

**SUPPLEMENTAL AGREEMENT NO. 2
TO
AGREEMENT OF MARCH 18, 2015
FOR
ENGINEERING SERVICES AGREEMENT for
Fort Bend Grand Parkway Toll Road, Segment D**

This Supplemental Agreement is made and entered into this 16th day of December, 2015, and modifies the ENGINEERING SERVICES AGREEMENT made with Aguirre & Fields, LP, dated March 18, 2015 for the design of two direct connector structures at the Fort Bend Grand Parkway Toll Road (Segment D) and the Fort Bend Westpark Tollway, as amended.

The agreement is hereby modified as follows:

1. The first sentence of Section 2.a is replaced with the following sentence:

“The Maximum Compensation under this contract is \$2,986,300.42.”

2. The second paragraph of Section 2.a is replaced with the following paragraph:

“Compensation for performance of services within the Scope of Services described in Attachment A, Exhibit A-1 and Exhibit A-2 shall be in accordance with the billing rates shown in Attachment B. The compensation for additional services described in Exhibit A-2 is \$639,635.35 as shown in Exhibit B-2. The maximum amount payable under this agreement shall not exceed \$2,986,300.42. Progress payments for work detailed in Attachment A, Exhibit A-1 and Exhibit A-2 will be made when the Contractor has attained a level of completion equal to or greater than the agreed upon milestones of completion in the reasonable opinion of FBGPTRA.”

3. The Scope of Services shown in Attachment A shall be expanded to include Exhibit A-2, attached hereto.
4. The Compensation for Scope of Services shown in Attachment B shall be expanded to include Exhibit B-2, attached hereto.
5. Section 3 is replaced with the following paragraph:

“It is understood and agreed that the time for performance of the Engineer’s services under this Agreement shall begin with receipt of the Notice to Proceed and end August, 2017.”

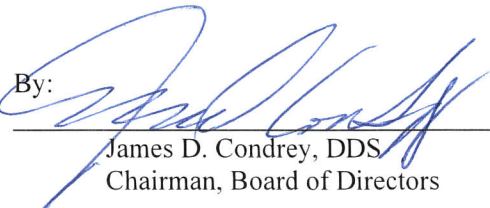
This Supplemental Agreement does not alter, modify, or otherwise change any part of the Agreement, except as specifically stated in this Supplemental Agreement.

[Remainder of page intentionally left blank.]

Supplemental Agreement No. 2
To Agreement of March 18, 2015

IN WITNESS WHEREOF, this Supplemental Agreement is hereby executed as of the date first set forth above.

FORT BEND GRAND PARKWAY TOLL
ROAD AUTHORITY, a local government Texas
Corporation

By: 
James D. Condrey, DDS
Chairman, Board of Directors

ATTEST: 
By _____
Secretary, Board of Directors

Aguirre & Fields, LP
By: Aguirre, LLC – General Partner.
ENGINEER

By: 

Name: Oscar R. Aguirre

Title: President

EFFECTIVE DATE

THIS AGREEMENT IS EFFECTIVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID.

DATE OF COMMISSIONERS COURT APPROVAL: _____

AGENDA ITEM NO.: _____

**ATTACHMENT A
EXHIBIT A-2
SUPPLEMENTAL AGREEMENT #2 SCOPE OF SERVICES**

**FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) / WESTPARK TOLLWAY (FM 1093)
EASTBOUND/NORTHBOUND & WESTBOUND/NORTHBOUND DIRECT CONNECTORS**

DESIGN SERVICES

GENERAL DESCRIPTION

The work to be performed by the Engineer under this Supplemental Agreement consists of providing schematic phase services, various roadway and structural design engineering services and preparation of bid documents for construction for the extension of the northbound direct connector. The northbound direct connector is planned to be extended approximately 2,200 feet to the north and tie into and widen the existing Fry Road NB overpass. The northbound entrance ramp north of Fry Road will be reviewed and adjusted if necessary to meet applicable geometric criteria including required ramp spacing. Options will be developed for the northbound entrance and exit ramp configurations between FM 1093 and Little Prong Creek north of Fry Road. The schematic phase services will also include a review of the southbound frontage road between Fry Road and FM 1093 including entrance and exit ramp configurations.

