AGENDA
DRAINAGE DISTRICT
BOARD OF DIRECTORS
March 11, 2014
9:00 A.M.

NOTICE is hereby given in accordance with Chapter 551, Texas Government Code, that a SPECIAL MEETING of the Drainage District #1 Board of Directors will be held at the Edinburg Council Chambers, 415 W. University Drive, Edinburg, Hidalgo County, Texas. Discussion and possible action relating to the following business will be transacted:

1.		**Roll Call**
2.		**Open Forum**
3.		**Approval of Consent Agenda**
4.	**AI-43483**	A. Discussion, consideration and appropriate action to assign the Supervision of the Financial Operations of Hidalgo County Drainage District #1, and to include all financial related slot positions, to the Board of Directors of the District. B. Approval to create Budget Officer for the District
5.	**AI-43508**	A. Discussion, consideration and possible action to create the position of Drainage District Director B. Set Salary for position of Drainage District Director
6.	**AI-43509**	Discussion, consideration and possible action concerning the status of all commission fees paid to Integ, Inc. from the 2006 Bond Issue Fund and any other district controlled funds
7.	**AI-43453**	Update on Rehabilitation and/or construction of river levee ant the Edinburg Pump Station, Irrigation District #1.
8.	**AI-43348**	2013 Bond Series Request Approval of Pay Estimate No. 2 to IRP South Central, LLC for the Construction of the RADO Storm Rehab project i the amount of $491,207.76. Contract approved 11-12-13.
9.	**AI-43463**	A.) Requesting approval to purchase a two (2) year Advanced Support Renewal for Autodesk Software through the District's membership with Department of Information Resources-Contract No.: DIR-SDD-1697 in the amount of $1,832.14. B.) Requesting approval to reject sole bid received for RFB No. 13-031-12-20 "Lease of Land for Purpose of Farming".

C.) Requesting approval to advertise for RFB No.: HCDD1-14-009-04-07 "Reinforced Concrete Pipe-Tongue & Groove, Reinforced Concrete Pipe-Rubber Gasket, Box Culvert (Less than 2' fill), Box Culvert (More than 2' fill)" .

2013 BOND SERIES

D.) Requesting approval of Work Authorization No. 2 from Melden & Hunt, Inc. in the amount not to exceed $12,500.00 as it relates to Inspection Services for Pct. 2-"Rado Drain Re-Route" project.

E.) Requesting approval of Change Order No. 1; increase of $10,780.00 to Construction Contract HCDD1-13-023-11-19C "J-09 Drain Improvements Phase I Construction" with FJW Construction, LLC.

F.) Requesting approval to advertise for RFB No.: HCDD1-14-010-04-09 PCT.2-Rural Drainage Development "Seminole Valley Subdivision Area Drainage Improvements".

10. **AI-43475** A.) Requesting approval of Interlocal Agreement between Hidalgo County Drainage District No.1 and the County of Hidalgo, Texas, for the construction of drainage project (Pct.2 Rural Drainage Development-Northside Village / Hidden Valley Subdivision Area Drainage Improvements) in conjunction with a County road project (Gearhart).

B.) Pursuant to the Board's approval of Interlocal with County of Hidalgo requesting approval of Change Order No.1 (increase of $43,800.00) to Construction Contract No. HCDD1-14-001-01-21 "Pct. 2 Rural Drainage Development-Northside Village / Hidden Valley Subdivision Area Drainage Improvements" Rojas Construction & Paving, LLC.

11. **AI-43481** **2013 BOND SERIES**

A.) Requesting approval of final negotiated Agreement for Professional Engineering Services with S&B Infrastructure, Ltd as it relates to repairs to Weir 4 on the Main Floodwater Channel in Willacy County, Texas. Approved for negotiations by HCDD1 Board of Directors on January 15, 2013.

B.) Requesting approval of Work Authorization No. 1 from S&B Infrastructure in the amount of $36,601 as it relates to Preliminary Engineering for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

C.) Requesting approval of Work Authorization No. 2 from S&B Infrastructure in the amount of $10,560.00 as it relates to Survey Services for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

D.) Requesting approval of Work Authorization No. 3 from S&B Infrastructure in the amount of $16,575.72 as it relates to Geo-Tech Services for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

12. **Closed Session:**
Board of Directors may go into Closed Session pursuant to Chapter 551, Texas Government Code, Sections 551.071 & 551.072 to discuss the following:

A. **Real Estate Acquisition**

B. **Pending and/or Potential Litigation**

13. **Open Session:**

A. **Real Estate Acquisition**

B. **Pending and/or Potential Litigation**

14. **Closed Session:**
Board of Directors may reconvene into Closed Session for the discussion regarding the agenda items listed

15. **Open Session:**
Board of Directors may reconvene into Open Session for the discussion regarding the agenda items listed

16. **Adjourn**

AI-43483 **4.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Monica Badillo, EXECUTIVE OFFICE

Department: EXECUTIVE OFFICE

Information

CAPTION

A. Discussion, consideration and appropriate action to assign the Supervision of the Financial Operations of Hidalgo County Drainage District #1, and to include all financial related slot positions, to the Board of Directors of the District.

B. Approval to create Budget Officer for the District

BACKGROUND

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/06/2014 05:06 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Monica Badillo Started On: 03/06/2014 04:50 PM

Final Approval Date: 03/07/2014

AI-43508 **5.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Monica Badillo, EXECUTIVE OFFICE

Department: EXECUTIVE OFFICE

Information

CAPTION

A. Discussion, consideration and possible action to create the position of Drainage District Director
B. Set Salary for position of Drainage District Director

BACKGROUND

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/07/2014 04:10 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Monica Badillo Started On: 03/07/2014 04:02 PM

Final Approval Date: 03/07/2014

AI-43509 **6.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Monica Badillo, EXECUTIVE OFFICE

Department: EXECUTIVE OFFICE

Information

CAPTION

Discussion, consideration and possible action concerning the status of all commission fees paid to Integ, Inc. from the 2006 Bond Issue Fund and any other district controlled funds

BACKGROUND

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/07/2014 04:11 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Monica Badillo Started On: 03/07/2014 04:06 PM

Final Approval Date: 03/07/2014

AI-43453 **7.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Sylvia Sanchez, DRAINAGE DISTRICT

Department: DRAINAGE DISTRICT

Information

CAPTION

Update on Rehabilitation and/or construction of river levee ant the Edinburg Pump Station, Irrigation District #1.

BACKGROUND

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/06/2014 09:55 AM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Sylvia Sanchez Started On: 03/05/2014 04:29 PM

Final Approval Date: 03/07/2014

AI-43348 **8.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Sylvia Sanchez, DRAINAGE DISTRICT

Department: DRAINAGE DISTRICT

Information

CAPTION

2013 Bond Series
Request Approval of Pay Estimate No. 2 to IRP South Central, LLC for the Construction of the RADO Storm Rehab project i the amount of $491,207.76. Contract approved 11-12-13.

BACKGROUND

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	02/26/2014 04:04 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Sylvia Sanchez Started On: 02/26/2014 03:25 PM

Final Approval Date: 03/07/2014

AI-43463 **9.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Jaime Salazar, DRAINAGE DISTRICT

Department: DRAINAGE DISTRICT

Information

CAPTION

A.) Requesting approval to purchase a two (2) year Advanced Support Renewal for Autodesk Software through the District's membership with Department of Information Resources-Contract No.: DIR-SDD-1697 in the amount of $1,832.14.

B.) Requesting approval to reject sole bid received for RFB No. 13-031-12-20 "Lease of Land for Purpose of Farming".

C.) Requesting approval to advertise for RFB No.: HCDD1-14-009-04-07 "Reinforced Concrete Pipe-Tongue & Groove, Reinforced Concrete Pipe-Rubber Gasket, Box Culvert (Less than 2' fill), Box Culvert (More than 2' fill)" .

2013 BOND SERIES

D.) Requesting approval of Work Authorization No. 2 from Melden & Hunt, Inc. in the amount not to exceed $12,500.00 as it relates to Inspection Services for Pct. 2-"Rado Drain Re-Route" project.

E.) Requesting approval of Change Order No. 1; increase of $10,780.00 to Construction Contract HCDD1-13-023-11-19C "J-09 Drain Improvements Phase I Construction" with FJW Construction, LLC.

F.) Requesting approval to advertise for RFB No.: HCDD1-14-010-04-09 PCT.2-Rural Drainage Development "Seminole Valley Subdivision Area Drainage Improvements".

