mile)

Existing Facility

Project Classification

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

___ Surface Treatment
___ Overlay
___ Rehabilitation Existing Road (Scarify & Reshape)
___ Convert Non-Freeway to Freeway
___ Widen Freeway
_X_ 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)

NOTES

ROUTE AND DESIGN STUDIES
(Function Code 110)
Completed by the Mission Economic Development Authority (MEDA)

[LEFT INTENTIONALLY BLANK]

NOTES
SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT
(Function Code 120)
Completed by MEDA

[LEFT INTENTIONALLY BLANK]

RIGHT-OF-WAY DATA
(Function Code 130)

Services Provided By:
Surveyor County

NOTE: No work involving right-of-way (ROW) data is to be performed until the City has given the engineer written approval of the final location of the proposed ROW lines.

YES NO 1. Ownership Data in a .dgn file
- a. The entire project limits.
- b. Compensable utility ownership who have property rights on ROW shall be researched and provided.
- c. For each drainage outfall property
- d. For each irrigation structure pipe.

YES NO 2. Parcel plats & Right-of-Way Map
- a. A ROW map, parcel plats and field notes shall be prepared and furnished.
- b. All plats and field notes must be signed and sealed by a Registered Professional Land Surveyor (RPLS).
- c. ROW map must depict all improvements affecting ROW.

YES NO 3. Utilities (Compensable)
- a. Property ownership with recording information shall be shown on ROW Map and Parcel Sketches with distance ties to property corners in an effort to locate utility.

YES NO 4. Field Notes
- a. Field notes and plats, signed and sealed by a Registered Professional Land Surveyor, for all parcels on the ROW Map
- b. Computation Sheets for Survey Closure and Area for Each Parcel.
- c. Ground surveys and preparation of parcel maps, legal descriptions, and right of way maps.

YES NO 5. Survey and Stake Right-of-Way

YES NO 6. Records as Required by the City and State
- a. Records used to establish ownership

YES NO 7. General Guidelines for Preparation of Right-of-Way Maps (Sample ROW Maps and Parcel Sketches and field notes attached)

General Specifications

a. All data submitted by the surveyor will be legible, organized and well documented.

b. The surveyor shall provide temporary signs and shall control traffic near surveying operations adequately to comply with provisions of the MUTCD; a copy of which the Surveyor acknowledges has been furnished to him. All signs, flags, and safety equipment are to be provided by the surveyor.

c. Permission to enter private property shall be the sole responsibility of the surveyor.

d. The surveyor will be held responsible for the correctness of his services. The surveyor will be responsible for the completion of his services.

e. The surveyor will be required to complete the attached "Right-of-Way Map Checklist" and submit along with the completed R.O.W. map. All requirements of attached R.O.W. map

checklist must be complete, accurate and also considered to be essential and is a part of this contract.

Project specific scope of services

FC 130 – Right of Way Data – Abstract analysis, development of ROW Map sheets including parcel plats and field notes with Metes & Bounds field descriptions, and Title Commitments.

FC 150 – Field Surveying for Parcel Mapping – Recover horizontal & vertical control, locate and field tie existing ROW and boundary corners. Update topography, and reestablish corners for ROW map revisions.

SURVEYING SCOPE OF SERVICES FOR PARCEL MAPPING

RIGHT-OF-WAY DATA
Right-of-Way Documents - The **Surveyor** will utilize State examples and provide the following:

General
a. Abstracting: The **Surveyor** will determine Ownership Data.
b. Prepare individual parcel maps and field notes as needed to properly describe the right-of-way the **State** is to acquire.
c. All procedures involving right-of-way maps will be in accordance with the **State's** Right-of-Way Book I and Book II, the **State's** local operating procedures and according to the Texas Board of Professional Land Surveying Practices Act.
d. All required documents will be in English units.
e. The **Surveyor** will monument all corners with a 5/8 inch iron rod with a Surveyor's plastic cap on all parcel boundary corners.
f. The **Surveyor** will provide to the State a copy of Instruments of Record.
g. The **Surveyor** will attach graphics files compatible with the latest version of Micro-Station graphics software.
h. The **Surveyor** will attach documents or text files compatible with the latest version of Word software.

Parcel Plats
a. A parcel plat will be prepared for each parcel of land to be acquired. The **State** has developed standard formats for parcel plats, copies of which the **Surveyor** will request and secure for all purposes
b. Parcel boundary lines will be delineated with appropriate bearings, distances, and curve data.
c. Private property lines will be delineated with appropriate bearings, distances, and curve data to the extent necessary to describe the individual parcels of land to be acquired.
d. League lines and survey lines will be shown and identified by name and abstract number.
e. A north arrow will be shown on each sheet and, if possible, in the upper right hand corner.
f. Monumentation set or found will be shown and described as to material and size.
g. A station and offset will be shown for each PC, PT, and angle point in the proposed right-of-way lines and the existing right-of-way lines in areas of no proposed acquisition.
h. Intersecting streets will be shown and identified by name and right-of-way width.
i. A parent tract inset will be shown for each parent tract.
j. A note will be included on each map sheet stating the basis of bearings, coordinates, and datum used.
k. Appropriate notes will be included on the title sheet stating the following:
    a. Month(s) and year abstracting was performed upon which the map is based.
    b. Month(s) and year field surveys were conducted upon which the map is based.
    c. Month and year map was completed by the **Surveyor.**
l. The right-of-way account number and R.O.W. CSJ if available will be shown on each parcel map sheet.
m. All parcel maps should be 8-1/2" x 11" signed and sealed by a Registered Professional Land Surveyor and note referencing legal description.
n. The acreage of the part taken should be shown to three decimal places, rounded.

Field Note Descriptions - A field note description will be prepared for each parcel of land to be acquired. Field note descriptions will include, but need not be limited to, the following:

a. The field note description will begin with a general description that will include, as a minimum:
   a. **State**, county, and city within which the proposed parcel of land to be acquired is located.
   b. A reference to unrecorded and recorded subdivisions by name, lot, block, and recording data to the extent applicable.
   c. A reference, by name, to the grantor and grantee, date, and recording data of the most current instrument(s) of conveyance describing the parent tract.

b. The field note description will continue with a metes and bounds description that will include, as a minimum:
   a. A point of commencing (outside property corner).
   b. A point of beginning on proposed R.O.W. line.
   c. A series of courses, identified by number and proceeding in a clockwise direction, describing the perimeter of the parcel of land to be acquired, and delineated with appropriate bearings, distances, and curve data.
   d. A description (8-1/2" x 11") of all monumentation set or found to include, as a minimum, size and material.
   e. All field note descriptions will be signed and sealed by a Registered Professional Land Surveyor.
   f. Note referencing parcel plat.

PHARR DISTRICT
ROW MAP CHECKLIST

Consultant: _____
Contract/WA# _____
Responsible Office: _____
TXDOT Project Manager: _____
County: _____
Highway: _____
RCSJ: _____
CCSJ: _____

As the responsible consultant project manager, I hereby certify that the attached ROW Map has undergone a QA/QC review, with the following applicable items specifically checked for accuracy, completeness and constructability (as noted by Checkmarks)

_____
Signature Date

_____
Printed Name

(This Checklist must be signed by the RPLS and turned in with all proposed ROW Projects. Pharr District ROW will not accept project without this checklist.)

MAP

General
___ All documents have been proofread and are accurate.
___ Title Commitments for each individual parcel.
___ Graphics files compatible with Microstation and Word software are provided.
___ Photos of proposed ROW staking included.
___ Field notes and Parcel Plats are numbered continuous.
___ Scale shall be 1"=50' or 1"=100".

Title Sheet Requirements
___ Title and description of project including county, limits, etc....
___ Vicinity map with beginning and ending station
___ Equations and Exceptions
___ Index
___ Legend
___ Title block completely filled out with Construction and R.O.W. CSJs'
___ List all Major Utilities from Station to Station

Individual Map Sheet Requirements
___ Sheet size 34" X 22"
___ Text legible when reduced to half-scale.
___ Title block completely filled out with R.O.W. CSJ
___ Matchlines
___ Project layout sheet
___ Existing utility lines and easements, deed reference, as shown on Schedule "B" of the Title Commitment, and defined on parcel plats

Existing information:
___ R.O.W. lines
___ Whole property or whole property inset
___ Roadways
___ Survey, county, and city limit lines shown and labeled

___ Improvements shown and labeled *(see below)*
___ Monumentation i.e. P.C., P.T., Break Points
___ North arrow
___ Scale
___ Property lines
___ Property descriptions i.e., lot, block, tract, subdivision, etc…
___ Identify existing and proposed access denial locations *(if applicable)*

Proposed information:
___ Type II Monumentation i.e. P.C., P.T., Break Points and 1500' intervals
___ Survey and R.O.W. lines
___ Basis of bearings
___ Parcel bearings and distances correspond with traverse sheet
___ Outside ties (P.O.C.) corresponds with field notes
___ Point of beginning (P.O.B.) established on proposed R.O.W. line
___ Parcel tied to baseline
___ Baseline information shown i.e. Stationing, bearings, curve data, etc…
___ Conveyance information shown in tables i.e. parcel number, grantors name, amount of take, remainder etc...
___ Math checked on remainder

Improvements:
___ Improvements bisected or within 25' of proposed R.O.W. line are shown on map with stationing and distance from proposed R.O.W. line. Buildings are labeled and dimensioned.
___ Off-premise outdoor advertising signs within proposed R.O.W. are shown and labeled.

Utilities:
___ All utilities within or crossing existing and proposed right of way are shown and labeled as to size, easement or fee width, and recording data of instrument.
___ Location of underground storage tanks and/or filler caps are shown and labeled

* *DO NOT SEAL MAP*

FIELD NOTES

Heading

___ County
___ Highway
___ Parcel number
___ R.O.W. CSJ
___ Construction CSJ

General Description or "preamble"
___ Area of parcel to be acquired is shown in acreage (0.000) for rural land and/or square feet (to nearest whole sq. ft.) for urban land or smaller parcels

Parent tract data is shown:
___ Size of parent tract
___ Survey data or lot, block, and subdivision
___ Name of last recorded seller and buyer
___ Date, volume and page or document number of last recorded conveyance
___ Records and county of last recorded conveyance

Beginning Description
___ Point of commencement is on outside tie and is described accurately by bearings and distances as it leads to the point of beginning.
___ Point of beginning is on proposed R.O.W. line

Particular Description
___ Traverse calls are clockwise sequence
___ Bearings and distances correspond exactly with map, parcel sketch, and traverse sheet
___ Bearings are to nearest whole second and distances are to the nearest one-hundredth of a foot
___ Calls are numbered
___ Denial of access shall be described from beginning to end *(if applicable)*

Closing Description
___ Last call leads back to P.O.B.
___ Restates area of parcel
___ Establishes taking in existing road R.O.W. if applicable
___ Legal description is referenced to Plat
___ Sealed and signed
___ Include an access clause whether access is permitted or denied *(if applicable)*

PARCEL SKETCH
___ Shows P.O.B. and P.O.C.
___ All data corresponds exactly with Map and Field Notes
___ Sheet size is no larger than 81/2" x 11"
___ Plat closely matches example provided
___ Plat referenced to legal description
___ Sealed and signed
___ Include an access clause whether access is permitted or denied *(if applicable)*
___ Existing utility lines and easements (deed reference, if available);

TRAVERSE SHEET
___ Computations show area to be acquired in sq. ft. or acres, whichever is applicable
___ Computations show area that is existing road R.O.W. if applicable
___ Traverse calls are in clockwise sequence
___ Error of closure meets the following:

Secondary rural	.0003
Primary rural - secondary urban	.0002
Urban or industrial	.00013

FIELD SURVEYING AND PHOTOGRAMMETRY
(Function Code 150)

Services Provided By:
Engineer County

1. Field Surveying

YES NO a. Primary Project Control - 3 to 5 miles spacing
Precision shall be 1 part in 20,000 or better, unless otherwise directed by the district engineer.
(1) Establish horizontal control points
(2) Establish vertical control points

NOTE: ALL BEARING AND DISTANCE SHALL BE BASED ON THE STATE PLANE COORDINATE SYSTEM NAD 1983, SOUTH ZONE.

ALL DISTANCES AND COORDINATES SHALL BE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999960

This project shall be tied to the same H&V on La Homa and Mile 2. The Engineer shall provide the control points to tie into.

YES NO b. Secondary Project Control (Surveyor shall recover and/or reset H&V Control Points as provided by the Engineer and create Survey Data Sheets for inclusion in the Project Plans.
- No traverse should exceed 25 angle points. Planimetrics shall be 20 ft Lt & Rt from the proposed ROW as per the schematic provided by the Engineer.
- The unadjusted angular error should not exceed 2 seconds per angle, plus 14 seconds.
- The unadjusted ratio of precision should be one part in 10,000 or better. (The ratio of precision is the total length of the traverse divided by the total error.)
- The unadjusted vertical error should not exceed 0.03 foot per mile of traverse.

(1) Project control base lines

NO (2) Photogrammetric ground control
NO (a) Establish horizontal control
NO (b) Establish vertical control points
NO (c) Place and maintain control point targets

YES NO c. Other Field Surveying

(1) **The limit of the Design surveys shall be 500-ft before and after the limits of the project as identified by the Project Engineer on the schematic. Establish horizontal and vertical control.** Set benchmarks at 1000-ft intervals along the project proposed right-of-way. Provide x,y,z for each Benchmak. Provide a BM along each outfall identified on the Hydrologic Map. The BM's shall be #5 I.R. 2-ft in depth set in concrete. **The surveyor shall provide A H&V Book (a Sample shall be provided by the Engineer to the Surveyor).** The Surveyor will provide a 3-pt reference sketch with ties to the BMs for inclusion the the existing H&V Control Book. Establish benchmark circuit throughout the project with a tolerance of 0.03'/ft per mile error vertically.
(2) Complete topographic and cross section survey, data processing, and CADD mapping (2D 3D) for the limits of the project.
(3) Locate all visible utilities, data processing and CADD mapping (2D & 3D) including irrigation lines. Follow sample provided by the Engineer.
(4) Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2D & 3D).
(5) Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the Surveyor.
(6) The Surveyor shall also paint the proposed centerline on the existing pavement as approved by Engineer. (500-ft stations and a tick mark at 100-ft. stations –12

inches long with approved paint by Engineer) before construction for the purpose of utility adjustments and project location.

(7) Profile and cross section intersecting streets for ties into project (500-ft. beyond the proposed ROW per schematic and 20-ft wider than the existing ROW of intersecting street). Reference missing voids as per CD provided by the Engineer.

(8) Cross section irrigation crossings for a distance of 20-ft beyond the proposed ROW at 100-ft intervals in a DTM file. Provide a complete description of irrigation appurtances as identified by the engineer sample layout.

(9) Tie Horizontally and Vertically the existing storm drain system that lies within the existing proposed ROW including the elevation of the outfall of said recovered existing storm drain systems.

YES NO (10) Tie to existing underground and overhead utilities (location, elevation and direction)

Horizontally – the surveyor shall call the 1-800 number for the utilities to be marked on the ground as well as any city water and sewer lines. He shall tie all visible utility crossings with name, address and Phone #'s of utility companies. The engineer will coordinate with the utility companies and jointly the Surveyor and the Engineer will identify which utilities were missed and need to be tied down.

Vertically – The engineer shall identify all utilities that are potential conflicts and that need to be tied vertically. The engineer will advise the surveyor in writing of the needed vertical ties and the surveyor will tie the lines vertically once the surveyor has coordinated the exposure and provide the information to the engineer.

YES NO (11) Additional Field Surveying as shown below:

(A) IRRIGATION LINES – The surveyor will meet with the engineer before he ties down any irrigation lines. The Engineer will provide him the existing Irrigation District Maps and the A&M Data of existing irrigation lines that are identified of record. He will follow the sample given to him by the engineer and tie the structures horizontally and vertically and provide Field Books to the engineer.

(B) OUTFALLS – The surveyor will provide a complete 2D & 3D File including utilities of the outfall identified on the Hydrologic Map.

Driveways and Turnouts

(a) Inventory commercial entrances, public roads and side streets separately.
(b) Obtain centerline station. (Width at ROW, PAV'T and existing radius.
(c) Inventory by type (dirt, caliche, gravel or paved). If paved, indicate condition in terms of no patches, has patches or has potholes. Obtain width at R.O.W. line.
(e) Obtain elevations at both edges of the driveway or turnout in line with the side drain.

YES NO (13) ROW staking (Existing and Proposed @ 1,000 ft. stations PC's PT's and Angle points as per ROW Map)

NO NO (14) Soil core hole staking -

YES NO (15) Determine changes in topography from voids and outdated maps due to development, erosion, etc.

YES NO (16) Profiles of existing drainage facilities

NO NO (17) Measurement of hydraulic opening under existing bridges

YES NO (18) Obtain elevations of manholes and valves of utilities

YES NO (19) Provide temporary signs, traffic control, flags, safety equipment, etc.

YES NO (20) Ties to existing bridges or culverts that may conflict with new construction.

N/A N/A (21) Bridge widening top of deck and/or top of cap elevations at the Profile Grade Line (PGL) and the edges of slab at bent locations.

YES N/A (22) Inventory signs, mailboxes, and driveways

YES N/A (23) Survey controlled data sheets per TxDOT guidelines.

Services Provided By: Engineer	County	
N/A	N/A	2. Photogrammetric Products
		a. Uncontrolled Photography
		(1) Contact Prints
		(2) Mosaics
		(3) Digital ortho plots
		b. Mapping
		(1) Planimetric Maps
		(2) Contour Maps
		(3) Cross Sections
		(4) Profiles
		(5) Digital Terrain Models (DTM)

ROADWAY DESIGN CONTROLS
(Function Code 160)

Services Provided By: Engineer	County	
		1. Geometric Design
NO	NO	a. Horizontal and Vertical Alignment
NO	NO	b. Schematic Layout (Completed)

(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.

Services Provided By: Engineer	County	
NO	NO	2. General Guidelines for Project Development (Completed)

a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable.

   The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. **No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout.**

b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE.

c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout.

d. Handling of traffic during construction shall be a consideration in the development of preliminary designs.

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.

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.

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.

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. **Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.**

N/A	NO	3. Exhibit for Airway/Highway Clearance Permits

Services Provided By: Engineer	County		
		4.	Grading Design
YES	NO	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 superelevation rate.
YES	NO	b.	Typical Sections
YES	NO	c.	Design Cross Sections
YES	NO	d.	Determine Cut and Fill Quantities
N/A	NO	e.	Slope Stability Analysis
N/A	N/A	f.	Embankment Foundation Stability Analysis
N/A	N/A	g.	Embankment Settlement Analysis
		5.	Pavement Design
YES	NO	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.
YES	NO	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.
		c.	Embankment and Subgrade
			(1) Soil Core Holes (Show cost estimate with Function Code 110)
YES	NO		(a) Along center line
NO	NO		(b) Along center line of each roadway The location and minimum number of soil core holes required for this project are as follows: (To be determined when schematic is being completed)
YES	NO		(2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)
NO	NO	d.	Traffic Data for Pavement Design by **STATE**
YES	NO	e.	Basic Design Criteria
YES	NO	f.	Life Cycle Cost Analysis (es)
YES	NO	g.	Cost Data
YES	NO	h.	Pavement Material Properties

Services Provided By: Engineer	County	
		5. Pavement Design (Continued)
YES	NO	i. Rehabilitation Investigations
YES	NO	(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 TxDOT.

