

STATE OF TEXAS

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§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

**FIRST AMENDMENT TO AGREEMENT  
FOR PROFESSIONAL SERVICES**

THIS FIRST AMENDMENT to the AGREEMENT FOR PROFESSIONAL SERVICES is made and entered into by and between Fort Bend County Drainage District, a body corporate and politic under the laws of the State of Texas, hereinafter "District," and Brown & Gay Engineers, Inc. hereinafter referred to as "Engineer," authorized to conduct business in the State of Texas.

WITNESSETH:

WHEREAS, District and Engineer previously entered an Agreement for Professional Services dated July 18, 2006 (herein after referred to as the "Agreement"), attached hereto as Exhibit B, to have professional engineering services available when needed in support of its work with regards to the proposed improvements for the Ditch H extension to Oyster Creek in Fort Bend County, Texas;

WHEREAS, Subsequent to entering the Agreement, circumstances have changed the Project and scope of work contemplated therein;

WHEREAS, District desires that Engineer continue to provide professional engineering and surveying services in support of the Proposed Improvements for Ditch H Channel Extension to Oyster Creek in Fort Bend County, Texas, under the new Scope of Services hereinafter referred to as the "Project;" and,

WHEREAS, District and Engineer now desire to further amend said Agreement as set forth below.

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

SECTION I  
SCOPE OF AGREEMENT

Engineer agrees to perform professional engineering and surveying services in connection with the Project as stated herein and for having rendered such services, District agrees to pay to Engineer compensation as stated herein. All services provided by Engineer under this Agreement are exclusive of any zoning and platting fees or time extensions required to process such applications.

SECTION II  
CHARACTER AND EXTENT OF SERVICES

2.01 Engineer shall provide the services described in Exhibit A, attached hereto and incorporated by reference as if set forth herein verbatim for all purposes. Exhibit A is the

7-22-09 2 orig. ret. to Rose Ann at Drainage

April 1, 2009 Scope of Work from Engineer, including: Attachment A, Scope of Work; Attachment B, Scope of Work and Estimated Engineering Fee; and, Attachment C, Engineering and surveying billing Rates.

- 2.02 Engineer agrees to complete the services called for in Section 2.01 within a reasonable time from the date of this Amendment.

### SECTION III ENGINEER'S COMPENSATION

- 3.01 For and in consideration of the services rendered by Engineer, and subject to the limit of appropriation under Section VII, District shall pay to Engineer an amount not to exceed \$339,000.00., said amount reflecting a \$73,000.00 increase from the \$266,000.00 originally authorized in the Agreement.
- 3.02 Engineer shall submit invoices to District and District shall pay each invoice within thirty (30) days after District Project Manager's written approval provided however, that the approval or payment of any invoice shall not be considered to be conclusive evidence of performance by Engineer to the point indicated by such invoice or of receipt or acceptance by District of the services covered by such invoice.
- 3.04 Engineer's fees shall be calculated at rates not to exceed the amounts included on Exhibit A, incorporated by reference herein as if set-forth verbatim.

### SECTION IV TERMINATION

- 4.01 District may terminate this Agreement at any time by providing ten (10) days written notice to Engineer.
- 4.02 Upon receipt of such notice, Engineer shall discontinue all services in connection with the performance of this Agreement and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to this Agreement.
- 4.03 Within thirty (30) days after receipt of notice of termination, Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination.
- 4.04 District shall then pay Engineer that proportion of the prescribed charges which the services actually performed under this Agreement bear to the total services called for under this Agreement, less such payments on account of charges as have been previously made.
- 4.05 Copies of all completed or partially completed designs, drawings, electronic data files and specifications prepared under this Agreement shall be delivered to District when and if this Agreement is terminated in the manner and for the purposes provided in this Agreement.

### SECTION V LIABILITY INSURANCE

Engineer shall furnish certificates of insurance to District evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of Engineer, name of insurance company, policy number, term of coverage and limits of coverage. Engineer shall cause its insurance companies to provide District with at least 30 days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the

insurance coverage required under this Agreement. Engineer shall obtain such insurance from such companies having Bests rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

- A. Workers' Compensation insurance with statutory limits. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
- B. Commercial General Liability insurance with limits of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate.
- C. Employers' liability insurance with limits of not less than \$100,000 per accident and \$500,000 in the annual aggregate.
- D. Professional Liability insurance with limits not less than \$1,000,000 each claim/annual aggregate.

SECTION VI  
NOTICE

- 6.01 Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States Post Office, addressed to District or Engineer at the addresses set forth below.
- 6.02 If mailed, any notice or communication shall be deemed to be received three days after the date of deposit in the United States Mail.
- 6.03 Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

- A. If to Engineer:

Brown & Gay Engineers, Inc.  
10777 Westheimer, Suite 400  
Houston, Texas 77077-6841

Attn.: Ronald L. Mullinax, P.E.

- B. If to District notice must be sent to both the Fort Bend County Drainage District General Manager and Fort Bend County Drainage District chairman:

Fort Bend County Drainage District General Manager  
1004 Blume Road  
Rosenberg TX 77471

Fort Bend County Drainage District Chairman  
301 Jackson St., Ste. 719 Rosenberg, TX 77471  
Richmond, TX 77469

- 6.04 Either party may designate a different address by giving the other party ten (10) days written notice.

SECTION VII  
LIMIT OF APPROPRIATION

- 7.01 Prior to the execution of this Agreement, Engineer has been advised by District, and Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this contract, that District shall have available the total maximum sum of \$339,000.00, specifically allocated to fully discharge any and all liabilities which may be incurred by District.
- 7.02 Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this contract, that the total maximum compensation that Engineer may become entitled to hereunder and the total maximum sum that District shall become liable to pay to Engineer hereunder shall not under any conditions, circumstances or interpretations thereof exceed the sum of \$339,000.00.

SECTION VIII  
SUCCESSORS AND ASSIGNS

- 8.01 District and Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement.
- 8.02 Neither District nor Engineer shall assign, sublet or transfer its or his interest in this Agreement without the prior written consent of the other.
- 8.03 Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public and/or governmental body that may be a party hereto.