BACKGROUND

Attachments

DLT SOLUTIONS 2 YR RENEWAL

Change Order No. 1 J-09

WA No. 2 Melden & Hunt

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/06/2014 02:52 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Jaime Salazar Started On: 03/06/2014 08:50 AM

Final Approval Date: 03/07/2014

DLT SOLUTIONS

Price Quotation

Quote: 4344637
Reference: 959700
Date: 02/27/2014
Expires: 03/28/2014

To: Asael Pecina
Hidalgo County Drainage District
902 N. Doolittle
Edinburg, TX 78541

Phone: (956) 292-7080
Fax:
Email: asael.pecina@hcdd1.org

From: Steve Ngoumnai
DLT Solutions, LLC
13861 Sunrise Valley Drive
Suite 400
Herndon, VA 20171

Phone: (571) 346-1898
Fax: (866) 708-6705
Email: steve.ngoumnai@dlt.com

#	DLT Part No.	Contract	Qty	Unit Price	Ext. Price
1	9701-8812NRG2	TX-GAQ	1	$1,832.14	$1,832.14
	Autodesk Infrastructure Design Suite Standard 2014 Subscription and Advanced Support Renewal - 2 Year **PoP:** 4/5/2014 **through** 4/4/2016				

Total: $1,832.14

Mandatory reactivation fees will apply if not renewed by the expiration date of Subscription contract

TEXAS DIR Contract Data:
DUNS #: 78-6468199
Contract #: DIR-SDD-1697
Contract Term: 11/10/11 - 11/10/14
1 Option Year Remaining (11/10/14-11/10/15)
Federal ID: 54-1599882
CAGE Code: 0S0H9
FOB: Destination
Ship Via: Fedex Ground/UPS
Payment Terms: Net 30 days
Effective Jan 1 2014: Sales Fee .75%

PLEASE REMIT PAYMENT TO:

ACH: DLT Solutions, LLC
SunTrust Bank
ABA # 061000104
Acct # 1000032705898

-OR-

Mail: DLT Solutions, LLC
PO Box 102549
Atlanta, GA 30368

Customer orders subject to applicable sales tax in: CA, CO, CT, DC, FL, GA, HI, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NM, NJ, NV, NY, OH, OK, PA, RI, SC, TN, TX, VA, WA, WI

The terms and conditions of the Manufacturer's standard commercial license and subscription agreement are made a part of this quotation and shall govern purchaser's use of any Manufacturer product. Contact the DLT Sales Rep if further information is required.

DLT SOLUTIONS

Price Quotation

Quote: 4344637
Reference: 959700
Date: 02/27/2014
Expires: 03/28/2014

Documentation to be submitted to validate Invoice for payment:
a. Authorized Services shall be invoiced with a corresponding time report for the period of performance identifying names, days, and hours worked.
b. Authorized reimbursable expenses shall be invoiced with a detailed expense report, documented by copies of supporting receipts.
c. Authorized Education or Training shall be invoiced with a Report identifying date and name of class completed, and where applicable the name of attendees.

Search By | Enter search criteria

Home | Co-op Contracts | Texas.gov | Security | Data Center | Telecom | IT Leadership | About DIR | Contact Us

< Return to search results < Return to Main Search

DLT Solutions, LLC

URL Vendor Website
Vendor ID 1541599882000
HUB Type Non HUB

DIR Contract Number DIR-SDD-1697
Contract Term End Date 11/10/2014
Contract Exp Date 11/10/2015

DLT Solutions, LLC
Contact Pete Rivers
Phone (703) 773-9215
Fax (866) 419-7926

DIR
Contact Airy Luangaphay
Phone (512) 463-3018
Fax (512) 475-4759

How to Order

1. For product and pricing information, visit the DLT Solutions, LLC website or contact Pete Rivers at (703) 773-9215.
2. Generate a purchase order, made payable to DLT Solutions, LLC. You must reference the DIR Contract Number **DIR-SDD-1697** on your purchase order.
3. E-mail or Fax your purchase order and quote form to your designated vendor sales representative.

Contract Overview

Get Adobe Reader

Contract: DIR-SDD-1697

Standard Terms and Conditions PDF - 422 KB
This appendix contains the standard DIR Terms and Conditions for the contract as of the date identified. Any initial exceptions to these Terms will be contained in the original contract. All subsequent changes or updates to the Terms and Conditions will be reflected in contract amendments.

HUB Subcontracting Plan (HSP) PDF - 340 KB | Updated 11/18/2011
The purpose of the HUB Program is to promote full and equal business opportunities for all businesses in State contracting in accordance with the goals specified in the State of Texas Disparity Study. The HSP identifies all authorized resellers and/or all subcontractors performing services.

Pricing PDF - 89 KB | Updated 12/09/2013
Pricing for available products and/or services under this contract are limited to those identified in the appendix.

Electronic and Information Resources (EIR) Accessibility
Information regarding Electronic and Information Resources (EIR) accessibility of this vendor's offerings is included in the contract. Agencies purchasing products or services are responsible for complying with Texas EIR Accessibility statute and rules, as defined in TGC 2054 Subchapter M, 1TAC 206, and 1 TAC 213. For additional information, visit the Vendor Website or contact the vendor directly.

Available Brands

Autodesk
Google
Quest Software
Services

Available Products & Services

Enterprise Resource Planning (ERP) Software

Additional Contract Information

Amendment 1 (85 KB)
Amendment 2 (172 KB)

< No thanks, return to search

Reseller Vendor Contacts

There are no resellers associated with this contract

CHANGE ORDER #1

PROJECT: J-09 Drain Improvements Phase 1 Construction

DATE OF ISSUANCE: February 26, 2014 **EFFECTIVE DATE:**

OWNER: Hidalgo County Drainage District No. 1
OWNER's Contract No. HCDD1-13-023-11-19C

CONTRACTOR: FJW Construction, LLC **ENGINEER:** TEDSI INFRASTRUCTURE GROUP

You are directed to make the following changes in the Contract Documents.

Description:
1. Add grates to drop inlets
2. Move junction box on culvert 3 as per attached plans (at no additional cost to owner)
3. Move sluice gates to outside of north wall of culvert 3 (at no additional cost to owner)

Reason for Change Order:
1. Grates added for safety purposes
2. Additional days granted due to work on hold (testing services procurement)

Attachments: Change Order No 1 Tabulations
Contractors quote
Drop inlet detail
Marked up plan sheets 20 and 41

Change in Contract Price:		CHANGE IN CONTRACT TIME:
Original Contract Price $ 404,800.00		Original Contract Time for Substantial Completion: 150 calendar days or dates
Net Changes from previous Change Order $ 0.00		Net change from previous Change Orders calendar days
Contract Price prior to this Change Order $ 404,800.00		Contract Time prior to this Change Order Substantial Completion: 150 calendar days or dates
Net Increase (decrease) of this Change Order $ 10,780.00		Net Increase (decrease) of this Change Order 35 calendar days
Contract Price with all approved Change Orders $ 415,580.00	Net % increase (decrease) from original contract price. 2.66 %	Contract Time with all approved Change Orders Substantial Completion: 185 calendar days or dates

RECOMMENDED:
By: _____
Engineer (Authorized Signature)
Date: 02/26/2014

APPROVED:
By: _____
Owner (Authorized Signature)
Date: _____

ACCEPTED:
By: _____
Contractor (Authorized Signature)
Date: 2 26 2014

CHANGE ORDER NO. 1 TABULATION

J-09 Drain Improvements Phase 1 Construction

SPEC NO.	Original Plan Qty	Change Order #1 Qty	Unit	Item Description	Unit Price	Revised Unit Price	Original Contract Cost	Change in Contract Cost of C.O.#1	Revised Contract Cost after C.O.#1
BASE BID									
01-57-00	1		EA	ROCK FILTER DAMS (INSTALL)	$5,000.00		$5,000.00	$0.00	$5,000.00
01-57-00	1		EA	ROCK FILTER DAMS (REMOVE)	$2,500.00		$2,500.00	$0.00	$2,500.00
01-57-00	1336		LF	TEMPORARY SEDIMENT CONTROL FENCE	$3.50		$4,676.00	$0.00	$4,676.00
31-10-00	3.83		AC	PREPARING RIGHT OF WAY	$10,000.00		$38,300.00	$0.00	$38,300.00
31-32-00	1200		CY	EMBANKMENT (FINAL POSITION)	$7.50		$9,000.00	$0.00	$9,000.00
35-10-00	7262		CY	DITCH EXCAVATION	$7.00		$50,834.00	$0.00	$50,834.00
50-20-00	180		CY	FLEXIBLE BASE (TY E GR 4)(FINAL POSITION)(COMPLETE IN PLACE)	$32.00		$5,760.00	$0.00	$5,760.00
60-65-00	14		EA	DROP INLET	$3,200.00		$44,800.00	$0.00	$44,800.00
60-65-00	1		EA	JCT BOX (9'X17')	$22,000.00		$22,000.00	$0.00	$22,000.00
60-66-00	1		EA	CONCRETE HEADWALL W/ WINGWALLS	$7,500.00		$7,500.00	$0.00	$7,500.00
60-71-00	2		EA	GRATES	$4,000.00		$8,000.00	$0.00	$8,000.00
60-71-00	2		EA	LADDER	$2,000.00		$4,000.00	$0.00	$4,000.00
0432-2030	10		CY	RIPRAP (CONC)(CL C)	$280.00		$2,800.00	$0.00	$2,800.00
0481-2027	2635		LF	PVC PIPE (SCH 80)(4 IN)	$9.00		$23,715.00	$0.00	$23,715.00
0481	750		LF	PVC PIPE (SCH 80)(6 IN)	$14.00		$10,500.00	$0.00	$10,500.00
0481-2022	180		LF	PVC PIPE (SCH 80)(8 IN)	$17.00		$3,060.00	$0.00	$3,060.00
0481-2024	520		LF	PVC PIPE (SCH 80)(12 IN)	$34.00		$17,680.00	$0.00	$17,680.00
		14	EA	DROP INLET GRATES	$770.00		$0.00	$10,780.00	$10,780.00
						TOTAL BASE BID	**$260,125.00**	**$10,780.00**	**$270,905.00**
ALTERNATE 1									
60-64-00	495		LF	RCP (CL III) 48"DIAM	$125.00		$61,875.00	$0.00	$61,875.00
60-64-00	160		LF	RCP (CL III) 60"DIAM	$205.00		$32,800.00	$0.00	$32,800.00
						TOTAL ALTERNATE 1	**$94,675.00**	**$0.00**	**$94,675.00**
ALTERNATE 5									
60-68-00	2		EA	SLUICE GATES (60" DIAM)	$25,000.00		$50,000.00	$0.00	$50,000.00
						TOTAL ALTERNATE 5	**$50,000.00**	**$0.00**	**$50,000.00**
						GRAND TOTAL:	**$404,800.00**	**$10,780.00**	**$415,580.00**