DRAINAGE
(Function Code 161)

Services Provided By: Engineer	County	
		All hydraulic design shall be in accordance with the TxDOT's Hydraulic Manual, except where variances are permitted in writing by the **COUNTY**.
		1. Hydrologic Studies, Discharges
NO	NO	a. Drainage area maps showing existing conditions and proposed improvements.
YES	NO	b. Hydrologic data/discharge determination
		2. Hydraulic Drainage Study and Documentation
		a. Hydraulic computations
N/A	N/A	(1) Storm water detention available within the ROW (linear ft. along side drain ditch).
YES	NO	(2) Storm water detention required outside the ROW (as per HCDD#1)
YES	NO	(3) Culverts
NO	NO	(4) Bridge waterways
NO	NO	(5) Channels
YES	NO	(6) Storm sewers/inlets
NO	NO	(7) Pump stations
YES	NO	(8) Storm Water Management facilities
YES	N/A	(9) Other
		(a) Irrigation Canals/Siphons
NO	NO	b. Hydraulic report(s)
NO	N/A	c. Federal Emergency Management Agency (FEMA) floodway requirements
YES	N/A	d. Determine impact of proposed drainage plan on the following receiving stream(s)
		(1) Hidalgo County Drainage District Outfalls
		(2) All Irrigation District Outfalls impacted

Services Provided By: Engineer	County		
		3.	Layout, Structural Design and Detailing of Drainage Features
		a.	Culverts
YES	NO		(1) New culverts
YES	NO		(2) Culvert widening and/or lengthening
YES	NO		(3) Culvert replacements
		b.	Storm sewers
YES	NO		(1) New storm sewers
YES	NO		(2) Modify existing storm sewers
YES	NO		(3) Inlets
YES	NO		(4) Manholes
YES	NO		(5) Trunk lines
		c.	Pump stations
NO	NO		(1)
NO	NO	d.	Subsurface drainage at retaining walls
YES	N/A	e.	Outfall channel(s) within the ROW
YES	NO	f.	Outfall channel(s) outside the ROW
NO	NO	g.	Detention Pond(s) within the ROW
NO	NO	h.	Detention Pond(s) outside the ROW
YES	NO	i.	Summary of Quantities
NO	NO	j.	Storm Water Management facilities
YES	NO	4.	Storm Water Pollution Prevention Plan (SW3P)
NO	NO	5.	Scour Evaluation - Waterway Structures only (to be completed by Bridge Engineer under FC 170).

SIGNING, MARKINGS AND SIGNALIZATION
(Function Code 162)

Services Provided By:
Engineer County

YES NO 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
   (11) Quantities of existing pavement markings to be removed
   (12) 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

YES NO 2. Summary of Small Signs Tabulation

NO NO 3. Summary of Large Signs Tabulation including all Guide Signs

YES NO 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

Services Provided By: Engineer	County	
		5. Traffic Signals
		a. Development of Justification (Warrant) Data
YES	NO	(1) Location Map Relationship of proposed installation to other traffic signals, highways, business areas and traffic generators
YES	NO	(2) Photographs as appropriate
YES	NO	(3) Accident data as appropriate
		(4) Vehicle volumes (provided by TxDOT)
YES	NO	(a) Existing
YES	NO	(b) Estimated
YES	NO	(c) Projected
YES	NO	(d) Pedestrian
YES	NO	(5) Traffic Survey - Count Analysis
YES	NO	(6) Recommendation based on above data
YES	NO	b. Layout
		(1) Title Sheet (when applicable)
		(a) Describe the location
		(b) Type of installation
		(c) Area map with project limits for each location
		(d) Index of sheets
		(e) Space for official signatures
		(2) Estimate and quantity sheet (when applicable)
		(a) List of all bid items
		(b) Bid item quantities
		(c) Specification item number
		(d) Paid item description and unit of measure
		(3) Basis of estimate sheet (list of materials)
		(4) General notes and specification data sheet
		(5) Condition diagram
		(a) Highway and intersection design features
		(b) Roadside development
		(c) Traffic control including illumination
		(6) Plan sheet(s)
		(a) Existing traffic control that will remain (signs and markings)
		(b) Existing utilities
		(c) Proposed highway improvements
		(d) Proposed installation
		(e) Proposed additional traffic controls
		(f) When applicable, proposed conduit for Railroad interconnect with standard details for runs under tracks.
		(g) Proposed illumination attached to signal poles.
		(7) Notes for plan layout
		(8) Elevation sheet(s) (span wire design)

Services Provided By:
Engineer County

5. Traffic Signals (Continued)

(9) Phase sequence diagram(s)

(a) Signal locations
(b) Signal indications
(c) Phase diagram
(d) Signal sequence table
(e) Flashing operation (normal and emergency)
(f) Preemption operation (when applicable)
(g) Interval timing, cycle length and offset

(10) Construction detail sheets(s)
(a) Poles (TxDOT standard sheets)
(b) Detectors
(c) Pull Box and conduit layout
(d) Controller Foundation standard sheet

(11) Marking details (when applicable)

(12) Barricade and warning sign standard sheet and any special details for work zone traffic control for special conditions

(13) Aerial or underground interconnect details (when applicable)

c. General Requirements

(1) Contact local utility company

YES NO (a) Confirm power source
YES NO (b) Discuss route of aerial or underground interconnect cable (when applicable)
YES NO (c) Adjustment of overhead utility lines
YES NO (2) Prepare governing specifications and special provisions list
YES NO (3) Prepare project estimate

YES NO d. Summary of Quantities

MISCELLANEOUS (ROADWAY)
(Function Code 163)

Services Provided By: Engineer	County	
		1. Retaining Walls
		a. Structural Details
NO	NO	(1) Cast-in-Place Cantilever at _____ locations. (TxDOT Standard Retaining Wall)*
NO	NO	(2) Tiedback Retaining Wall at _____ location. (TxDOT standard retaining wall)
NO	NO	(3) Specialized Retaining Wall at _____ locations (Unique Design).*
		b. Alternate Patented Retaining Walls at _all_ locations. (Layouts Only)**
NO	NO	(1) Mechanically Stabilized Earth
NO	NO	(2) Concrete Block Wall Systems
NO	NO	(3)
NO	NO	c. Retaining Wall Layout (PLAN)
		(1) Designation of reference line
		(2) Beginning and ending retaining wall stations
		(3) Station of each retaining wall joint***
		(4) Offset from reference line
		(5) Horizontal curve data
		(6) Number of retaining wall panels and lengths***
		(7) Total length of wall
		(8) Indicate face of wall
		(9) All wall dimensions and alignment relations (alignment data as necessary)
		(10) Soil core hole locations
NO	NO	d. Retaining Wall Layout (ELEVATION)
		(1) Top of wall elevations at each joint*** or intervals****
		(2) Existing and finished ground line elevations
		(3) Height of stem at each joint***
		(4) Wall panel designations***
		(5) Top of footing elevations***
		(6) Limits of measurement for payment****
		(7) Type, limits and anchorage details of railing (If applicable)
		(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.
NO	NO	e. Foundation Studies (Show cost estimate with Function Code 110)
NO	NO	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.
NO	NO	f. Stability Analysis (the Engineer shall estimate this task as part of his bid to complete the work).
NO	NO	g. Estimate
NO	NO	h. Summary of Quantities
NO	NO	i. Typical X-section.

Services Provided By:
Engineer County

1. Retaining Walls (continued)

NO

j. General Guidelines for Retaining Walls
   (1) The **engineer** shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. **The designer and checker shall check all calculations and initial each page.**
   (2) The ground water level should be observed at the water strike.
   (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.
   (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.

YES NO 2. Traffic Control Plan, Detours and Sequence of Construction

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:

a. The sequence of construction and method of handling traffic during each phase.
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.
c. The proposed traffic control devices (stop signs, signals, flagperson, etc.) at grade intersections during each construction sequence.
d. Where detours are provided, typical cross sections shall be shown.
e. Road construction work hours shall be developed after an investigation of the traffic volumes has been performed.

Services Provided By: Engineer	County	
		3. Illumination
NO	N/A	a. Preliminary Roadway Illumination Layout and Circuit Layout
		(1) For projects involving freeway to freeway or other types of directional interchanges and projects including left-hand ramps or connections, provide the following:
		(a) The location of interchanges, main lanes, grade separations, frontage roads and ramps
		(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
		(c) The number of lanes in each section of proposed highway and the location of changes in the number of lanes
		(d The projected traffic volumes as provided by the STATE (20 year traffic projection unless otherwise determined by the district engineer)
		(e) Tentative ROW limits
		(f) Direction of traffic flow on all roadways
		(g) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations
NO	NO	b. Final Roadway Illumination and Electrical Circuit Layouts
		(1) Roadway layout showing pavement edges and shoulders, curbs, retaining walls, etc.
		(2) Center line with station numbering.
		(3) ROW lines.
		(4) Symbol legend. Use department standard symbols for lighting and electrical.
		(5) Culverts and other structures that present a hazard to traffic.
		(6) Location of underground utilities, if not shown on plan profile.
		(7) Location of overhead electrical lines, both crossing and parallel to ROW.
		(8) Existing sign lighting circuits and roadway illumination to remain, to be removed, to be relocated.
		(9) Existing service poles, electrical circuits, ground boxes, etc.
		(10) Contact electric utility for service pole locations, voltage characteristics.
		(11) Location of proposed sign lighting circuits and roadway illumination.
		(12) Proposed electrical circuits.
		(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.
NO		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.

Services Provided By: Engineer	County		
		4.	Miscellaneous Drafting/Standards
YES	NO		a. Erosion Control
NO	NO		b. Landscape Development
YES	NO	5.	Compute and Tabulate Quantities
NO	NO	6.	Special Utility Details (Irrigation lines)
		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.
NO	NO		(a) New O.S.B. structure(s)
NO	NO		(b) Structural evaluation of existing O.S.B. structure(s) that are to remain in place or to be relocated.
NO	NO		(2) High Mast Illumination Poles (HMIP)
YES	NO		(3) Traffic Signal Supports
NO	NO		(4) Conventional Illumination Poles
NO	NO		(5) Sound Barrier Walls
YES	NO		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
NO	NO		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
NO	NO		a. Utility Agreements
NO	NO		b. Exhibits for Utility Agreements
N/A	NO		c. Railroad Agreements
			d. Railroad Exhibits
N/A	N/A		(1) Railroad Underpasses
N/A	N/A		(2) Railroad Overpasses
N/A	N/A		(3) Railroad Grade Crossing (Replanking)
N/A	N/A		(4) Railroad Grade Crossing Warning Systems (Signals)
N/A	N/A		(5) Other Miscellaneous Sketches for Railroads
NO	NO		e. Traffic Signal Agreements
NO	NO		f. Exhibits for Traffic Signal Agreements
YES	NO	9.	Estimate
YES	NO	10.	Specifications and General Notes

BRIDGE DESIGN
(Function Code 170)

Services Provided By: Engineer	County		NUMBER REQUIRED
		1. Preparation of Structural Details	
		a. New Structure(s)	
NO	NO	(1) Underpass(es)	_____
NO	NO	(2) Overpass(es)	_____
N/A	N/A	(3) Main Lanes	_____
N/A	NA	(4) Direct Connector(s)	_____
N/A	N/A	(5) Ramp Bridge(s)	_____
NO	N/A	(6) Waterway Structure(s)**	_____
N/A	N/A	(7) Pedestrian Structure(s)	_____
N/A	N/A	(8) Utility Structure(s)	_____
N/A	N/A	(9) Railroad Underpass(es)	_____
N/A	N/A	(10) Railroad Overpass(es)	_____
N/A	N/A	11) Bridge Classification Culvert(s)**	
N/A	N/A	(11) Alternate Structural Designs	_____
N/A	N/A	(12) Alternate Foundation Design	
		Total New Structures =	_____
		b. Existing Structure(s)	_____
NO	NO	(1) Bridge Widening, Rehabilitation and/or Modification of Existing Structure(s)	_____
NO	NO	(2) Bridge Replacement	_____
NO	NO	(3) Raising Bridge Elevation	_____
NO	NO	(4) Bridge Classification Culvert(s) Widening and/or Modification of Existing Structures(s)	_____
N/A	N/A	(5) Railroad Overpass(es)	_____
N/A	N/A	(6) Railroad Underpass(es)	_____
N/A	N/A	(7)	_____
		Total Existing Structures =	0

* 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.

Services Provided By: Engineer	County	
NO	NO	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 superelevation 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.

Services Provided By: Engineer	County	
		2. Preparation of Bridge Layouts (each bridge) (Continued)

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.

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.

NO	NO	3. Bridge Classification Culvert, Estimate, Quantities, and Specifications (each bridge)
NO	NO	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).
NO	NO	5. Bridge Total Quantities and Cost Estimates (each bridge)
NO	NO	6. Bridge Special Provisions and Specifications (each bridge)
NO	NO	7. Bearing seat elevations for each beam or girder. Top of cap elevations for non-beam type structures.

Services Provided By: Engineer	County	
NO		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. **No bridge design work is to be performed until the COUNTY has given the engineer written approval of the preliminary bridge layout.**

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.

Services
Provided By:
Engineer 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.

FC 600 – ACQUISITION PROVIDER SERVICES

(Services to be provided by L&G Engineering)

1) Project Administration

a) Negotiation of Scope of Services for Work Authorization
   i) Acquisition Provider will visit project site with COUNTY personnel if necessary.

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.

c) Overhead Costs
   i) Administrative costs

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.

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.

2) Title Services

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.

b) Secure title commitments updates in accord 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.

c) Secure title insurance for all parcels acquired, insuring acceptable title to the County of Hidalgo. Written approval by the County required for any exception. Title Insurance shall be paid for by Hidalgo County.

3) Appraisal

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.

b) Secure written permission (if necessary) from the owner to enter the property from which land is to be acquired. If the Acquisition Provider, after diligent effort, is 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.

c) Prepare (if necessary) pre-appraisal contact with interest owner(s) for each parcel using acceptable County/TxDOT forms.

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.

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 County policies and procedures along with the Uniform Standards of Professional Appraisal Practices.

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.

g) All completed appraisals will be administratively reviewed by L&G Engineering ROW Office and recommended for approval by the County of Hidalgo.

h) As necessary, the appraiser will appear and or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing or pre-trial meetings as directed by L&G Engineering and/or the County.

i) As necessary, the appraiser will coordinate with review appraiser regarding revisions, comments, or additional information that may be required.

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 <u>is not</u> part of this contract, and shall be paid by the County.

4) Appraisal Review

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.

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.

c) Prepare and submit to the County the Form ROW-RTA-10 <u>"Tabulation of Values"</u>, for each appraisal.

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 <u>is not</u> part of this contract, and shall be paid by the County.

5) Appraisal Updates

a) Prepare complete appraisal update for the parcel to be acquired utilizing TxDOT Form No. ROW-A-5, which will be furnished to the provider by TxDOT. These reports shall conform to County/TxDOT policies and procedures along with the Uniform Standards of Professional Appraisal Practices.

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 the County of Hidalgo.

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.

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.

e) As necessary, the appraiser will coordinate with the review appraiser regarding corrections and/or additional information that may be required.

6) Negotiation, Tasks, and Fees

a) Analyze appraisal and appraisal review reports and confirm the County's approved value prior to making offer for each parcel.

b) Analyze preliminary title report to determine potential title problems, propose methods to cure title deficiencies.

c) Prepare the initial offer letter, instruments of conveyance, and any other documents required or requested by County/TxDOT on applicable County/TxDOT forms.

d) Contact each property owner or owner's designated representative, to present the written offer in person where practical, and deliver appraisal report and required brochures. Maintain follow-up contacts and secure the necessary instruments upon acceptance of the offer for the closing.

e) Provide a copy of the appraisal report for the subject property exclusively to the property owner or authorized representative at the time of the offer. Maintain original signed Receipt of Appraisal, (unless property owner refuses to sign it, it will be so noted) for billing purposes.

f) Respond to property owner inquiries verbally and in writing within two business days.

g) Prepare a separate negotiator contact report for each parcel per contact.

h) Maintain parcel files of original documentation related to the purchase of the real property or property interests.

i) Advise property owner on the Administrative Settlement process. Transmit to County 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.

j) Prepare final offer letter, documents of conveyance as necessary.

k) Appear and provide Expert Witness testimony as an Acquisition Provider when requested.

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.

m) Provide a monthly progress report per parcel by the 25th of the month with invoice.

n) The consultant shall, as part of this proposal, estimate 10% of the 55 parcels may end up in condemnation. The consultant shall be available for any meeting/hearings as requested by the County Attorney.

7) Closing Service Fees

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.

b) Acquisition Provider shall attend closings and provide closing services in conjunction with Title Company.

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 County for acceptance by the County Commissioners.

8) Relocation Assistance Services (N/A)

1) There are an estimated 0 relocations or displacements for this contract and L&G will provide relocation advisory services. L&G will compute replacement housing supplements (owner occupant and/or tenants)

2) L&G will provide advisory services to business displacements and relocate them effectively. (N/A)

3) TxDOT will review, approve and pay for all relocation costs as per ROW Agreement. (N/A)

9) Condemnation Support

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. Spouses of owners must also be joined.

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, Pre-appraisal 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 Court 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.

d) 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.
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.

ADDITIONAL RESPONSIBILITIES

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

Whenever possible, 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, to the extent possible, 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 CADDSEALed 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.

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 Company.

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:

Service	Office Location
PS&E	Mission Office
ROW Acqusition Services	Mission Office

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

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

APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE (Continued)

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

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 Diaphrams
    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

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

APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE (Continued)

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

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.

APPENDIX B - PLAN PREPARATION PROCEDURES (Continued)

11. Runoff, Inlet, Storm Sewer and Culvert Sheets
Use standard sheets.

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.**

APPENDIX C - GENERAL PLAN CHECKLIST

Services Provided By: Engineer	County	
YES	N/A	Title Sheet
YES	N/A	Project Layout
YES	N/A	Sequence of Work
YES	N/A	Detour Layouts & Profiles
YES	N/A	Construction Pavement Markings
YES	N/A	Signing & Barricades
YES	N/A	Construction Sign & Beacons
YES	N/A	Typical Sections
YES	N/A	Shaping & Finishing Sections
YES	N/A	Slopes Adjacent to Shoulders
YES	N/A	Estimate & Quantities
YES	N/A	General Notes & Specification Data
YES	N/A	Grading Summary
YES	N/A	Miscellaneous Summaries (See following "SUMMARIES" heading)
YES	N/A	Horizontal Curve Data & Alignment Layouts
YES	N/A	Drainage Summaries
YES	N/A	Structure Summaries
YES	N/A	Erosion Control Summary & Details
YES	N/A	Plan/Profile Sheets
YES	N/A	Erosion Control Summary & Details
YES	N/A	Pavement Contours
YES	N/A	Superelevation Transition (If Required)
YES	N/A	Grading Contours
YES	N/A	Guard Fence Layouts
YES	N/A	Storm Water Pollution Prevention Plans (SW3P)
YES	N/A	Drainage Area Maps
YES	N/A	Hydraulic Data
YES	N/A	Drainage Sheets
YES	N/A	Bridge Hydrology Sheets
YES	N/A	Inlet & Manhole Details
YES	N/A	Utility Support Details
YES	N/A	Culvert Cross Sections & Details
YES	N/A	Special Culvert Designs
YES	N/A	Special Drainage Details
YES	N/A	Chain Link Fence Locations
YES	NO	Ramp Details Sheet
YES	N/A	Removal Item Sheet - Including detours (Shown in detour summary, No payment for removal; subsidiary to construction detours)
YES	NO	Pavement Details
N/A	N/A	Pavement Standard Modification for Concrete Shoulder
N/A	N/A	Concrete Pavement Continuously Reinforced (CPCR)

APPENDIX C - GENERAL PLAN CHECKLIST (Continued)

Services Provided By: Engineer	County	
N/A	N/A	Concrete Pavement Contraction Design (CPCD)
N/A	N/A	Concrete Pavement Details - Jointed Reinforced (Steel Bars) (CPJR)
YES	N/A	Bridge Approach Slab Details
YES	N/A	Vehicle Attenuator Details
YES	N/A	Miscellaneous Details
YES	N/A	Wheelchair Ramps
YES	N/A	Pavement Marking Details
YES	N/A	Modified Standards
YES	N/A	List of Standards
YES	N/A	Permanent Signing Plans & Quantities
YES	N/A	Permanent Lighting Plans, Quantities & Standards
YES	N/A	Bridge Layout(s)
YES	NO	Bridge Details
YES	N/A	Retaining Wall Layout(s)
YES	N/A	Retaining Wall Details
N/A	N/A	Pumphouse Details
YES	N/A	Underdrain Details (Retaining Walls)
YES	N/A	Culvert Standards
N/A	N/A	Soil Profile
YES	N/A	Temporary Traffic Signals
YES	N/A	Design Cross Sections
YES	NO	Estimate
YES	N/A	List of Standard Specification, Special Provisions & Special Specifications
YES	N/A	Detour Special Provisions (If Required)
YES	N/A	Construction Time Estimate
NO	N/A	Critical Path Method (CPM)
YES	NO	Unit Price Documentation