SECTION IX  
PUBLIC CONTACT

- 9.01 Contact with the any media outlet, citizens of Fort Bend District or governmental agencies shall be the sole responsibility of District.
- 9.02 Under no circumstances, whatsoever, shall Engineer release any material or information developed or received in the performance of its services hereunder without the express written permission of District, except where required to do so by law.

SECTION X  
COMPLIANCE AND STANDARDS

Engineer shall render the services hereunder in accordance with generally accepted standards of Engineers practicing in Fort Bend District, Texas applicable thereto and shall use that customary degree of care and skill commensurate with the profession similar to the Project to comply with all applicable state, federal, and local laws, ordinances, rules and regulations relating to the services to be rendered hereunder, and Engineer's performance.

SECTION XI  
OWNERSHIP OF DOCUMENTS

- 11.01 District shall be the absolute and unqualified owner of all drawings, preliminary layouts, record drawings, sketches and other documents prepared pursuant to this Agreement by Engineer and his Engineers (deliverables).
- 11.02 No reuse fees or royalty payments will be paid to Engineer in connection with future reuse or adaptation of designs derived under this contract.
- 11.03 Copies of all complete or partially completed mylar reproducible, preliminary layouts, record drawings, digital files, sketches and other documents prepared pursuant to this Agreement shall be delivered to District when and if this Agreement is terminated or upon completion of this Agreement, whichever occurs first, as provided in this Agreement.
- 11.04 Engineer is expressly prohibited from selling, licensing or otherwise marketing or donating such documents, or using such documents in the preparation of other work for any other client, or from duplicating the appearance of the Project depicted in the deliverables for any without the prior express written permission of District.
- 11.05 The documents referenced in this Section are not intended or presented by Engineer to be suitable for reuse by District or others on extensions of this Project or on other unrelated projects.
- 11.06 Any adaptation or use by District of such documents on extension of this Project or other unrelated projects shall be at District's sole risk.

SECTION XII  
INDEMNIFICATION

- 12.01 **ENGINEER SHALL SAVE HARMLESS DISTRICT FROM AND AGAINST ALL CLAIMS, LIABILITY, AND EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES, ARISING FROM ACTIVITIES OF THE ENGINEER, ITS AGENTS, ENGINEERS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, ERROR, OR OMISSION OF ENGINEER OR ANY OF ENGINEER'S AGENTS, SERVANTS OR EMPLOYEES.**
- 12.02 **ENGINEER SHALL ALSO SAVE HARMLESS DISTRICT FROM AND AGAINST ANY AND ALL EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES WHICH MIGHT BE INCURRED BY DISTRICT, IN LITIGATION OR OTHERWISE RESISTING SAID CLAIMS OR LIABILITIES THAT MIGHT BE IMPOSED ON DISTRICT AS THE RESULT OF SUCH ACTIVITIES BY ENGINEER, ITS AGENTS, ENGINEERS OR EMPLOYEES.**

SECTION XIII  
MODIFICATIONS

This instrument contains the entire Agreement between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent written modification signed by both parties hereto.

SECTION XIV  
MISCELLANEOUS

- 14.01 By entering into this Agreement, the parties do not intend to create any obligations, express or implied, other than those specifically set out in this Agreement.
- 14.02 Nothing in this Agreement shall create any rights or obligations in any party who is not a signatory to this Agreement.
- 14.03 Engineer agrees and understands that: by law, the Fort Bend County Attorney's Office may only advise or approve contracts or legal documents on behalf of its clients; the Fort Bend County Attorney's Office may not advise or approve a contract or other legal document on behalf of any other party not its client; the Fort Bend County Attorney's Office has reviewed this document solely from the legal perspective of its client; the approval of this document by the Fort Bend County Attorneys Office was offered solely to benefit its client; Engineer and other parties should not rely on this approval and should seek review and approval by their own respective legal counsel.

SECTION XV  
CLEAN-UP

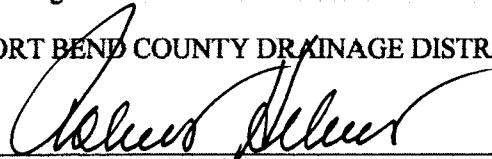
- 15.01 Engineer shall at all times keep its work area in a neat, clean and safe condition and remove from District's premises and the vicinity thereof and properly dispose of all debris and rubbish caused by Engineer's operations. Upon completion of the services provided under this Agreement, Engineer shall promptly return unused materials furnished by District, if any, and remove from District's premises all of Engineer's equipment, material, scaffolding and like items, leaving District's premises and the vicinity clean, safe and ready for use.
- 15.02 In the event Engineer shall fail to maintain its work area as described above and in a manner satisfactory to District, or to effect such clean-up or removal immediately after receipt of written notice to do so, District shall have the right without further notice to Engineer to perform such cleanup and remove such items on behalf of and at the risk of and at the expense of Engineer. District may store items removed at a place of its choosing on behalf of Engineer and at Engineer's risk and expense. District shall promptly notify Engineer of such place of storage. District may further deduct from any final payment owed to Engineer for the cost of any clean-up performed by District in which Engineer failed to perform.

*EXECUTION PAGE TO FOLLOW*

SECTION XVI  
EXECUTION


This Agreement shall not become effective until executed by all parties hereto.

FORT BEND COUNTY DRAINAGE DISTRICT:

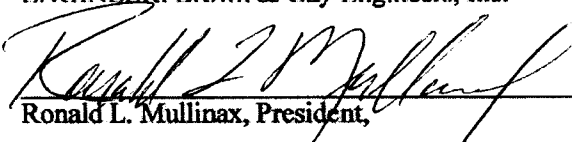
  
\_\_\_\_\_  
Robert E. Hebert, Chairman

Date July 21, 2009

Attest:

  
\_\_\_\_\_  
Dianne Wilson, County Clerk

ENGINEER: Brown & Gay Engineers, Inc.

