

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**AMENDMENT TO AGREEMENT FOR
PROFESSIONAL ENGINEERING SERVICES**

THIS AMENDMENT, is made and entered into by and between Fort Bend County (hereinafter “County”), a body corporate and politic under the laws of the State of Texas, and EnTech Civil Engineers, Inc., (hereinafter “Contractor”), a company authorized to conduct business in the State of Texas.

WHEREAS, the parties executed and accepted that certain Agreement for Professional Engineering Services on June 22, 2021 pursuant to SOQ 14-025, (hereinafter “Agreement”); and

WHEREAS, the parties desire to amend the Agreement to allow Contractor to provide additional Services under the Agreement.

NOW, THEREFORE, the parties do mutually agree as follows:

1. County shall pay Contractor an additional amount not to exceed one hundred eighty-one thousand seven hundred ninety-five dollars and no/100 (\$181,795.00) to perform the additional Services, as described in Contractor’s proposal attached hereto as Exhibit “A” and incorporated herein for all purposes.
2. The Maximum Compensation payable to Contractor for all Services rendered is hereby increased to an amount not to exceed six hundred four thousand forty dollars and no/100 (\$604,040.00), authorized as follows:
 \$422,245.00 under the Agreement; and
 \$181,795.00 under this Amendment.
3. In no case shall the amount paid by County for all Services under the Agreement and this Amendment exceed the Maximum Compensation without an agreement executed by the parties.
4. BY ACCEPTANCE OF AGREEMENT, CONTRACTOR ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

Except as provided herein, all terms and conditions of the Agreement shall remain unchanged.

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the final party.

FORT BEND COUNTY

ENTECH CIVIL ENGINEERS, INC

KP George, County Judge

DocuSigned by:


C1F893E109A9405...
Authorized Agent – Signature

Date

Chris Orosco
Authorized Agent – Printed Name

ATTEST:

Sr. Project Manager
Title

Laura Richard, County Clerk

2/6/2023
Date

APPROVED: 

J. Stacy Slawinski, P.E., County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$_____ to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

EXHIBIT A

Compensation for Professional Services

Project Name: **Benton Road**

Project Limits: **Between Rice Field and FM 2977 at Koeblen**

Construction Cost Estimate: **\$ 3,149,500.00**

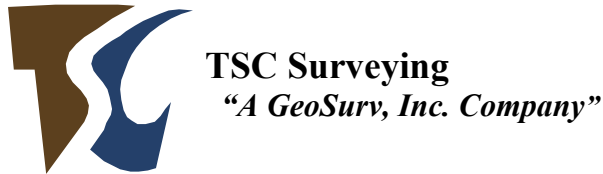
1	Pre-Design Phase	\$	43,344.00	\$43,344.00
2	Design Phase	\$	34,362.00	\$34,362.00
3	Survey			
	Topographic Survey		\$39,100.00	
	Survey Control Map (6 sheets)		N/A	
	ROW Research (abstracting)		N/A	
	Existing ROW Maps		N/A	
				\$39,100.00
4	Geotechnical Report			
	Roadway		N/A	
	Extra depth borings (\$90/boring)			
				\$0.00
5	Drainage			
	Drainage Report	\$	42,374	
				\$42,374.00
Subtotal Basic Services (1-8):				\$159,180.00
6	*Optional Additional Services including, but not limited to			
	amounts shown are estimates and will be paid according to the Engineer's Rates, unless otherwise identified as Firm Fixed Fee			
	Proposed ROW Maps (2 addtl tracts @ \$ 4,000/Tract)		\$0.00	
	2nd Detention Pond Design		\$16,615.00	
	2nd Detention Pond Site Topo & Boundary (3 Ac @ \$ 2,000)		\$6,000.00	
	Geotechnical Report (Detention Pond)		N/A	
				\$22,615.00
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)				\$181,795.00