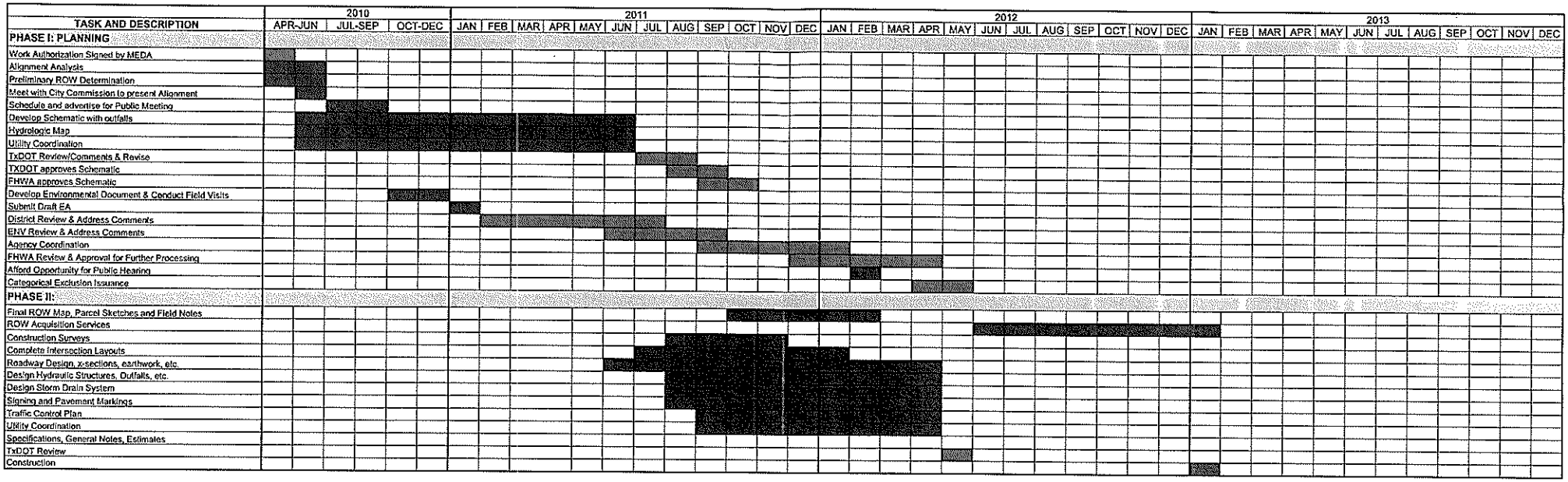
APPENDIX C - GENERAL PLAN CHECKLIST (Continued)

Services Provided By: Engineer	County	
Miscellaneous		
YES	N/A	Conduit Requirements
YES	N/A	Traffic signal Requirements
Summaries		**(ALL BELOW YES FOR ENGINEER AND NO FOR COUNTY UNLESS NOTED OTHERWISE)**
___	___	Salvaging and Placing Topsoil
___	___	Prepare ROW
___	___	Remove Old Structures
___	___	Scarify Existing Pavement
___	___	Remove Old Concrete Curb of Curb and Gutter (C&G)
___	___	Remove Old Concrete Pavement
___	___	Remove Old Concrete Riprap
___	___	Remove Metal Beam Guard Fence
___	___	Galvanized steel Beam Guard Fence (12Ga) (GSBGF)
___	___	Temporary Guard Fence (TEMPGF)
___	___	Summary of Concrete Flumes
___	___	Curbs
___	___	Adjust Manholes & Inlets
NO	___	Underdrains
___	___	Base and Pavement
___	___	Large Structure
___	___	Concrete Riprap (RR8 & RR9)
___	___	Temporary Portable Concrete Barrier (PCBR)
___	___	Concrete Traffic Barrier
___	___	Vehicle Attenuator
___	___	Guard Rail Energy Absorbing Terminal (Great System)
___	___	Pavement Markings & Blast Cleaning (Thermoplastic)
___	___	Retaining Walls
___	___	Large Structure Summaries
___	___	Small Structure Summaries
___	___	Earthwork (Roadway & Channel) & Channel Details
___	___	Culverts
___	___	Detours
___	___	Seeding or Mulch Sod - Quantity Only
___	___	Inlet & Manholes
___	___	Sidewalks
___	___	Construction Pavement Markings
___	___	Driveways
___	___	Concrete Median
___	___	Storm Sewers
___	___	Head Walls & Safety End Treatments
___	___	Curb Openings
___	___	Manholes
___	___	Chain Link Fence, Remove & Replace Chain Link Fence
___	___	Remove & Relay Reinforced Concrete Pipe (RCP) or Pipe Sewer

PROJECT: MILE 2 NORTH
LIMITS: from SH 107 (Conway) West to La Homa Road (SH 364)

EXHIBIT "C"
WORK SCHEDULE

7/28/2011



L&G ENGINEERING TASK
CITY TASK
STATE TASK

EXHIBIT "D"
FEE SCHEDULE

	TOTAL PROJECT ESTIMATE AND ENGINEERING FEE FOR MILE 2 (PROJECT 2B) COUNTY ROADWAY
ROADWAY PROJECT:	**MILE 2 (PROJECT 2B)**
LIMITS:	MOOREFIELD ROAD TO LA HOMA ROAD (SH 364)
EXISTING ROADWAY SECTION:	2-LANE RURAL
EXISTING ROW WIDTH:	VARIES 40-FT TO 70-FT
PROPOSED ROADWAY SECTION:	4-LANE URBAN ROADWAY
PROPOSED ROW WIDTH:	70-FT
AVAILABLE FUNDING AT MPO...(From MPO TIP Program - CAT 7 FUNDING).....	$1,246,000.00
ESTIMATED CONSTRUCTION COST...($2.1 Mil/Mile).....	$1,050,000.00
LENGTH: (MILES).....	0.54

ESTIMATED PROJECT COSTS	*STATE/FED*	*LOCAL*
ROADWAY CONSTRUCTION COST (80/20 minus EDC) Assume (95/5)	$997,500.00	$52,500.00
PHASE I - PLANNING -		
Schematic		PAID
Preliminary Office ROW Mapping		PAID
Hydrologic Map for identification of Proposed Outfalls		PAID
Preliminary utility Research for Schematic Identification and cost		PAID
Public Involvement and Environmental Document		PAID
PHASE II - DESIGN, RIGHT OF WAY COSTS AND CONST. INSPECTION WORK AUTH. NO. 9		
Compensible Utilities (Estimated) (Eligible for 80/20)	$ 103,320.00	$ 25,830.00
Eng work Associated with Coordinating Adjustment of Compensable Utilities		$ 45,878.33
Hydrologic Map for the merging of Drainage Basin from Mile 2 to La Homa		$ 30,000.00
ROW Mapping & ROW Field Recovery		$ 56,500.00
Roadway Right-of-Way Costs (Land, Relocations ..)(Eligible for 80/20)	$ -	$ 93,000.00
Outfall Roadway Right-of-Way Costs (land)(Eligible for 80/20)	$ -	$ -
Roadway Right-of-Way Costs - **Acq.Services**		$ 130,500.00
PS&E Development (7% of construction cost)		$ 73,500.00
Design Surveys		$ 21,600.00
Design of Irrigation Structures and Outfalls		$ 15,000.00
Surveys for Outfalls		$ 15,000.00
Signing		$ 11,329.30
Pav't Markings		$ 6,323.80
Signal Design		$ 12,974.90
TxDOT Construction Inspection (11%) (80/20 minus EDC) Assume 95/5	$ 109,725.00	$ 5,775.00
L&G Construction Management		$ 72,000.00
ESTIMATED SUB-TOTAL	**$1,210,545.00**	**$667,711.33**
ESTIMATED TOTAL PROJECT COST		**$1,878,256.33**
ESTIMATED AVAILABLE FUNDS FOR PROJECT AT MPO		**$1,246,000.00**

Work Auth. No. 1 **$ 490,606.33**

ESTIMATED LOCAL PARTICIPATION ABOVE THE ISSUED WORK AUTHORIZATION **$177,105.00**

State/FED Eligible Estimated Cost for MPO Funding

Estimated Local Participation above the Issued Work Authorization

Total Project Estimated Cost

Items not included in Work Authorization

8/2/2011

CC Approved August 16, 2011

AGENDA

CC REGULAR
HIDALGO COUNTY
COMMISSIONERS COURT MEETING
August 16, 2011
9:30 A.M.

NOTICE is hereby given in accordance with Chapter 551, Texas Government Code, that a SPECIAL MEETING of the Commissioners' Court will be held in the Commissioners' Courtroom of the Administration Building, 100 E. Cano, 1st floor, Edinburg, Hidalgo County, Texas. Discussion and possible action relating to the following business will be transacted:

2. **Roll Call** all present

3. **Pledge of Allegiance** all

4. **Prayer** Com Quintanilla

5. **Approval of Consent Agenda** 13 I 2 , 7 a

6. **Open Forum**

7. **Executive Officer - Valde Guerra:**

A. 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code, Section 262.024(A) (4) "a Professional Service" for the "provision of legal services/representation in connection with litigation."

2. Requesting engagement with the firm of _____ for the "Provision of Legal Services/Representation in connection with Litigation"

eport only B. AI-27827 Presentation & Acceptance of Independent Audit Report for the year ended December 31, 2010.

C. AI-28035 Approval to accept a settlement check from Endeavor General Agency in the amount of $884.00 to settle auto accident with County vehicle. (Sheriff Office)

pproved

ecognition only D. AI-28063 Recognition of newly elected District 12 4-H Council Officers

C/mgr E. AI-27777 Discussion, consideration, and approval of First Amendment to Economic Development Agreement with First Hartford Realty and the City of Edinburg regarding Reinvestment Zone Number One, City of Edinburg, TX and the development known generally as "The Shoppes at Rio Grande Valley".

F. AI-28054 Health and Human Services Dept (1100):
Requesting approval to advertise position of Eligibility Specialist I.

pproved

G. AI-28051 IT Dept (1100):
1. Approval to create two (2) temporary full time LUCA Program Clerk positions, slot no.'s 033, & 034, budgeted salary $18,720.00 per yr/ $9.00 per hour.
2. Approval of interdepartmental transfer
3. Approval of revised salary schedule.

approved

Valdez H AI-28042 Fire Marshal's Office:
Approval of application for Official County travel to the 13th Annual Texas Fire Marshal's Conference in Austin, Texas for Fire Marshal Juan Martinez.

pproved

Valdez AI-28067 Fire Marshal's Office:
Requesting approval for Fire Marshal to travel to Austin, Texas on August 30-September 1, 2011

pproved

CC Approved August 16, 2011

2. AI-28041 Requesting approval of Work Authorization #4 in the amount of $4,496.64 from L&G Engineering Laboratory, LLC to provide Construction Materials Testing Services for Mile 12½ North Road (between FM 88 & Mile 4) Project in Hidalgo County Precinct 1 in connection with Contract #C-10-319-10-19 (approved by CC on 10/19/10).
approved

3. AI-27957 a. Pursuant to current contract with L&G (Article 14 of Contract #C-11-054-04-12), a request by engineer to permit the subcontracting of Ergonomic Transportation Solution Inc. in connection to request for action on Work Authorization #2 of the Multi-Way Stop Control Warrant Study at intersection of Old La Blanca and Sioux Road in Precinct 1; and
approved

b. Acceptance and approval of Work Authorization #2-in the amount of $5,900.00 to conduct a Multi-Way Stop Control Warrant Study at intersection of Old La Blanca and Sioux Road in Precinct 1 as submitted by the project Engineer L&G Engineering in connection with Contract #C-11-054-04-12-Professional Engineering Services On-Call Services-MPO and HCRMA, Traffic Studies County Wide Projects.
approved

C. **Pct. 3**

1. AI-28008 a. Acceptance and approval to execute a Professional Engineer contract/agreement for the provision of general engineering services for, "Mile 2 Road Project (Moorefield Road to La Homa Road) for Precinct No. 3 ," with L & G Consulting Engineers Inc., as authorized & approved for negotiations by CC on 06/29/11.
approved

b. Acceptance and approval of Work Authorization No. 1 (estimated cost of $490,606.33) for provision of engineering services required by Pct. #3 consisting of: ROW Mapping, Surveying, Right-of-Way Acquisition and Roadway Design for Mile 2 North Project from Moorefield Rd West to SH 364 (La Homa Rd)" with L&G Engineering under contract No. C-11-195-08-16
approved

2. AI-28007 Approval to execute contract awarded by CC on 07/19/11 to Valley Boring Service, LLC., in the amount of $73,160.00 for the ""Drainage Improvements to 2 Mile Line Abram Rd." 36" Dry Bore Method under H.C.I.D. No. 6 Canal," and authorize project engineer, Javier Hinojosa Engineering, to issue and forward "Notice to Proceed" to contractor,.
approved

3. AI-27948 Requesting approval of a professional architectural services contract with ERO Architects for the purposes of an "On-Call" (and on an as needed basis) for County - Owned Buildings/Structures located within Precinct No. 3 area in connection with necessary/needed repairs/renovations/remodeling and/or additions on a per project basis through AIA forms of Agreements and as selected for negotiations through County's protocol from the "POOL" of Architects (C.C. on 06/21/11).
approved

4. AI-28006 Acceptance and approval to execute a Construction Material Testing Services contract with L&G Engineering Laboratory LLC for Precinct No. 3 (on an as needed basis) Projects as approved by CC for negotiations on CC 07/12/11.
approved

D. **Health & Human Services Dept.**

1. AI-27956 Requesting approval of Change Order No. 3 inceasing number of days for completion of project: "Hidalgo County Primary Care and Substance Abuse Facility Site and Utility Improvements", awarded to The 5125 Company Contract No. C-10-050-03-23 with authority for County Judge or Court Member to execute document.
approved

E. **WIC**

1. AI-27487 Presentation of bid(s) received as detailed in tabulation sheet contained herein meeting all specifications and/or requirements for the purpose of award and approval of contract by Commissioners Court for the Request for Bid titled: Hidalgo County WIC Program-"Lease Office Space-City of Donna" through project No.: 2011-151-07-06-SGS.
approved

F. **Community Service Agency**

1. AI-27839 Presentation by Community Service Agency of grid of responses received with recommendation for the purpose of award and approval of contract by CC to the most qualified proposal received meeting all specifications/requirements/criteria as attached hereto for "Hidalgo
approved

AI-28008 **15. C. 1.**
CC REGULAR
Meeting Date: 08/16/2011
Submitted By: Rocio Villarreal, PURCHASING DEPT.
Department: PURCHASING DEPT.

Information

CAPTION

a. Acceptance and approval to execute a Professional Engineer contract/agreement for the provision of general engineering services for, "Mile 2 Road Project (Moorefield Road to La Homa Road) for Precinct No. 3 ," with L & G Consulting Engineers Inc., as authorized & approved for negotiations by CC on 06/29/11.

b. Acceptance and approval of Work Authorization No. 1 (estimated cost of $490,606.33) for provision of engineering services required by Pct. #3 consisting of: ROW Mapping, Surveying, Right-of-Way Acquisition and Roadway Design for Mile 2 North Project from Moorefield Rd West to SH 364 (La Homa Rd)" with L&G Engineering under contract No. C-11-195-08-16

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2011 **ACCT. #:** 1-1342-431-00-123-094-0-731
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:**
BUDGETARY IMPACT:
Avail. Balance as of 8-12-11 $637,000.00

Attachments

Contract
Work Authorization No. 1

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Marty Salazar	08/10/2011 04:35 PM
Budget & Management	Merlen P. Munoz	08/10/2011 04:54 PM
Dale Kennan	Dale Kennan	08/11/2011 08:51 AM
Manuel Chapa	Manuel Chapa	08/12/2011 09:29 AM
Auditor's Office	Arcilia Duran	08/12/2011 12:08 PM
Purchasing Department	Marty Salazar	08/12/2011 04:47 PM

Form Started By: Rocio Villarreal Started On: 08/10/2011 03:18 PM
Final Approval Date: 08/12/2011

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

AGREEMENT FOR PROFESSIONAL SERVICES
C-11-195-08-16

THIS AGREEMENT is made, by and between **HIDALGO COUNTY**, acting 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 the **"Engineer".**

WITNESSETH:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide professional engineering services for **"Mile 2 Road Project (Moorefield Road to La Homa Road,"** project for **Hidalgo County Precinct No. 3** hereinafter referred to as the **"Project."**

NOW, THEREFORE, the **Owner** and the **Engineer** in consideration of the mutual covenants and agreements herein contained do mutually agree as follows:

ARTICLE 1. Employment of Engineer. The **Owner** agrees to employ the **Engineer** and the **Engineer** agrees to perform professional engineering services in connection with the **Project** as stated in the articles to follow and for having rendered such services, the owner agrees to pay **the Engineer** compensation as stated in the articles to follow.

ARTICLE 2. Character and Extent of Services. This Agreement will provide for the development of the **Project** with the following:

2.1 Scope of Work. The **Owner** will furnish items and provide those services for the development of the **Project** and fulfillment of this Agreement, as identified in **EXHIBIT "A"** *Services to be Provided by the Owner*, attached hereto and made a part of this Agreement as

identified in **EXHIBIT "B"-** Services to Provided by the Engineer, attached hereto and made a part of this agreement.

2.2 Classification of Services For this Agreement, the professional services to be provided by the **Engineer**, as more particularly identified in **EXHIBIT "B"**, attached hereto.

2.3 Schedule of Work. The **Engineer** shall prepare a schedule of work (hereinafter referred to as "**Work Schedule**") in accordance with the terms identified in **EXHIBIT "C"** - ***Work Schedule***, attached hereto and made a part of this Agreement.

ARTICLE 3. Period of Service. Upon execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof.

3.1 Termination Date. This Agreement shall terminate upon completion of projects (hereinafter referred to as the "**Termination Date**"), unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date**, or otherwise terminated as provided in Article 3.4 herein and below. The **Owner** assumes no liability or obligation for payment to the **Engineer** for work performed or costs incurred by the **Engineer** prior to the date authorized by the **Owner** for the **Engineer** to begin work, during periods when work is suspended, or subsequent to the **Termination Date.**

3.2 Extension of the Termination Date. The **Engineer** shall notify the **Owner** in writing as soon as possible if it is determined, or reasonably anticipated, that the work under this Agreement cannot be completed before the **Termination Date,** and the **Owner** may , at the **Owner's** sole discretion, extend the **Termination Date** by written supplemental agreement as provided in Article 8 hereof. The **Engineer** shall allow adequate time for review and approval by the **Owner** of the written notice and request by the **Engineer** to extend the **Termination Date.**

3.3 Suspension of Work. Should the **Owner** desire to suspend the work under this Agreement, but not terminate this Agreement, the **Owner** shall provide thirty (30) calendar days

verbal notification to the **Engineer**, followed by written confirmation from the **Owner** to the **Engineer** to that effect. The thirty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the **Owner** to the **Engineer**. The sixty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer.**

If the **Owner** suspends the work, the **Termination Date** as identified above is not affected, and this Agreement will terminate on the date specified, unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date.**

3.4 Termination of Agreement. This Agreement may be terminated before the stated **Termination Date** identified in Article 3.1 herein by any of the following conditions:

(1) **Commitment of Current Revenues**. In the event that, during any term hereof, the **Owner** does not appropriate sufficient funds to meet to the obligations of this Agreement, the **Owner** may terminate this Agreement upon thirty (30) days written notice to the **Engineer.** The **Owner** agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of the **Owner** pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903 (Vernon Supp. 1995).

(2) By mutual agreement and consent, in writing, of both the **Engineer** and the **Owner**.