FJW Project Number: 13021 **Change Bulletin:** 1.00
Project Bid Number: 13-023-09-25C **Date:** 1.17.2014

OWNER: Hidalgo County Drainage District NO.1
CONTRACTOR: FJW Construction, LLC
ARCHITECT: TEDSI Infastructure Group

Change Bulletin # 1

REFERENCE: Drop Inlet Grates

DESCRIPTION: Added Drop inlets for Irrigation field drains
14 total Inlets to be painted steel @ $770 each

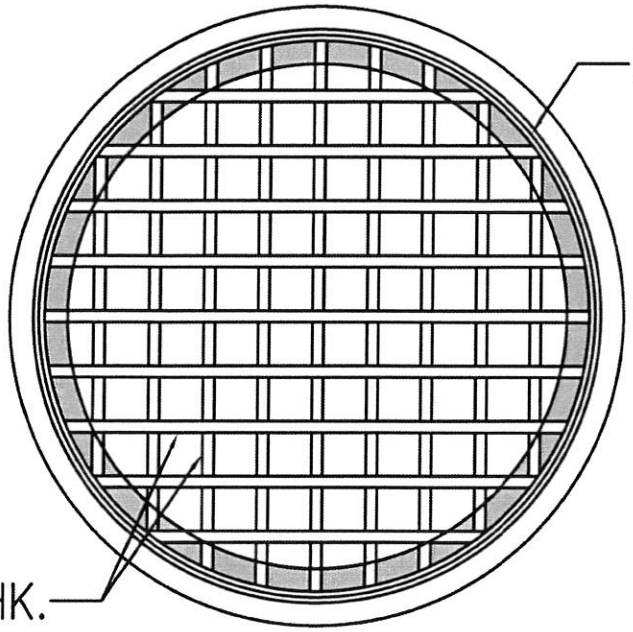
We anticipate this change order will increase the timeframe required to complete the contract by the following number of calendar days: if direction is provided within 3 days of revised date.

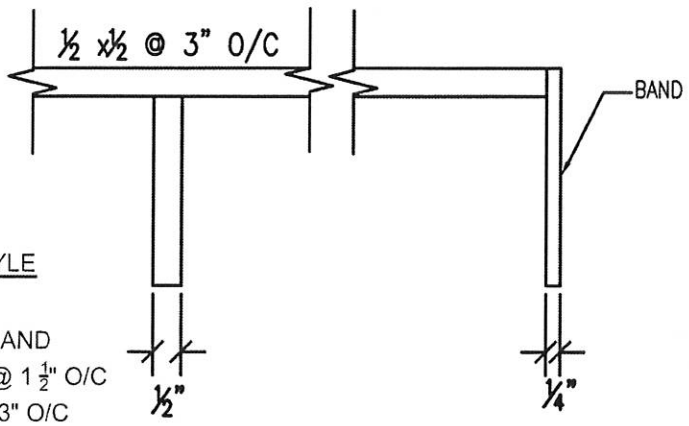
COST CODE			
	FJW LABOR WITH BURDEN		0.00
	FJW MATERIALS		0.00
	SUBCONTRACTORS		
	SUBTOTAL # 1.....		0.00
00-650	LIABILITY INSURANCE	0.00%	0.00
00-651	BUILDER'S RISK INSURANCE	0.00%	0.00
	SUBTOTAL # 3.....		0.00
01-209	TAX ON MATERIALS	0.00%	0.00
	SUBTOTAL # 4.....		0.00
	OVERHEAD AND PROFIT	0.00%	0.00
	SUBTOTAL # 5.....		0.00
01-980	RENOVATION SALES TAX	0.00%	0.00
	TOTAL.....		**0.00**

We propose to furnish all labor, material and equipment necessary to complete the work for the amount of: **$10,780**

Bobby Whatley 2/18/14
Accepted by: Date

Bobby Whatley
Project Manager





GASKET JOINT STYLE

12"-18" DIA. PIPE
¼"X3 ½" FLAT BAR BAND
½"X3" FLAT BAR @ 3" O/C
½"X½" SQ. BAR @ 3" O/C

24"&30" DIA. PIPE
¼"X4" FLAT BAR BAND
½"X3 ½" FLAT BAR @ 3" O/C
½"X½" SQ. BAR @ 3" O/C

MORTAR JOINT STYLE

12" DIA. PIPE
¼"X1 ½" FLAT BAR BAND
½"X1" FLAT BAR @ 1 ½" O/C
½"X½" SQ. BAR @ 3" O/C

15"-18" DIA. PIPE
¼"X2" FLAT BAR BAND
½"X1 ½" FLAT BAR @ 2" O/C
½"X½" SQ. BAR @ 3" O/C

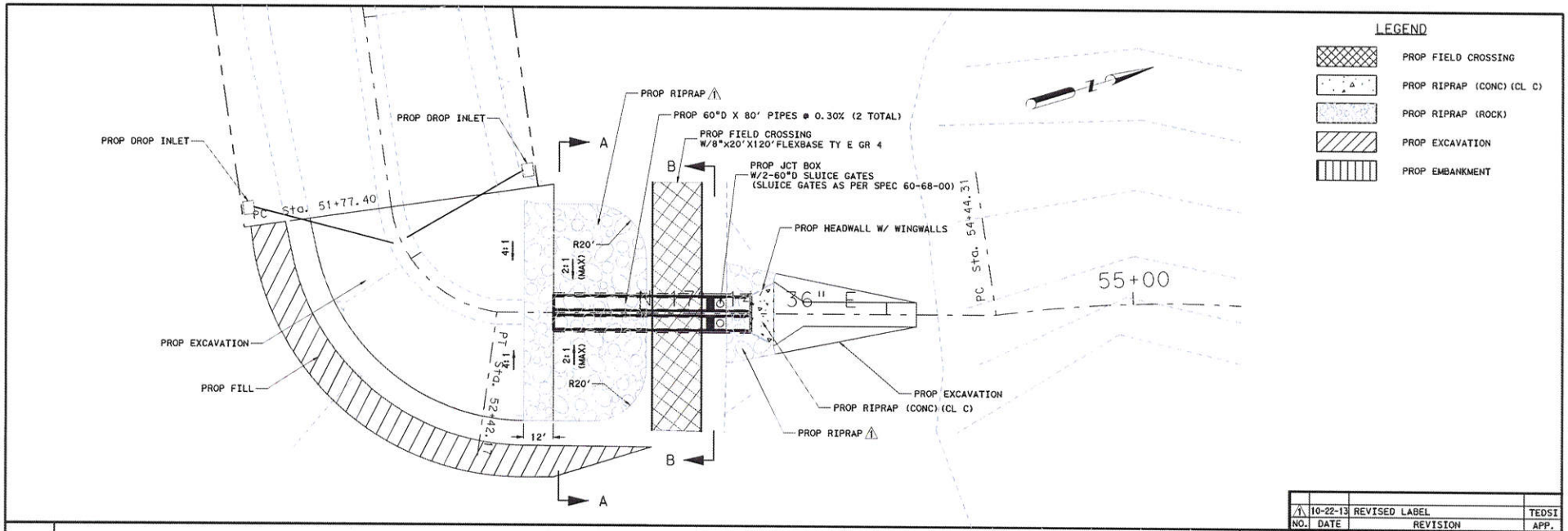
24" DIA. PIPE
¼"X2 ½" FLAT BAR BAND
½"X2" FLAT BAR @ 2 ¼" O/C
½"X½" SQ. BAR @ 3" O/C