  
\_\_\_\_\_  
Ronald L. Mullinax, President,

7/2/09

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$339,000.00 to accomplish and pay the obligation of the Fort Bend County Drainage District under this contract.

  
\_\_\_\_\_  
Ed Sturdivant, Fort Bend County Auditor

Exhibit A: April 1, 2009 Scope of Work from Engineer, including: Attachment A, Scope of Work; Attachment B, Scope of Work and Estimated Engineering Fee; and, Attachment C, Engineering and surveying billing Rates.

Exhibit B. Agreement for Professional Services, July 18, 2006

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**Exhibit "A" to First Amendment To Agreement For Professional Services**  
**ATTACHMENT A**

**General**

From the recommendations in the October 2002 "Upper Oyster Creek and Ditch H Drainage Study and Improvement Plan" (the Study) prepared for Fort Bend County, the City of Sugar Land and Levee Improvement District No. 2; this project proposes a construction plan for the extension of Ditch H from its existing terminus downstream of US 90A up to Oyster Creek. All documents generated as part of this project will be the property of the project participants, and will be furnished to the participants when required.

**Final Design Tasks**

**100 – Surveying and Environmental Services**

1. Obtain an environmental permit for the project under nationwide authority.
2. Prepare archaeological report for cultural resource investigation of the site.
3. Prepare legal description/s and exhibits for any additional easements or right-of-way necessary for this project. This will be in a form that can be attached to the easement document for recording. Estimate is based on four tracts (Const access (2 places), fill placement, and storm sewer)
4. Obtain supplemental topography at upstream end of box culverts and along SH 6 where highway construction has altered the area.
5. Stake boundaries of the proposed right-of-way and the project baseline in the field. Place iron rods, if necessary.

**150 – Union Pacific Railroad (UPRR) Coordination**

1. Provide UPRR design consultant with surveying data.
2. Coordinate the Ditch "H" Extension design requirements with UPRR bridge design.
3. Evaluate the HEC-RAS hydraulic model with the proposed bridge in place.
4. Attend meetings and provide technical support to Fort Bend County for UPRR contract negotiations.
5. Prepare TXDOT driveway permit for UPRR access road.

**200 – HEC-RAS Model Evaluation and Reporting**

1. Develop unsteady flow HEC-RAS model (using FEMA model data) to evaluate preliminary engineering design layout.
2. Develop design refinements/modifications to accommodate revised hydraulic model results.
3. Hydraulic evaluation of design refinements/modifications to accommodate revised hydraulic model results.
4. Prepare H&H Report in accordance with UPRR guidelines for 60% design submittal.

**300 – Final Engineering and Contract Document Preparation**

1. Prepare cover sheet, general notes, control survey and standard detail drawings (4 sheets) in accordance with Fort Bend County and City of Sugar Land Design Standards.
2. Prepare plan and profile drawings including , baffled chute, channel modifications, culvert installation, and storm sewer (6 sheets).

## ATTACHMENT A

3. Prepare cross-sections for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer (4 sheets).
4. Prepare details for channel modifications, culvert installation, and storm sewer.
5. Prepare structural details for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer (8 sheets).
6. Prepare plan and details for stormwater pollution prevention (2 sheets).
7. Prepare 60% design submittal for review and comment including 60% plans, specifications list, and cost estimates.
8. Incorporate 60% design comments and complete drawings.
9. Prepare 90% design submittal for review and comment including 90% plans, specifications, and cost estimates.
10. Incorporate 90% design comments and complete drawings.
11. Prepare bid document submittal for review and concurrence including plans, specifications, and cost estimates.
12. Obtain private utility approval for design documents.
13. Obtain public agency approval for design documents.
14. Submit approved design documents for bids.
15. Provide bidding assistance including pre-bid meeting, preparation of addenda (as required), bid tabulation, bid evaluation, and recommendation.
16. Incorporate Brazos River stop log structure into spillway design at 90% submittal. See attached additional services request (updated to current rate schedule).

### **400 – Construction Phase Services**

1. Meetings
  - a. Engineer shall attend the construction kickoff meeting, respond to questions and prepare minutes of the meeting for submittal to the District within three (3) days after the meeting.
  - b. Engineer shall attend monthly project status meetings at the project site conducted by the District. Engineer shall report on the status of submittals and responses to design-related questions and requests for information (RFI). The Engineer shall prepare progress meetings minutes.
2. Submittals
  - a. Engineer will review contractor's submittals for general conformance with the Contract required by the technical specifications. Submittals to be reviewed by Engineer include samples, catalog data, schedules, shop drawings, laboratory data, shop and mill test reports, material test reports, and any other data required by the Contract Documents. Engineer shall document review comments, review action and maintain a log of the contractor submittals.
  - b. The Engineer shall prepare written responses to written RFIs from the Contractor, the City, or the District. Engineer shall prepare written responses, supplemented with elementary sketches, as required. Engineer shall maintain a log of receipt, review action taken, and the transmittal of requests for information received.

**ATTACHMENT A**

- c. Engineer shall assist the District with review of proposals and change order requests that may originate from Contractor, City, or District. Potential change orders shall be reviewed for conformance with original design intent. Engineer shall maintain a log of the receipt, review action taken, and the transmittal of forms received from the District.
3. Observation
  - a. Engineer shall perform periodic observation (a minimum of one site visit per month in addition to monthly project status meetings) of the progress and quality of executed work. Engineer shall provide his opinion to the District regarding progress of the work and its conformance with Contract Documents.
  - b. Engineer shall assist the District to determine if substantial completion requirements have been satisfied. Engineer's services shall be limited to job site visits for the purpose of preparing one punch list for substantial completion review and one punch list for final acceptance review. Engineer shall prepare and submit a letter stating that the project has been constructed substantially in accordance with the Contract Documents.
4. Final Project Documentation
  - a. Upon written authorization of the District, Engineer shall perform calculations to determine final excavation and material quantities for the project and assist the District in determining other final payment quantities.
  - b. Update H&H models and supporting spreadsheets to reflect the performance of the as-built project.
5. Provide as-built drawings to participants upon construction completion to show changes from original design that were constructed in the completed project (based on 24 sheets).