The project will utilize 2014 TxDOT specifications and the latest TxDOT and AASHTO design criteria. The design will also incorporate the latest TxDOT Statewide and Houston District standard details and FBGPTRA aesthetic standards where applicable. The following is a detailed list of tasks which will be performed by the Engineer in addition to and in accordance with the scope of services in the Prime Agreement.

1) SURVEY

- a) Append survey and TIN to include an additional 800 linear feet north of Fry Road to Little Prong Creek including the NB mainlanes and entrance ramp. The survey will extend from the Grand Parkway centerline to the east ROW line.
- b) Append survey and TIN to include an additional 5,000 linear feet along the SB frontage road between Fry Road and FM 1093. The survey will extend from the Grand Parkway centerline to the west ROW line filling in the gap in the current survey. The survey will also include the new Segment D SB mainlane pavement and overpass to the centerline of FM 1093.
- c) Append survey to include the Fry Road NB overpass east edge including abutment and interior bent detail for bridge widening.

2) ROW

- a) Survey boundary retracement along the project route for the purpose of delineating the existing rights-of-way and adjoining properties and to map the proposed rights-of-way and prepare parcel plats and metes and bounds descriptions in accordance with Fort Bend County guidelines for property acquisition.
- b) Maps will be prepared for three (3) tracts at the northwest corner of FM 1093 and SH 99 to accommodate the future southbound/westbound direct connector.

3) GEOTECHNICAL STUDY

- a) Add an additional 9 borings (300' max spacing per TxDOT Geotechnical Manual) and 1 boring for a potential retaining wall north of Fry Road.
- b) Conduct necessary testing on additional borings consistent with the Prime Agreement Scope of Services.
- c) Add the extended NB direct connector into the geotechnical engineering analysis, recommendations and report.

4) SCHEMATIC

- a) Develop two options for the northbound entrance and exit ramps between FM 1093 and Little Prong Creek north of Fry Road. There's planned to be 4 ramps (1 exit and 3 entrance) between the specified limits. Refine the previously developed geometry for the extended northbound direct connector option to tie into and widen Fry Road.
- b) Develop one option to be considered for the southbound frontage road including entrance and exit ramps between Fry Road and FM 1093. The option should avoid if possible or minimize the reconstruction of the existing SBEB Direct Connector.

The options above will be presented to FBGPTRA for approval to move forward with detailed design. Following approval of the options, Engineer will develop a draft schematic for approval by FBGPTRA, TxDOT and Fort Bend County. Comments will be addressed and a Final Schematic will be submitted. The schematic will include the following:

- a) Plan and profile of the EBNB and WBNB direct connectors including NB entrance (3)/exit(1) ramps between FM 1093 and Little Prong Creek north of Fry Road.
 - a. Utilize previously developed schematic dated 4/5/13
- b) Plan and profile of the southbound frontage road including entrance(1)/exit(1) ramps
- c) The future direct connectors will be shown in plan view only (dashed)
- d) Geopak calculated roadway alignments for proposed facilities
- e) Pavement edges and curb lines for proposed roadway improvements
- f) Typical sections of proposed roadways
- g) Lane lines, shoulder lines, and direction of traffic flow arrows indicating number of lanes on existing and proposed roadways
- h) Profile and vertical curve data including "K" values.
- i) Existing ground line profiles
- j) Vertical clearances at grade separations and overpasses
- k) Bent locations for EBNB and WBNB direct connectors.

5) ROADWAY

- a) Increase roadway limits from south of Fry Road to Little Prong Creek north of Fry Road to accommodate the extended northbound direct connector and potential ramp modification north of Fry Road.

6) DRAINAGE

- a) Increase drainage limits from south of Fry Road to Little Prong Creek north of Fry Road to accommodate the extended northbound direct connector and potential ramp modification north of Fry Road.

7) TRAFFIC

- a) Increase traffic limits from south of Fry Road to Little Prong Creek north of Fry Road to accommodate the extended northbound direct connector and potential ramp modification north of Fry Road. Relocate/Replace two existing Fry Road exit signs between FM 1093 and Fry Road.

8) CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL

- a) Increase construction sequencing and traffic control limits from south of Fry Road to Little Prong Creek north of Fry Road to accommodate the extended northbound direct connector and potential ramp modification north of Fry Road.

9) BRIDGES

- a) Extend the northbound direct connector to tie into and widen the existing Fry Road overpass.

10) MISCELLANEOUS DRAWINGS

- a) Increase the limits of the Project Layout Sheets from south of Fry Road to Little Prong Creek north of Fry Road.

11) SCHEDULE

The schedule below is based on receipt of NTP by December 31, 2015 and three week agency reviews. Schedule may be adjusted if review times are exceeded.

a) Schematic Options	January 29, 2016 (will not include additional survey)
b) Schematic (Draft)	March 4, 2016
c) Schematic (Final)	April 8, 2016
d) Begin Design	June 1, 2017 (based on schematic approval)
e) 30% PS&E Submittal	August 15, 2016
f) 60% PS&E Submittal	November 14, 2016
g) 90% PS&E Submittal	February 12, 2017
h) 95% PS&E Submittal	March 26, 2017
i) Final Submittal	April 18, 2017

12) PROJECT MANAGEMENT

- a) Project Management will be adjusted to accommodate the increased timeline resulting from the increased project scope.

ATTACHMENT B
EXHIBIT B-2
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) /WESTPARK TOLLWAY (FM 1093)

SUPPLEMENTAL AGREEMENT #2 FEE SCHEDULE SUMMARY

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

PRIME: Aguirre & Fields

SUB: H&H Resources

SUB: Progressive Traffic & Transportation

SUB: Geotech Engineering and Testing

SUB: Weisser Engineering & Surveying

WORK TASK	DESCRIPTION	Aguirre & Fields	H&H Resources	Progressive Traffic & Transportation	Geotech Engineering and Testing	Weisser Engineering & Surveying	TOTAL
1	SURVEY	\$1,259.00				\$49,075.00	\$50,334.00
2	GEOTECHNICAL STUDY	\$1,259.00			\$108,525.00		\$109,784.00
3	SCHEMATIC	\$36,774.75					\$36,774.75
4	ROADWAY	\$38,226.50					\$38,226.50
5	TRAFFIC	\$1,760.00		\$44,708.00			\$46,468.00
6	DRAINAGE	\$5,053.25	\$53,729.95				\$58,783.20
7	CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL	\$19,360.75					\$19,360.75
8	BRIDGES	\$250,043.25					\$250,043.25
9	MISCELLANEOUS DRAWINGS	\$1,881.50					\$1,881.50
10	PROJECT MANAGEMENT	\$18,010.00	\$2,751.90	\$4,950.00			\$25,711.90
11	DIRECT EXPENSES	\$1,167.50	\$100.00	\$1,000.00			\$2,267.50
TOTAL		\$374,795.50	\$56,581.85	\$50,656.00	\$108,525.00	\$49,075.00	\$639,635.35
PERCENTAGE OF WORK BY PROVIDER		58.60%	8.85%	7.92%	16.97%	7.67%	100.0%

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99)/WESTPARK TOLLWAY (FM 1093)