TASK DESCRIPTION	Sr. Project Manager	Sr. Engineer	Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE I PRELIMINARY DESIGN (BASIC SERVICES)							
PRE DESIGN							
EXISTING PLAN COLLECTION & CATALOG							
EXISTING WATER, STORM & SANITARY UTILITIES PLANS							\$ -
EXIST. ROW & PAVING EVALUATION & REF FILE DEVELOPMENT							
REVIEW TOPO & ROW SURVEY - CONDUCT FIELD VERIFICATION		1	6		2		\$ 1,374
REVIEW HCAD, PROPERTY LINES, ROW, ESMTS		1	2				\$ 522
EXISTING UNDERGROUND UTILITIES EVALUATION & REF FILE DEVELOPMENT							
EXIST. STORM SEWER CONDITIONS & PROBLEMS			2				\$ 300
EXIST. SANITARY CONDITIONS & PROBLEMS							\$ -
EXIST. WATERLINE CONDITIONS & PROBLEMS							\$ -
PRIVATE UTILITES			2		1		\$ 426
DESIGN							
ROADWAY ALIGNMENT with ROUNDABOUT AT KOEBLEN AND RICE FIELD RD	1	4	8	8	16		\$ 5,220
SIGNING AND PAVEMENT MARKINGS			8	4	8		\$ 2,640
QA/QC							
PROJECT MANAGEMENT (Engineering, CADD and Admin)	12	12					\$ 5,688
SCHEDULING		2					\$ 444
QA/QC	6	6	6				\$ 3,744
PROJECT MEETINGS (6 Meetings @ 1 HRS EA. + Meeting Minutes)	3	3					\$ 1,422
QUANTITIES/COST ESTIMATE	1	2					\$ 696

TASK DESCRIPTION	Sr. Project Manager	Sr. Engineer	Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
EXHIBITS/ATTACHMENTS FOR STUDY REPORT							
PUBLIC UTILITIES							\$ -
PRIVATE UTILITIES							\$ -
PROPOSED AND EXISTING TYPICAL SECTIONS (PRELIMINARY)			4			4	\$ 1,104
PLAN & PROFILE SHEETS (30%) REVISE BENTON ROAD SHEETS		1	3	4	8		\$ 2,112
PLAN & PROFILE SHEETS (30%) ADDITIONAL SHEETS FOR KOEBLEN RD EXT.	1	1	3	3	8		\$ 2,256
PLAN & PROFILE SHEETS (30%) ROUNDABOUT AT RICEFIELD RD	0.5	1	6	5	12		\$ 3,300
PLAN & PROFILE SHEETS (30%) ROUNDABOUT AT KOEBLEN RD	0.5	1	6	4	12		\$ 3,192
PROPOSED DRAINAGE / STORM SEWER FOR ROUNDABOUT AT RICEFIELD RD			4	2	6		\$ 1,572
PROPOSED DRAINAGE / STORM SEWER FOR ROUNDABOUT AT KOEBLEN RD			4	2	6		\$ 1,572
PROPOSED DRAINAGE / STORM SEWER FOR KOEBLEN RD EXT.			2	2	2		\$ 768
PROPOSED DRAINAGE / STORM SEWER REVISIONS DUE TO ALIGNMENT CHANGE			4	2	2		\$ 1,068
SITE TRIANGLES TO COMPLETELY REVISED		4	8		2		\$ 2,088
COST ESTIMATES FOR ADDITIONAL LIMITS AND REVISED DESIGNS		6			4		\$ 1,836
MAJOR UTILITY TABLE							\$ -
HOURS SUB-TOTALS	25	45	78	36	91		\$ 43,344
RAW SALARY	\$ 84.00	\$ 74.00	\$ 50.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 222.00	\$ 150.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 6,300.00	\$ 9,990.00	\$ 11,700.00	\$ 3,888.00	\$ 11,466.00	\$ -	\$ 43,344
DIRECT EXPENSES							
MILEAGE @ \$0.56		miles	\$ 0.56				\$ -
PRINTS 8 1/2" X 11"		sheets	\$ 0.10				\$ -
PRINTS 11" X 17"		sheets	\$ 0.20				\$ -
SUBTOTAL							\$ -
PHASE I - Basic Services Total							\$ 43,344