(3) By the **Owner,** upon failure of the **Engineer** to fulfill the **Engineer's** obligations set forth herein in a satisfactory manner as determined by the

Owner and in sole opinion of the **Owner**, after the **Owner** provides written notice to the **Engineer** of such failure and the **Engineer** has not corrected such failure within (30) days of such written notice by the **Owner.**

(4) By the **Engineer**, upon failure of the **Owner** to fulfill the **Owner's** obligations set forth herein, after the **Engineer** provides written notice to the **Owner** of such failure and the **Owner** has not corrected such failure within thirty (30) days of such written notice by the **Engineer.**

(5) By the **Owner** without cause upon thirty (30) days written notice to the **Engineer.**

(6) By satisfactory completion of all services and obligations described herein.

Should the **Owner** terminate this Agreement as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the **Engineer** notwithstanding anything herein to the contrary. In determining the value of the work performed by the **Engineer** prior to termination, the **Owner** shall be the sole judge of the value of such work performed. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the **Owner** terminate this Agreement under (5) of the paragraph above, the amount charged during the thirty (30) day notice period shall not exceed the amount charged during the preceding ninety (90) days.

If the termination of this Agreement is due to the failure of the **Engineer** to fulfill the **Engineer's** obligations under this Agreement, the **Owner** may take over the Project and prosecute the work to completion. In such case, the **Engineer** shall be liable to the Owner for any additional cost occasioned by the Owner.

If the **Engineer** defaults in the performance of this Agreement or if the **Owner** terminates this Agreement for fault on the part of the **Engineer**, the **Owner** will give consideration to payment

of an amount in settlement to include: the actual costs incurred by the **Engineer** in performing the work to the date of default, the amount of work required which was satisfactorily completed to date of default, the value of the work which is usable to the **Owner**, the cost to the **Owner** of employing another consultant and/or firm to complete the work required and the time required to do so, and other factors which affect the value to the **Owner** of the work performed at the time of default. This Agreement shall not be considered as specifying the exclusive remedy for any default by the **Engineer,** but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

The termination of the Agreement and payment of an amount is settlement as prescribed above shall extinguish all rights, duties, and obligations of the **Owner** and the **Engineer** under this Agreement, except the obligations set forth in Articles 11.2, 12, 13, 15, 16, 17, 18.3, 19, 22 and 26 hereto.

ARTICLE 4. Progress and Coordination. The **Engineer** shall, from time to time during the progress of the work, confer with the **Owner**. The **Engineer** shall prepare and present such information as may be pertinent and necessary, or as may be requested by the **Owner**, in order to evaluate features of the **Engineer's** services and work.

At the request of the **Owner** or the **Engineer**, conferences shall be provided at the **Engineer's** office, the office of the **Owner,** or at other locations designated by the **Owner.** These conferences shall also include evaluation of the **Engineer's** services and work when requested by the **Owner.**

All applicable study reports shall be submitted in preliminary form for approval by the **Owner** before the final report is issued. The **Owner's** comments regarding the **Engineer's** preliminary report will be addressed by the **Engineer** in the final report.

If funds by other agencies or entities are to be used for the development of the project under this Agreement, the **Engineer's** services and work will be subject to periodic review and approval by other agencies or entities, including those of the city, county, state and/or federal agencies.

Should it be determined that the progress in the production of the **Engineer's** services and work does not satisfy the requirements of the approved **Work Schedule** as provided by **Exhibit "C",** attached hereto, the **Owner** shall review the approved **Work Schedule** with the **Engineer** to determine the corrective action needed by either the **Owner** or the **Engineer.**

The **Engineer** shall promptly advise the **Owner** in writing of events which have a significant impact upon the progress of the **Engineer's** services and work and the approved **Work Schedule**, including:

(1) problems, delays, adverse conditions which will materially affect the ability to attain contract objectives, prevent the meeting of time schedules and goals, or preclude the timely completion and submittal of **Project** deliverables by the **Engineer** within established time periods; this disclosure will be accompanied by a statement by the **Engineer** of recommended or immediate action taken, or contemplated, and any **Owner** or other agency or entity assistance needed to resolve the situation: and

(2) favorable developments or events which enable meeting the **Work Schedule** goals sooner than anticipated.

ARTICLE 5. Compensation and Fees. For and in consideration of the services to be rendered by the Engineer, the Owner shall compensate the Engineer as follows:

5.1 ***Basic Services***. For and in consideration of the ***Services*** to be rendered by the **Engineer**, as identified in Article 2 and more particularly identified in **EXHIBIT "B"**, attached hereto, the maximum amount payable by the **Owner** to the **Engineer** for ***Services***, subject to adjustment in accordance with Article 6.1 herein, will be provided in each work authorization issued. An outline and breakdown of the **Services Fee** is more particularly identified in **EXHIBIT "D1"-*Fee Schedule***, attached hereto and made a part of this Agreement. Payments to the **Engineer** for ***Services*** shall be made by the **Owner**, upon presentation by the **Engineer** of the monthly **Request for Payment**, in accordance with the terms and provisions of Article 6 herein.

5.2 ***Special Services***. Those services that may be required to provided by the **Engineer** as ***Special Services*** are set forth below and more particularly described in **EXHIBIT "B"**, attached hereto. For and in consideration of these ***Special Services*** rendered as required by the **Engineer,** the **Owner** shall pay the **Engineer** a negotiated lump sum fee (hereafter referred to as "**Special Services Fee**") at the hourly labor rates and non-labor rates (hereinafter referred to as "**Contract Rates**") specified in **EXHIBIT "D"** - ***Contract Rates***, attached hereto and made a part of this Agreement, and as follows:

1. **RESIDENT OR SITE ENGINEER, INSPECTOR** Actual performance of services of project site engineer, resident engineer and/or inspector, if required by **Owner**.

2. **DOCUMENT COPIES** Actual performance and/or providing of additional copies (over 10) of report; additional copies (over 10) of plans (contract drawings), specifications and estimates (PS&E); additional copies (over 10) of bidding documents: additional copies (over 10) of as-built drawings.

3. **EXTRA TRAVEL** Extra travel required of **Engineer** and authorized by **Owner** to points outside of Hidalgo County.

4. **EXPERT WITNESS** Assistance to the **Owner** as expert witness in any litigation with third parties, arising from the development or construction of the **Project**.

5. **MISCELLANEOUS**. Investigations involving detailed consideration of operation, maintenance and overhead expenses and (unless otherwise agreed) the preparation of rate schedules, earning and expense statements; preparation of

feasibility studies; environmental document preparation; appraisals, valuations, and material audits; or inventories required for certification of force account construction performed by the **Owner**; preparation of change orders for extra work done by the **Contractor.**

ARTICLE 6. Method of Payment.

6.1 Request for Payment. Payments to the **Engineer** for services rendered will be made while work is in progress as executed through a lump sum fee assigned to each work authorization (hereinafter referred to as **"Work Authorization"**) in accordance with **Article 7** herein. For each **Work Authorization,** the **Engineer** shall prepare and submit to the **Owner** monthly progress reports in sufficient detail to support the progress of the work and in support of a request for payment (hereinafter referred to as "**Request for Payment**"). The progress report shall indicate the percent completion of the work accomplished by the **Engineer** during the billing period and to the date of the **Request for Payment**. On or before noon of the first Monday of each month during the performance of the services, the **Engineer** shall submit to the **Owner** for approval a **Request for Payment**. Payment of the lump sum fee for each **Work Authorization** identified in the **Request for Payment** will be in proportion to the percent completion of the work tasks identified in such **Work Authorizations** together with a detailed breakdown of the amount and the sum of all prior payments. The **Owner** shall review each such **Request for Payment** and may make such exceptions as the **Owner** reasonably deems necessary or appropriate under the circumstances then existing. About ten (10) working days after the Commissioners Court of the **Owner** meets approving such payment, the **Owner** shall make payment to the **Engineer** in the amount approved as aforesaid subject to Article 6.4 herein and below.

If the **Project**, or any portion(s) thereof, are deleted or otherwise not constructed, compensation to the **Engineer** by the **Owner** for the **Project** or such portions of the project shall be only the amounts paid the **Engineer** for actual work performed in accordance with the **Work Authorization**(s) approved by the **Owner.**

6.2 Final Payment. After final completion of the work and acceptance thereof by the **Owner,** the **Engineer** shall submit a final request for payment (**"Final Request for Payment"**) which shall set forth all amounts due and remaining unpaid to the **Engineer** and upon approval thereof by the **Owner,** the **Owner** shall pay to the **Engineer** the amount due (**"Final Payment"**) under such **Final Request for Payment** in accordance with the provisions of Article 6.1 hereof. The **Final Payment** shall not be made until the **Engineer** delivers to the **Owner** an affidavit that so far as the **Engineer** has knowledge or information any and all amounts due for materials and services over which the **Engineer** has control have been paid.

6.3 Qualification on Obligations to Pay. Any provision hereof to the contrary notwithstanding, the **Owner** shall not be obligated to make any payment (whether a payment under Article 6.1 hereof or **Final Payment**) to the **Engineer** hereunder if any one or more of the following conditions precedent exist:

(1) The **Engineer** is in default of any of its obligations hereunder or otherwise is in default under this Agreement or under any contract documents related to this Agreement;

(2) Any part of such payment is attributable to the **Engineer's** services which are not performed in accordance with this Agreement; provided, however, such payment shall be made as to the part thereof attributable to the **Engineer's** services which were performed in accordance with this Agreement.

(3) The **Engineer** has failed to make payments promptly to consultants or other third parties used in connection with the **Project** for which the **Owner** has made payment to the **Engineer;**

(4) If the **Owner,** in good faith judgement, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the **Engineer's** services in accordance with this Agreement, no additional payments will be due the **Engineer** hereunder unless and until the **Engineer,** at its sole cost, performs a sufficient portion of the **Engineer's** services so that such portion of the compensation then remaining unpaid is determined by the **Owner** to be sufficient to so complete the **Engineer's** services.

6.4 No partial payment made hereunder shall be or construed to be final acceptance or approval of that part of the **Engineer's** services to which such partial payment related or relieves the **Engineer** of any of its obligations hereunder with respect thereto.

6.5 The **Engineer** shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the **Engineer's** services.

6.6 Waiver. The making of the **Final Payment** shall constitute a waiver of all claims by the **Owner** except those arising from (1) faulty or defective services of the **Engineer** appearing after completion of the **Project.** (2) failure of the **Engineer's** services to comply with the requirements of this Agreement or any contracts or Agreements related to the **Project**, or (3) terms of any special warranties required by this Agreement or provided at law or in equity. The acceptance of **Final Payment** shall constitute a waiver of all claims by the **Engineer** except those previously made in writing and identified by the **Engineer** as unsettled at the time of the **Final Request for Payment**.

ARTICLE 7. Work Authorization. After execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof, only as authorized by the **Owner** through an agreed **Work Authorization** document in the form identified in **EXHIBIT "E"- *Work Authorization Form***, attached hereto and made a part of this Agreement. The **Engineer** will identify, as approved by the **Owner,** the needed services for the **Project,** as required through the course of the development to the **Project.** The **Owner** shall authorize the **Engineer** to perform one or more of the agreed tasks identified in **EXHIBIT "B",** attached hereto, in the form of individual work authorizations. Upon authorization from the **Owner,** the **Engineer** will prepare a **Work Authorization** document, which will include a description of the work to be performed, including a description of the tasks and milestones, a work schedule, and an estimated cost proposal agreed upon by the **Owner** and the **Engineer.** The estimated cost proposal shall set

forth in detail the computation of the cost of each work task, at the hourly rates established and identified in **EXHIBIT "D",** attached hereto. The **Work Authorizations** shall not waive the **Owner's** and the **Engineer's** responsibilities and obligations established in this Agreement.

The estimated cost proposal for each **Work Authorization**, developed by the **Engineer** and approved by the **Owner** shall be used by the **Owner** to appropriate a purchase order for the **Work Authorization.** Each executed **Work Authorization** shall become a part of this **Agreement**. Upon satisfactory completion of the **Work Authorization**, the **Engineer** shall submit the **Project's** deliverables as specified in the executed **Work Authorization** to the **Owner** for review and acceptance.

Work included in a **Work Authorization** shall not begin until the **Owner** and the **Engineer** have signed the **Work Authorization**. All work must be completed on or before the completion date specified in the **Work Authorization**, unless extended by written agreement by the **Engineer** and the **Owner.** The **Engineer** shall promptly notify the **Owner** of any event that will affect completion of the **Work Authorization.** All **Work Authorizations** must be executed and completed by both the **Engineer** and the **Owner** within the period established for this Agreement as specified in Article 3 hereof.

The final acceptance by the **Owner** of each **Work Authorization** for the **Project** shall serve as evidence of completion, on the part of the **Engineer,** of all services under this Agreement insofar as they pertain to that portion of work on the **Project** identified in the applicable work authorization.

ARTICLE 8. Supplemental Agreements. The terms of this Agreement may be amended by supplemental agreement if the Owner determines that (1) there is a need to extend the **Termination Date** identified in Article 3.1 hereof, (2) there has been a significant change in the scope, complexity or character of the services to be performed by the **Engineer,** and/or (3) for

any other reason agreeable to the **Owner** and the Engineer. All supplemental agreements will be developed in the form identified in **EXHIBIT "F" - *Supplemental Agreement Form***, attached hereto and made a part of this Agreement, and incorporated herein by reference as **"Supplemental Agreement".**

If determined appropriate by the **Owner,** additional compensation to the **Engineer** for (1), (2) and/or (3) above shall be paid as a negotiated lump sum fee at the **Contract Rates** specified in **EXHIBIT "D"**, attached hereto. The negotiated lump sum fee shall be incorporated into the **Supplemental Agreement.**

Any **Supplemental Agreement** must be executed by both the **Engineer** and the **Owner** prior to the **Termination Date** specified in Article 3 hereof.

It is distinctly understood and agreed that no claim by the **Engineer** for additional work, as identified in Article 9 hereof, or changes or revisions in work, as identified in Article 10 hereof, shall be made by the **Engineer** until full execution of the **Supplemental Agreement** and authorization to proceed is granted by the **Owner**. The **Owner** reserves the right to withhold payment to the **Engineer** pending verification of satisfactory work performed by the **Engineer.**

ARTICLE 9. Additional Work. If the **Engineer** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement and constitutes extra work, the **Engineer** shall promptly notify the **Owner** in writing, In the event the **Owner** finds that such work does constitute extra work, the **Owner** shall so advise the **Engineer** and a written supplemental agreement will be executed between the **Owner** and the **Engineer** as provided herein. The **Engineer** shall not perform any proposed additional work or incur any additional cost prior to the execution by both the **Engineer** and the **Owner** of a supplemental agreement. Additional compensation from the **Owner** to the **Engineer** shall be paid as a negotiated lump sum fee at the Contract Rates specified in **EXHIBIT "D"** attached hereto. The negotiated lump sum fee shall be

incorporated into the supplemental agreement as specified in Article 8 hereof. The **Owner** shall not be liable or under any obligation to compensate the **Engineer** for work performed or costs incurred by the **Engineer** relating to additional work not directly associated with the performance of the work authorized in this Agreement or as amended through supplemental agreement.

ARTICLE 10. Changes or Revisions in Work. If the **Owner** finds it necessary to request changes to the work, and the changes are within the applications of sound engineering principles, the **Engineer** shall make such revisions if requested and directed by the **Owner.**

10.1 Preliminary Work. The **Engineer** will make, without expense to the **Owner,** such revisions of any preliminary reports or drawings as may be required to meet the needs of the **Owner** and the applications of sound engineering principles.

10.2 Previously Approved or Satisfactorily Completed Work. If the **Owner** funds it necessary to request the **Engineer** to make changes to work previously approved by the **Owner** or work satisfactorily completed for which the **Owner** approves or, after a definite plan has been approved by the **Owner**, if a decision is subsequently made by the **Owner**, which for proper execution involves extra services and expenses for changes in or additions to the drawings specifications or other documents, this will be considered as additional work, and compensation from the **Owner** to the Engineer will be in accordance with Article 9 hereof.

10.3 Project Delays. If the **Engineer** is required to perform additional work due to delays by the imposition of causes not within the **Engineer's** control, such as by the re-advertisement of bids or by the delinquency or insolvency of contractors, such work associated with these delays shall be considered additional work, and the **Engineer** shall be compensated by the **Owner** for such extra services and expense in accordance with Article 9 hereof.

10.4 Reduction of Project Cost. Notwithstanding any provision herein to the contrary, in the event it is necessary for the **Owner** to require changes in the final plan of the **Project** to

enable it to the reduce the construction cost of the **Project** to an amount within the sum estimated by the **Engineer,** the **Engineer** will be required to make such revisions or changes. These changes will only be considered additional work by the **Engineer,** if the **Engineer** previously provided these same changes as options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan for the Project, and the option or options were not selected or approved by the **Owner** to be incorporated into the final plan of the Project. Payment for this additional work will then be made to the **Engineer** in accordance with Article 9 hereof. If **the Engineer** failed to provide these changes as an option or options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan of the **Project**, these changes will not be considered additional work and no additional compensation will be made to the **Engineer.**

ARTICLE 11. Ownership and **Release of Documents**.

11.1 Ownership of Documents. Original drawings and specifications are the property of the **Engineer** however the **Project** is the property of the **Owner**, and the **Engineer** may not use the drawings and specifications thereof for any purpose not relating to the **Project** with the **Owner's** consent. The **Owner** shall be furnished with such reproductions of drawings and specifications as the **Owner** may reasonably require. Upon completion of the work or any earlier termination of this Agreement under Article 3.4 hereof, the **Engineer** will revise drawings to reflect changes made during construction and will promptly furnish the **Owner** with one complete set of reproducible record prints. Prints shall be furnished by the **Engineer,** as an additional service, at any other time requested by **Owner.** All such reproductions shall be the property of the **Owner** who may use them without the **Engineer's** permission for any proper purpose relating to the **Project,** including but not limited to additions to or completion of the **Project.** Any additions or revisions by the **Owner** to a drawing signed, sealed, and dated by a registered professional

engineer, shall be made in accordance with the Texas Engineering practice Act and the Rules of the State Board of Registration for Professional Engineers.

All documents furnished to the **Engineer** by the **Owner** shall be delivered to the **Owner** upon completion or termination of this Agreement. The **Engineer,** at the **Engineer's** own expense, may retain copies of such documents or any other data under this Agreement.

11.2 Release of Documents or Information. Release of information to the public or others regarding the **Project** will be accordance with the Texas Public Information Act.

ARTICLE 12 Discounts, Rebates, Refunds. In connection with procurement services rendered by the **Engineer,** if procurement services are required of the **Engineer** hereunder, all discounts, rebates and refunds shall accrue to the **Owner**. For some purchases, the **Engineer** may deem that payment within the discount period is not safe; and/or inspection, guarantees, or other considerations may dictate delay. In such cases, the **Engineer** shall promptly notify the **Owner** so that a course of action may be mutually agreed upon by the **Owner** and the **Engineer.**

ARTICLE 13. Records, Accounting, Inspection. The **Engineer** shall keep full and detailed records and accounts in a manner approved by the **Owner.** The **Engineer** shall afford the **Owner's** authorized personnel and independent auditors, if any, full access to the work performed by the **Engineer** regarding the **Project** and to all of the **Engineer's** books, records, correspondence, instructions, drawings, receipts, vouchers and other documents relating to such work under this Agreement and the **Engineer** shall preserve all such records for three (3) years after final payment. The **Engineer** shall deliver to the **Owner** upon completion of such work, a statement of the cost of such work detailed according to the accounting procedure and requirements of the **Owner.**

ARTICLE 14. Subcontracting and Assignment. The **Engineer** shall not assign, subcontract or transfer the **Engineer's** interest in this Agreement without the prior written consent

of the **Owner.** The **Engineer** shall bind every subconsultant by written subcontract to observe all the terms of this Agreement to the extent that they may be applicable to each subconsultant. No subcontract relieves the **Engineer** of any responsibilities under this Agreement.

The **Engineer,** and the **Owner,** do hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Agreement and to the successors, executors, administrators, and assigns of such other party in respect to all covenants of this contract.