Aguirre & Fields

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Senior Structural Engineer	Project Manager	Project Engineer	Design Engineer	EIT	Engineering Technician	Admin Clerical	TOTAL LABOR HRS & COSTS	Hrs/Sht
SURVEY										
LABOR RATE PER HOUR		\$210.00	\$195.00	\$142.00	\$116.00	\$93.75	\$84.00	\$75.00		
COORDINATION WITH SURVEY										
SHEETS & HOURS SUBTOTAL	0	0	5	2	0	0	0	0	7	7
SUBTOTAL LABOR COSTS		\$0.00	\$975.00	\$284.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,259.00	
GEO/TECHNICAL STUDY										
COORDINATION WITH GEOTECH										
SHEETS & HOURS SUBTOTAL	0	0	5	2	0	0	0	0	7	7
SUBTOTAL LABOR COSTS		\$0.00	\$975.00	\$284.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,259.00	
SCHEMATIC										
GEOMETRIC OPTIONS (ROLL PLOTS) (2 OPTIONS NB/1 OPTION SB)										
GEOMETRIC SCHEMATIC (DRAFT) (REVISE 4/5/13 - PLAN/PROF/TYPSEC	3	5	5	50	60	60	60	0	180	60
GEOMETRIC SCHEMATIC (FINAL)	2	5	2	20	31	31	42	0	100	50
SHEETS & HOURS SUBTOTAL	7	12	9	78	0	121	120	0	340	49
SUBTOTAL LABOR COSTS		\$2,520.00	\$1,755.00	\$11,076.00	\$0.00	\$11,343.75	\$10,080.00	\$0.00	\$36,774.75	
ROADWAY										
FIELD RECONNAISSANCE										
TYPICAL SECTIONS	1	2	2	2	2	2	8	0	30	30
HORIZONTAL ALIGNMENT DATA	1	2	2	5	10	10	5	0	22	22
REMOVAL LAYOUTS	2	2	2	15	27	27	20	0	64	32
ROADWAY PLAN & PROFILE	4	8	8	25	45	45	42	0	120	30
SUPERELEVATION DETAIL SHEETS	2	2	2	15	25	25	20	0	62	31
CROSS SECTIONS & EARTHWORK	5	2	2	13	15	15	20	0	50	10
SHEETS & HOURS SUBTOTAL	15	2	20	77	0	142	115	0	356	24
SUBTOTAL LABOR COSTS		\$420.00	\$3,900.00	\$10,934.00	\$0.00	\$13,312.50	\$9,660.00	\$0.00	\$38,226.50	
TRAFFIC										
SUBCONSULTANT COORDINATION										
SHEETS & HOURS SUBTOTAL	0	0	5	5	0	0	0	1	11	11
SUBTOTAL LABOR COSTS		\$0.00	\$975.00	\$710.00	\$0.00	\$0.00	\$0.00	\$75.00	\$1,760.00	

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) /WESTPARK TOLLWAY (FM 1093)

Aguirre & Fields

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Senior Structural Engineer	Project Manager	Project Engineer	Design Engineer	EIT	Engineering Technician	Admin Clerical	TOTAL LABOR HRS & COSTS	Hrs/Sht
DRAINAGE										
LABOR RATE PER HOUR		\$210.00	\$195.00	\$142.00	\$116.00	\$93.75	\$84.00	\$75.00		
SUBCONSULTANT COORDINATION			5	5				1	11	
STORM WATER POLLUTION PREVENTION PLAN & DETAILS SHEETS & HOURS SUBTOTAL	2		1	6		15	10		32	16
SUBTOTAL LABOR COSTS	2	\$0.00	\$1,170.00	\$1,562.00	\$0.00	\$1,406.25	\$840.00	\$75.00	\$5,053.25	
CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL										
TRAFFIC CONTROL PLAN LAYOUT & NARRATIVE	1		1	5		5	5		16	16
TRAFFIC CONTROL DETOUR LAYOUTS	1		2	5		18	8		33	33
TRAFFIC CONTROL PLAN PHASE LAYOUTS SHEETS & HOURS SUBTOTAL	4		2	30		74	30		136	34
SUBTOTAL LABOR COSTS	6	\$0.00	\$975.00	\$5,680.00	\$0.00	\$9,093.75	\$3,612.00	\$0.00	\$19,360.75	31
BRIDGES										
BRIDGE LAYOUTS (2,200' DC EXTEND + FRY RD BRIDGE)	7	12	12	95		118	50		287	41
BRIDGE TYPICAL SECTIONS	1	1	1	10		18	5		35	35
BORING LOG DATA	4	1	1	4		5	5		16	4
ESTIMATED QUANTITIES/BEARING SEAT ELEVATIONS		1	1	5		5			12	
FOUNDATION PLAN	4	5	5	47		55	20		132	33
ABUTMENT PLAN & ELEVATIONS (FRY RD BRIDGE)	2	5	2	30		45	10		92	46
ABUTMENT DETAILS (FRY RD BRIDGE)	2	5	2	30		35	10		82	41
INTERIOR BENT PLAN & ELEVATIONS (FRY RD BRIDGE)	2	5	2	23		30	10		70	35
INTERIOR BENT DETAILS (FRY RD BRIDGE)	2	5	2	23		30	10		70	35
STRADDLE BENT DETAILS (4 STRADDLE BENTS)	12	10	10	120		180	100		420	35
PRESTRESSED CONCRETE GIRDER FRAMING PLANS (9 UNITS)	9	10	10	83		150	80		333	37
PRESTRESSED CONCRETE GIRDER SLAB SPAN UNITS (9 UNITS)	9	10	10	83		150	80		333	37
PRESTRESSED CONCRETE GIRDER SLAB SECTIONS (9 UNITS)	9	10	10	83		150	80		333	37
PRESTRESSED CONCRETE GIRDER DESIGN (IGND)									0	
SHEETS & HOURS SUBTOTAL	63	80	68	636	0	971	460	0	2215	35
SUBTOTAL LABOR COSTS		\$16,800.00	\$13,260.00	\$90,312.00	\$0.00	\$91,031.25	\$38,640.00	\$0.00	\$250,043.25	