TASK DESCRIPTION	Sr. Project Manager	Drainage Sr. Engineer	Drainage Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE I DRAINAGE REPORT							
DRAINAGE IMPACT STUDY							
DATA COLLECTION & SITE VISITS							
DOCUMENT COLLECTION AND REVIEW		2	2				\$ 783
FIELD VISIT							\$ -
REVIEW SURVEY DATA		2	4	2			\$ 1,317
HYDROLOGIC ANALYSIS							
DRAINAGE AREAS	2	4	6	12	6		\$ 4,440
HYDROLOGIC PARAMETERS	1	4	8	16	2		\$ 4,434
RUNOFF HYDROGRAPHS	1	4	10	16	2		\$ 4,752
EXISTING SWMM ANALYSIS							
EXISTING SWMM MODEL SET UP	1	2		2			\$ 933
HYDRAULIC ANALYSIS	1	2		2			\$ 933
ANALYZE EXISTING 2YR, 10YR, 100YR	1	2		2			\$ 933
PROPOSED SWMM ANALYSIS							
MODEL PROPOSED IMPROVEMENTS		6	8	10	8		\$ 4,755
PROPOSED HYDRAULIC ANALYSIS	1	4	8	12	4		\$ 4,254
DOWNSTREAM IMPACT EVALUATION & MITIGATION		4	8	12			\$ 3,498
ANALYZE PROPOSED 2 YR, 10YR, 100YR	1	2	6	8			\$ 2,535
REPORT							
REPORT WRITE-UP	1	6	6	8			\$ 3,465
TABLES, EXHIBITS & APPENDCES		2	4	6	12		\$ 3,423
ADDRESS COMMENTS FROM DD6							
ADDRESS COMMENTS FROM DD6	1	1	2	8	2		\$ 1,919
HOURS SUB-TOTALS	11	47	72	116	36	2	\$ 42,374
RAW SALARY	\$ 84.00	\$ 77.50	\$ 53.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 232.50	\$ 159.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 2,772.00	\$ 10,927.50	\$11,448.00	\$ 12,528.00	\$ 4,536.00	\$ 162.00	\$ 42,374
PHASE I - DRAINAGE REPORT Total							\$ 42,374

TASK DESCRIPTION	Sr. Project Manager	Drainage Sr. Engineer	Drainage Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE II DETENTION POND DESIGN							
PLAN SHEETS							
GENERAL NOTES SHEET (ADDITIONAL CONSTRUCTION NOTES FOR DETENTION POND)							\$ -
DETENTION POND LAYOUT - PLAN VIEW (ALIGNMENT, ELEVATIONS, SIDE & FLOWLINE SLOPES, BOTTOM, DETENTION DATA SUMMARY)		2	8	8	6		\$ 3,357
DETENTION POND LAYOUT - PROFILES (INFLOW CULVERT, OUTFALL CULVERT)		2	4	8	6		\$ 2,721
CROSS SECTION SHEETS (2 SHEETS) (EXIST & PROPOSED CROSS SECTIONS, CUT AND FILL)		1	2	8	4		\$ 1,919
EXCAVATION EARTHWORK CALCULATIONS (CUT AND FILL QUANTITY ALONG STATION)		0.5	2	4	2		\$ 1,118
SW3P - FOR DETENTION POND			1	2	2		\$ 627
DETAILS							
BACKSIDE SWALE INTERCEPTOR DETAILED SECTIONS	1	4	2		8		\$ 2,508
OUTFALL DETAILS (3 SHEETS) (FLOATABLE COLLECTION SCREEN, RIPRAP, HEADWALL)	2	6	6		12		\$ 4,365
HOURS SUB-TOTALS	3	15.5	25	30	40		
RAW SALARY	\$ 84.00	\$ 77.50	\$ 53.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 232.50	\$ 159.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 756.00	\$ 3,603.75	\$ 3,975.00	\$ 3,240.00	\$ 5,040.00	\$ -	
Total Design Phase							\$ 16,615
PHASE II - DETENTION POND DESIGN Total							\$ 16,615



GeoSurv, Inc. d/b/a TSC Surveying

TBPLS Firm No. 10083100

December 12, 2022

Chris Orosco, P.E.
Sr. Project Manager
Entech Civil Engineers, Inc.
15021 Katy Freeway, Suite 500
Houston, Texas 77094

Re: Fort Bend County Mobility Bond Project
Benton Road Connection
From Rice Field Road to Koeblen Road Extension
Project No. 20108

Dear Mr. Orosco:

GeoSurv, Inc. dba TSC Surveying (TSC) is pleased to submit to Entech Civil Engineers, Inc. (ECE) (Client) the following proposal for performing professional surveying services on the captioned project, more particularly, Topographic Surveying, Level C&D Subsurface Utility Surveying (Texas811) and Proposed Right of Way Acquisition. Proposed Right-of-Way (ROW) acquisition includes ROW survey of specific properties, property record research, preparation of parcel documents, and setting proposed ROW corners.