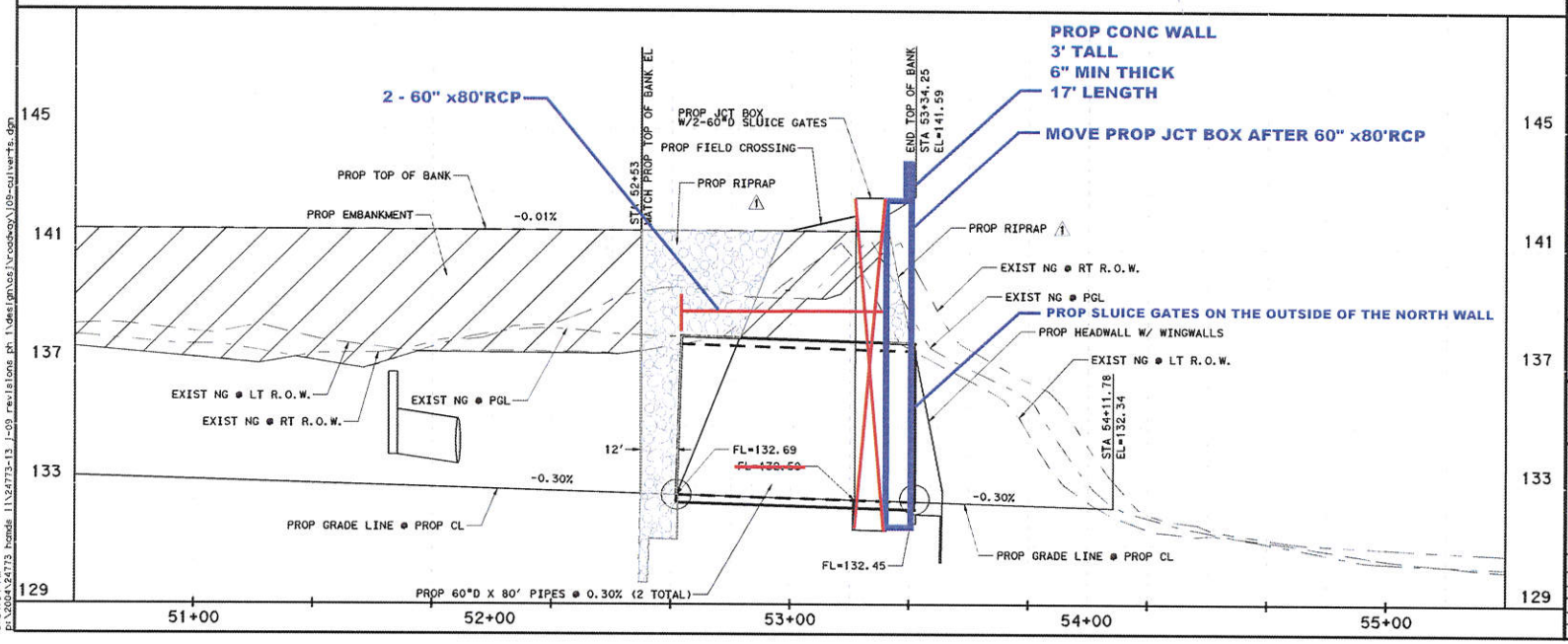
30" DIA. PIPE
¼"X3" FLAT BAR BAND
½"X2 ½" FLAT BAR @ 3" O/C
½"X½" SQ. BAR @ 3" O/C

BICYCLE PROOF GRATE

SCALE: NOT TO SCALE
DATE: OCT. 2012
STATE: TEXAS

CAPA
CONCRETE ▲ ASPHALT ▲ PIPE ▲ AGGREGATES





NO.	DATE	REVISION	APP.
1	10-22-13	REVISED LABEL	TEDSI

HIDALGO COUNTY
DRAINAGE DISTRICT NO. 1

TEDSI INFRASTRUCTURE GROUP
Consulting Engineers
1201 E. Expressway 83
Mission, Texas 78572
(956) 424-7898
TBPE F-1640

HIDALGO COUNTY
DRAINAGE DISTRICT NO. 1
2010 BOND PROJECT

J-09 DRAIN IMPROVEMENTS

CULVERT LAYOUT 03

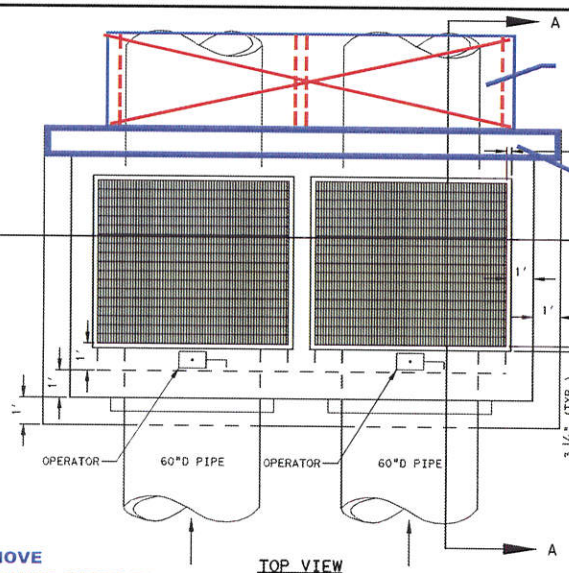
SCALE:
HORZ: 1" = 40'
VERT: 1" = 4'

SHEET 1 OF 2

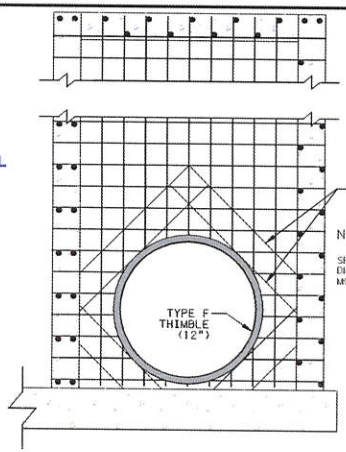
FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
		20

STATE	DIST.	COUNTY
TEXAS	PHR	HIDALGO
CONT.	SECT.	JOB / HIGHWAY NO.

10/22/2013
01:54:54 PM
p:\2004\24773 handa 1\24773-13 J-09 revisions pt 1\design\civil\roadway\j09-culverts.dgn



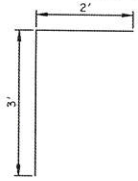
TOP VIEW
N. T. S.



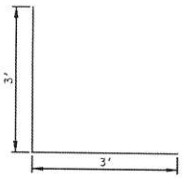
THIMBLE PENETRATION
N. T. S.

REINFORCING BAR SCHEDULE						
SHAPE	BAR	NO.	SIZE	SPACING	LENGTH	WT (LB)
STRAIGHT	A	36	4	18"O.C.	16'-8"	401
STRAIGHT	B	12	4	18"O.C.	11'-6"	92.3
⌐	C	13	4	18"O.C.	5'	43.5
L	D	32	4	12"O.C.	6'	128.4
STRAIGHT	E	9	6	12"O.C.	16'-5"	223
STRAIGHT	F	13	6	12"O.C.	8'-6"	166
STRAIGHT	G	12	4	18"O.C.	11'-6"	92
STRAIGHT	H	8	6	18"O.C.	16'-5"	197.1
⌐	I	46	6	12"O.C.	5'	345.5
STRAIGHT	J	8	6	4"O.C.	6'-6"	78.1
STRAIGHT	K	48	4	18"O.C.	8'-6"	272.5

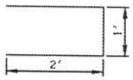
* CLASS "A" CONCRETE - 31.1 CY
TOTAL BAR WT: 2039.4 LB



BARS-TYPE C
N. T. S.



BARS-TYPE D
N. T. S.



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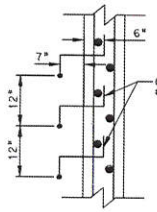
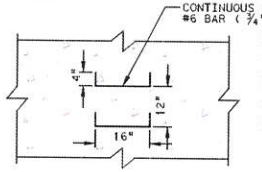




LADDER DETAILS
N. T. S.

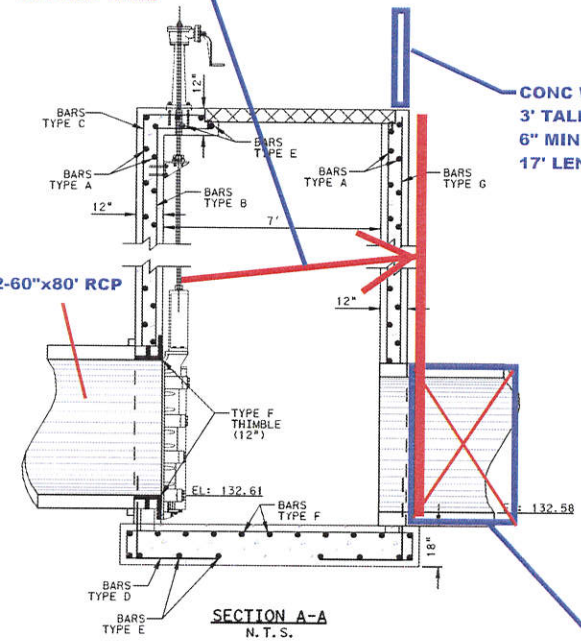
DISCLAIMER:

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON HCDD No. 1 PROJECTS OR PROJECTS TO BE MAINTAINED BY THE HCDD No. 1 WHEN COMPLETED BY OTHERS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.