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) / WESTPARK TOLLWAY (FM 1093)

Aguirre & Fields

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Senior Structural Engineer	Project Manager	Project Engineer	Design Engineer	EIT	Engineering Technician	Admin Clerical	TOTAL LABOR HRS & COSTS	Hrs/Sht
LABOR RATE PER HOUR										
MISCELLANEOUS DRAWINGS										
PROJECT LAYOUTS	1		1	2		2	10	5	20	20
SHEETS & HOURS SUBTOTAL	1	0	1	2	0	2	10	5	20	
SUBTOTAL LABOR COSTS		\$0.00	\$195.00	\$284.00	\$0.00	\$187.50	\$840.00	\$375.00	\$1,881.50	
PROJECT MANAGEMENT										
PROJECT MANAGEMENT (assuming 4 hrs/wk for PM for 4 extra months)			72					8	80	
PROGRESS MEETINGS (2-TxDOT SCHEMATIC/3-FBC/FBTRA)			10	10					20	
SHEETS & HOURS SUBTOTAL	0	0	82	10	0	0	0	8	100	
SUBTOTAL LABOR COSTS		\$0.00	\$15,990.00	\$1,420.00	\$0.00	\$0.00	\$0.00	\$600.00	\$18,010.00	

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) /WESTPARK TOLLWAY (FM 1093)**

Aguirre & Fields

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

DESCRIPTION	QUANTITY	RATE	UNIT	TOTAL COST
DIRECT EXPENSES				
MILEAGE	100	\$0.51	MILE	\$51.00
COURIER SERVICES (DELIVERIES)		\$25.00	EACH	\$0.00
PHOTOCOPIES B/W (8-1/2 X 11)	100	\$0.10	EACH	\$10.00
PHOTOCOPIES B/W (11 X 17)	200	\$0.20	EACH	\$40.00
PHOTOCOPIES COLOR (8-1/2 X 11)	50	\$0.75	EACH	\$37.50
PHOTOCOPIES COLOR (11 X 17)	50	\$1.00	EACH	\$50.00
PLOTS (COLOR ON BOND)	315	\$2.00	SQUARE FOOT	\$629.00
MYLAR (11 X 17)	100	\$3.50	SHEET	\$350.00
CD ARCHIVE		\$1.50	EACH	\$0.00
				\$0.00
				\$0.00
SUBTOTAL DIRECT EXPENSES				\$1,167.50

**ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) /WESTPARK TOLLWAY (FM 1093)**

H&H Resources

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Senior Design Tech	Engineer Tech	Admin/Clerical	TOTAL LABOR HRS & COSTS	Hrs/Sht
DRAINAGE											
LABOR RATE PER HOUR		\$204.17	\$192.34	\$177.54	\$144.99	\$91.73	\$109.49	\$95.81	\$62.14		
CONDUCT FIELD VISITS			2		2					4	
COORDINATE WITH ROADWAY AND BRIDGE DESIGNERS			2		4	4				10	
REVIEW PREVIOUS PLANS AND DRAINAGE REPORTS			2		4	4				10	
DETERMINE DRAINAGE AREA BOUNDARIES FOR UPDATED LIMITS			2		8	16				26	
DEVELOP INTERNAL DRAINAGE AREA MAPS (1"=100')	3		3		15		18	36		72	24
DESIGN STORM SEWER SYSTEMS FOR EXTENDED ROADWAY LIMITS			4		40	20				64	
ANALYZE EXISTING STORM SEWER IMPACTED BY PROPOSED IMPROV			4		20	40				64	
DEVELOP DRAINAGE PLAN AND PROFILE FOR EXTENDED LIMITS (1"=10'	3		6		12		24	48		90	30
DEVELOP STORM SEWER LATERAL PROFILES	1		2		4		8	12		26	26
DEVELOP GEOPAK DRAINAGE HYDRAULIC DATA SHEETS	4		2		4		8	16		30	8
DESIGN ROADSIDE DITCHES			4		24	24				52	
DEVELOP TEMPORARY DRAINAGE PLAN (TO BE PLACED ON TCP) FOR			2		4			8		14	
SHEETS & HOURS SUBTOTAL	11	0	35	0	141	108	58	120	0	462	
SUBTOTAL LABOR COSTS		\$0.00	\$6,731.90	\$0.00	\$20,443.59	\$9,906.84	\$6,350.42	\$10,297.20	\$0.00	\$53,729.95	
PROJECT MANAGEMENT											
PROJECT MANAGEMENT (4 months)		6	6						6	18	
SHEETS & HOURS SUBTOTAL	0	6	6	0	0	0	0	0	6	18	
SUBTOTAL LABOR COSTS		\$1,225.02	\$1,154.04	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$372.84	\$2,751.90	
TOTAL LABOR COSTS		\$1,225.02	\$7,885.94	\$0.00	\$20,443.59	\$9,906.84	\$6,350.42	\$10,297.20	\$372.84	\$56,481.85	
DIRECT EXPENSES											
TOTAL COSTS										\$100.00	
										\$56,581.85	

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) / WESTPARK TOLLWAY (FM 1093)**

Progressive Traffic & Transportation

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Principal	Project Manager	Project Engineer	Engineering Technician	TOTAL LABOR HRS & COSTS	Hrs/Sht
LABOR RATE PER HOUR		\$180.00	\$165.00	\$142.00	\$80.00		
TRAFFIC							
SIGNING & PAVEMENT MARKINGS LAYOUT	5	4	12	30	70	116	23
OVERHEAD SIGN ELEVATIONS (2 Existing Fry Rd. Exit to be replaced)	2	2	6	12	24	44	22
LARGE SIGN DETAILS	2	2	4	16	24	46	23
ILLUMINATION LAYOUTS	5	4	12	40	72	128	26
ILLUMINATION CIRCUIT DIAGRAM	1	2	6	18	16	42	42
ILLUMINATION DETAILS	1	2	4	8	6	20	20
SHEETS & HOURS SUBTOTAL	16	16	44	124	212	396	25
SUBTOTAL LABOR COSTS		\$2,880.00	\$7,260.00	\$17,608.00	\$16,960.00	\$44,708.00	
PROJECT MANAGEMENT							
PROJECT MANAGEMENT (4 months)			30			30	
SHEETS & HOURS SUBTOTAL	0	0	30	0	0	30	
SUBTOTAL LABOR COSTS		\$0.00	\$4,950.00	\$0.00	\$0.00	\$4,950.00	
TOTAL LABOR COSTS		\$2,880.00	\$12,210.00	\$17,608.00	\$16,960.00	\$49,658.00	
DIRECT EXPENSES							
TOTAL COSTS						\$1,000.00	
						\$50,658.00	

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99)/WESTPARK TOLLWAY (FM 1093)

