Supplemental Agreement Form

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. 1
TO WORK AUTHORIZATION NO. 2
TO AGREEMENT FOR PROFESSIONAL SERVICES
C-16-049-02-16

This **SUPPLEMENTAL AGREEMENT** is made pursuant to the terms and conditions of Article 8 of the Agreement made by and between **HIDALGO COUNTY**, hereinafter called the "**Owner**", and **L&G ENGINEERING**, professional engineers of Mercedes, Texas, hereinafter called the "**Engineer**".

WITNESSETH

WHEREAS, the **Owner** and the **Engineer** executed the Main Contract Agreement on the 16th day of February 2016, concerning professional engineering services for the **"Mile 5** project from Taylor Road to FM 2220 (Ware Road)" hereinafter referred to as the "**Project**"; and,

WHEREAS, it has become necessary to amend *Work Authorization No. 2,* in order to contract with a different sub-consultant to complete the surveying on the Project. The following Exhibits are hereby modified to reflect the new sub-consultant's scope of work and the costs associated with said scope:

- *Exhibit D-1 – "Estimated Man-hour Breakdown"*

WHEREAS, it has become necessary to amend *Work Authorization No. 2 Exhibit D-1 - "Estimated Man-Hour Breakdown"* to reflect the cost of the new sub-consultant. This Supplemental will not increase or decrease the original amount of Work Authorization No. 2; ***Therefore, the amount of Supplemental No. 1 to Work Authorization No. 2 remains $1,088,648.18.***

A. AGREEMENT

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

I. Sections of the Agreement, **EXHIBIT B** – "SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER", **EXHIBIT D-1** – "ESTIMATED MAN-HOUR

BREAKDOWN", are revised to reflect the above listed modifications of this Supplemental.

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 _____, 2020.