Project: Ditch H Channel Extension to Oyster Creek - Final Design  
 Client: Fort Bend County & City of Sugar Land  
 Date: 03/31/2009  
 By: cwf/lcl  
 Filename: M:\Projects\Fbc\FBC15-02\Admin\Contract\Proposal\20090331\20090401- Revised Proposal Fee-Ditch H Extension.xls\Proposal 090331

## ATTACHMENT B

### Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek (Updated)

Task No.	Description	Engineering Hours				Surveying Hours			Sub-Consultant	Cost	
		Prin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech			LS Crew
<b>100 - Surveying and Environmental Services</b>											
1	Obtain Environmental Permit for constructing the project		8			4				\$ 9,680	\$ 11,200
2	Prepare archaeological investigation report for the site	2	8			4				\$ 10,995	\$ 12,915
3	Prepare legal descriptions and exhibits for any additional easements or rights-of-way necessary for this project. Estimate is based on four tracts (Const access (2 plcs), fill placement, and storm sewer)		4				8	32			\$ 8,400
4	Obtain supplemental topography at upstream end of box culverts and along SH 6 where highway construction has altered the area.		4	16	4		2	4	24		\$ 6,800
5	Stake boundaries of the proposed right-of-way and the project baseline in the field. Place iron rods, if necessary.		4				4	6	24		\$ 4,250
	<b>Subtotal Surveying and Environmental Services</b>	2	24	16	4	8	14	42	80	\$	<b>43,565</b>
<b>150 - Union Pacific Railroad (UPRR) Coordination</b>											
1	Provide UPRR design consultant with surveying data	2	20								\$ 3,600
2	Coordinate the Ditch "H" Extension design requirements with UPRR brid	2	60								\$ 10,000
3	Evaluate the HEC-RAS hydraulic model with the proposed bridge in place	2	20	16	16	20					\$ 8,160
4	Attend meetings and provide technical support to Fort Bend County for UPRR contract negotiations	6	40								\$ 7,600
5	Prepare TXDOT driveway permit for UPRR access road	2	10	16	16	40					\$ 7,760
	Less - Original Contract Task C.12 - Union Pacific Railroad Approval	-2	-24	-16	-8	-16					\$ (7,840)
	<b>Subtotal Surveying and Environmental Services</b>	14	150	32	32	60	0	0	0	\$ 0	<b>29,280</b>
<b>200 - HEC-RAS Model Evaluation and Reporting</b>											
1	Develop unsteady flow HEC-RAS model (using FEMA model data) to evaluate preliminary engineering design layout.	2	24	60	32	16					\$ 15,280
2	Develop design refinements/modifications to accommodate revised hydraulic model results	1	16	40	20	4					\$ 9,600
3	Hydraulic evaluation of design refinements/modifications to accommodate revised hydraulic model results	1	16	40	20						\$ 9,360
4	Prepare H&H Report in accordance with UPRR guidelines for 60% design submittal		8	20	8						\$ 4,400
	<b>Subtotal Reevaluate HEC-RAS Model Results</b>	4	64	160	80	20				\$	<b>38,640</b>

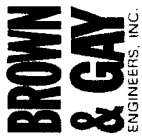


Project: Ditch H Channel Extension to Oyster Creek - Final Design  
 Client: Fort Bend County & City of Sugar Land  
 Date: 03/31/2009  
 By: cwf/lel  
 Filename: M:\Projects\Fbs\FBC15-02\Admin\Contract\Proposal\20090331\20090401-Revised Proposal Fee-Ditch H Extension.xls\Proposal 090331

**ATTACHMENT B**

**Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek (Updated)**

Task No.	Description	Engineering Hours				Surveying Hours				Sub-Consultant	Cost	
		Prin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech	LS Crew			
<b>300 - Final Engineering and Contract Document Preparation</b>												
1	Prepare cover sheet, general notes, control survey and standard detail drawings		2	8	8							\$ 3,440
2	Prepare plan and profile drawings including channel improvements, weir structure, baffled chute, culvert installation, and storm sewer modifications, culvert installation, and storm sewer	4	20	40	60							\$ 19,000
3	Prepare cross-sections for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer		16	24	40							\$ 13,840
4	Prepare details for channel modifications, culvert installation, and storm sewer		16	24	40							\$ 13,840
5	Prepare structural details for weir structure/baffled chute, stilling basin retaining walls, culvert headwall, and junction box		32	48	120							\$ 27,680
6	Prepare plan and details for stormwater pollution prevention		4	4	12							\$ 3,400
7	Submit 60% design documents including plans, specification and cost estimate for review and comments	2	4	8	8							\$ 3,440
8	Incorporate 60% design comments and complete drawings <sup>1</sup>		4	8	12							\$ 4,560
9	Submit 90% design documents for review and comments <sup>1</sup>	2	4	8	8							\$ 3,800
10	Incorporate 90% design comments and finalize drawings <sup>1</sup>		4	8	12							\$ 4,560
11	Submit final design documents for review and approval <sup>1</sup>	2	4	8	8							\$ 3,800
12	Obtain private utility approval for design documents <sup>1</sup>		4	8	8							\$ 3,040
13	Obtain public agency approval for design documents <sup>1</sup>		8	16	8							\$ 5,280
14	Submit approved design documents for bids <sup>1</sup>	2	4	8	8							\$ 3,520
15	Provide bidding assistance including pre-bid meeting, preparation of addenda (as required), bid tabulation, bid evaluation, and recommendation. <sup>1</sup>		12	12	8							\$ 4,960
16	Incorporate Brazos River stop log structure into spillway design at 90% submittal <sup>1,2</sup>	5	28	96	152							\$ 43,600
<b>Subtotal Final Engineering &amp; Design</b>											\$ 161,760	