ARTICLE 15. Patents. The **Engineer** shall indemnify and save the **Owner** harmless from all liability for alleged or actual infringement of any patent resulting from the use of apparatus or equipment furnished or designed by the **Engineer** or from the use of any process designed by the **Engineer** or effected by said apparatus or equipment, and the **Engineer** shall indemnify and save the **Owner** harmless from and against all costs, legal fees, expenses and liabilities incurred in or about any claim of or action for such infringement: provided, however, that the **Owner** shall promptly transmit to the **Engineer** all papers served on the **Owner** in any suit involving such claim of infringement, and provided further, that the **Owner** permits the **Engineer** to have entire charge and control of the defense of any such suit. If because of actual infringement the use of such apparatus, equipment, or process is enjoined, the **Engineer** shall refund the purchase price thereof in proportion to the length of service uncompleted, the life of such apparatus or equipment being assumed as five years. The **Engineer** hereby grants to the **Owner** a non-exclusive, royalty-free license under patents now or hereafter owned by the **Engineer** covering any machines, apparatus, processes, articles, or products included in the **Engineer's** work hereunder.

ARTICLE 16. Confidential Information, Inventions and Other Restrictions.

16.1 Confidential Information. The **Engineer** shall not use in any way, commercial or otherwise, except to the extent required by the proper performance of this Agreement; and shall

hold in confidence and not disclose to any person, for any reason or at any time, any information relating to the secret processes, products, compositions, machinery, apparatus or trade secrets of the **Owner**, or any other confidential information given to the **Engineer** by any of the **Owner's** commissioners, elected officials, employees, or representatives or acquired by the **Engineer** during the term of or as a result of this Agreement. Any information not generally available to the public shall be considered secret and confidential for the foregoing purposes; provided, however, that any technical information which was lawfully in the **Engineer's** possession prior to such disclosure to the **Engineer** by the **Owner** or which is or shall lawfully be published or become part of general knowledge from sources other than the **Engineer** or which otherwise shall lawfully become available to the **Engineer** from a source other than the **Owner**, shall not be subject to these provisions. All the foregoing stipulations shall apply to such information and work hereunder as well as to any information and ideas originated or developed by the **Engineer** in performing such work. Such information may, of course, be disclosed to the proper officials or employees of the **Owner** if necessary to perform the work hereunder. The **Engineer** shall, however, inform each of its employees who receive such information of these restrictions and the **Engineer** shall take all reasonable precautions and exert all reasonable efforts to assure conformance with such restrictions by all of its officers, employees, and agents, obtaining from them if necessary, agreements satisfactory to the **Owner,** effectuating the purposes of this Article.

16.2 Inventions. The **Engineer** shall communicate to the **Owner** at once, and require the **Engineer's** employees assigned to this **Project** to communicate to the **Owner** all inventions and improvements which any of the **Engineer's** employees, either alone or in conjunction with any of the **Owner's** employees may conceive, make or discover during the course of or as a result of work on this **Project** under this or any ensuing agreement with the **Owner** that relates to the processes, products, compositions, machinery or plants of the **Owner**, or relating in any way to

any of the operations in which the **Owner** may be obligated to pay to the **Engineer** as compensation for services rendered by the **Engineer** under contract with the **Owner**. The **Engineer** shall require its employees to execute patent applications and assignments thereof to the **Owner** or its nominees, and powers of attorney relating thereto for any country the **Owner** may designate, and shall take all other actions as the **Owner** may request to maintain and protect such inventions and improvements. The **Owner** shall pay all costs or charges incurred in protecting such inventions and improvements if the **Owner** desires to protect them. Before assigning any of the **Engineer's** employees to work under any contract with the **Owner** concerning this **Project,** the **Engineer** shall obtain from them agreements satisfactory to **Owner** complying in all respects with the terms and provisions of this Article.

16.3 The rights and obligations set forth in Article 16 shall survive the performance of this Agreement, or any termination, discharge or cancellation thereof

ARTICLE 17. Engineer's Seal, Responsibility and Warranties.

17.1 Engineer's Seal. The **Engineer** shall assign a responsible engineer or engineers licensed to practice in the State of Texas, who shall sign, seal and date all appropriate engineering submissions to the **Owner** in accordance with the Texas Engineering Practice Act and the Rules of the Stare Board of Registration for Professional Engineers.

17.2 Engineer's Responsibility. The **Engineer** shall be responsible for the accuracy of the work for the **Project** and shall promptly make necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer.** No additional compensation will be made to the **Engineer** for any necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer.**

The **Engineer's** responsibility for all questions arising from design errors and/or omissions will be determined by the **Owner** or a designee appointed by the **Owner.** The **Engineer** will not be

relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the **Project** has been completed.

17.3 Warranties.

(a) The **Engineer** warrants that engineering design work performed by the **Engineer** hereunder shall be in accordance with sound engineering design practices and in conformance with applicable code and standards established for such work.

(b) Notwithstanding anything to the contrary contained in this Agreement, the **Owner** and the **Engineer** agree and acknowledge that the **Owner** is entering into this Agreement in reliance on the **Engineer's** experience and abilities with respect to performing the **Engineer's** services hereunder. The **Engineer** accepts the relationship of trust and confidence established between it and the **Owner** by this Agreement. The **Engineer** covenants with the **Owner** to use the **Engineer's** best efforts, skill, judgement and abilities to design the **Project** and to further the interests of the **Owner** in accordance with the **Owner's** requirements and procedures, in accordance with all professional standards, and in compliance with all applicable national, federal, state, county and municipal laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction. If the development of plans, specifications and estimates (hereinafter referred to as **"PS&E"**) are identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project**, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the **Project**, and the improvements when built in accordance therewith, conform to all applicable governmental regulations, statutes and ordinances then in effect. The **Engineer** represents covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the **Engineer's** services.

(c) The **Engineer** represents, covenants and agrees that all of **Engineer's** services to be furnished by the **Engineer** under or pursuant to this Agreement form the inception of the Agreement until the **Project** has been fully completed, shall be of the standard and quality which prevail among engineers of similar experience, knowledge, skill and ability engaged in engineering practice throughout Texas under the same or similar circumstances involving the design and construction of **Project.**

(d) The **Engineer** represents, covenants and agrees that the **Engineer's** special talent, training and experience cause the **Engineer** to be the prime professional on the **Project;** that because of such talent and training, the **Engineer** envisions the construction of the **Project** in its entirely and possesses the special skills which enable the **Engineer** to recognize dangerous conditions that a reasonable, prudent engineer having such special skills could anticipate may arise from the proper use of the **Project** after acceptance by **Owner;** and that the **Engineer** recognizes that any commissioners, elected officials, employees and agents of the **Owner,** plus residents and owners of property within the area affected by the **Project** are within a class of foreseeable persons who will be relying on the project being designed in a professional and safe manner.

(e) If the development of **PS&E** is identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project,** the **Engineer** represents, covenants and agrees that the **PS&E** of the **Project** will be accurate and free from any material errors. The **Engineer** additionally represents, covenants and agrees to the following: that the design of the **Project** will conform to its foreseeable use as a **Project** with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the **Project;** that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the **Project** is designed; and the **Project** will be inspected in a workmanlike, professional manner

and will be suitable for the **Project's** intended purpose. The **Engineer's** responsibilities as set forth herein shall at no time be in any way diminished by reason of any approval by the **Owner** of any **PS&E** developed by the **Engineer** for the **Project**, nor shall the **Engineer** be released from any liability by reason of such approval by the **Owner**, it being understood that the **Owner** at all times is ultimately relying upon the **Engineer**'s skill and knowledge in preparing such **PS&E.**

(f) In connection with the **Engineer**'s performance of procurement services hereunder, if any, the **Engineer** use its best efforts to obtain from all vendors of equipment and materials, fullest possible warranties against defective materials and workmanship for the benefit of the **Owner.**

ARTICLE 18. Engineer's Resources. The **Engineer** shall furnish and maintain, at the **Engineer's** own expense, office space for the performance of all services, skilled and sufficient personnel, as well as adequate and sufficient equipment to perform the services as required under this Agreement.

18.1 Project Manager. The **Engineer** shall provide a manager **(Project Manager)** for the **Project** that is a registered professional engineer in the State of Texas. The **Project** manager shall have such knowledge and experience as will enable that **Project Manager** during the course of the **Project** without prior consent of the **Owner.** If, due to situations beyond the control of the **Engineer,** the **Engineer** must change the **Project Manager** prior to the completion and acceptance of the **Project,** the **Engineer** will submit a request to change the **Project Manager** to the **Owner** for approval.

18.2 Employees of the Engineer. All employees of the **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them and required for the services under this Agreement. Any employee of the **Engineer** who, in the opinion of the **Owner**, is incompetent, or whose conduct becomes detrimental to the work required under

this Agreement, shall immediately be removed form association with the **Project** when so instructed by the **Owner.** The **Engineer** certifies that the **Engineer** presently has employed sufficient and qualified personnel, and will maintain sufficient and qualified personnel for performance of the services under this Agreement.

18.3 Documents/Information Exchange The purpose of this Article is to define the required automated resources, format for graphics files, and information exchange pertaining to the **Project.** Taking into consideration that the **Owner** has a significant investment is the development of the **Project,** there is a need for the **Engineer** to provide consistency in document development for information exchange. Consistency in document development for information exchange and production will help facilitate an economically efficient **Project.** Therefore, the **Engineer** shall provide the **Owner** with documents and information in accordance with the special requirement outlined in **EXHIBIT "B"** attached hereto.

ARTICLE 19. Indemnification. To the fullest extent permitted by applicable law, the **Engineer** and its agents, partners, subcontractors, and consultants (collectively **"Indemnitors"**) shall and do agree to indemnify, and hold harmless the **Owner**, the **Owner's** respective directors, elected officials, employees and agents (collectively **"Indemnitees"**) from and against all claims, damages, losses, liens, causes of action, suits, judgments and expenses, including attorney fees, of any nature, kind or description (collectively "Liabilities") of any person or entity whomsoever arising out of, caused by or resulting from the negligent performance of the **Engineer's** services through activities of the **Engineer**, its agents, partners, subcontractors and/or consultants performed under this Agreement, and which are caused by or result from error, omission, or negligent act of the **Engineer** or of any person employed or contracted by the **Engineer** provided that any such **Liabilities** (1) are attributable to bodily injury, personal injury, sickness, disease or death of any person, or to the injury to or destruction of tangible personal property including the

loss of use and consequential damages resulting there from and (2) are caused in whole or in part by any negligent act or omission of the **Engineer,** anyone directly or indirectly employed by the **Engineer** or anyone for whose acts the **Engineer** may be legally liable. The **Engineer** shall also save harmless the **Owner** from any and all expense, including but not limited to, attorney fees which may be incurred by the **Owner** in litigation or otherwise resisting said claim or liabilities which may be imposed on the **Owner** as a result of such activities by the **Engineer,** its agents partners, subcontractors and/or consultants. In this connection, it is agreed and understood that the **Engineer** shall not be responsible for any portion of the liability proximately caused by the **Owner's** negligence.

ARTICLE 20. Joint and Several Liability. In the event more than one of the **Indemnitors** are connected with an accident or occurrence covered by the indemnification in Article 19 hereof, then each of such **Indemnitors** shall be jointly and severally responsible to the **Indemnitees** for indemnification and the ultimate responsibility among such **Indemnitors** for the loss and expense of any such indemnification shall be settled by separate proceedings and without jeopardy to any **Indemnitee**. The provisions of this Article shall not be construed to eliminate or reduce any other indemnification or right which the **Owner** or any of the **Indemnitees** has by law.

ARTICLE 21. Insurance. The **Engineer** shall obtain and maintain insurance in the limits of liability for each of the types of insurance coverage identified as follows.

(1) **Workers' Compensation**, endorsed with a waiver of subrogation in favor of the **Owner** in accordance with the statutory obligations imposed by Worker's Compensation or Occupational Disease laws under the Texas Workers' Compensation Law (**"Statutory Texas"**)

(2) **Commercial General Liability**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner *all to***

the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein, in limits of liability not less than one million dollars (**$1,000,000**) combined single limit each occurrence and in the aggregate for bodily injury and property damage.

(3) **Texas Business Automobile Policy**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** *all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein*, in limits of liability not less than two hundred fifty thousand dollars (**$250,000**) each person for bodily injury, five hundred thousand dollars (**$500,000**) each occurrence for bodily injury, and one hundred thousand dollars (**$100,000**) each occurrence for property damage.

(4) **Professional Liability** in limits of **$1,000,000** each claim and aggregate.

The **Engineer** covenants and agrees to maintain an insurance policy in the minimum limits of liability for each of the types of insurance coverage identified above. The **Engineer** shall furnish the **Owner** with a certificate of insurance (***Hidalgo County* Certificate of Insurance**) showing the said policy to be in full force and effect during the period of service, identified in Article 3 hereto, for this Agreement. The completed Hidalgo County Certificate of Insurance shall be attached hereto and identified as **EXHIBIT "G"**- *Hidalgo County Certificate of Insurance.* The **Engineer** will be considered in breach of contract should the **Engineer** fail to maintain an insurance policy in the minimum limits of liability and requirements identified above while performing services for and under this Agreement, and will be subject to default and termination of the Agreement as outlined in Article 3.4 hereto. Additionally, the **Engineer** covenants and agrees to use its best efforts to maintain an insurance policy in the minimum limits of liability and requirements identified above until one year following the date of the acceptance of the **Project** by **Owner.**

ARTICLE 22. Compliance with Laws. The **Engineer** shall comply with all applicable Federal, State and local laws, statutes, codes, ordinances, rules and regulations and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Agreement including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations and licensing laws and regulations. When required the **Engineer** shall furnish the **Owner** with satisfactory proof of its compliance therewith.

ARTICLE 23. Non-collusion. The **Engineer** warrants that the **Engineer** has not employed or retained any company or persons, other than a bona fide employee working solely for the **Engineer**, to solicit or secure this Agreement, and that the **Engineer** has not paid or agreed to pay any company, engineer or any other person or entity any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or execution of this Agreement. For breach or violation of this warranty the **Owner** shall have the right to annul this Agreement without liability or, in the **Owner's** discretion, to deduct from the *Services Fee*, or otherwise recover, the full amount of each fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 24. Gratuities. The **Owner** mandates that employees of the **Owner** shall not accept any benefits, gifts or favors from any person doing business or who reasonably speaking may do business with the **Owner** under this Agreement; the only exceptions allowed are ordinary business meals. Any person doing business with or who may reasonably seeking to do business with the **Owner** under this Agreement may not make any offer of benefits, gifts or favors to **Owner** employees, except as mentioned herein above. Failure on the part of the **Engineer** to adhere to this provision may result in the termination of this Agreement.

ARTICLE 25. Payment of Franchise Tax. The **Engineer** hereby certifies that the **Engineer** is not delinquent in Texas franchise tax payments, or that the **Engineer** is exempt from,

or not subject to, such as tax. A false statement concerning corporation's franchise tax status shall constitute grounds for termination of the Agreement at the sole option of the **Owner.**

ARTICLE 26. Disputes. The **Engineer** shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the **Engineer** in support of the services under this Agreement.

ARTICLE 27. Severability. In the event any one or more of the provisions contained in this Agreement shall for any reason, be held to be invalid, illegal, or unenforceable in any respect such invalidity, illegality or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein .

ARTICLE 28. Notices. All notices to either party by the other required under this Agreement shall be personally delivered or mailed to such party at the following respective addresses:

OWNER	**ENGINEER**
Hidalgo County **1615 S. Closner, Suite J** **Edinburg, Texas 78539**	**L & G Consulting Engineers , Inc.** **2100 West Expwy 83** **Mercedes, Texas 78570**

The Address may be changed by either party by written notice and notice sol mailed shall be effective upon mailing.

ARTICLE 29. Miscellaneous Provisions.

(a) This Agreement constitutes the entire Agreement between the **Engineer** and the **Owner** relating to the work herein described and supersedes any prior understanding or written or oral contracts between the parties respecting the subject matter defined herein. These are no

previous or contemporary representations or warranties of the **Owner** or the **Engineer** not set forth herein.

(b) Except as specifically provided herein no modification, waiver, termination, rescission, discharge or cancellation of this Agreement or of any terms thereof shall be binding on the **Owner** unless in writing and executed by an officer or employee of the **Owner** specifically authorized to do so.

(c) No waiver of any provision of or a default under this Agreement shall affect the right of the **Owner** thereafter to enforce said provision or to exercise any right or remedy in the event of any other default whether or not similar.

(d) No modification, waiver, termination, discharge or cancellation of this Agreement or of any terms thereof shall impair the **Owner's** right with respect to any liabilities whether or not liquidated of the **Engineer** to the **Owner** theretofore accrued.

(e) All rights and remedies of the **Owner** specified in this Agreement are in addition to the Owner's other rights and remedies.

(f) The **Engineer** shall remain an independent contractor and shall have no power nor shall the **Engineer** represent that the **Engineer** has any power to bind the **Owner** or to assume or to create any obligation express or implied on behalf of the **Owner** except as specifically authorized in advance by the **Owner.**

(g) The Agreement shall be construed under the laws of the State of Texas and is performable in Hidalgo County, Texas.

(h) This Agreement may only be amended by a written document executed by the Owner and the **Engineer** as provided by Article 8 herein.

ARTICLE 30. Signatory Warranty The undersigned signatory or signatories for the **Engineer** hereby represent and warrant that the signatory is an officer of the organization for

which he or she has executed this Agreement and that he or she has full and complete authority to enter into this Agreement on behalf of the **Engineer.** The above-stated representations and warranties are made for the purpose of inducing the **Owner** to enter into this Agreement.

WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Services** to be effective as of the _____ day of _____, 2011.

ENGINEER:
L & G CONSULTING ENGINEERS INC.
d/b/a **L & G ENGINEERING**

BY: _____
Jacinto Garza, P.E./President

OWNER:
HIDALGO COUNTY

BY: _____
Ramon Garcia, County Judge

Approved by Commissioners' Court
on 8/16/11

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk

SIGN HERE

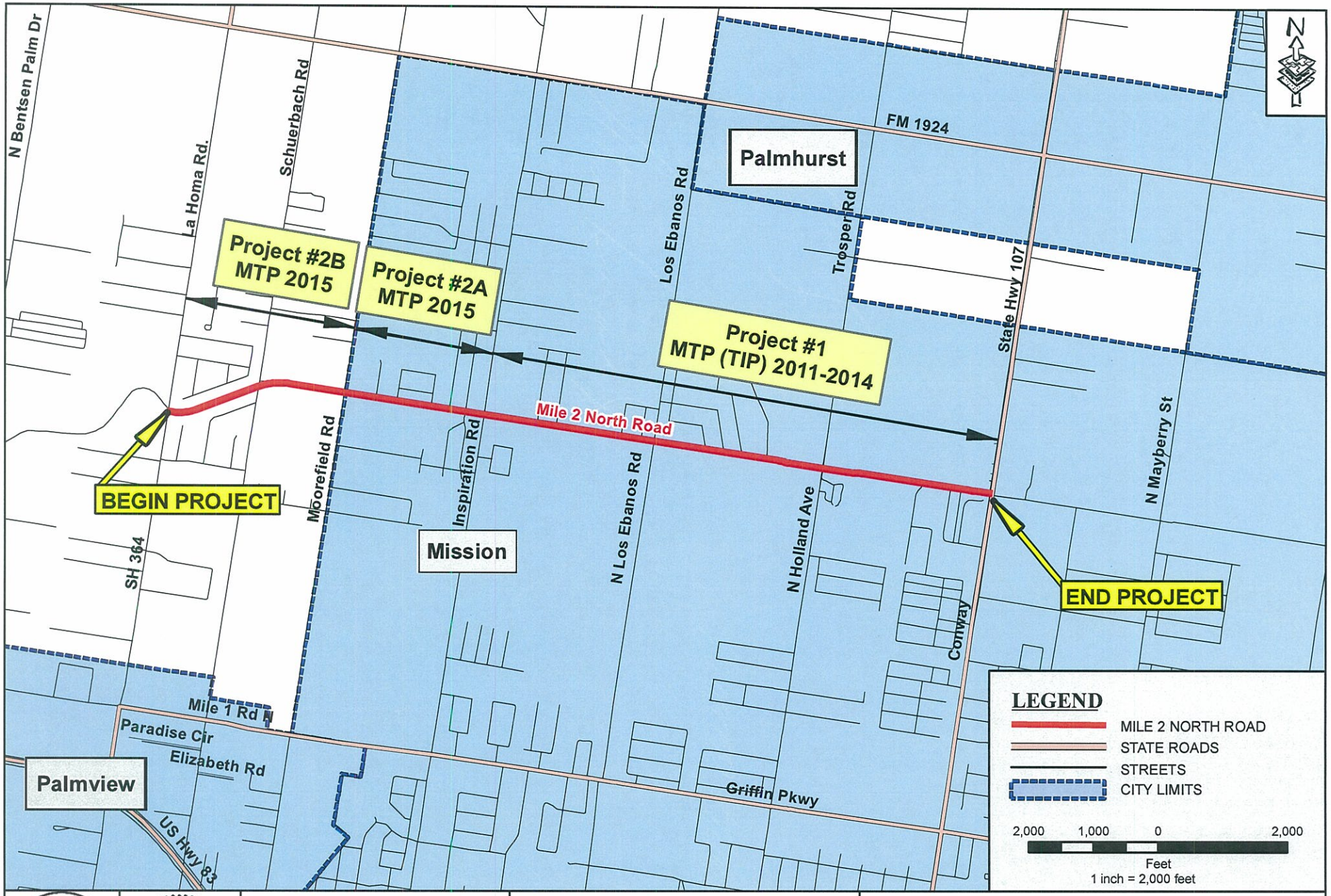
Approved on Commissioners' Court:

APPROVED AS TO FORM:
Atlas & Hall, L.L.P.