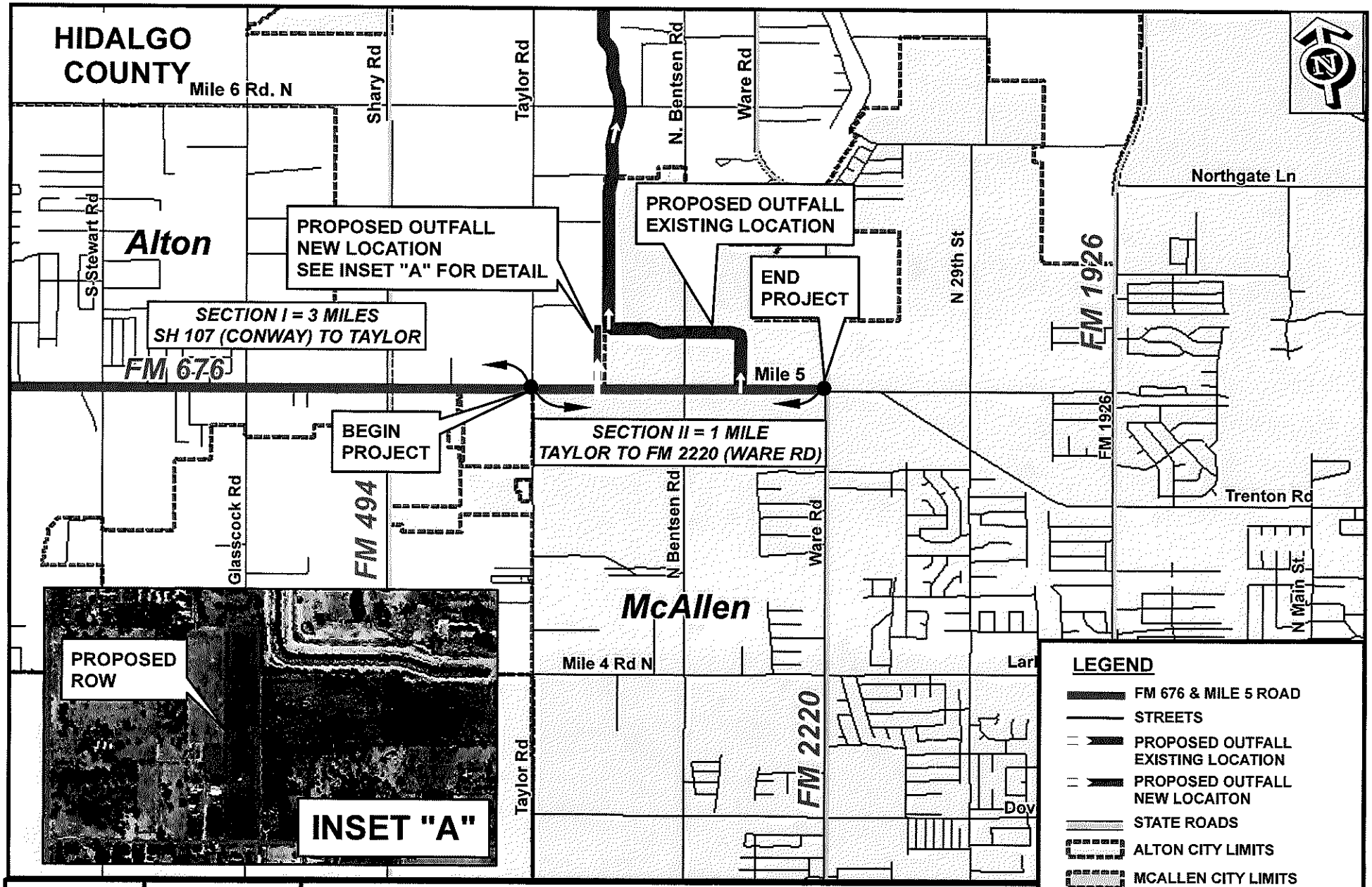
THE ENGINEER:
ENGINEER

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

THE OWNER:
HIDALGO COUNTY

BY: _____
Richard Cortez, County Judge

LIST OF EXHIBITS:
LOCATION MAP
EXHIBIT A – "Services to be provided by the County"
EXHIBIT B – "Services to be provided by the Engineer"
EXHIBIT C – "Work Schedule
EXHIBIT D-1 – "Estimated Man-Hour Breakdown"



MILE 5 PROJECT LOCATION MAP

FROM TAYLOR RD. TO FM 2220 (WARE ROAD)
APPROX. PROJECT LENGTH 1.0 MILES

Texas Department of Transportation

Document Path: R:\2016\01-Hid_Pct3\FM676\GIS\FM676 OUTFALL_LOCATION_MAP_(11-7-2017).mxd

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.

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

SECTION 1-PROJECT DESCRIPTION

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

COUNTY/CITY: Hidalgo County

CONTROL:

PROJECT/DESCRIPTION: Design Survey, SUE Investigations

LENGTH: 1.0 Mile

HIGHWAY: Mile 5 (FM 676)

LIMITS: From Taylor Road to FM 2220 (Ware Road)

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)

ENGINEER shall mean L&G Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

LPA shall mean Hidalgo County

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

SECTION 6 - FIELD SURVEYING AND PHOTOGRAMMETRY
(Function Code 150)

Services Provided By:
SURVEYOR LPA

DESIGN AND CONSTRUCTION SURVEYS:

PURPOSE:

The purpose of a "design survey" is to provide field information in support of transportation systems design.

The purpose of a "construction survey" is to provide field data in support of highway construction.

DEFINITIONS:

A "design survey" is defined as the combined performance of research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3-dimensional) mapping of a project site. A design survey may include, but need not be limited to, cross-sections or data to create cross-sections and Digital Terrain Models (DTM), horizontal and vertical location of utilities and improvements, detailing of bridges and other structures, review of right-of-way maps, establishing control points, etc.