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 Date: 03/31/2009  
 By: cwf/lcl  
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**ATTACHMENT B**

**Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek (Updated)**

Task No.	Description	Engineering Hours				Surveying Hours			Sub-Consultant	Cost	
		Prin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech			LS Crew
<b>400 - Construction Phase Services</b>											
1	Attend construction kick-off and project progress meetings including meeting minutes (based on 8) <sup>1</sup>		32	32			16				\$ 10,720
2	Review shop drawings and other submittals including response to RFIs and change orders (based on 20) <sup>1</sup>		10	40	40		10				\$ 11,300
3	Periodic site observation with written report and project completion punchlist (based on 8, plus coord) <sup>1</sup>		40	32	24		16				\$ 14,560
4	Provide final report to the project participants. <sup>1</sup>		24	64	24		16				\$ 15,520
5	Provide as-built drawings to participants upon construction completion (based on 24 sheets) <sup>1</sup>		4	24	48		72				\$ 13,440
<b>Subtotal Construction Phase Services</b>			110	192	136		130				\$ 65,540
<b>Total Project Engineering Services Estimated Fee</b>										<b>\$ 339,000.00</b>	

**NOTES:**

- Hourly rates for task budget are based on the current 2009 BGE rate schedule.
- See following additional services proposal for details



Project: Ditch H Channel Extension to Oyster Creek - Final Design  
 Client: Fort Bend County & City of Sugar Land  
 Date: 03/31/2009  
 By: cwf7/c1  
 Filename: M:\Projects\Fbc\FBC15-02\Admin\Contract\Proposal\20090331\20090401-Revised Proposal Fee-Ditch H Extension.xls\Proposal 090331

**ATTACHMENT B**

**Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek (Updated)**

Task No.	Description	Engineering Hours				Surveying Hours			Sub-Consultant	Cost	
		Prin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech			LS Crew
<b>Scope of Work and Estimated Engineering Fee for Reconfiguration of the Hydraulic Structure</b>											
1	Stop Log Structural Support - Plan and Elevation Sheet (1 Sheet)	1	4	12	16	16					\$ 5,120
2	Stop Log Structural Support - Sections (3 Sheets)	1	6	30	48	40					\$ 12,520
3	Stop Log Structural Support - Details (3 Sheets)	1	6	30	48	40					\$ 12,520
4	Pedestrian Bridge Modifications for Vehicular Traffic - Plan/Elevation, Sections and Details (revise 3 sheets)	1	4	16	32	40					\$ 8,880
5	Civil Design for Reconfiguration incl Layout, Vehicular Access and Material Selection	1	8	8	8	16					\$ 4,560
6											\$ -
7											\$ -
8											\$ -
9											\$ -
10											\$ -
	Subtotal Hours	5	28	96	152	152	0	0	0		
	Rate - 2009	\$240	\$180	\$120	\$100	\$70	\$130	\$90	\$155		
	<b>Total Professional Service Hours</b>	5	28	96	152	152	0	0	0		
<b>Total Project Engineering Services Estimated Fee \$</b>										<b>43,600.00</b>	



**Fort Bend County Drainage District  
Ditch "H" Extension**

**ATTACHMENT C - Engineering and Surveying Billing Rates**

3/31/2009

<b>Title</b>	<b>Abbreviation</b>	<b>Max. Billing Rate</b>
Principal	Princ	\$ 240.00
Engineering Project Manager	PM	\$ 180.00
Engineering Manager	EM	\$ 160.00
Senior Engineer	Sr Eng	\$ 140.00
Engineer	Eng	\$ 120.00
Engineer-in-Training	EIT	\$ 100.00
Senior Engineering Designer	Sr Des	\$ 115.00
Engineering Designer	Des	\$ 90.00
Engineering Technician	Tech	\$ 70.00
Surveying Project Manager	PM	\$ 188.00
Registered Professional Land Surveyor	RPLS	\$ 130.00
(1) Field Crew - Conventional	Field	\$ 120.00
(2) Field Crew - GPS	GPS	\$ 155.00
Surveying Technician	Tech	\$ 90.00
Administrative Support	Cler	\$ 70.00

- (1) All surveying will be based on the hourly rate for field surveying being charged by Brown & Gay Engineers, Inc. at the time work is done (currently \$120.00 per field crew hour). The hourly rate includes imputed costs for survey equipment, vehicles, materials such as stakes, flagging and iron rods and for personnel.
- (2) Should Global Positioning System (GPS) surveying be used on the project, an additional charge of \$35.00 per hour will be charged for equipment.



## SECTION II

### TIME OF PERFORMANCE

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 300 calendar days from that date. The Drainage District shall have no obligation to pay for services performed after the required completion date, as set forth in the Notice to Proceed, except to the extent the date for required completion is extended by written authorization from the Director or his designee.

## SECTION III

### THE ENGINEER'S COMPENSATION

For and in consideration of the Basic Services rendered by the Engineer as set forth in Appendix A, the Drainage District shall pay and the Engineer agrees to accept as full and sufficient compensation for the performance of Basic Services under this Agreement the lump sum amount of \$266,000.00 as shown on Appendix B. The amount payable may be revised by supplemental agreement in the event of a change in scope, additional complexity from that originally anticipated or character of work authorized by the Drainage District.

The Engineer shall prepare and submit to the Drainage District monthly progress reports in sufficient detail to support the progress of the work and in support of invoice requesting monthly payment. Satisfactory progress of work shall be maintained as a condition of payment.

## SECTION IV

### TIME OF PAYMENT

During the performance of the services provided herein, at intervals of not fewer than thirty (30) days each, the Engineer shall submit to the Drainage District a statement sworn to by the Engineer or an officer of the Engineer, in a form acceptable to the County Auditor of Fort Bend County and in compliance with Section III, setting forth the services completed and the compensation due for the same that have not been previously billed or paid. The Director and the Fort Bend County Auditor shall approve each statement after review, with such modifications as may be deemed appropriate. The Drainage District shall pay each statement approved within thirty (30) days after approval by the Director and the County Auditor, provided that the approval or payment of any such statement shall not be considered to be evidence of performance by the Engineer to the point indicated by such statement, or of the receipt of or acceptance by the Drainage District of the work covered by such statement. Engineer shall in no case submit an invoice for less than \$500.00, except where the invoice is for the final payment.