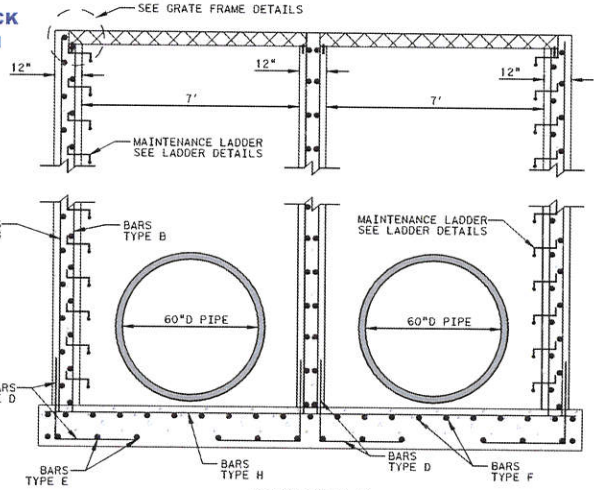
MOVE
SLUICE GATES TO
OUTSIDE WALL

CONC WALL
3' TALL
6" MIN THICK
17' LENGTH

2-60"x80' RCP

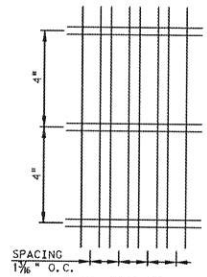


SECTION A-A
N. T. S.

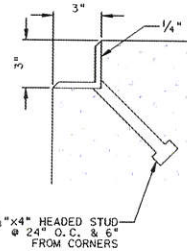


SECTION B-B
N. T. S.

NO RCP BEYOND BOX
ADD WINGWALLS/RIPRAP BETWEEN WINGWALLS AS PER PLANS



BARS: 1½"× ¼"
CROSSBARS: ⅝"



⅜"x4" HEADED STUD
@ 24" O.C. & 6"
FROM CORNERS

GRATE FRAME DETAILS
N. T. S.

NO.	DATE	REVISION	APP.

HIDALGO COUNTY
DRAINAGE DISTRICT NO. 1

TEDSI INFRASTRUCTURE GROUP
Consulting Engineers
1201 E. Expressway 83
Mission, Texas 78572
(956) 424-7890
TBPE F-1640

HIDALGO COUNTY
DRAINAGE DISTRICT NO. 1
2010 BOND PROJECT

J-09 DRAIN IMPROVEMENTS

GATE CONTROL
STRUCTURE DETAILS

N. T. S.
SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
		41

STATE	DIST.	COUNTY
TEXAS	PHR	HIDALGO
CONT.	SECT.	JOB / HIGHWAY NO.

8/29/2013
6:31:03 PM
I:\24773-13 J-09 revisions pt 1\design\cad\roadway\09-box.dgn

EXHIBIT "E"

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

WORK AUTHORIZATION FORM

WORK AUTHORIZATION NO. 2

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **Hidalgo County Drainage District No. 1,** hereinafter called the "Owner", and Melden & Hunt, Inc., professional Engineers hereinafter called "Engineer".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the Engineer to provide inspection services for the "Design of Repair of a 114-inch aluminized Type 2 asphalt coated concrete-lined CMP STA 14+25 to STA 36+26 RADO Drain Alternate".

The scope of services to be provided by the Owner is identified in EXHIBIT "A"- Scope of Services to be Provided by the Owner attached hereto.

The scope of services to be provided by the Engineer is identified in EXHIBIT "B" – Scope of Services to be Provided by the Engineer attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is $12,500.00 . This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as EXHIBIT "D1".

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article 5/Part 5.1 and 5.2 /Section of the Agreement.

PART 4. FUNDING

This Work Authorization No. _2_ shall be funded through funding source:
Account No. _____
Requisition Number_____

PART 5. PERIOD OF SERVICE

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

PART 6. RESPONSIBILITIES AND OBLIGATIONS

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

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by _____ as to content and detail of this Work Authorization No.___.

BY: _____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by the Hidalgo County Drainage District No. 1 and _____ as indicated below and effective as of _____ day of _____, 2014__.

THE ENGINEER:	**THE OWNER:**
MELDEN & HUNT, INC.	**HIDALGO COUNTY DRAINAGE DISTRICT NO. 1**
_____	_____
By: Engineer	**By**

EXHIBIT "A"

SERVICES TO BE PROVIDED BY THE OWNER

The following provides an outline of the services to be provided by the **OWNER** in the development of the **"Project"**.

The **OWNER** will provide to the **ENGINEER** the following:

(1) Authorization to the **ENGINEER** to begin work in accordance with Section 3 of this Agreement.

(2) Payment for work performed by the **ENGINEER**, and accepted by the **OWNER** in accordance with Section 6 of the Agreement.

(3) Assistance to the **ENGINEER**, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies that the **ENGINEER** cannot easily obtain.

(4) Provide any available relevant data the **OWNER** may have on file concerning the **"Project"**.

(5) Provide timely review and decisions in response to the **ENGINEER**'S request for information and/or required submittals and deliverables, in order for the **ENGINEER** to maintain the agreed-upon work schedule prepared in accordance with Attachment "___" of this Agreement.

(6) Attend and participate in progress meetings as required and as coordinated and conducted by the **ENGINEER**.

(7) Assist the **ENGINEER** in the preparation of the **"Project"** mailing list; provide representation, a site and stenographer for all public meetings; additionally:

Public Meetings

(a) Approve agenda and all exhibits prior to public meeting;
(b) Approve date and location of the meeting; and
(c) Review/approve Public Meeting Report

(8) Attend the Preliminary Concept Conference coordinated and conducted by the **ENGINEER** and more particularly identified in Attachment "___" of the Agreement.

(9) Review and approve the **"Project"** design criteria.

(10) Review and approve change orders as required and prepared by the **ENGINEER.**

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

The ENGINEER shall furnish inspection services as follows:

Work Authorization #2 – Resident Project Inspection Services

1. The ENGINEER will have its inspector visit the site four (4) to five (5) hours weekly to inspect the work that has been performed by the contractor with a not to exceed cost of $12,500.00.

EXHIBIT "D"

MELDEN & HUNT, INC. CONTRACT RATES

Audited Overhead Rate FY 2012

Labor Classification	Hourly Base Rate	Contract Rate FY 2013	Contract Rate FY 2014	Contract Rate FY 2015
Principal	$ 74.41	$ 225.00	$ 231.75	$ 238.70
Senior Project Manager	$ 49.60	$ 150.00	$ 154.50	$ 159.14
Project Manager	$ 44.64	$ 135.00	$ 139.05	$ 143.22
Senior Project Engineer	$ 49.60	$ 150.00	$ 154.50	$ 159.14
Project Engineer	$ 40.01	$ 121.00	$ 124.63	$ 128.37
Environmentalist	$ 39.35	$ 119.00	$ 122.57	$ 126.24
EIT	$ 27.50	$ 83.16	$ 85.65	$ 88.22
Inspector	$ 22.82	$ 69.00	$ 71.07	$ 73.20
Senior Engineering Tech	$ 24.50	$ 74.09	$ 76.31	$ 78.60
Engineering Tech	$ 22.00	$ 66.53	$ 68.52	$ 70.58
Administrative	$ 18.25	$ 55.19	$ 56.84	$ 58.55
RPLS	$ 55.00	$ 166.32	$ 171.31	$ 176.45
SIT	$ 21.65	$ 65.47	$ 67.43	$ 69.46
Survey Crew	$ 49.60	$ 150.00	$ 154.50	$ 159.14
Survey Tech	$ 17.30	$ 52.32	$ 53.88	$ 55.50
GIS Manager	$ 38.46	$ 116.30	$ 119.79	$ 123.39

Multipliers

Overhead Rate:	170.00%
Profit Rate:	12.00%
FY 2014 Escalation Rate:	3.00%

Other Non-Labor Direct Expenses	
Mileage	$0.55 per Mile
Lodging	$85 per night
Meals	$36 per day
Car Rental	$50 per day
Air Travel	At costs
8 1/2" x 11" Copies	$1 per sheet
11" x 17" Copies	$1.50 per sheet
11" x 17" Mylars	$2.00 per sheet
22" x 34" Copies	$8.00 per sheet
Overnight Mail Letter size	$20.00 Each
Overnight Mail oversized	$28.00 Each
Survey Stakes & Hubs	$1.00 Each
Survey Monuments	$6.00 Each
Survey Property Pins (Rebar)	$2.00 Each