A "construction survey" is defined as the combined performance of reconnaissance, field work, analysis, computation, and documentation necessary to provide the horizontal and vertical position of specific ground points to be used by the construction contractor for determining lines and grades.

1. Design 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

YES NO b. Secondary Project Control – Surveyor shall recover and/or reset H&V Control Points as provided by the Engineer and create Survey Control Data Sheets for inclusion in the Construction Project Plans signed and sealed by an R.P.L.S.
(1) 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.
(2) The unadjusted angular error should not exceed 2 seconds per angle, plus 14 seconds.
(3) 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.)
(4) The unadjusted vertical error should not exceed 0.03 foot per mile of traverse.
(5) Project control base lines

NO NO (6) Photogrammetric ground control
(a) Establish horizontal control

(b) Establish vertical control points
(c) Place and maintain control point targets

Services Provided By:
SURVEYOR LPA

YES NO

c. Other Design 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 as well as the needed outfalls identified on the outfall schematic. Establish horizontal and vertical control.** Set H&V Control at 1000-ft intervals along the project proposed right-of-way. Provide x, y, z for each H&V Control. Provide an H&V Control along each outfall identified on the Hydrologic Map. The H&V Control shall be #5 I.R. 2-ft in depth set in concrete. **The surveyor shall provide an H&V Control 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 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 stake the proposed centerline on the existing fields as approved 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).

(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 "EXHIBIT E". The SURVEYOR will meet with the ENGINEER before he ties down any irrigation lines. Jointly the SURVEYOR and the ENGINEER will identify from records such as the Irrigation District Maps and the A&M Data of existing irrigation lines that will need to be tied down. The SURVEYOR will follow the sample given to him by the ENGINEER and tie the structures horizontally and vertically and include in the field books to be submitted.

(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.

(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.

Services Provided By: SURVEYOR	LPA	
YES	NO	(11) Cross section and profile all outfall channels identified on the Hydrologic Map for a distance of 200-ft beyond the proposed ROW upstream and downstream at 100-ft intervals. The SURVEYOR will provide a complete 2D/3D File including utilities of the outfalls identified.
		(12) 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. (d) Obtain width at R.O.W. line. (e) Obtain elevations at both edges of the driveway or turnout in line with the side drain.
NO	YES	(13) ROW staking (Existing and Proposed @ 1,000 ft. stations PC's PT's and Angle points as per ROW Map)
YES	NO	(14) Soil core hole staking at bridge class structures.
NO	NO	(15) Determine changes in topography from voids and outdated maps due to development, erosion, etc.
YES	NO	(16) Profiles of existing drainage facilities.
YES	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 railroad rail elevations or culverts that may conflict with new construction.
NO	NO	(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	NO	(22) Inventory signs, mailboxes, and driveways
YES	NO	(23) Locate wetlands.
YES	NO	(24) Locate existing right-of-ways.
		d. Construction Surveys: In performing construction surveys, the following will be requested by the ENGINEER on an as needed basis, but need not be limited to:
NO	NO	(1) Stake existing and/or proposed right-of-ways.
NO	NO	(2) Stake existing and/or proposed baseline/centerline.
NO	NO	(3) Stake proposed bridge structures.
NO	NO	(4) Stake proposed drainage structures, such as manholes, culverts, etc.
NO	NO	(5) Set grade stakes.
NO	NO	(6) Recover and check existing control points.
NO	NO	(7) Establish additional control points.
NO	NO	(8) Check elevations and locations of structures.
NO	NO	(9) Determine and resolve conflicts associated with survey data.