**SECTION V**  
**TERMINATION**

The Drainage District may terminate this Agreement at any time by notice in writing to the Engineer. Upon receipt of such notice the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Drainage District shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Drainage District when and if this Agreement is terminated.

**SECTION VI**  
**ADDRESS OF NOTICES AND COMMUNICATIONS**

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the Engineer at the following address:

10977 Brown & Gay Engineers, Inc.  
~~11420~~ Westheimer, Suite ~~700~~ 400  
Houston, TX 77077-6841

Attn: Ronald L. Mullinax, P.E.

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the Drainage District at the following address:

Fort Bend County Drainage District  
1004 Blume Road  
Rosenberg, TX 77471  
Attn: Director

**SECTION VII**  
**LIMIT OF APPROPRIATION**

Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that the Drainage District shall have available the total maximum sum of \$266,000 specifically allocated to fully discharge any and all liabilities that may be incurred by the Drainage District pursuant to the terms of this Agreement, and that the total maximum compensation the Engineer may become entitled to hereunder and the total maximum sum the Drainage District shall become liable to pay to the Engineer hereunder, shall not under any conditions, circumstances, or interpretations hereof exceed the said total maximum sum provided for in this Section and certified as available therefor by the County Auditor.

## **SECTION VIII**

### **SUCCESSORS AND ASSIGNS**

**The Drainage District and the Engineer bind themselves and their successors, executors, administrators, and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Drainage District nor the Engineer shall assign, sublet, or transfer its or his interest in the Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.**

## **SECTION IX**

### **PUBLIC CONTACT**

**Engineer shall under no circumstances release any material or information developed in the performance of services hereunder, without the prior express written permission of the Director or his designee. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Drainage District. Inquires concerning this Agreement or any Requested Service shall be referred to the Director or his designee.**

## **SECTION X**

### **COMPLIANCE AND STANDARDS**

**Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto and shall use that degree of care and skill commensurate with the Engineer's profession to comply with all applicable state, federal, and local laws, ordinances, rules, and regulations relating to the work to be performed hereunder and Engineer's performance. Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.**

## **SECTION XI**

### **LICENSE REQUIREMENTS**

**The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.**

## SECTION XII

### OWNERSHIP OF PLANS, COPYRIGHT

The Drainage District shall be the absolute and unqualified owner of any information, programs, mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, computations, computer input/output information, and other documents or materials prepared pursuant to this Agreement, including source codes therefor, with the same force and effect as if the Drainage District prepared the same. The Drainage District shall have an exclusive and perpetual copyright in and to any and all materials produced for the Drainage District pursuant to this Agreement and Engineer shall convey and assign, and does hereby convey and assign, to Drainage District all right, title, and interest, including but not limited to copyright, Engineer may have or may acquire in and to such materials. Engineer agrees that work performed hereunder for the Drainage District will be deemed to have been done, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent such works are determined not to constitute "works made for hire" as that term is understood in copyright law, Engineer hereby irrevocably assigns and transfers to the Drainage District all right, title, and interest in and to such works, including, but not limited to, copyrights. Engineer agrees to promptly deliver to the Drainage District copies, in a form acceptable to the Director, of any and all such information, programs, mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, documents, materials and/or data, including the source codes therefor, upon request from the Drainage District. Copies of all complete or partially complete information, programs, mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, and other documents and materials, including source codes therefor, prepared pursuant to this Agreement, shall also be delivered to the Drainage District when and if the Agreement is terminated, or upon completion of performance hereunder, whichever occurs first. The Engineer may retain one (1) set of reproducible copies of such documents and materials, but such copies shall be for the Engineer's use in the preparation of studies or reports for the Drainage District only. Engineer is expressly prohibited from selling, licensing, or otherwise marketing or donating such documents or materials, or using the same in the preparation of work for any other client without the express written permission of the Director. The Engineer does not intend or represent that construction documents or materials will be suitable for reuse. If the Drainage District reuses the same, such action shall be at the Drainage District's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents and materials by virtue of termination under Section VII above, the Engineer shall not be held accountable or responsible for the completeness of any document or material so produced.

## SECTION XIII

### MODIFICATIONS

This instrument contains the entire Agreement between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XIV**

#### **INDEMNIFICATION**

**The Engineer shall save harmless the County from and against all claims and liability due to activities of the Engineer, its agents or employees, performed under this Contract and which result from any negligent act, error, or omission of the Engineer or of any person employed by the Engineer. The Engineer shall also save harmless the County from and against any and all expenses, including REASONABLE attorney's fees which might be incurred by the County, in litigation or otherwise resisting said claims or liabilities which might be imposed on the County as the result of such activities by the Engineer, its agents or employees.**

#### **SECTION XV**

#### **AUTHORITY OF COUNTY ENGINEER**

**The County Engineer shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His decision shall be final. It is mutually agreed by both parties that the County Engineer shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the County Engineer in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the County Engineer to alter, vary or amend any of the terms or provisions of this Agreement.**

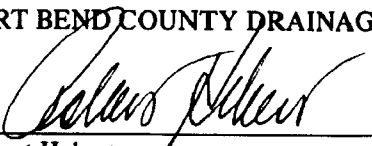
#### **SECTION XVI**

#### **MERGER**

**The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.**

EXECUTED this 18 day of July, 2006.

FORT BEND COUNTY DRAINAGE DISTRICT



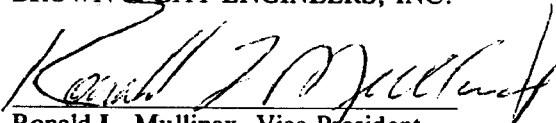
Robert Hebert  
Chairman

ATTEST:



Dianne Wilson, County Clerk  
Fort Bend County

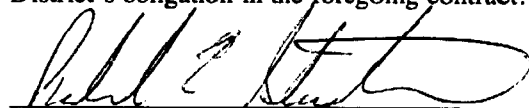
BROWN & GAY ENGINEERS, INC.