By: _____

ATTACHMENTS:

LOCATION MAP
EXHIBIT A –Scope of Services to be provided by the Owner
EXHIBIT B –Scope of Services to be provided by the Engineer
EXHIBIT C –Work Schedule
EXHIBIT D –Contract Rates
EXHIBIT D1 – Fee Schedule
EXHIBIT E –Work Authorization Form
EXHIBIT F –Supplemental Agreement Form
EXHIBIT G –Certificate of Insurance (*Hidalgo County)*



L&G Engineering
Transportation Consulting Engineers

MILE 2 NORTH ROAD PROJECT LOCATION MAP

APPROX. LENGTH: 2.5 MILES

PROJECT #1: FROM INSPIRATION RD TO SH 107 (CONWAY)
APPROX. LENGTH: 1.5 MILES

PROJECT #2A: FROM MOOREFIELD RD TO INSPIRATION RD
APPROX. LENGTH: 0.40 MILE

PROJECT #2B: FROM LA HOMA RD TO MOOREFIELD RD
APPROX. LENGTH: 0.60 MILE

G:\EA MAPS\Mile 2 Lahoma-Conway\Mile2N LOCATION 5-4-11

EXHIBIT "A"

Services to be provided by the Owner

1. The County will issue work authorization to initiate all required services and designate the authorized representative of 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 on-going 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.

GENERAL INSTRUCTIONS

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

CITY shall mean City of Mission.

PROJECT DESCRIPTION

The services designated herein as "Services provided by the Engineer" shall include the estimated general performance of all engineering services for the following described facility:

County/City: Hidalgo County /Mission, Texas

Control: _____

Project/Description: PS&E Design, Right-of-Way Mapping, and Acquisition Services for Mile 2 North

Length: Variable

Highway: Mile 2 North

Limits: from Moorefield Road West to La Homa Road (SH 364) (0.60 Mile)

Existing Facility

Project Classification

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

___ Surface Treatment
___ Overlay
___ Rehabilitation Existing Road (Scarify & Reshape)
___ Convert Non-Freeway to Freeway
___ Widen Freeway
_X_ 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)

NOTES

ROUTE AND DESIGN STUDIES
(Function Code 110)
Completed by the Mission Economic Development Authority (MEDA)

[LEFT INTENTIONALLY BLANK]

NOTES
SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT
(Function Code 120)
Completed by MEDA

[LEFT INTENTIONALLY BLANK]

RIGHT-OF-WAY DATA
(Function Code 130)

Services Provided By:
Surveyor County

NOTE: No work involving right-of-way (ROW) data is to be performed until the City has given the engineer written approval of the final location of the proposed ROW lines.

YES NO 1. Ownership Data in a .dgn file
- a. The entire project limits.
- b. Compensable utility ownership who have property rights on ROW shall be researched and provided.
- c. For each drainage outfall property
- d. For each irrigation structure pipe.

YES NO 2. Parcel plats & Right-of-Way Map
- a. A ROW map, parcel plats and field notes shall be prepared and furnished.
- b. All plats and field notes must be signed and sealed by a Registered Professional Land Surveyor (RPLS).
- c. ROW map must depict all improvements affecting ROW.

YES NO 3. Utilities (Compensable)
- a. Property ownership with recording information shall be shown on ROW Map and Parcel Sketches with distance ties to property corners in an effort to locate utility.

YES NO 4. Field Notes
- a. Field notes and plats, signed and sealed by a Registered Professional Land Surveyor, for all parcels on the ROW Map
- b. Computation Sheets for Survey Closure and Area for Each Parcel.
- c. Ground surveys and preparation of parcel maps, legal descriptions, and right of way maps.

YES NO 5. Survey and Stake Right-of-Way

YES NO 6. Records as Required by the City and State
- a. Records used to establish ownership

YES NO 7. General Guidelines for Preparation of Right-of-Way Maps (Sample ROW Maps and Parcel Sketches and field notes attached)

General Specifications

a. All data submitted by the surveyor will be legible, organized and well documented.

b. The surveyor shall provide temporary signs and shall control traffic near surveying operations adequately to comply with provisions of the MUTCD; a copy of which the Surveyor acknowledges has been furnished to him. All signs, flags, and safety equipment are to be provided by the surveyor.

c. Permission to enter private property shall be the sole responsibility of the surveyor.

d. The surveyor will be held responsible for the correctness of his services. The surveyor will be responsible for the completion of his services.

e. The surveyor will be required to complete the attached "Right-of-Way Map Checklist" and submit along with the completed R.O.W. map. All requirements of attached R.O.W. map

checklist must be complete, accurate and also considered to be essential and is a part of this contract.

Project specific scope of services

FC 130 – Right of Way Data – Abstract analysis, development of ROW Map sheets including parcel plats and field notes with Metes & Bounds field descriptions, and Title Commitments.

FC 150 – Field Surveying for Parcel Mapping – Recover horizontal & vertical control, locate and field tie existing ROW and boundary corners. Update topography, and reestablish corners for ROW map revisions.

SURVEYING SCOPE OF SERVICES FOR PARCEL MAPPING

RIGHT-OF-WAY DATA
Right-of-Way Documents - The **Surveyor** will utilize State examples and provide the following:

General
a. Abstracting: The **Surveyor** will determine Ownership Data.
b. Prepare individual parcel maps and field notes as needed to properly describe the right-of-way the **State** is to acquire.
c. All procedures involving right-of-way maps will be in accordance with the **State's** Right-of-Way Book I and Book II, the **State's** local operating procedures and according to the Texas Board of Professional Land Surveying Practices Act.
d. All required documents will be in English units.
e. The **Surveyor** will monument all corners with a 5/8 inch iron rod with a Surveyor's plastic cap on all parcel boundary corners.
f. The **Surveyor** will provide to the State a copy of Instruments of Record.
g. The **Surveyor** will attach graphics files compatible with the latest version of Micro-Station graphics software.
h. The **Surveyor** will attach documents or text files compatible with the latest version of Word software.

Parcel Plats
a. A parcel plat will be prepared for each parcel of land to be acquired. The **State** has developed standard formats for parcel plats, copies of which the **Surveyor** will request and secure for all purposes
b. Parcel boundary lines will be delineated with appropriate bearings, distances, and curve data.
c. Private property lines will be delineated with appropriate bearings, distances, and curve data to the extent necessary to describe the individual parcels of land to be acquired.
d. League lines and survey lines will be shown and identified by name and abstract number.
e. A north arrow will be shown on each sheet and, if possible, in the upper right hand corner.
f. Monumentation set or found will be shown and described as to material and size.
g. A station and offset will be shown for each PC, PT, and angle point in the proposed right-of-way lines and the existing right-of-way lines in areas of no proposed acquisition.
h. Intersecting streets will be shown and identified by name and right-of-way width.
i. A parent tract inset will be shown for each parent tract.
j. A note will be included on each map sheet stating the basis of bearings, coordinates, and datum used.
k. Appropriate notes will be included on the title sheet stating the following:
    a. Month(s) and year abstracting was performed upon which the map is based.
    b. Month(s) and year field surveys were conducted upon which the map is based.
    c. Month and year map was completed by the **Surveyor**.
l. The right-of-way account number and R.O.W. CSJ if available will be shown on each parcel map sheet.
m. All parcel maps should be 8-1/2" x 11" signed and sealed by a Registered Professional Land Surveyor and note referencing legal description.
n. The acreage of the part taken should be shown to three decimal places, rounded.

Field Note Descriptions - A field note description will be prepared for each parcel of land to be acquired. Field note descriptions will include, but need not be limited to, the following:

a. The field note description will begin with a general description that will include, as a minimum:
   a. **State**, county, and city within which the proposed parcel of land to be acquired is located.
   b. A reference to unrecorded and recorded subdivisions by name, lot, block, and recording data to the extent applicable.
   c. A reference, by name, to the grantor and grantee, date, and recording data of the most current instrument(s) of conveyance describing the parent tract.

b. The field note description will continue with a metes and bounds description that will include, as a minimum:
   a. A point of commencing (outside property corner).
   b. A point of beginning on proposed R.O.W. line.
   c. A series of courses, identified by number and proceeding in a clockwise direction, describing the perimeter of the parcel of land to be acquired, and delineated with appropriate bearings, distances, and curve data.
   d. A description (8-1/2" x 11") of all monumentation set or found to include, as a minimum, size and material.
   e. All field note descriptions will be signed and sealed by a Registered Professional Land Surveyor.
   f. Note referencing parcel plat.

PHARR DISTRICT
ROW MAP CHECKLIST

Consultant: _____
Contract/WA# _____
Responsible Office: _____
TXDOT Project Manager: _____
County: _____
Highway: _____
RCSJ: _____
CCSJ: _____

As the responsible consultant project manager, I hereby certify that the attached ROW Map has undergone a QA/QC review, with the following applicable items specifically checked for accuracy, completeness and constructability (as noted by Checkmarks)

_____
Signature Date

_____
Printed Name

(This Checklist must be signed by the RPLS and turned in with all proposed ROW Projects. Pharr District ROW will not accept project without this checklist.)

MAP

General
___ All documents have been proofread and are accurate.
___ Title Commitments for each individual parcel.
___ Graphics files compatible with Microstation and Word software are provided.
___ Photos of proposed ROW staking included.
___ Field notes and Parcel Plats are numbered continuous.
___ Scale shall be 1"=50' or 1"=100".

Title Sheet Requirements
___ Title and description of project including county, limits, etc....
___ Vicinity map with beginning and ending station
___ Equations and Exceptions
___ Index
___ Legend
___ Title block completely filled out with Construction and R.O.W. CSJs'
___ List all Major Utilities from Station to Station

Individual Map Sheet Requirements
___ Sheet size 34" X 22"
___ Text legible when reduced to half-scale.
___ Title block completely filled out with R.O.W. CSJ
___ Matchlines
___ Project layout sheet
___ Existing utility lines and easements, deed reference, as shown on Schedule "B" of the Title Commitment, and defined on parcel plats

Existing information:
___ R.O.W. lines
___ Whole property or whole property inset
___ Roadways
___ Survey, county, and city limit lines shown and labeled

___ Improvements shown and labeled *(see below)*
___ Monumentation i.e. P.C., P.T., Break Points
___ North arrow
___ Scale
___ Property lines
___ Property descriptions i.e., lot, block, tract, subdivision, etc…
___ Identify existing and proposed access denial locations *(if applicable)*

Proposed information:
___ Type II Monumentation i.e. P.C., P.T., Break Points and 1500' intervals
___ Survey and R.O.W. lines
___ Basis of bearings
___ Parcel bearings and distances correspond with traverse sheet
___ Outside ties (P.O.C.) corresponds with field notes
___ Point of beginning (P.O.B.) established on proposed R.O.W. line
___ Parcel tied to baseline
___ Baseline information shown i.e. Stationing, bearings, curve data, etc…
___ Conveyance information shown in tables i.e. parcel number, grantors name, amount of take, remainder etc...
___ Math checked on remainder

Improvements:
___ Improvements bisected or within 25' of proposed R.O.W. line are shown on map with stationing and distance from proposed R.O.W. line. Buildings are labeled and dimensioned.
___ Off-premise outdoor advertising signs within proposed R.O.W. are shown and labeled.

Utilities:
___ All utilities within or crossing existing and proposed right of way are shown and labeled as to size, easement or fee width, and recording data of instrument.
___ Location of underground storage tanks and/or filler caps are shown and labeled

* *DO NOT SEAL MAP*

FIELD NOTES

Heading

___ County
___ Highway
___ Parcel number
___ R.O.W. CSJ
___ Construction CSJ

General Description or "preamble"
___ Area of parcel to be acquired is shown in acreage (0.000) for rural land and/or square feet (to nearest whole sq. ft.) for urban land or smaller parcels

Parent tract data is shown:
___ Size of parent tract
___ Survey data or lot, block, and subdivision
___ Name of last recorded seller and buyer
___ Date, volume and page or document number of last recorded conveyance
___ Records and county of last recorded conveyance

Beginning Description
___ Point of commencement is on outside tie and is described accurately by bearings and distances as it leads to the point of beginning.
___ Point of beginning is on proposed R.O.W. line

Particular Description
___ Traverse calls are clockwise sequence
___ Bearings and distances correspond exactly with map, parcel sketch, and traverse sheet
___ Bearings are to nearest whole second and distances are to the nearest one-hundredth of a foot
___ Calls are numbered
___ Denial of access shall be described from beginning to end *(if applicable)*

Closing Description
___ Last call leads back to P.O.B.
___ Restates area of parcel
___ Establishes taking in existing road R.O.W. if applicable
___ Legal description is referenced to Plat
___ Sealed and signed
___ Include an access clause whether access is permitted or denied *(if applicable)*

PARCEL SKETCH
___ Shows P.O.B. and P.O.C.
___ All data corresponds exactly with Map and Field Notes
___ Sheet size is no larger than 81/2" x 11"
___ Plat closely matches example provided
___ Plat referenced to legal description
___ Sealed and signed
___ Include an access clause whether access is permitted or denied *(if applicable)*
___ Existing utility lines and easements (deed reference, if available);

TRAVERSE SHEET
___ Computations show area to be acquired in sq. ft. or acres, whichever is applicable
___ Computations show area that is existing road R.O.W. if applicable
___ Traverse calls are in clockwise sequence
___ Error of closure meets the following:

Secondary rural	.0003
Primary rural - secondary urban	.0002
Urban or industrial	.00013

FIELD SURVEYING AND PHOTOGRAMMETRY
(Function Code 150)

Services Provided By:
Engineer County

1. Field Surveying

YES NO a. Primary Project Control - 3 to 5 miles spacing
Precision shall be 1 part in 20,000 or better, unless otherwise directed by the district engineer.
(1) Establish horizontal control points
(2) Establish vertical control points

NOTE: ALL BEARING AND DISTANCE SHALL BE BASED ON THE STATE PLANE COORDINATE SYSTEM NAD 1983, SOUTH ZONE.

ALL DISTANCES AND COORDINATES SHALL BE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999960

This project shall be tied to the same H&V on La Homa and Mile 2. The Engineer shall provide the control points to tie into.

YES NO b. Secondary Project Control (Surveyor shall recover and/or reset H&V Control Points as provided by the Engineer and create Survey Data Sheets for inclusion in the Project Plans.
- No traverse should exceed 25 angle points. Planimetrics shall be 20 ft Lt & Rt from the proposed ROW as per the schematic provided by the Engineer.
- The unadjusted angular error should not exceed 2 seconds per angle, plus 14 seconds.
- The unadjusted ratio of precision should be one part in 10,000 or better. (The ratio of precision is the total length of the traverse divided by the total error.)
- The unadjusted vertical error should not exceed 0.03 foot per mile of traverse.

(1) Project control base lines

NO (2) Photogrammetric ground control
NO (a) Establish horizontal control
NO (b) Establish vertical control points
NO (c) Place and maintain control point targets

YES NO c. Other Field Surveying

(1) **The limit of the Design surveys shall be 500-ft before and after the limits of the project as identified by the Project Engineer on the schematic. Establish horizontal and vertical control.** Set benchmarks at 1000-ft intervals along the project proposed right-of-way. Provide x,y,z for each Benchmak. Provide a BM along each outfall identified on the Hydrologic Map. The BM's shall be #5 I.R. 2-ft in depth set in concrete. **The surveyor shall provide A H&V Book (a Sample shall be provided by the Engineer to the Surveyor).** The Surveyor will provide a 3-pt reference sketch with ties to the BMs for inclusion the the existing H&V Control Book. Establish benchmark circuit throughout the project with a tolerance of 0.03'/ft per mile error vertically.
(2) Complete topographic and cross section survey, data processing, and CADD mapping (2D 3D) for the limits of the project.
(3) Locate all visible utilities, data processing and CADD mapping (2D & 3D) including irrigation lines. Follow sample provided by the Engineer.
(4) Field locate cross culverts, driveway culverts, inverts, irrigation lines, within the project limits, data processing and CADD mapping (2D & 3D).
(5) Right of Entry, Right of Way Research, and Appraisal District Records is the responsibility of the Surveyor.
(6) The Surveyor shall also paint the proposed centerline on the existing pavement as approved by Engineer. (500-ft stations and a tick mark at 100-ft. stations –12

inches long with approved paint by Engineer) before construction for the purpose of utility adjustments and project location.

(7) Profile and cross section intersecting streets for ties into project (500-ft. beyond the proposed ROW per schematic and 20-ft wider than the existing ROW of intersecting street). Reference missing voids as per CD provided by the Engineer.

(8) Cross section irrigation crossings for a distance of 20-ft beyond the proposed ROW at 100-ft intervals in a DTM file. Provide a complete description of irrigation appurtances as identified by the engineer sample layout.

(9) Tie Horizontally and Vertically the existing storm drain system that lies within the existing proposed ROW including the elevation of the outfall of said recovered existing storm drain systems.

YES NO (10) Tie to existing underground and overhead utilities (location, elevation and direction)
Horizontally – the surveyor shall call the 1-800 number for the utilities to be marked on the ground as well as any city water and sewer lines. He shall tie all visible utility crossings with name, address and Phone #'s of utility companies. The engineer will coordinate with the utility companies and jointly the Surveyor and the Engineer will identify which utilities were missed and need to be tied down.
Vertically – The engineer shall identify all utilities that are potential conflicts and that need to be tied vertically. The engineer will advise the surveyor in writing of the needed vertical ties and the surveyor will tie the lines vertically once the surveyor has coordinated the exposure and provide the information to the engineer.

YES NO (11) Additional Field Surveying as shown below:

(A) IRRIGATION LINES – The surveyor will meet with the engineer before he ties down any irrigation lines. The Engineer will provide him the existing Irrigation District Maps and the A&M Data of existing irrigation lines that are identified of record. He will follow the sample given to him by the engineer and tie the structures horizontally and vertically and provide Field Books to the engineer.

(B) OUTFALLS – The surveyor will provide a complete 2D & 3D File including utilities of the outfall identified on the Hydrologic Map.

Driveways and Turnouts

(a) Inventory commercial entrances, public roads and side streets separately.
(b) Obtain centerline station. (Width at ROW, PAV'T and existing radius.
(c) Inventory by type (dirt, caliche, gravel or paved). If paved, indicate condition in terms of no patches, has patches or has potholes. Obtain width at R.O.W. line.
(e) Obtain elevations at both edges of the driveway or turnout in line with the side drain.