Services Provided By: SURVEYOR	LPA	
NO	NO	**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)
		3. UTILITY SUBSURFACE INVESTIGATION: Utility Quality Levels are in cumulative order (least to greatest) as follows
NO	NO	3.1. Quality Level C - Existing Records: Utilities are plotted from review of available existing records that will be generated by the Engineer on the schematic and provided to the surveyor for his further creation of a Utility Map which will be turned in as a deliverable as part of this work order.
NO	NO	3.2. Quality Level B - Surface Visible Feature Survey: The Surveyor shall gather the field tied Utility Information and compare it to the existing records (if any) as provided by the Engineer and correlate with surveyed surface-visible features. The surveyor shall create a Utility Layout Map or plan layout 2D, showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations. The Layout Map will include all utilities that have been field tied – 2D Horizontal Utilities. This Layout will be provided to the Engineer and a meeting held with Engineer to identify which utilities will need to be tied down vertically. A note must be placed on the designate deliverable only that states "lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to the Engineer. This information will be provided in the latest version of Micro Station or Geopak used by the State. The electronic file will be delivered on C.D. or DVD. A hard copy is required and must be signed, sealed, and dated by the Surveyor. Note: Determine and inform the Engineer of the approximate utility depths at critical locations. This depth indication is understood by the Engineer to be approximate only and is not intended to be used for preparing the construction plans.
YES	NO	3.3. Subsurface Utility Locate (Test Hole) Service (Quality Level A), **THE SURVEYOR SHALL ESTIMATE LOCATING VERICALLY 25 UTILITES PER MILE OR AS IDENTIFIED BY THE ENGINEER.** Locate shall mean to

obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B and C. The Surveyor shall:

3.3.1 Review the requested test hole locations that have been identified by the Engineer and Coordinate with utility owner inspectors as may be required by law or utility owner policy.

Services Provided By:
SURVEYOR LPA

3. *Utility Subsurface (continued)*

3.3.2 Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:

- Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
- Identify a minimum of two benchmarks utilized. Elevations shall be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
- Elevation of existing grade over utility at test hole location.
- Horizontal location referenced to project coordinate datum.
- Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
- Utility facility material(s).
- Utility facility condition.
- Coating/Wrapping information and condition.
- Unusual circumstances or field conditions.

3.3.3 Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation can only be utilized with written approval from the appropriate State District Office.

3.3.4 Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material. The Engineer shall be responsible for the integrity of the backfill and surface restoration for a period of three years. Install a marker ribbon throughout the backfill.

3.3.5 Provide complete restoration of work site and landscape to equal or better condition than before excavation.

3.3.6 Plot utility location position information on the Utility Layout sheet and identify the vertical elevation and sealed by the responsible Surveyor. This information will be provided in the latest version of Micro Station or Geopak format used by the State. The electronic file will be delivered on C.D or DVD.

4. DELIVERABLES:

The deliverables to be specified in individual work authorizations for design surveys and construction surveys may be any combination of the following:

YES NO 4.1. Digital Terrain Models (DTM) in a format acceptable by the ENGINEER.

YES NO 4.2. Final H&V Field Book Binder with all pertinent information obtained in the field for Design Surveys. Maps, plans, or sketches prepared by the SURVEYOR showing the results of field surveys.

YES NO 4.3. Computer printouts or other tabulations summarizing the results of field surveys.

YES NO 4.4. Digital files or media acceptable by the ENGINEER containing field survey data.

YES NO 4.5. Maps, plats, plans, sketches, or other documents acquired from utility companies, private corporations, or other public agencies, the contents of which are relevant to the survey.

YES NO 4.6. Field survey notes, as electronic and/or hard copies.

YES NO 4.7. A H&V Control Book identifying the basis of the Primary and Secondary Control and an 8 ½ inch by 11 inch survey control data sheet for each construction control point which shall include, but need not be limited to, a location sketch, a physical description of the point including a minimum of two reference ties, surface coordinates, a surface adjustment factor, elevation, and the horizontal and vertical datums used. Survey control data sheets shall be signed and sealed by the supervising Registered Professional Land Surveyor.

Services Provided By:
SURVEYOR LPA

4. *Deliverables (continued)*

YES NO 4.8. Final set of 11 inch by 17 inch Survey Control data sheets sign and seal by the RPLS per TxDOT guidelines.