Ronald L. Mullinax, Vice President

AUDITOR'S CERTIFICATION:

I hereby certify that funds are available in the amount of \$266,000.00 to pay the Drainage District's obligation in the foregoing contract.



Ed Sturdivant, Auditor

## APPENDIX A

### General

From the recommendations in the January 2006 "Preliminary Engineering Report – Ditch "H" Extension to Oyster Creek" prepared for Fort Bend County Drainage District and the City of Sugar Land; this project proposes a construction plan for the extension of Ditch "H" from its existing terminus downstream of US 90A up to Oyster Creek. All documents generated as part of this project will be the property of the project participants, and will be furnished to the participants when required.

### Final Design Tasks

#### **A. Surveying and Environmental Services**

1. Obtain an environmental permit for the project under nationwide authority.
2. Prepare archaeological report for cultural resource investigation of the site.
3. Prepare legal description/s and exhibits for any additional easements or right-of-way necessary for this project. This will be in a form that can be attached to the easement document for recording. Estimate is based on four tracts (Construction access (2 places), fill placement, and storm sewer).
4. Obtain supplemental topography along SH 6 where highway construction has altered the area and incorporate collected data into the design surface.
5. Stake boundaries of the proposed right-of-way and the project baseline in the field. Place iron rods, if necessary.

#### **B. HEC-RAS Model Evaluation and Reporting**

1. Reevaluate preliminary engineering model results for the 10-year and 100-year events using the proposed FEMA model as the basis for hydrologic and hydraulic analysis. The unsteady flow model will be used to verify the PER recommendations for the Extension, compute the maximum flow diversions considering downstream capacities, and meeting other requirements (such as the agreement with GCWA to facilitate a downstream water surface elevation of 72.50 ft). This includes the following:
  - a. Performance of Oyster creek model simulations to determine the amount of reduction in water surface elevation that would be achieved at the Ditch "A-22" outfall based on the proposed diversion from Oyster Creek to Ditch "H".
  - b. For the frequencies analyzed, quantification of the amount of flow from Ditch "A-22" channel that would be diverted to Ditch H via the proposed diversion structure.
2. Evaluate potential design refinements/modifications to accommodate revised hydraulic model results. This will include revised design layouts (assuming a maximum of two (2) iterations) with accompanying cost estimates and potential impacts/constraints.
3. Provide hydraulic evaluation of potential design refinements/modifications using the FEMA-based unsteady flow model. This will confirm required design changes, if any.
4. Prepare a hydrology and hydraulic report in accordance with the Union Pacific Railroad requirements outlined in UPRR Technical Specifications for Construction of Industrial Tracks.

**C. Final Engineering and Contract Document Preparation**

1. Prepare cover sheet, general notes, control survey and standard detail drawings (4 sheets) in accordance with Fort Bend County and City of Sugar Land Design Standards.
2. Prepare plan and profile drawings including, baffled chute, channel modifications, culvert installation, and storm sewer (6 sheets).
3. Prepare cross-sections for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer (4 sheets).
4. Prepare details for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer (8 sheets).
5. Prepare structural details for weir structure/baffled chute, stilling basin retaining walls, culvert headwall, and junction box (10 sheets).
6. Prepare plan and details for stormwater pollution prevention (2 sheets).
7. Prepare 60% design submittal for review and comment including 60% plans, specifications list, and cost estimates.
8. Prepare 90% design submittal for review and comment including 90% plans, specifications, and cost estimates.
9. Prepare bid document submittal for review and concurrence including plans, specifications, and cost estimates.
10. Obtain private utility, Union Pacific Railroad and TX DOT approval for design documents.
11. Submit approved design documents for bids.
12. Provide bidding assistance including pre-bid meeting, preparation of addenda (as required), bid tabulation, bid evaluation, and recommendation.

**D. Construction Phase Services**

1. Meetings
  - a. Engineer shall attend the construction kickoff meeting, respond to questions and prepare minutes of the meeting for submittal to the District within three (3) days after the meeting.
  - b. Engineer shall attend monthly project status meetings at the project site conducted by the District. Engineer shall report on the status of submittals and responses to design-related questions and requests for information (RFI). The Engineer shall prepare progress meeting minutes.
2. Submittals
  - a. Engineer will review contractor's submittals for general conformance with the Contract required by the technical specifications. Submittals to be reviewed by Engineer include samples, catalog data, schedules, shop drawings, laboratory data, shop and mill test reports, material test reports, and any other data required by the Contract Documents. Engineer shall document review comments, review action and maintain a log of the contractor submittals.
  - b. The Engineer shall prepare written responses to written RFIs from the Contractor, the City, or the District. Engineer shall prepare written responses, supplemented with

elementary sketches, as required. Engineer shall maintain a log of receipt, review action taken, and the transmittal of requests for information received.

- c. Engineer shall assist the District with review of proposals and change order requests that may originate from Contractor, City, or District. Potential change orders shall be reviewed for conformance with original design intent. Engineer shall maintain a log of the receipt, review action taken, and the transmittal of forms received from the District.

3. Observation

- a. Engineer shall perform periodic observation (a minimum of one site visit per month in addition to monthly project status meetings) of the progress and quality of executed work. Engineer shall provide his opinion to the District regarding progress of the work and its conformance with Contract Documents.
- b. Engineer shall assist the District to determine if substantial completion requirements have been satisfied. Engineer's services shall be limited to job site visits for the purpose of preparing one punch list for substantial completion review and one punch list for final acceptance review. Engineer shall document that the project has been constructed substantially in accordance with the Contract Documents.