Geotech Engineering and Testing

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/Drafting	Unit of Measure	Estimated Qty	Rate	TOTAL LABOR HRS & COSTS
PROJECT INITIATION										
LABOR RATE PER HOUR		\$200.00	\$125.00	\$98.00	\$50.00	\$46.00				
PROJECT COORDINATION										
SHEETS & HOURS SUBTOTAL	0	1	1	3	0	0				5
SUBTOTAL LABOR COSTS		\$200.00	\$125.00	\$294.00	\$0.00	\$0.00			\$0.00	\$619.00
FIELD INVESTIGATION										
DEVELOP DRILLING PLAN			0.5	1					\$ 55.00	\$ 1,045.00
STAKE BORINGS (10)				8					\$ 400.00	\$ 400.00
COORDINATE WITH SURVEYORS TO TIE IN BORINGS				1					\$ 18.00	\$ 3,600.00
UTILITY CLEARANCE				16					\$ 21.00	\$ 6,300.00
TECHNICIAN, BOREHOLE LOGGING					140				\$ 24.00	\$ 15,120.00
REVIEW BORING LOGS				8					\$ 23.00	\$ 5,198.00
VEHICLE CHARGE								19	\$ 152.00	\$ 1,520.00
MOBILIZATION/DEMobilIZATION								1	\$ 400.00	\$ 400.00
DRILL AND SAMPLE (0'-20')								200	\$ 18.00	\$ 3,600.00
DRILL AND SAMPLE (20'-50')								300	\$ 21.00	\$ 6,300.00
DRILL AND SAMPLE (50'-120')								630	\$ 24.00	\$ 15,120.00
TOP SAMPLING								226	\$ 23.00	\$ 5,198.00
CLEANUP								10	\$ 152.00	\$ 1,520.00
SHEETS & HOURS SUBTOTAL	0	0	1	34	140	0				175
SUBTOTAL LABOR COSTS		\$0.00	\$62.50	\$3,332.00	\$7,000.00	\$0.00			\$33,183.00	\$43,577.50

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) /WESTPARK TOLLWAY (FM 1093)

Geotech Engineering and Testing

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/Drafting	Unit of Measure	Estimated Qty	Rate	TOTAL LABOR HRS & COSTS
LABORATORY TESTING										
LABOR RATE PER HOUR		\$200.00	\$125.00	\$98.00	\$50.00	\$46.00				
REVIEW SAMPLES, ASSIGN TESTS			1	8						9
DATA REDUCTION AND EVALUATION				8			EA	565	\$ 8.00	\$ 4,520.00
WATER CONTENT (ALL SAMPLES)							EA	58	\$ 53.00	\$ 3,074.00
LIQUID AND PLASTIC LIMITS							EA	45	\$ 41.00	\$ 1,845.00
PERCENT PASSING #200 SIEVE							EA	13	\$ 110.00	\$ 1,430.00
SIEVE ANALYSIS WITH HYDROMETER							EA	565	\$ 4.00	\$ 2,260.00
TORVANE							EA	565	\$ 3.00	\$ 1,695.00
HAND PENETROMETER							EA	50	\$ 39.00	\$ 1,950.00
UNCONFINED COMPRESSION							EA	10	\$ 54.00	\$ 540.00
UU CONSOLIDATED UNDRAINED TRIAXIAL							EA	2	\$ 1,800.00	\$ 3,600.00
CU TRIAXIAL TEST							EA	4	\$ 310.00	\$ 1,240.00
CONSOLIDATION TEST							EA	12	\$ 44.00	\$ 528.00
ADDITIONAL INCREMENTS										
SHEETS & HOURS SUBTOTAL	0	0	1	16	0	0				17
SUBTOTAL LABOR COSTS		\$0.00	\$125.00	\$1,568.00	\$0.00	\$0.00			\$22,662.00	\$24,375.00
ENGINEERING ANALYSIS AND REPORT										
PREPARE PLAN OF BORINGS										0
ANALYZE FIELD AND LAB TESTS RESULTS				5						5
PREPARE SUMMARY OF TEST DATA				7						7
PREPARE AND DEVELOP BORING LOG PROFILES			2	21						23
DEVELOP GEOTECHNICAL RECOMMENDATIONS										0
DEVELOP PARAMETERS FOR OPEN CUT EXCAVATION AND AUGURING				2						2
DEVELOP EXCAVATION SUPPORT FOR TRENCH EXCAVATION				1						1
RECOMMENDED EXCAVATION DEWATERING METHOD				1						1
PIPE BEDDING AND BACKFILL				1						1
UTILITY SOIL DESIGN PARAMETERS			0.5	3						4
TRENCH SAFETY LETTER REPORT		1	1	4						6