YES NO 4.9. A digital and/or hard copy of all computer printouts of horizontal and vertical conventional traverses, GPS analysis and results, data including property descriptions with field notes and plats, right-of-way maps, and survey control data sheets to include in the H&V Field Book Binder.

YES NO 4.10. Survey reports in a format requested by the ENGINEER.

YES NO 4.11. Items indicated under the Automation Requirements Section 6.

5. GENERAL REQUIREMENTS:

5.1. Design surveys and construction surveys shall be performed under the supervision of a Registered Professional Land Surveyor currently registered with the Texas Board of Professional Land Surveying.

5.2. Horizontal ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the STATE.

5.3. Reference may be made to standards of accuracy for horizontal control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

5.4. Vertical ground control used for design surveys and construction surveys, furnished to the SURVEYOR by the ENGINEER or based on acceptable methods conducted by the SURVEYOR, shall meet the standards of accuracy required by the ENGINEER.

5.5. Reference may be made to standards of accuracy for vertical control traverses, as described in the FGCS Standards and Specifications for Geodetic Control Networks, latest edition, the TxDOT Survey Manual, latest edition, the TxDOT GPS Manual of Practice, latest edition, or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

5.6. Side shots or short traverse procedures used to determine horizontal and vertical locations shall meet the following criteria:

- Side shots or short traverses shall begin and end on horizontal and vertical ground control as described above.
- Standards, procedures, and equipment used shall be such that horizontal locations relative to the control may be reported within the following limits:
- Bridges and other roadway structures: less than 0.1 of one foot.

- Utilities and improvements: less than 0.2 of one foot.
- Cross-sections and profiles: less than 1 foot.
- Bore holes: less than 3 feet.
- Standards, procedures, and equipment used shall be such that vertical locations relative to the control may be reported within the following limits:
- Bridges and other roadway structures: less than 0.02 of one foot.
- Utilities and improvements: less than 0.1 of one foot.
- Cross-sections and profiles: less than 0.2 of one foot.
- Bore holes: less than 0.5 of one foot.

Services
Provided By:
SURVEYOR LPA

5. AUTOMATION REQUIREMENTS:

6.1 Planimetric design files (DGN) shall be fully compatible with the State's *Micro Station V8* graphics program without further modification or conversion.

6.2 Electronically collected and processed field survey data files shall be fully compatible with the State's *CADD* systems without further modification or conversion. All files shall incorporate only those feature codes currently being used by the STATE.

6.3 Digital Terrain Models (DTM) shall be fully compatible with the STATE's GEOPAK system without further modification or conversion. All DTM files shall be fully edited and rectified to provide a complete digital terrain model with all necessary break lines.

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

ADDITIONAL RESPONSIBILITIES

A. TRAFFIC CONTROL:

The SURVEYOR shall control traffic in and near surveying operations adequately to comply with provisions of the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI and the latest edition of the Occupational Safety Manual both of which can be found on the TxDOT internet site.

In the event field crew personnel must divert traffic or close traveled lanes, a Traffic Control Plan based upon principles outlined in the latest edition of the TxDOT Manual on Uniform Traffic Control Devices – Part VI shall be prepared by the SURVEYOR and approved by the ENGINEER prior to commencement of field work. A copy of the approved plan shall be in the possession of field crew personnel on the job site at all times and shall be made available to the ENGINEER for inspection upon request.

B. INVOICING:

Payment requests shall include a SURVEYOR's invoice. With each payment request, the SURVEYOR shall submit a project status report which will, as a minimum, include the percentage of total work complete as of the date of the payment request and a description of current work activity. The percentage of total work complete shall not be based simply on the percentage of funds expended, but shall be based on the best judgment of the SURVEYOR as to the percentage of actual work complete.

C. EASEMENTS, LETTERS OF PERMISSION, ETC.

The SURVEYOR shall be responsible for delineating easements. The SURVEYOR will be responsible for securing the necessary legal instruments and obtaining all Right-of-Entries (ROEs).