EXHIBIT "D1"
ENGINEER'S COST PROPOSAL

Estimated Construction Costs:			$ 3,346,544.00
	Special Services		
1	GeoTechnical Services - Borings & Report	$	25,000.00
2	Surveying Services	$	16,732.72
	SubTotal:	$	41,732.72
	Basic Services		
3	Evaluation of Alternatives & Preliminary Engineering Report & Reimbursables	$	30,118.90
4	Design & Reimbursables	$	180,713.38
5	Bidding and Recommendations	$	15,059.45
6	Construction Services, Project Performance, and Reimbursables	$	75,297.24
	SubTotal:	$	301,188.96
	Special Services		
7	Resident Project Inspection Services	$	85,867.33
8	Construction Materials Testing	$	25,000.00
	SubTotal:	$	110,867.33
9	Reimbursables	$	9,000.00
	Total:	$	453,789.01

ENGINEER'S PRELIMINARY COST ESTIMATE & PROJECT BUDGET
HCDD NO. 1 114-INCH DUAL CULVERT REPAIR ON RADO DRAIN ALTERNATE

ENTITY: HCDD No. 1 ____X___ NO DESIGN COMPLETED

DRAINAGE IMPROVEMENTS:

1.	Clean Existing Culverts	4,422	LF	$	28.00	$	123,816.00
2.	Mandrill Existing Culverts	4,422	LF	$	5.00	$	22,110.00
3.	96-Inch SN 46 Hobas Liner Pipe Mat'l	4,422	LF	$	485.00	$	2,144,670.00
4.	Deliver 96-Inch SN Hobas Liner Pipe	4,422	LF	$	25.00	$	110,550.00
5.	Install 96-Inch SN Hobas Liner Pipe	4,422	LF	$	135.00	$	596,970.00
6.	Grout Void	4,422	LF	$	55.00	$	243,210.00
7.	Tie In Existing Storm Sewers	6	EA	$	3,500.00	$	21,000.00
Total Drainage Improvements:						$	3,262,326.00

EROSION CONTROL:

1.	Silt fence (erosion control)	1,500	LF	$	7.25	$	10,875.00
2.	Inlet bales (erosion control)	10	EA	$	100.00	$	1,000.00
3.	Temporary construction entrance	1	EA	$	6,500.00	$	6,500.00
4.	TCEQ Permit Fee (NOI)	1	LS	$	225.00	$	225.00
Total Erosion Control:						$	18,600.00

MISCELLANEOUS IMPROVEMENTS:

1.	Performance & Payment Bonds	2.00%		$	3,280,926.00	$	65,618.52
Total Miscellaneous Improvements:						$	65,618.52

TOTAL UTILITY IMPROVEMENTS: $ 3,346,544.52

OTHER IMPROVEMENTS AND FEES:

1.	Engineering:						
a.	Video Inspection of RADO Drain Conduits	Completed by 1st Global Industrial Services					
b.	Geo-Technical and CMT	At Costs		$	50,000.00	$	50,000.00
c.	Surveying and Topography	0.50%		$	3,346,544.52	$	16,732.72
d.	Preliminary Engineering Report	1.00%		$	3,346,544.52	$	33,465.45
e.	Final Engineering Design	6.00%		$	3,346,544.52	$	200,792.67
f.	Construction Administration	1.50%		$	3,346,544.52	$	50,198.17
2.	Resident Project Inspection	180	days	$	520.00	$	93,600.00
3.	Reimbursibles	At Costs		$	9,000.00	$	9,000.00
Total Other Improvements & Fees:						$	453,789.01

TOTAL IMPROVEMENTS: $ 3,800,333.53

y/Irrigation & Drainage/District/Hidalgo Co Drainage Dist #1/07129...../Quantity.....
Estimated by: ____LLS_____
Checked by: ____FLK_____

MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS
FRED L. KURTH • ALLAN F. BOOE • KELLEY A. HELLER-VELA
TBPE Firm # F-1435

February 6, 2014

Mr. Godfrey Garza, Manager
HCDD #1
902 N. Doolittle Rd
Edinburg, TX 78539

RE: Design of Repair of a 114" aluminized Type 2 asphalt coated concrete lined CMP STA 14+25 to STA 36+26 RADO Drain alternate

Dear Godfrey:

As per our contract with HCDD #1, the line item for resident project inspection services in the amount of $85,867.33 has not yet been authorized. We are requesting authorization to invoice inspector time on an hourly basis. Our inspector is spending 4 to 5 hours per week on this project. His hourly rate is $71.07. The fee for inspection services will not exceed $12,500.00.

We would like your authorization to invoice for the time our inspector is spending on this project.

Sincerely,

Fred L. Kurth, P.E.
President

FLK:cs

EXHIBIT "C"

WORK SCHEDULE OF THE ENGINEER

1. PRELIMINARY ENGINEERING REPORT	60 days
2. DESIGN	60 days
3. BIDDING	30 days
4. CONSTRUCTION SERVICES	as required
5. PROJECT PERFORMANCE	1 year after project acceptance

If the above is not accomplished within the time period specified, this Agreement may be terminated by the OWNER. The time for completion will be extended by the OWNER for a reasonable time if completion is delayed due to unforeseeable causes beyond the control and without the fault or negligence of the ENGINEER.

1.

AI-43475 **10.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Jaime Salazar, DRAINAGE DISTRICT

Department: DRAINAGE DISTRICT

Information

CAPTION

A.) Requesting approval of Interlocal Agreement between Hidalgo County Drainage District No.1 and the County of Hidalgo, Texas, for the construction of drainage project (Pct.2 Rural Drainage Development-Northside Village / Hidden Valley Subdivision Area Drainage Improvements) in conjunction with a County road project (Gearhart).

B.) Pursuant to the Board's approval of Interlocal with County of Hidalgo requesting approval of Change Order No.1 (increase of $43,800.00) to Construction Contract No. HCDD1-14-001-01-21 "Pct. 2 Rural Drainage Development-Northside Village / Hidden Valley Subdivision Area Drainage Improvements" Rojas Construction & Paving, LLC.

BACKGROUND

Attachments

Change Order No.1 Pct. 2 Rural

Interlocal Gearhart

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/06/2014 04:18 PM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Jaime Salazar Started On: 03/06/2014 03:49 PM

Final Approval Date: 03/07/2014

CHANGE ORDER NUMBER ONE (1)

PROJECT: PCT2 Rural Drainage Development - Northside Village / Hidden Valley Subd Area Drainage Improvements

DATE OF ISSUANCE: _____ EFFECTIVE DATE: _____

OWNER: Hidalgo County Drainage District No. 1

CONTRACTOR: Rojas Consturction & Paving, LLC
1005 E. Expressway 83
Alamo, Texas 78516

ENGINEER: R. Gutierrez Engineering Corporation
130 E. Park Ave.
Pharr, TX 78577

You are directed to make the following changes in the Contract Documents.

Description:

1. Safety End Treatment (18") (6:1)
2. Roadside Ditch Excavation
3. Reinforced Conrete Pipe (18-In) (CL III) (SPL)
4. Inlet (Complete) (Ty CC)
5. Inlet (Complete) (Ty M)
6. Additional days for additional construction

RECEIVED
HIDALGO COUNTY
DRAINAGE DISTRICT #1
MAR 0 6 2014
2:12 AM / PM
BY: RosaArce

Reason:

1. Items added to facilitate improvements for Gearhart Drive
2. Items added to facilitate improvements for Gearhart Drive
3. Items added to facilitate improvements for Gearhart Drive
4. Items added to facilitate improvements for Gearhart Drive
5. Items added to facilitate improvements for Gearhart Drive
6. 15 additional days for added work

Attachments:

Change in Contract Price:		**CHANGE IN CONTRACT TIME:**	
Original Contract Price $ 693,763.81		Original Contract Time for Substantial Completion:	60 calendar days or dates
Net Changes from previous Change Order $ 0.00		Net change from previous Change Orders	0 calendar days
Contract Price prior to this Change Order $ 693,763.81		Contract Time prior to this Change Order Substantial Completion:	60 calendar days or dates
Net Increase (decrease) of this Change Order $ 43,800.00		Net Increase (decrease) of this Change Order	15 calendar days
Contract Price with all approved Change Orders $ 737,563.81	Net % increase (decrease) from original contract price. 6.30 %	Contract Time with all approved Change Orders Substantial Completion:	75 calendar days or dates

RECOMMENDED:
By: _____
Engineer (Authorized Signature)
Date: 03/05/14

APPROVED:
By: _____
Owner (Authorized Signature)
Date: _____

ACCEPTED:
By: _____
Contractor (Authorized Signature)
Date: 3/5/14

CHANGE ORDER NO. 1 TABULATION

PCT2 Rural Drainage Development - Northside Village / Hidden Valley Subd Area Drainage Improvements