Project Overview and Scope

The project is part of the Fort Bend County's 2020 Mobility Bond Program (Project No. 20108). The project, for Fort Bend County (FBC) Precinct 1 (Owner), is for the Design Survey and ROW Acquisition and Mapping of the Benton Road Connection from Rice Field Road to the Koeblen Road Extension near the new LCISD High School.

The topographic survey work for the original alignment was completed and now a new alignment was proposed by the landowner. FBC has requested the survey work be performed for the new alignment. **See Exhibit A** for the new alignment.

Topographic Survey

Listed below are the tasks for the Topographic Survey (Topo):

1. The new Survey to be conducted in accordance with the latest **Ft Bend County Engineering Design Manual, Chapter 6, Survey** except as noted.
2. The new survey datum control and the "initial" project baseline (alignment) utilized for the project will be provided by ECE per Exhibit A.

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3. ECE will provide the project baseline alignment in CAD format. The alignment is assumed to 4900' in length
4. TSC will provide a new topographic survey that will extend 100 feet on each side of the "initial" project base line for the new alignment. The Topographic Survey will extend the full width of the "proposed" ROW (100') of the Benton Road, Koeblen Road Extensions, and Rice Field Road plus 50' on each side of the proposed ROW for a total width of 200' based upon the "New" project baseline(100' on either side of New "initial" project base line.
5. The new survey accommodate are for two proposed roundabouts.
6. ECE will provide to TSC the "New" project/construction baseline for inclusion in the topographic survey.
7. TSC will establish control for the project once.
8. TSC will stake once in the field the "final" project/construction baseline and Proposed ROW lines.
9. TSC will recover or reestablish control, baseline, and ROW lines as an additional service.
10. TSC will provide cross sections of the drainage ditches crossings (2 crossings) for 200' in each direction beyond the proposed ROW per the "initial" project baseline. The cross sections will extend 20' outside the top of bank or easement line.
11. The Topographic Survey will extend 200' from the proposed Benton Road, Koeblen Road, and Rice Field ROW at each of intersecting streets (Koeblen Road Extension and Rice Field Road). The cross sections will extend 50' outside the approximate existing ROW.
12. Topographic Survey will be provided for the area of the proposed two 3-acre detention ponds. The ponds are assumed to be adjacent to the proposed ROW for Benton Road and have no outfall extensions.
13. Twelve geotechnical bore holes will be located with (x, y, z) data in the field based upon information provided by the geotechnical firm.
14. TSC will make an 811 call and identify tone marks/ flagging in the field.
15. TSC will perform Levels C&D Subsurface utility Engineering/Location SUE (record research and Topo only).
16. TSC will obtain depth of drainage and sanitary manholes if access is available.

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Benton Road Connection
From Rice Field Road to Koeblen Road Extension
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17. ECE will provide Record Drawings if available for Rice Field Road, Benton Road, Koeblen Road and New LCISD High School Site.
18. The approximate existing ROW and pipeline documentation/ownership will be determined by abstracting for the project limits.
19. The approximate existing ROW developed from abstracting and field observations (corners/iron rods) will be shown on the topo drawings.
20. A Right of Entry (ROE) Letter will be prepared by TSC and will include the ECE Team for the one parcel (George Foundation).
21. It is assumed in this proposal that there will be two project meetings with ECE, project team, and FBC staff including site visits and field walks.

Proposed Right of Way (ROW) Documents

Listed below are the tasks for the proposed ROW Documents:

1. ROW Acquisition requirements will be conducted in accordance with the latest **Ft Bend County Engineering Design Manual, Chapter 7, Right-Of -Way** and the latest procedures and guidelines listed in the **Fort Bend County ROW Taking Area Digital Submittals Memorandum**.
2. It is anticipated that there will be one only parcel to be acquired and that will be from the George Foundation.

Not Included

1. Project and Utility profiles will not be prepared.
2. There are no UVE's planned.
3. The cutting of sheets is not included in this proposal.
4. No Construction Phases services are included in this proposal.
5. Expert witness or special documentation for property acquisition are not included in this proposal.
6. There will be no special displays prepared.

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7. It is assumed that the George Foundation will have no objections to the proposed property acquisition.
8. Levels A & B level SUE are not included in this proposal but can be provided as additional services.