D. MEETINGS:

The ENGINEER shall setup the necessary meetings with the SURVEYOR in order to assure all field information is provided on-time and products are delivered in accordance with TxDOT's specifications. SURVEYOR must attend all meetings involving data provided if requested by ENGINEER.

E. PROJECT MANAGER/SURVEYOR COMMUNICATION:

The SURVEYOR shall designate one Texas Registered Professional Land Surveyor (RPLS) to be responsible throughout the project for project surveying coordination and all communications, including billing, with the ENGINEER.

F. OFFICE LOCATION:

The SURVEYOR will perform the services to be provided under this agreement out of a local office and have a crew available to perform requested tasks within 24 hours of request. The coordinating SURVEYOR's Project Manager (RPLS) shall be accessible at all times and working from the local office.

EXHIBIT "C" PROJECT DEVELOPMENT SCHEDULE

MILE 5

(Taylor Rd. to Ware Rd.)

TASK AND DESCRIPTION	FIRM	2017	2018				2019												2020												2021												2022			
			Q1	Q2	Q3	Q4	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Q1	Q2	Q3	Q4
Phase I: EA, Public Involvement, Schematic																																													
Public Involvement																																													
Develop Alternatives & Matrix	L&G																																												
Advertise & Conduct Public Meeting	L&G																																												
Select TPA	L&G																																												
Advertise & Conduct Public Hearing	L&G																																												
Schematic																																													
Develop Schematic & Submit Schematic	L&G																																												
Hydrologic Map	L&G																																												
TxDOT Review & Revisions	TxDOT																																												
TxDOT Schematic Approval	TxDOT																																												
Environmental Document																																													
Draft Environmental Document (Process Technical Reports)	L&G																																												
Submit Final Draft Document (Administratively Comp. Doc.)	L&G																																												
Agency Review & Revisions	TxDOT																																												
Submit Final Document	TxDOT																																												
Environmental Decision																																													
Phase II: PS&E & Construction Oversight																																													
PS&E																																													
Design Survey	L&G																																												
Permitted Utility Coordination	L&G																																												
Outfall Coordination with HCDD #1	L&G																																												
30% PS&E Completion	L&G																																												
60% PS&E Completion	L&G																																												
90% PS&E Completion	L&G																																												
95% PS&E Completion	L&G																																												
100% Final Submittal	L&G																																												
TxDOT Plan Set Approval	TxDOT																																												
Const Oversight																																													
Let Project	TxDOT																																												
Construction Duration (18 months)	TxDOT																																												
Phase III: ROW Map & Acquisition																																													
ROW Map																																													
Prepare ROW Map	L&G																																												
TxDOT/County Internal Review	TxDOT/County																																												
ROW Acquisition (Est. 154 Parcels)																																													
ROW Release (Dependent on Availability of Funds)	TxDOT																																												
Project Administration	TxDOT																																												
Compensable Utility Oversight	TxDOT																																												
Coordination with County & TxDOT	TxDOT																																												
Title Commitments	TxDOT																																												
Appraisal Reports	TxDOT																																												
Appraisal Review Reports	TxDOT																																												
Appraisal Update Reports	TxDOT																																												
Approved Values by TxDOT/County	TxDOT																																												
Acquisition Negotiation Offers	TxDOT																																												
Title Curative Process	TxDOT																																												
Title Commitment Updates	TxDOT																																												
Payments for Parcels	TxDOT																																												
L&G Condemnation Support Process	TxDOT																																												
Eminent Domain Proceedings by County	TxDOT																																												
Title Insurance Policies	TxDOT																																												
Consumation of Outstanding Cases	TxDOT																																												

L&G FUNCTION
ENVIRONMENTAL ASSESSMENT WORK
TXDOT FUNCTION
HIDALGO COUNTY FUNCTION

REVISED EXHIBIT D-1
SUPP #1 to WA#2 ~ FEE PROPOSAL

Mile 5 (FM 676) Project
Taylor Road to FM 2220 (Ware Road)
HIDALGO COUNTY PRECINCT #4