Item Number	Original Plan Quantity	Change Order #1 Quantities	Unit	Item Description	Unit Price	Revised Unit Price	Original Contract Cost	Change in Contract Cost of C.O.#1	Revised Contract Cost after C.O.#1
				HIDDEN VALLEY SUBDIVISION AREA					
1	8.00	8.00	EA	Preparation R.O.W. (Trees) (Dia. Varies)	1,200.00	$ 1,200.00	$ 9,600.00	$ -	9,600.00
2	2,415.00	2415.00	SY	Cellulose Fiber Mulch Seeding (Permanent) (Rural) (Clay)	1.25	$ 1.25	$ 3,018.75	$ -	3,018.75
3	26.90	26.90	MG	Vegetated Watering	150.00	$ 150.00	$ 4,035.00	$ -	4,035.00
4	1,780.00	1780.00	LF	Trench Excavation Protection	1.75	$ 1.75	$ 3,115.00	$ -	3,115.00
5	19.00	19.00	CY	Concrete Riprap (CL B) (5")	385.00	$ 385.00	$ 7,315.00	$ -	7,315.00
6	64.00	64.00	LF	Concrete Box Culvert (7-Ft x 3-Ft)	401.31	$ 401.31	$ 25,683.84	$ -	25,683.84
7	12.00	12.00	LF	Reinforced Concrete Pipe (24-IN) (CL III) (SPL)	38.00	$ 38.00	$ 456.00	$ -	456.00
8	320.00	320.00	LF	Reinforced Concrete Pipe (36-IN) (CL III) (SPL)	70.00	$ 70.00	$ 22,400.00	$ -	22,400.00
9	316.00	316.00	LF	Reinforced Concrete Pipe (42-IN) (CL III) (SPL)	85.00	$ 85.00	$ 26,860.00	$ -	26,860.00
10	1,076.00	1076.00	LF	Reinforced Concrete Pipe (54-IN) (CL III) (SPL)	115.00	$ 115.00	$ 123,740.00	$ -	123,740.00
11	2.00	2.00	EA	Inlet (Complete) (Ty M)	3,800.00	$ 3,800.00	$ 7,600.00	$ -	7,600.00
12	2.00	2.00	EA	Inlet (Complete) (Ty M w/Grate)	3,800.00	$ 3,800.00	$ 7,600.00	$ -	7,600.00
13	1.00	1.00	EA	Junction Box (10-ft x 5-ft)	10,500.00	$ 10,500.00	$ 10,500.00	$ -	10,500.00
14	78.00	78.00	SY	Construction Exit (Ty II) (Install)	20.00	$ 20.00	$ 1,560.00	$ -	1,560.00
15	78.00	78.00	SY	Construction Exit (Ty II) (Remove)	15.00	$ 15.00	$ 1,170.00	$ -	1,170.00
16	78.00	78.00	LF	Temporary Sediment Control Fence	3.50	$ 3.50	$ 273.00	$ -	273.00
17	20.00	20.00	LF	RC Low Head Pressure Pipe (CL III) (16")	50.00	$ 50.00	$ 1,000.00	$ -	1,000.00
18	24.00	24.00	LF	Biodegradable Erosion Control Logs (12" Dia)	20.00	$ 20.00	$ 480.00	$ -	480.00
19	1.00	1.00	MO	Barricades, Signs and Traffic Handling	8,500.00	$ 8,500.00	$ 8,500.00	$ -	8,500.00
				Total Hidden Valley Subdivision Area			**$ 264,906.59**	**$ -**	**264,906.59**
				NORTHSIDE VILLAGE SUBDIVISION AREA					
1	1,220.00	1220.00	SY	Cellulose Fiber Mulch Seeding (Permanent) (Rural) (Clay)	1.35	$ 1.35	$ 1,647.00	$ -	$ 1,647.00
2	13.56	13.56	MG	Vegetated Watering	150.00	$ 150.00	$ 2,034.00	$ -	$ 2,034.00
3	1,388.00	1388.00	SY	Cut & Restore Pavement	35.00	$ 35.00	$ 48,580.00	$ -	$ 48,580.00
4	29.00	29.00	SY	Cut & Restore Asphalt Drive	35.00	$ 35.00	$ 1,015.00	$ -	$ 1,015.00
5	143.00	143.00	SY	Cut & Restore Caliche Drive	22.00	$ 22.00	$ 3,146.00	$ -	$ 3,146.00
6	2,446.00	2446.00	LF	Trench Excavation Protection	1.75	$ 1.75	$ 4,280.50	$ -	$ 4,280.50
7	20.00	20.00	CY	Concrete Riprap (CL B) (5")	385.00	$ 385.00	$ 7,700.00	$ -	$ 7,700.00
8	56.00	56.00	LF	Concrete Box Culvert (7-Ft x 4-Ft)	413.87	$ 413.87	$ 23,176.72	$ -	$ 23,176.72
9	45.00	45.00	LF	Reinforced Concrete Pipe (18-IN) (CL III) (SPL)	30.00	$ 30.00	$ 1,350.00	$ -	$ 1,350.00
10	80.00	80.00	LF	Reinforced Concrete Pipe (24-IN) (CL III) (SPL)	38.00	$ 38.00	$ 3,040.00	$ -	$ 3,040.00
11	260.00	260.00	LF	Reinforced Concrete Pipe (30-IN) (CL III) (SPL)	52.00	$ 52.00	$ 13,520.00	$ -	$ 13,520.00
12	225.00	225.00	LF	Reinforced Concrete Pipe (36-IN) (CL III) (SPL)	70.00	$ 70.00	$ 15,750.00	$ -	$ 15,750.00
13	312.00	312.00	LF	Reinforced Concrete Pipe (42-IN) (CL III) (SPL)	85.00	$ 85.00	$ 26,520.00	$ -	$ 26,520.00
14	1,424.00	1424.00	LF	Reinforced Concrete Pipe (54-IN) (CL III) (SPL)	140.00	$ 140.00	$ 199,360.00	$ -	$ 199,360.00
15	2.00	2.00	EA	Inlet (Complete) (Ty CC)	3,500.00	$ 3,500.00	$ 7,000.00	$ -	$ 7,000.00
16	2.00	2.00	EA	Inlet (Complete) (Ty C)	3,000.00	$ 3,000.00	$ 6,000.00	$ -	$ 6,000.00
17	2.00	2.00	EA	Inlet (Complete) (Ty A)	3,000.00	$ 3,000.00	$ 6,000.00	$ -	$ 6,000.00
18	1.00	1.00	EA	Inlet (Complete) (Ty M w/Grate)	3,500.00	$ 3,500.00	$ 3,500.00	$ -	$ 3,500.00
19	3.00	3.00	EA	Inlet (Complete) (Ty M)	3,500.00	$ 3,500.00	$ 10,500.00	$ -	$ 10,500.00
20	3.00	3.00	EA	Junction Box (10-ft x 5-ft)	10,500.00	$ 10,500.00	$ 31,500.00	$ -	$ 31,500.00
21	208.00	208.00	LF	Temporary Sediment Control Fence	3.50	$ 3.50	$ 728.00	$ -	$ 728.00
22	78.00	78.00	SY	Construction Exit (Ty II) (Install)	20.00	$ 20.00	$ 1,560.00	$ -	$ 1,560.00
23	78.00	78.00	SY	Construction Exit (Ty II) (Remove)	15.00	$ 15.00	$ 1,170.00	$ -	$ 1,170.00
24	16.00	16.00	LF	RC Low Head Pressure Pipe (CL III) (16")	50.00	$ 50.00	$ 800.00	$ -	$ 800.00
25	24.00	24.00	LF	Biodegradable Erosion Control Logs (12" Dia)	20.00	$ 20.00	$ 480.00	$ -	$ 480.00
26	1.00	1.00	MO	Barricades, Signs and Traffic Handling	8,500.00	$ 8,500.00	$ 8,500.00	$ -	$ 8,500.00
				Total Northside Village Subdivision Area			**$ 428,857.22**	**$ -**	**$ 428,857.22**
				GEARHART DRIVE					
1	0.00	2.00	EA	Safety End Treatment (18") (6:1)	$ -	$ 1,300.00	$ -	$ 2,600.00	$ 2,600.00
2	0.00	200.00	LF	Roadside Ditch Excavation	$ -	$ 13.00	$ -	$ 2,600.00	$ 2,600.00
3	0.00	120.00	LF	Reinforced Conrete Pipe (18-In) (CL III) (SPL)	$ -	$ 30.00	$ -	$ 3,600.00	$ 3,600.00
4	0.00	8.00	EA	Inlet (Complete) (Ty CC)	$ -	$ 3,500.00	$ -	$ 28,000.00	$ 28,000.00
5	0.00	2.00	EA	Inlet (Complete) (Ty M)	$ -	$ 3,500.00	$ -	$ 7,000.00	$ 7,000.00
				Total Northside Gearhart Drive			**$ -**	**$ 43,800.00**	**$ 43,800.00**
TOTAL CONTRACT AMOUNTS							**$693,763.81**	**$43,800.00**	**$737,563.81**