YES NO (13) ROW staking (Existing and Proposed @ 1,000 ft. stations PC's PT's and Angle points as per ROW Map)

NO NO (14) Soil core hole staking -

YES NO (15) Determine changes in topography from voids and outdated maps due to development, erosion, etc.

YES NO (16) Profiles of existing drainage facilities

NO NO (17) Measurement of hydraulic opening under existing bridges

YES NO (18) Obtain elevations of manholes and valves of utilities

YES NO (19) Provide temporary signs, traffic control, flags, safety equipment, etc.

YES NO (20) Ties to existing bridges or culverts that may conflict with new construction.

N/A N/A (21) Bridge widening top of deck and/or top of cap elevations at the Profile Grade Line (PGL) and the edges of slab at bent locations.

YES N/A (22) Inventory signs, mailboxes, and driveways

YES N/A (23) Survey controlled data sheets per TxDOT guidelines.

Services Provided By: Engineer	County	
N/A	N/A	2. Photogrammetric Products a. Uncontrolled Photography (1) Contact Prints (2) Mosaics (3) Digital ortho plots b. Mapping (1) Planimetric Maps (2) Contour Maps (3) Cross Sections (4) Profiles (5) Digital Terrain Models (DTM)

ROADWAY DESIGN CONTROLS
(Function Code 160)

Services Provided By: Engineer	County	
		1. Geometric Design
NO	NO	a. Horizontal and Vertical Alignment
NO	NO	b. Schematic Layout (Completed)

(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.

Services Provided By: Engineer	County	
NO	NO	2. General Guidelines for Project Development (Completed)

a. Prior to preparing detailed plans for a proposed project, a preliminary schematic layout shall be prepared which indicates the general geometric features and location requirements peculiar to the project. An uncontrolled aerial mosaic will be provided for this use. Four copies of the schematic layout shall be submitted through the district to the Design Division for approval and subsequent coordination with the Federal Highway Administration (FHWA) where applicable.

   The layout shall be submitted for two-lane arterial highway projects on new locations and for all multi-lane highway projects. **No geometric design is to be performed until the COUNTY has given the engineer written approval of the preliminary schematic layout.**

b. All geometric design shall be in conformance with the State's Design Division, Operations and Procedures Manual, except where variances are permitted in writing by the STATE.

c. The schematic layout shall include basic information which is necessary for the proper review and evaluation including the items listed above in the checklist for schematic layout.

d. Handling of traffic during construction shall be a consideration in the development of preliminary designs.

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.

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.

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.

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. **Accuracy of the earthwork design is of utmost importance since it is the basis for contractor payments and construction staking.**

N/A	NO	3. Exhibit for Airway/Highway Clearance Permits

Services Provided By: Engineer	County		
		4.	Grading Design
YES	NO	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 superelevation rate.
YES	NO	b.	Typical Sections
YES	NO	c.	Design Cross Sections
YES	NO	d.	Determine Cut and Fill Quantities
N/A	NO	e.	Slope Stability Analysis
N/A	N/A	f.	Embankment Foundation Stability Analysis
N/A	N/A	g.	Embankment Settlement Analysis
		5.	Pavement Design
YES	NO	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.
YES	NO	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.
		c.	Embankment and Subgrade
			(1) Soil Core Holes (Show cost estimate with Function Code 110)
YES	NO		(a) Along center line
NO	NO		(b) Along center line of each roadway The location and minimum number of soil core holes required for this project are as follows: (To be determined when schematic is being completed)
YES	NO		(2) Identify, interpret and summarize geologic features that affect engineering design (PI, Sulfate content, % of lime)
NO	NO	d.	Traffic Data for Pavement Design by **STATE**
YES	NO	e.	Basic Design Criteria
YES	NO	f.	Life Cycle Cost Analysis (es)
YES	NO	g.	Cost Data
YES	NO	h.	Pavement Material Properties

Services Provided By: Engineer	County	
		5. Pavement Design (Continued)
YES	NO	i. Rehabilitation Investigations
YES	NO	(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 TxDOT.

DRAINAGE
(Function Code 161)

Services Provided By: Engineer	County	

All hydraulic design shall be in accordance with the TxDOT's Hydraulic Manual, except where variances are permitted in writing by the **COUNTY**.

1. Hydrologic Studies, Discharges

NO	NO	a. Drainage area maps showing existing conditions and proposed improvements.
YES	NO	b. Hydrologic data/discharge determination

2. Hydraulic Drainage Study and Documentation

		a. Hydraulic computations
N/A	N/A	(1) Storm water detention available within the ROW (linear ft. along side drain ditch).
YES	NO	(2) Storm water detention required outside the ROW (as per HCDD#1)
YES	NO	(3) Culverts
NO	NO	(4) Bridge waterways
NO	NO	(5) Channels
YES	NO	(6) Storm sewers/inlets
NO	NO	(7) Pump stations
YES	NO	(8) Storm Water Management facilities
YES	N/A	(9) Other
		(a) Irrigation Canals/Siphons
NO	NO	b. Hydraulic report(s)
NO	N/A	c. Federal Emergency Management Agency (FEMA) floodway requirements
YES	N/A	d. Determine impact of proposed drainage plan on the following receiving stream(s)
		(1) Hidalgo County Drainage District Outfalls
		(2) All Irrigation District Outfalls impacted

Services Provided By: Engineer	County		
		3.	Layout, Structural Design and Detailing of Drainage Features
		a.	Culverts
YES	NO		(1) New culverts
YES	NO		(2) Culvert widening and/or lengthening
YES	NO		(3) Culvert replacements
		b.	Storm sewers
YES	NO		(1) New storm sewers
YES	NO		(2) Modify existing storm sewers
YES	NO		(3) Inlets
YES	NO		(4) Manholes
YES	NO		(5) Trunk lines
		c.	Pump stations
NO	NO		(1)
NO	NO	d.	Subsurface drainage at retaining walls
YES	N/A	e.	Outfall channel(s) within the ROW
YES	NO	f.	Outfall channel(s) outside the ROW
NO	NO	g.	Detention Pond(s) within the ROW
NO	NO	h.	Detention Pond(s) outside the ROW
YES	NO	i.	Summary of Quantities
NO	NO	j.	Storm Water Management facilities
YES	NO	4.	Storm Water Pollution Prevention Plan (SW3P)
NO	NO	5.	Scour Evaluation - Waterway Structures only (to be completed by Bridge Engineer under FC 170).

SIGNING, MARKINGS AND SIGNALIZATION
(Function Code 162)

Services Provided By:
Engineer County

YES NO 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
   (11) Quantities of existing pavement markings to be removed
   (12) 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

YES NO 2. Summary of Small Signs Tabulation

NO NO 3. Summary of Large Signs Tabulation including all Guide Signs

YES NO 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

Services Provided By: Engineer	County	
		5. Traffic Signals
		a. Development of Justification (Warrant) Data
YES	NO	(1) Location Map Relationship of proposed installation to other traffic signals, highways, business areas and traffic generators
YES	NO	(2) Photographs as appropriate
YES	NO	(3) Accident data as appropriate
		(4) Vehicle volumes (provided by TxDOT)
YES	NO	(a) Existing
YES	NO	(b) Estimated
YES	NO	(c) Projected
YES	NO	(d) Pedestrian
YES	NO	(5) Traffic Survey - Count Analysis
YES	NO	(6) Recommendation based on above data
YES	NO	b. Layout
		(1) Title Sheet (when applicable)
		(a) Describe the location
		(b) Type of installation
		(c) Area map with project limits for each location
		(d) Index of sheets
		(e) Space for official signatures
		(2) Estimate and quantity sheet (when applicable)
		(a) List of all bid items
		(b) Bid item quantities
		(c) Specification item number
		(d) Paid item description and unit of measure
		(3) Basis of estimate sheet (list of materials)
		(4) General notes and specification data sheet
		(5) Condition diagram
		(a) Highway and intersection design features
		(b) Roadside development
		(c) Traffic control including illumination
		(6) Plan sheet(s)
		(a) Existing traffic control that will remain (signs and markings)
		(b) Existing utilities
		(c) Proposed highway improvements
		(d) Proposed installation
		(e) Proposed additional traffic controls
		(f) When applicable, proposed conduit for Railroad interconnect with standard details for runs under tracks.
		(g) Proposed illumination attached to signal poles.
		(7) Notes for plan layout
		(8) Elevation sheet(s) (span wire design)

Services Provided By:
Engineer County

5. Traffic Signals (Continued)

(9) Phase sequence diagram(s)

(a) Signal locations
(b) Signal indications
(c) Phase diagram
(d) Signal sequence table
(e) Flashing operation (normal and emergency)
(f) Preemption operation (when applicable)
(g) Interval timing, cycle length and offset

(10) Construction detail sheets(s)
(a) Poles (TxDOT standard sheets)
(b) Detectors
(c) Pull Box and conduit layout
(d) Controller Foundation standard sheet

(11) Marking details (when applicable)

(12) Barricade and warning sign standard sheet and any special details for work zone traffic control for special conditions

(13) Aerial or underground interconnect details (when applicable)

c. General Requirements

(1) Contact local utility company

YES NO (a) Confirm power source
YES NO (b) Discuss route of aerial or underground interconnect cable (when applicable)
YES NO (c) Adjustment of overhead utility lines
YES NO (2) Prepare governing specifications and special provisions list
YES NO (3) Prepare project estimate

YES NO d. Summary of Quantities

MISCELLANEOUS (ROADWAY)
(Function Code 163)

Services Provided By: Engineer	County		
		1.	Retaining Walls
		a.	Structural Details
NO	NO		(1) Cast-in-Place Cantilever at _____ locations. (TxDOT Standard Retaining Wall)*
NO	NO		(2) Tiedback Retaining Wall at _____ location. (TxDOT standard retaining wall)
NO	NO		(3) Specialized Retaining Wall at _____ locations (Unique Design).*
		b.	Alternate Patented Retaining Walls at _all_ locations. (Layouts Only)**
NO	NO		(1) Mechanically Stabilized Earth
NO	NO		(2) Concrete Block Wall Systems
NO	NO		(3)
NO	NO	c.	Retaining Wall Layout (PLAN)
			(1) Designation of reference line
			(2) Beginning and ending retaining wall stations
			(3) Station of each retaining wall joint***
			(4) Offset from reference line
			(5) Horizontal curve data
			(6) Number of retaining wall panels and lengths***
			(7) Total length of wall
			(8) Indicate face of wall
			(9) All wall dimensions and alignment relations (alignment data as necessary)
			(10) Soil core hole locations
NO	NO	d.	Retaining Wall Layout (ELEVATION)
			(1) Top of wall elevations at each joint*** or intervals****
			(2) Existing and finished ground line elevations
			(3) Height of stem at each joint***
			(4) Wall panel designations***
			(5) Top of footing elevations***
			(6) Limits of measurement for payment****
			(7) Type, limits and anchorage details of railing (If applicable)
			(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.
NO	NO	e.	Foundation Studies (Show cost estimate with Function Code 110)
NO	NO		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.
NO	NO	f.	Stability Analysis (the Engineer shall estimate this task as part of his bid to complete the work).
NO	NO	g.	Estimate
NO	NO	h.	Summary of Quantities
NO	NO	i.	Typical X-section.

Services Provided By:
Engineer County

1. Retaining Walls (continued)

NO

j. General Guidelines for Retaining Walls
   (1) The **engineer** shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. **The designer and checker shall check all calculations and initial each page.**
   (2) The ground water level should be observed at the water strike.
   (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.
   (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.

YES NO 2. Traffic Control Plan, Detours and Sequence of Construction

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:

a. The sequence of construction and method of handling traffic during each phase.
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.
c. The proposed traffic control devices (stop signs, signals, flagperson, etc.) at grade intersections during each construction sequence.
d. Where detours are provided, typical cross sections shall be shown.
e. Road construction work hours shall be developed after an investigation of the traffic volumes has been performed.

Services Provided By: Engineer	County	
		3. Illumination
NO	N/A	a. Preliminary Roadway Illumination Layout and Circuit Layout
		(1) For projects involving freeway to freeway or other types of directional interchanges and projects including left-hand ramps or connections, provide the following:
		(a) The location of interchanges, main lanes, grade separations, frontage roads and ramps
		(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
		(c) The number of lanes in each section of proposed highway and the location of changes in the number of lanes
		(d The projected traffic volumes as provided by the STATE (20 year traffic projection unless otherwise determined by the district engineer)
		(e) Tentative ROW limits
		(f) Direction of traffic flow on all roadways
		(g) Main lane, ramp, frontage road, and necessary cross road profiles at proposed interchanges or grade separations
NO	NO	b. Final Roadway Illumination and Electrical Circuit Layouts
		(1) Roadway layout showing pavement edges and shoulders, curbs, retaining walls, etc.
		(2) Center line with station numbering.
		(3) ROW lines.
		(4) Symbol legend. Use department standard symbols for lighting and electrical.
		(5) Culverts and other structures that present a hazard to traffic.
		(6) Location of underground utilities, if not shown on plan profile.
		(7) Location of overhead electrical lines, both crossing and parallel to ROW.
		(8) Existing sign lighting circuits and roadway illumination to remain, to be removed, to be relocated.
		(9) Existing service poles, electrical circuits, ground boxes, etc.
		(10) Contact electric utility for service pole locations, voltage characteristics.
		(11) Location of proposed sign lighting circuits and roadway illumination.
		(12) Proposed electrical circuits.
		(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.
NO		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.

Services Provided By: Engineer	County		
		4.	Miscellaneous Drafting/Standards
YES	NO		a. Erosion Control
NO	NO		b. Landscape Development
YES	NO	5.	Compute and Tabulate Quantities
NO	NO	6.	Special Utility Details (Irrigation lines)
		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.
NO	NO		(a) New O.S.B. structure(s)
NO	NO		(b) Structural evaluation of existing O.S.B. structure(s) that are to remain in place or to be relocated.
NO	NO		(2) High Mast Illumination Poles (HMIP)
YES	NO		(3) Traffic Signal Supports
NO	NO		(4) Conventional Illumination Poles
NO	NO		(5) Sound Barrier Walls
YES	NO		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
NO	NO		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
NO	NO		a. Utility Agreements
NO	NO		b. Exhibits for Utility Agreements
N/A	NO		c. Railroad Agreements
			d. Railroad Exhibits
N/A	N/A		(1) Railroad Underpasses
N/A	N/A		(2) Railroad Overpasses
N/A	N/A		(3) Railroad Grade Crossing (Replanking)
N/A	N/A		(4) Railroad Grade Crossing Warning Systems (Signals)
N/A	N/A		(5) Other Miscellaneous Sketches for Railroads
NO	NO		e. Traffic Signal Agreements
NO	NO		f. Exhibits for Traffic Signal Agreements
YES	NO	9.	Estimate
YES	NO	10.	Specifications and General Notes

BRIDGE DESIGN
(Function Code 170)

Services Provided By: Engineer	County		NUMBER REQUIRED
		1. Preparation of Structural Details	
		a. New Structure(s)	
NO	NO	(1) Underpass(es)	_____
NO	NO	(2) Overpass(es)	_____
N/A	N/A	(3) Main Lanes	_____
N/A	NA	(4) Direct Connector(s)	_____
N/A	N/A	(5) Ramp Bridge(s)	_____
NO	N/A	(6) Waterway Structure(s)**	_____
N/A	N/A	(7) Pedestrian Structure(s)	_____
N/A	N/A	(8) Utility Structure(s)	_____
N/A	N/A	(9) Railroad Underpass(es)	_____
N/A	N/A	(10) Railroad Overpass(es)	_____
N/A	N/A	11) Bridge Classification Culvert(s)**	
N/A	N/A	(11) Alternate Structural Designs	_____
N/A	N/A	(12) Alternate Foundation Design	
		Total New Structures =	_____
		b. Existing Structure(s)	_____
NO	NO	(1) Bridge Widening, Rehabilitation and/or Modification of Existing Structure(s)	_____
NO	NO	(2) Bridge Replacement	_____
NO	NO	(3) Raising Bridge Elevation	_____
NO	NO	(4) Bridge Classification Culvert(s) Widening and/or Modification of Existing Structures(s)	_____
N/A	N/A	(5) Railroad Overpass(es)	_____
N/A	N/A	(6) Railroad Underpass(es)	_____
N/A	N/A	(7)	_____
		Total Existing Structures =	0

* 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.

Services Provided By: Engineer	County	
NO	NO	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 superelevation 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.

Services Provided By: Engineer	County		
		2.	Preparation of Bridge Layouts (each bridge) (Continued)
			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.
			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.
NO	NO	3.	Bridge Classification Culvert, Estimate, Quantities, and Specifications (each bridge)
NO	NO	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).
NO	NO	5.	Bridge Total Quantities and Cost Estimates (each bridge)
NO	NO	6.	Bridge Special Provisions and Specifications (each bridge)
NO	NO	7.	Bearing seat elevations for each beam or girder. Top of cap elevations for non-beam type structures.

Services Provided By:
Engineer County

NO 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. **No bridge design work is to be performed until the COUNTY has given the engineer written approval of the preliminary bridge layout.**

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.

Services
Provided By:
Engineer 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.

FC 600 – ACQUISITION PROVIDER SERVICES

(Services to be provided by L&G Engineering)

1) Project Administration

a) Negotiation of Scope of Services for Work Authorization
   i) Acquisition Provider will visit project site with COUNTY personnel if necessary.

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.

c) Overhead Costs
   i) Administrative costs

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.

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.

2) Title Services

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.

b) Secure title commitments updates in accord 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.

c) Secure title insurance for all parcels acquired, insuring acceptable title to the County of Hidalgo. Written approval by the County required for any exception. Title Insurance shall be paid for by Hidalgo County.

3) Appraisal

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.

b) Secure written permission (if necessary) from the owner to enter the property from which land is to be acquired. If the Acquisition Provider, after diligent effort, is 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.

c) Prepare (if necessary) pre-appraisal contact with interest owner(s) for each parcel using acceptable County/TxDOT forms.

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.

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 County policies and procedures along with the Uniform Standards of Professional Appraisal Practices.

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.

g) All completed appraisals will be administratively reviewed by L&G Engineering ROW Office and recommended for approval by the County of Hidalgo.

h) As necessary, the appraiser will appear and or testify as an Expert Witness in eminent domain proceedings and be available for pre-hearing or pre-trial meetings as directed by L&G Engineering and/or the County.

i) As necessary, the appraiser will coordinate with review appraiser regarding revisions, comments, or additional information that may be required.

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.

4) **Appraisal Review**

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.

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.

c) Prepare and submit to the County the Form ROW-RTA-10 "Tabulation of Values", for each appraisal.

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.

5) **Appraisal Updates**

a) Prepare complete appraisal update for the parcel to be acquired utilizing TxDOT Form No. ROW-A-5, which will be furnished to the provider by TxDOT. These reports shall conform to County/TxDOT policies and procedures along with the Uniform Standards of Professional Appraisal Practices.

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 the County of Hidalgo.

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.

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.

e) As necessary, the appraiser will coordinate with the review appraiser regarding corrections and/or additional information that may be required.

6) Negotiation, Tasks, and Fees

a) Analyze appraisal and appraisal review reports and confirm the County's approved value prior to making offer for each parcel.

b) Analyze preliminary title report to determine potential title problems, propose methods to cure title deficiencies.

c) Prepare the initial offer letter, instruments of conveyance, and any other documents required or requested by County/TxDOT on applicable County/TxDOT forms.

d) Contact each property owner or owner's designated representative, to present the written offer in person where practical, and deliver appraisal report and required brochures. Maintain follow-up contacts and secure the necessary instruments upon acceptance of the offer for the closing.

e) Provide a copy of the appraisal report for the subject property exclusively to the property owner or authorized representative at the time of the offer. Maintain original signed Receipt of Appraisal, (unless property owner refuses to sign it, it will be so noted) for billing purposes.

f) Respond to property owner inquiries verbally and in writing within two business days.

g) Prepare a separate negotiator contact report for each parcel per contact.

h) Maintain parcel files of original documentation related to the purchase of the real property or property interests.

i) Advise property owner on the Administrative Settlement process. Transmit to County 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.

j) Prepare final offer letter, documents of conveyance as necessary.

k) Appear and provide Expert Witness testimony as an Acquisition Provider when requested.