4. Record Drawings

- a. Upon written authorization of the District, Engineer shall perform calculations to determine final excavation and material quantities for the project and assist the District in determining other final payment quantities.
- b. Engineer shall prepare record drawings to show changes from original design that were constructed in the completed project.
- c. Engineer shall update hydrology and hydraulic models to reflect the performance of the as-built project.
- d. As-built documentation shall be furnished to the project participants upon completion of the construction of the proposed improvements.



Project: Ditch H Channel Extension to Oyster Creek - Final Design  
 Client: Fort Bend County & City of Sugar Land  
 Date: May 23, 2006  
 By: cwr/fkl  
 Filename: M:\Projects\Fbc\FBC15-02\Admin\Contract\Proposal\Proposal Fee - Ditch H Extension 060511.xls\Proposal 060426

## APPENDIX B

### Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek

Task No.	Description	Engineering Hours					Surveying Hours			Sub-Consultant	Cost	
		Pin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech	LS Crew			
<b>A. Surveying and Environmental Services</b>												
1	Obtain Environmental Permit for constructing the project		8			4					\$ 9,680	\$ 11,200
2	Prepare archaeological investigation report for the site	2	8			4					\$ 10,995	\$ 12,915
3	Prepare legal descriptions and exhibits for any additional easements or rights-of-way necessary for this project. Estimate is based on four tracts (Const access (2 plus), fill placement, and storm sewer)		4				8	32	32			\$ 8,400
4	Obtain supplemental topography at upstream end of box culverts and along SH 6 where highway construction has altered the area.		4	16		4		2	4	24		\$ 6,800
5	Stake boundaries of the proposed right-of-way and the project baseline in the field. Place iron rods, if necessary.		4				4	6	24			\$ 4,250
<b>Subtotal Surveying and Environmental Services</b>		2	24	16	4	8	14	42	80			\$ 43,565
<b>B. HEC-RAS Model Evaluation and Reporting</b>												
1	Develop unsteady flow HEC-RAS model (using FEMA model data) to evaluate preliminary engineering design layout.	2	24	60	32	16						\$ 15,280
2	Develop design refinements/modifications to accommodate revised hydraulic model results	1	16	40	20	4						\$ 9,600
3	Hydraulic evaluation of design refinements/modifications to accommodate revised hydraulic model results	1	16	40	20							\$ 9,360
4	Prepare H&H Report in accordance with UPRR guidelines for 60% design submittal		8	20	8							\$ 4,400
<b>Subtotal Reevaluate HEC-RAS Model Results</b>		4	64	160	80	20						\$ 38,640
<b>C. Final Engineering and Contract Document Preparation</b>												
1	Prepare cover sheet, general notes, control survey and standard detail drawings		2	8	8	24						\$ 3,440
2	Prepare plan and profile drawings including channel improvements, weir structure, baffled chute, culvert installation, and storm sewer	4	20	40	60	80						\$ 19,000
3	Prepare cross-sections for weir structure, baffled chute, channel modifications, culvert installation, and storm sewer		16	24	40	80						\$ 13,840
4	Prepare details for channel modifications, culvert installation, and storm sewer		16	24	40	80						\$ 13,840
5	Prepare structural details for weir structure/baffled chute, stilling basin retaining walls, culvert headwall, and junction box		32	48	120	100						\$ 27,680



Project: Ditch H Channel Extension to Oyster Creek - Final Design  
 Client: Fort Bend County & City of Sugar Land  
 Date: May 23, 2006  
 By: cwf/lcl  
 Filename: M:\Projects\Fbc\FBC15-02\Admin\Contract\Proposal\Proposal Fee - Ditch H Extension 060511.xls\Proposal 060426

**APPENDIX B**

**Scope of Work and Estimated Engineering Fee for Ditch H Channel Extension to Oyster Creek**

Task No.	Description	Engineering Hours					Surveying Hours			Sub-Consultant	Cost
		Ptin	PM	Eng	EIT/Des	CAD/Clerk	RPLS	LS Tech	LS Crew		
6	Prepare plan and details for stormwater pollution prevention		4	4	12	20					\$ 3,400
7	Submit 60% design documents including plans, specification and cost estimate for review and comments	2	4	8	8	12					\$ 3,440
8	Incorporate 60% design comments and complete drawings		4	8	12	24					\$ 4,120
9	Submit 90% design documents for review and comments	2	4	8	8	12					\$ 3,440
10	Incorporate 90% design comments and finalize drawings		4	8	12	24					\$ 4,120
11	Submit final design documents for review and approval	2	4	8	8	12					\$ 3,440
12	Obtain Union Pacific Railroad approval for design documents	2	24	16	8	16					\$ 7,840
13	Obtain private utility approval for design documents		4	8	8	8					\$ 2,800
14	Obtain public agency approval for design documents		8	16	8	16					\$ 4,880
15	Submit approved design documents for bids	2	4	8	8	8					\$ 3,200
16	Provide bidding assistance including pre-bid meeting, preparation of addenda (as required), bid tabulation, bid evaluation, and recommendation.										
	<b>Subtotal Final Engineering &amp; Design</b>	14	162	248	368	524					\$ 123,040
<b>D. Construction Phase Services</b>											
1	Attend construction kick-off and project progress meetings including meeting minutes (based on 8)		32	32		16					\$ 9,920
2	Review shop drawings and other submittals including response to RFI's and change orders (based on 20)		10	40	40	10					\$ 10,600
3	Periodic site observation with written report and project completion punchlist (based on 8, plus coord)		40	32	24	16					\$ 13,360
4	Provide H&E models, spreadsheets, etc. upon completion of the project		24	64	24	16					\$ 14,640
5	Provide as-built drawings to participants upon construction completion (based on 24 sheets)		4	24	48	72					\$ 12,160
	<b>Subtotal Construction Phase Services</b>		110	192	136	130					\$ 60,680
<b>Total Project Engineering Services Estimated Fee</b>											\$ 266,000.00

**APPENDIX C**  
**Ditch H Extension to Oyster Creek**  
**FINAL DESIGN SCHEDULE**