		MANHOURS						
		Senior Project Manager	Senior Engineer	Project Engineer	Senior Engineering Technician	Admin / Clerical	L&G TOTAL HOURS	Total Line Item Cost
	TASK							
	WA #2 - Mile 5 ~ PS&E, Design Surveying & Eng. Consultant Construction Management							
1	Project Management	65	115	130		32.96	342.9576	$ 52,756.84
2	Coordination and Management of Subconsultant for Field Surveys & SUE	18	26	40		10.1	94.1	$ 14,163.80
2a	SUB: Field Surveys for Design and Construction	(See fee breakdown on D-1 Page 2 from QHA)						$ 30,000.00
2b	SUB: Field Surveys for Outfalls	(See fee breakdown on D-1 Page 2 from QHA)						$ 7,500.00
2c	SUB: SUE Potholes for Utilities	(See fee breakdown on D-1 Page 2 from QHA)						$ 6,250.00
3	PS&E Development Roadway & Bridge	600	860	650	840	15.5	2965.5	$ 444,000.40
4	Bridge Layout and Scour Report for approval by TxDOT (Bridge Division)	86	220	286	388	60.4	1040.4	$ 135,000.04
5	Geotechnical design for Bridge foundation and pavt design	40	60	80	150	19.1	349.1	$ 45,004.04
6	Traffic Signal Warrants & Design Support ~ Coordination and Management of Subconsultant for Traffic Signal Warrants & Design	10	26	38		4		$ 11,844.44
6a	SUB: Signal Design, Adjustments & Warrants (Signals at Bensten and Taylor Road)	(See fee breakdown on Page 3 & 4 of 4 from ETSI)						$ 50,523.46
7	Engineering Fee to Create 1 set of Plans and Submit through TxDOT	40	60	160	260	18.75	538.75	$ 66,002.10
8	Permitted Utilities Coordination to adjust	66	186	330	180	20.2	782.2	$ 108,001.24
10	Eng Consultant Construction Management (18 months)	40	120	360	418	16.25	954.25	$ 117,601.82
	Subtotal Hours	**965**	**1673**	**2074**	**2236**	**197.2576**	**7145.2576**	
	Hourly Base Rate	$ 70.00	$ 58.00	$ 43.00	$ 32.00	$ 20.00		
	FY 15 Contract Hourly Rate w/ OH Mult. (169.26%) & Profit Rate (12.00%)	$ 211.40	$ 175.16	$ 129.86	$ 96.64	$ 60.40		
	Total Labor Costs	**$ 204,001.00**	**$ 293,042.68**	**$ 269,329.64**	**$ 216,087.04**	**$ 11,914.36**	**$ 994,374.72**	**$ 1,088,648.18**

Total Project Fee (Work Authorization #2): $1,088,648.18

EXHIBIT D-1 - Design Survey

QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

Consulting Engineers * Land Surveyors
Alfonso Quintanilla, P.E. # 90534 R.P.L.S #4836 Eulalio Ramirez, P.E. # 77062
Engineering Firm Registration No. F 1513
Surveying Firm Registration No. 100411-00
Municipal & County Projects * Subdivisions * Surveys
124 E. Stubbs St. Edinburg, TX 78539
Phone 956/381 6480 Fax 956/381 0527

F.M. 676 (Mile 5 North Road) from Taylor Road to Ware Road

1 Mile of Roadway Design Survey
0.25 Mile Outfall Design Survey
S.U.E. Quality Level A

Project	Field Survey (RDWY)	Field Survey (OUTFALLS)	Sub-Surface Utility Engineering (S.U.E.)	Total Cost (FUNC 150)
FM 676 (Mile 5)	$30,000.00	$7,500.00	$6,250.00	$43,750.00