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.

m) Provide a monthly progress report per parcel by the 25th of the month with invoice.

n) The consultant shall, as part of this proposal, estimate 10% of the 55 parcels may end up in condemnation. The consultant shall be available for any meeting/hearings as requested by the County Attorney.

7) Closing Service Fees

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.

b) Acquisition Provider shall attend closings and provide closing services in conjunction with Title Company.

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 County for acceptance by the County Commissioners.

8) Relocation Assistance Services (N/A)

1) There are an estimated 0 relocations or displacements for this contract and L&G will provide relocation advisory services. L&G will compute replacement housing supplements (owner occupant and/or tenants)

2) L&G will provide advisory services to business displacements and relocate them effectively. (N/A)

3) TxDOT will review, approve and pay for all relocation costs as per ROW Agreement. (N/A)

9) Condemnation Support

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. Spouses of owners must also be joined.

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, Pre-appraisal 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 Court 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.

d) 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.
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.

ADDITIONAL RESPONSIBILITIES

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

Whenever possible, 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, to the extent possible, 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 CADDSEALed 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.

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 Company.

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:

Service	Office Location
PS&E	Mission Office
ROW Acqusition Services	Mission Office

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

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

APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE (Continued)

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

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 Diaphrams
    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

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

APPENDIX A - PLAN SHEET SEQUENCE PROCEDURE (Continued)

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

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.

APPENDIX B - PLAN PREPARATION PROCEDURES (Continued)

11. Runoff, Inlet, Storm Sewer and Culvert Sheets
    Use standard sheets.

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**.

APPENDIX C - GENERAL PLAN CHECKLIST

Services Provided By: Engineer	County	
YES	N/A	Title Sheet
YES	N/A	Project Layout
YES	N/A	Sequence of Work
YES	N/A	Detour Layouts & Profiles
YES	N/A	Construction Pavement Markings
YES	N/A	Signing & Barricades
YES	N/A	Construction Sign & Beacons
YES	N/A	Typical Sections
YES	N/A	Shaping & Finishing Sections
YES	N/A	Slopes Adjacent to Shoulders
YES	N/A	Estimate & Quantities
YES	N/A	General Notes & Specification Data
YES	N/A	Grading Summary
YES	N/A	Miscellaneous Summaries (See following "SUMMARIES" heading)
YES	N/A	Horizontal Curve Data & Alignment Layouts
YES	N/A	Drainage Summaries
YES	N/A	Structure Summaries
YES	N/A	Erosion Control Summary & Details
YES	N/A	Plan/Profile Sheets
YES	N/A	Erosion Control Summary & Details
YES	N/A	Pavement Contours
YES	N/A	Superelevation Transition (If Required)
YES	N/A	Grading Contours
YES	N/A	Guard Fence Layouts
YES	N/A	Storm Water Pollution Prevention Plans (SW3P)
YES	N/A	Drainage Area Maps
YES	N/A	Hydraulic Data
YES	N/A	Drainage Sheets
YES	N/A	Bridge Hydrology Sheets
YES	N/A	Inlet & Manhole Details
YES	N/A	Utility Support Details
YES	N/A	Culvert Cross Sections & Details
YES	N/A	Special Culvert Designs
YES	N/A	Special Drainage Details
YES	N/A	Chain Link Fence Locations
YES	NO	Ramp Details Sheet
YES	N/A	Removal Item Sheet - Including detours (Shown in detour summary, No payment for removal; subsidiary to construction detours)
YES	NO	Pavement Details
N/A	N/A	Pavement Standard Modification for Concrete Shoulder
N/A	N/A	Concrete Pavement Continuously Reinforced (CPCR)

APPENDIX C - GENERAL PLAN CHECKLIST (Continued)

Services Provided By: Engineer	County	
N/A	N/A	Concrete Pavement Contraction Design (CPCD)
N/A	N/A	Concrete Pavement Details - Jointed Reinforced (Steel Bars) (CPJR)
YES	N/A	Bridge Approach Slab Details
YES	N/A	Vehicle Attenuator Details
YES	N/A	Miscellaneous Details
YES	N/A	Wheelchair Ramps
YES	N/A	Pavement Marking Details
YES	N/A	Modified Standards
YES	N/A	List of Standards
YES	N/A	Permanent Signing Plans & Quantities
YES	N/A	Permanent Lighting Plans, Quantities & Standards
YES	N/A	Bridge Layout(s)
YES	NO	Bridge Details
YES	N/A	Retaining Wall Layout(s)
YES	N/A	Retaining Wall Details
N/A	N/A	Pumphouse Details
YES	N/A	Underdrain Details (Retaining Walls)
YES	N/A	Culvert Standards
N/A	N/A	Soil Profile
YES	N/A	Temporary Traffic Signals
YES	N/A	Design Cross Sections
YES	NO	Estimate
YES	N/A	List of Standard Specification, Special Provisions & Special Specifications
YES	N/A	Detour Special Provisions (If Required)
YES	N/A	Construction Time Estimate
NO	N/A	Critical Path Method (CPM)
YES	NO	Unit Price Documentation

APPENDIX C - GENERAL PLAN CHECKLIST (Continued)

Services Provided By: Engineer	County	
Miscellaneous		
YES	N/A	Conduit Requirements
YES	N/A	Traffic signal Requirements

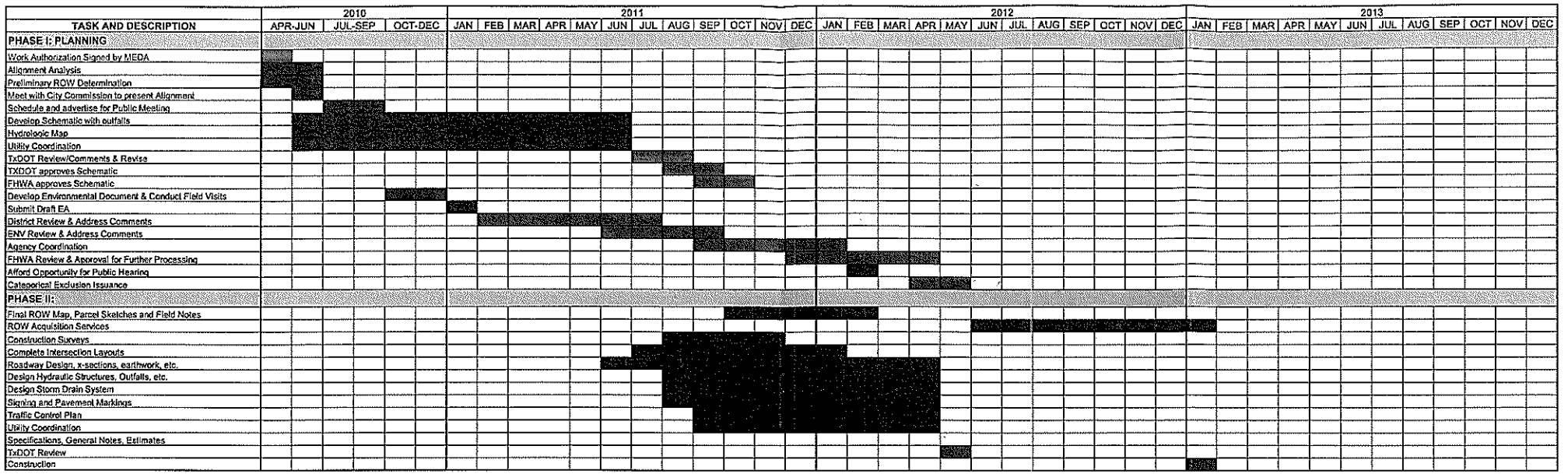
Summaries **(ALL BELOW YES FOR ENGINEER AND NO FOR COUNTY UNLESS NOTED OTHERWISE)**

___	___	Salvaging and Placing Topsoil
___	___	Prepare ROW
___	___	Remove Old Structures
___	___	Scarify Existing Pavement
___	___	Remove Old Concrete Curb of Curb and Gutter (C&G)
___	___	Remove Old Concrete Pavement
___	___	Remove Old Concrete Riprap
___	___	Remove Metal Beam Guard Fence
___	___	Galvanized steel Beam Guard Fence (12Ga) (GSBGF)
___	___	Temporary Guard Fence (TEMPGF)
___	___	Summary of Concrete Flumes
___	___	Curbs
___	___	Adjust Manholes & Inlets
NO	___	Underdrains
___	___	Base and Pavement
___	___	Large Structure
___	___	Concrete Riprap (RR8 & RR9)
___	___	Temporary Portable Concrete Barrier (PCBR)
___	___	Concrete Traffic Barrier
___	___	Vehicle Attenuator
___	___	Guard Rail Energy Absorbing Terminal (Great System)
___	___	Pavement Markings & Blast Cleaning (Thermoplastic)
___	___	Retaining Walls
___	___	Large Structure Summaries
___	___	Small Structure Summaries
___	___	Earthwork (Roadway & Channel) & Channel Details
___	___	Culverts
___	___	Detours
___	___	Seeding or Mulch Sod - Quantity Only
___	___	Inlet & Manholes
___	___	Sidewalks
___	___	Construction Pavement Markings
___	___	Driveways
___	___	Concrete Median
___	___	Storm Sewers
___	___	Head Walls & Safety End Treatments
___	___	Curb Openings
___	___	Manholes
___	___	Chain Link Fence, Remove & Replace Chain Link Fence
___	___	Remove & Relay Reinforced Concrete Pipe (RCP) or Pipe Sewer

PROJECT: MILE 2 NORTH
LIMITS: from SH 107 (Conway) West to La Homa Road (SH 364)

EXHIBIT "C"
WORK SCHEDULE

7/29/2011



L&G ENGNEERING TASK
CITY TASK
STATE TASK

EXHIBIT D
CONTRACT RATES

L & G Engineering

Transportation Consulting Engineers

Audited Overhead Rates 2009

Labor/Staff Classification	Hourly Base Rate	Contract Rate FY 11	Contract Rate FY 12	Contract Rate FY 13
Principal	$ -	$ -	$ -	$ -
Senior Project Manager	$ 72.00	$ 210.96	$ 217.29	$ 223.81
Senior Engineer	$ 60.00	$ 175.80	$ 181.07	$ 186.51
Project Engineer	$ 43.00	$ 125.99	$ 129.77	$ 133.66
Design Engineer	$ 38.00	$ 111.34	$ 114.68	$ 118.12
EIT	$ 26.00	$ 76.18	$ 78.47	$ 80.82
Senior Engineer Tech	$ 25.00	$ 73.25	$ 75.45	$ 77.71
Engineer Tech	$ 24.00	$ 70.32	$ 72.43	$ 74.60
CADD Operator	$ 21.00	$ 61.53	$ 63.38	$ 65.28
ROW Administrator	$ 34.00	$ 99.62	$ 102.61	$ 105.69
ROW Negotiator	$ 31.00	$ 90.83	$ 93.55	$ 96.36
Biologist	$ 16.00	$ 46.88	$ 48.29	$ 49.73
Senior Environmental Scientist/Specialist	$ 43.00	$ 125.99	$ 129.77	$ 133.66
Environmental Secientist/ Specialist	$ 25.00	$ 73.25	$ 75.45	$ 77.71
Admin/Clerical	$ 18.00	$ 52.74	$ 54.32	$ 55.95

Contract Rates include labor, overhead, and profit.
Contract Rates to be used to derive lump sum totals.
All rates are negotiated rates and are not subject to change or adjustment.

Percent complete to be billed.

Other Direct Expenses:	Cost
Lodging	$85/night
Meals	$36/day
Mileage	$0.55/mile
Car Rental	$60.00/Day
Air Travel (Coach/Business Class)	**At Cost**
8 1/2" X 11" copies	$1.00/sheet
11" X 17" copies	$1.50/sheet
11" X 17" Mylar	$2.00/sheet
Overnight Mail - Letter Size	$15.00/Each
Overnight Mail - Oversized Box	$25.00/Each

Approved (JG) 07/15/2011
Revision No. 4

EXHIBIT "D-1"
FEE SCHEDULE

	TOTAL PROJECT ESTIMATE AND ENGINEERING FEE FOR MILE 2 (PROJECT 2B) COUNTY ROADWAY
ROADWAY PROJECT:	**MILE 2 (PROJECT 2B)**
LIMITS:	MOOREFIELD ROAD TO LA HOMA ROAD (SH 364)
EXISTING ROADWAY SECTION:	2-LANE RURAL
EXISTING ROW WIDTH:	VARIES 40-FT TO 70-FT
PROPOSED ROADWAY SECTION:	4-LANE URBAN ROADWAY
PROPOSED ROW WIDTH:	70-FT
AVAILABLE FUNDING AT MPO...(From MPO TIP Program - CAT 7 FUNDING).....	$1,246,000.00
ESTIMATED CONSTRUCTION COST...($2.1 Mil/Mile).....	$1,050,000.00
LENGTH: (MILES).....	0.54

ESTIMATED PROJECT COSTS	*STATE/FED*	*LOCAL*
ROADWAY CONSTRUCTION COST (80/20 minus EDC) Assume (95/5)	$997,500.00	$52,500.00
PHASE I - PLANNING -		
Schematic		PAID
Preliminary Office ROW Mapping		PAID
Hydrologic Map for identification of Proposed Outfalls		PAID
Preliminary utility Research for Schematic Identification and cost		PAID
Public Involvement and Environmental Document		PAID
PHASE II - DESIGN, RIGHT OF WAY COSTS AND CONST. INSPECTION WORK AUTH. NO. 9		
Compensible Utilities (Estimated) (Eligible for 80/20)	$ 103,320.00	$ 25,830.00
Eng work Associated with Coordinating Adjustment of Compensable Utilities		$ 45,878.33
Hydrologic Map for the merging of Drainage Basin from Mile 2 to La Homa		$ 30,000.00
ROW Mapping & ROW Field Recovery		$ 56,500.00
Roadway Right-of-Way Costs (Land, Relocations ..)(Eligible for 80/20)	$ -	$ 93,000.00
Outfall Roadway Right-of-Way Costs (land)(Eligible for 80/20)	$ -	$ -
Roadway Right-of-Way Costs - **Acq.Services**		$ 130,500.00
PS&E Development (7% of construction cost)		$ 73,500.00
Design Surveys		$ 21,600.00
Design of Irrigation Structures and Outfalls		$ 15,000.00
Surveys for Outfalls		$ 15,000.00
Signing		$ 11,329.30
Pav't Markings		$ 6,323.80
Signal Design		$ 12,974.90
TxDOT Construction Inspection (11%) (80/20 minus EDC) Assume 95/5	$ 109,725.00	$ 5,775.00
L&G Construction Management		$ 72,000.00
ESTIMATED SUB-TOTAL	**$1,210,545.00**	**$667,711.33**
ESTIMATED TOTAL PROJECT COST		**$1,878,256.33**
ESTIMATED AVAILABLE FUNDS FOR PROJECT AT MPO		**$1,246,000.00**

Work Auth. No. 1 **$ 490,606.33**

ESTIMATED LOCAL PARTICIPATION ABOVE THE ISSUED WORK AUTHORIZATION **$177,105.00**

State/FED Eligible Estimated Cost for MPO Funding

Estimated Local Participation above the Issued Work Authorization

Total Project Estimated Cost

Items not included in Work Authorization

8/2/2011

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 07/19/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Willis of Texas, Inc. 1400 N McColl Rd Suite 105 P O Drawer 3785 McAllen, TX 78502	PHONE (A/C, No, Ext): 956 682-9423	FAX (A/C, No): 956871286
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
L&G Consulting Engineers, Inc. dba L&G Engineering 2100 W. Expressway 83 Mercedes, Texas 78570	INSURER A : Landmark American Insurance Com	33138
	INSURER B : Texas Mutual Insurance Company	22945
	INSURER C : Hartford Casualty Ins Co	29424
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY	X	X	LHC730859	07/19/2011	07/19/2012	EACH OCCURRENCE	$2,000,000
	[X] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
	[ ] CLAIMS-MADE [X] OCCUR						MED EXP (Any one person)	$5,000
	[X] BI/PD Ded:10000						PERSONAL & ADV INJURY	$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	[ ] POLICY [ ] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$2,000,000
								$
C	AUTOMOBILE LIABILITY	X	X	65UENKN4458	07/19/2011	07/19/2012	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS [X] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	[ ] UMBRELLA LIAB [ ] OCCUR						EACH OCCURRENCE	$
	[ ] EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	[ ] DED [ ] RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		X	TSF00010203000	07/23/2011	07/23/2012	[X] WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [Y] (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
A	Professional Liab	X	X	LHC730859	07/19/2011	07/19/2012	$2,000,000. Limit	
A	Pollution Liab	X	X	LHC730859	07/19/2011	07/19/2012	$2,000,000. Limit	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

** Workers Comp Information **
Voluntary Compensation
Proprietors/Partners/Executive Officers/Members Excluded:
Jacinto Garza, President
Armando Sandoval, Vice President
(See Attached Descriptions)

CERTIFICATE HOLDER

Hidalgo County Purchasing Dept
Marth L Salazar, CPPB
2812 S Business Hwy 281
Edinburg, TX 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Brian E Lewis

DESCRIPTIONS (Continued from Page 1)

Blanket Waiver of Subrogation

** Supplemental Name **
First Supplemental Name applies to all policies - L & G Engineering Laboratory LLC,L & G Consulting Engineers, In

Hidalgo County is hereby listed as Additional Insured regarding the General Liability and Auto Liability.
Waiver of Subrogation in favor of Certificate Holder.

HIDALGO COUNTY

Professional Engineering Services

Contract # C-_____

EXHIBIT "E"

Work Authorization Form

WORK AUTHORIZATION NO. ____

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article I. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, L & G Consulting Engineers, Inc. *d/b/a* L & G Engineering, professional engineers of Mercedes, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide _____
_____
_____
_____.

The 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 $_____. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Article 6** of the Agreement.

PART 4. FUNDING

This Work Authorization No.1 shall be funded through funding source:
Account No. _____
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scopes of the work authorization.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement.**

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County** _____, Commissioner _____ as to content and detail of this **Work Authorization No. 1.**

HIDALGO COUNTY

BY:_____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____, 2011.

THE ENGINEER:

_____

By: Jacinto Garza, P.E.
President

THE OWNER:
HIDALGO COUNTY

_____

By: Ramon Garcia, County Judge

ATTEST:

_____

By: Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

EXHIBIT "A" – Service to be Provided by the Owner
EXHIBIT "B" – Services to be Provided by the Engineer
EXHIBIT "C" – Work Schedule
EXHIBIT "D" – Fee Schedule

EXHIBIT "F"

Supplemental Agreement Form

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. _____

TO AGREEMENT FOR PROFESSIONAL SERVICES

This **SUPPLEMENTAL AGREEMENT** is made pursuant to the terms and conditions of Article 8 of the Agreement made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and _____, Professional Engineers of, _____, Texas, hereinafter called "**Engineer**".
WITNESSETH

WHEREAS, the **Owner** and the **Engineer** executed the **Agreement** on the ____ day of _____ 2011 concerning engineering for _____ (hereinafter referred to as the "**Project**"); and,

WHEREAS, Article ____ of the **Agreement**, (article title), establishes _____; and,

WHEREAS, it has become necessary to amend the contract to
_____
_____

A. AGREEMENT

NOW THEREFORE, premises considered, the **Owner** and the **Engineer** agree that said **Agreement** is amended as follows:

I. Article _____ of the **Agreement**, (article title), is revised to

_____
_____
_____
_____
_____

All other provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the Engineer and the Owner have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 2011.

THE ENGINEER:
ENGINEER

BY: _____

THE OWNER:
HIDALGO COUNTY

BY: _____
Ramon Garcia, County Judge

LIST OF ATTACHMENTS
(as required)