Compensation

TSC proposes to complete the scope of work described in Topographic Survey and Proposed ROW Documents of this proposal as **additional services** to the existing contract for a **Lump Sum Fee of \$45,100.00** . The existing contract is attached. We will invoice based on the percentage (%) of work completed for the proposed services. A breakdown of the proposed fees are as follows:

Description	Lump Sum Fee
9. Topographic Survey—Benton Road Connection, Koeblen Road Extension and Rice Field Road 5,000 LF X \$6.00/LF	\$ 30,000
11. Topographic Surveys –Intersecting Roads 300 LF X \$7.00/LF	\$2,100
12. Topographic Surveys – Drainage Channels 1,000 LF X \$7.00/LF	\$7,000
13. Topographic Surveys –Detention Ponds One 3-AC. Pond X \$2,000/ AC.	\$6,000
TOTAL LUMP SUM	\$45,100

Schedule

TSC will complete the work described in Topographic Survey within sixty (60) calendar days and receipt of the written Notice-to-Proceed (NTP) without further modification of the scope of services and pending any unforeseen circumstances (ROE issues, weather, work stoppage, etc.) that may delay the work schedule.

TSC will complete the work described in Proposed ROW Documents within sixty (60) calendar days and after receipt of the written Notice-to-Proceed (NTP) and final alignments and areas without further modification of the scope of services and pending any unforeseen circumstances (weather, work stoppage, etc.) that may delay the work schedule.

Deliverables

The deliverables for the Topographic Survey Scope of Services will be as follows:

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- MicroStation planimetric graphic files (2D & 3D) will be prepared for the plan view. The vertical accuracy for the topographic survey will be 2 inches (+/-).
- Survey points data file (ASCII).
- TIN/DTM files.
- Survey files will be prepared using surface coordinates with a conversion factor.
- Copies of field notes.
- Signed and sealed survey control map sheets.

The deliverables for the Proposed ROW Documents Services will be as follows:

- Proposed ROW Map(s)
- Parcel Map(s)

Again, I would like to thank you for this opportunity to submit this proposal and look forward to working with you on making this a successful project. If you have any questions, please call me at 713-784-4466

Sincerely,



Nelson B. Nuckles, P.E.
Chief Engineer

EXHIBIT A





TSC Surveying
“A GeoSurv, Inc. Company”
TBPLS Firm No. 10083100
5/11/2022
Invoice #3

Mr. Chris Orosco., P.E.
 Senior Project Manager

Invoice No.: **688-007-03**
 TSC Project No: 688007

Entech Civil Engineers, Inc.
 15021 Katy Freeway
 Houston, Texas 77094

Re: **Benton Road : From Ricefield Road to Koeblen Road - Ft. Bend County**

This Invoice covers work performed through:

4/31/2022

Item	Basic Services:	Contract Fee	Total % Complete	% Complete This Invoice	Total Amount Invoice	Previous Invoice Amount	Balance Remaining	Amount Due This Invoice
1	Topographic Survey—Benton Road Connection	\$29,400	100.00%	10.00%	\$29,400.00	\$26,460.00	\$0.00	\$2,940.00
2	Topographic Surveys –Intersecting Roads	\$7,000	100.00%	10.00%	\$7,000.00	\$6,300.00	\$0.00	\$700.00
3	Topographic Surveys – Drainage Channels	\$7,000	100.00%	10.00%	\$7,000.00	\$6,300.00	\$0.00	\$700.00
4	Topographic Surveys –Detention Ponds	\$6,000	100.00%	10.00%	\$6,000.00	\$5,400.00	\$0.00	\$600.00
5	ROW Research (Abstracting)	\$3,000	100.00%	10.00%	\$3,000.00	\$2,700.00	\$0.00	\$300.00
6	Survey Control Maps	\$6,000	100.00%	10.00%	\$6,000.00	\$5,400.00	\$0.00	\$600.00
7	Existing ROW Maps	\$6,000	60.00%	0.00%	\$3,600.00	\$3,600.00	\$2,400.00	\$0.00
8	Parcel Maps (1 Large parcel) (Proposed ROW)	\$6,000	0.00%	0.00%	\$0.00	\$0.00	\$6,000.00	\$0.00
9	Staking the “Final” Project Baseline and Proposed ROW lines	\$4,000	0.00%	0.00%	\$0.00	\$0.00	\$4,000.00	\$0.00
	TOTAL LUMP SUM	\$74,400.00	83.33%		\$62,000.00	\$56,160.00	\$12,400.00	\$5,840.00

I certify this invoice to be true and correct.

David S. Kermany

David S. Kermany, P.E.
 Partner