**ATTACHMENT B
 COMPENSATION FOR SCOPE OF SERVICES
 FORT BEND GRAND PARKWAY TOLL ROAD (SH 99)/WESTPARK TOLLWAY (FM 1093)**

Geotech Engineering and Testing

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/Drafting	Unit of Measure	Estimated Qty	Rate	TOTAL LABOR HRS & COSTS
LABOR RATE PER HOUR		\$200.00	\$125.00	\$98.00	\$50.00	\$45.00				
PAVEMENT SUBGRADE STABILIZATION			0.5	1						2
MSE WALL RECOMMENDATIONS										0
BEARING CAPACITY		0.5	1	2						4
SETTLEMENT		2	3	10						15
STABILITY		2	5	10						17
EMBANKMENT SLOPE STABILITY PARAMETERS			1	8						9
PERFORM SLOPE STABILITY ANALYSIS		2	4	24						30
EROSION PROTECTION RECOMMENDATIONS			0.5	1						2
DRILLED FOOTING AND PIER FOUNDATION AXIAL CAPACITY		6	12	20						38
L-PILE PARAMETERS		3	3	8						14
CONSTRUCTABILITY EVALUATION		1	3	4						8
REPORT		8	20	60						88
TYPING/DRAFTING						30				30
REPORT PRODUCTION							EA	1	\$ 600.00	\$ 600.00
SHEETS & HOURS SUBTOTAL	0	26	57	193	0	30				305
SUBTOTAL LABOR COSTS		\$5,100.00	\$7,062.50	\$18,914.00	\$0.00	\$1,380.00			\$600.00	\$33,056.50
ATV RIG ANALYSIS (ALLOWANCE)										
MOBILIZATION/DEMOLITION							LS	1	\$ 117.00	\$ 117.00
DRILLING AND SAMPLING SURCHARGE							FT	1130	\$ 6.00	\$ 6,780.00
SHEETS & HOURS SUBTOTAL	0	0	0	0	0	0				0
SUBTOTAL LABOR COSTS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$6,897.00	\$6,897.00
TOTAL COSTS										\$108,525.00

ATTACHMENT B
COMPENSATION FOR SCOPE OF SERVICES
FORT BEND GRAND PARKWAY TOLL ROAD (SH 99) / WESTPARK TOLLWAY (FM 1093)

Weisser Engineering & Surveying

EBNB & WBNB DIRECT CONNECTORS

Limits: Westpark Tollway (FM 1093) Eastbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound
 Limits: Westpark Tollway (FM 1093) Westbound to Fort Bend Grand Parkway Toll Road (SH 99) Northbound

TASK DESCRIPTION	NUMBER OF SHEETS	PROJECT MANAGER (RPLS)	FIELD SUPERVISOR	SURVEY TECHNICIAN	3 PERSON CREW	CADD SUPPORT	ADMIN	TOTAL LABOR HRS & COSTS
SURVEY								
LABOR RATE PER HOUR		\$140.00	\$85.00	\$95.00	\$155.00	\$90.00	\$50.00	
SURVEY		4	24	55	130	100	5	318
SHEETS & HOURS SUBTOTAL	0	4	24	55	130	100	5	318
SUBTOTAL LABOR COSTS		\$560.00	\$2,040.00	\$5,225.00	\$20,150.00	\$9,000.00	\$250.00	\$37,225.00
ROW								
PARCEL PLATS (3 TRACTS @ \$3,750 PER TRACT)								\$11,250.00
SHEETS & HOURS SUBTOTAL	0	0	0	0	0	0	0	0
SUBTOTAL LABOR COSTS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,250.00
EXPENSES								
TRAFFIC CONTROL							LS	\$600.00
SUBTOTAL LABOR COSTS								\$600.00
TOTAL								\$49,075.00