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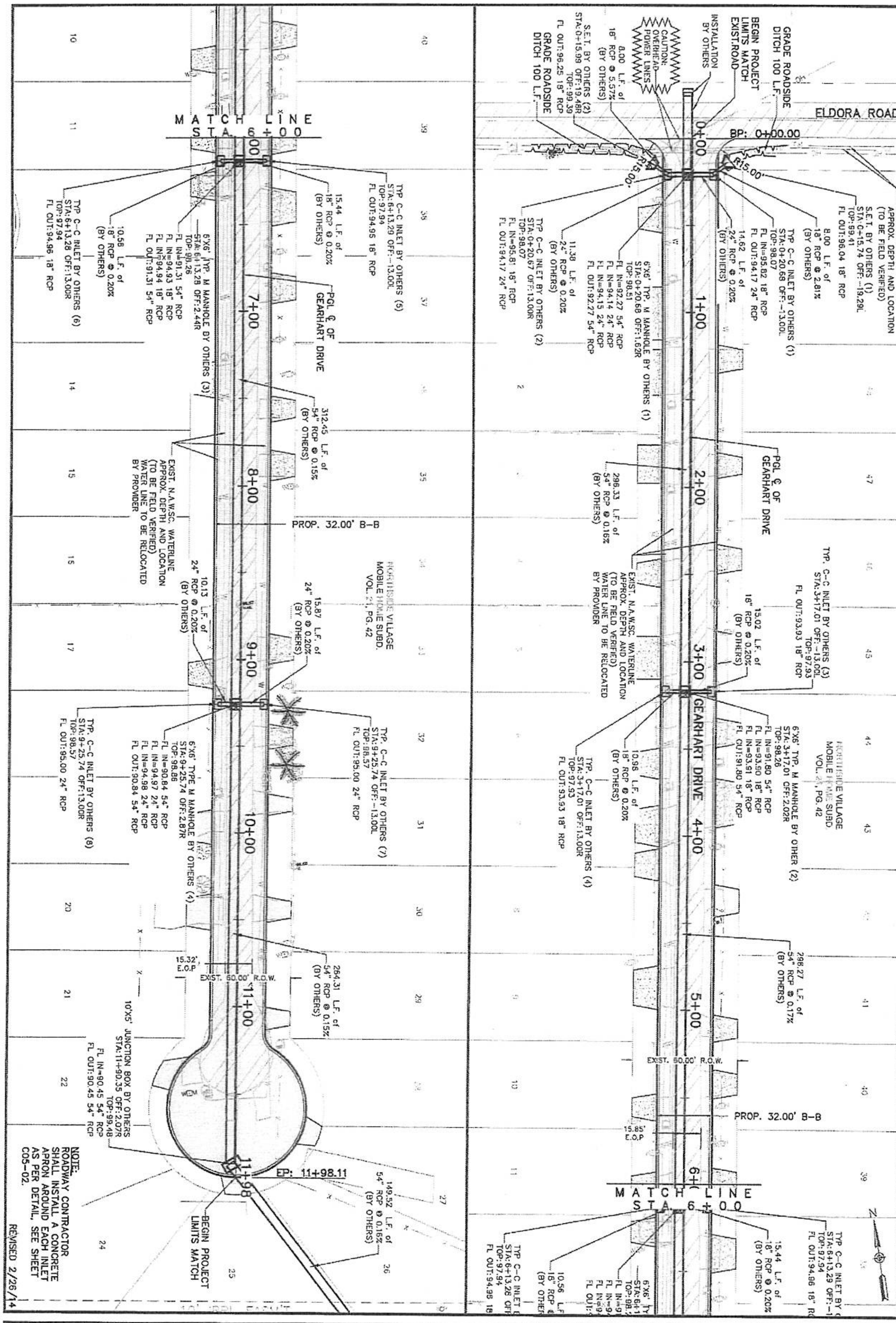


GEARHART DRIVE IMPROVEMENT PROJECT

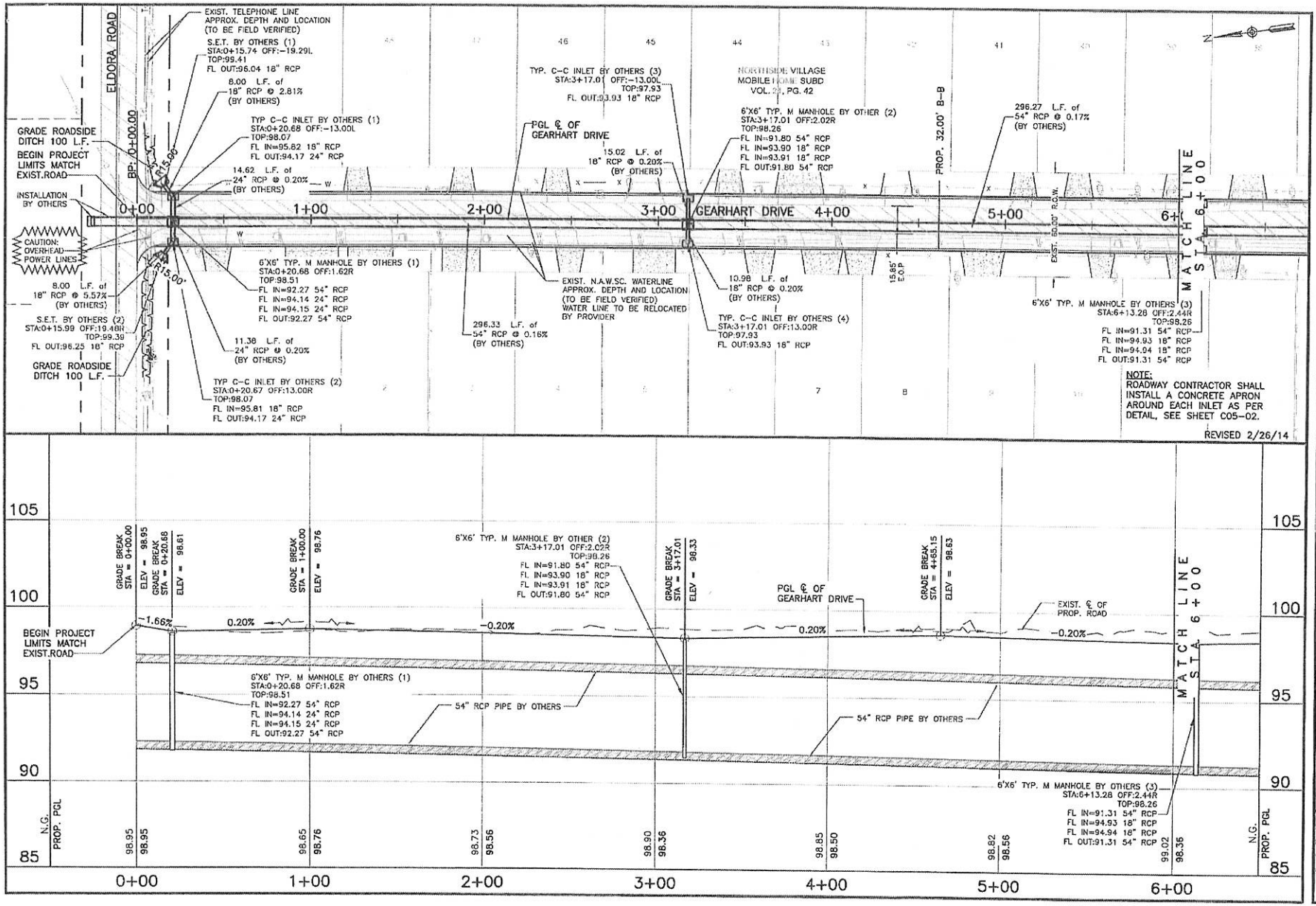
PROPOSED ROAD AND DRAINAGE IMPROVEMENTS

COMMISSIONER HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2 IMPROVEMENT PROJECTS

HIDALGO COUNTY PLANNING DEPARTMENT
1304 S. 25 TH. STREET
EDINBURG TX. 78539
TEL: (956) 318-2840 ☆ FAX: (956) 318-2844
www.co.hidalgo.tx.us
RAUL E. SESIN, P.E., C.F.M.
PLANNING ADMINISTRATOR

RAUL E. SESIN
EDGAR I.
SCALE: 1:50'
SHEET: C02-01
02/26/14

Drawing: t:\PCT 2\GEAR HART AND El Dora Drainage Improvements\Drawing\OVER ALL PLAN.dwg
Layout Tab: Layout1 Date: 02/26/2014 Time: 05:39:39 PM



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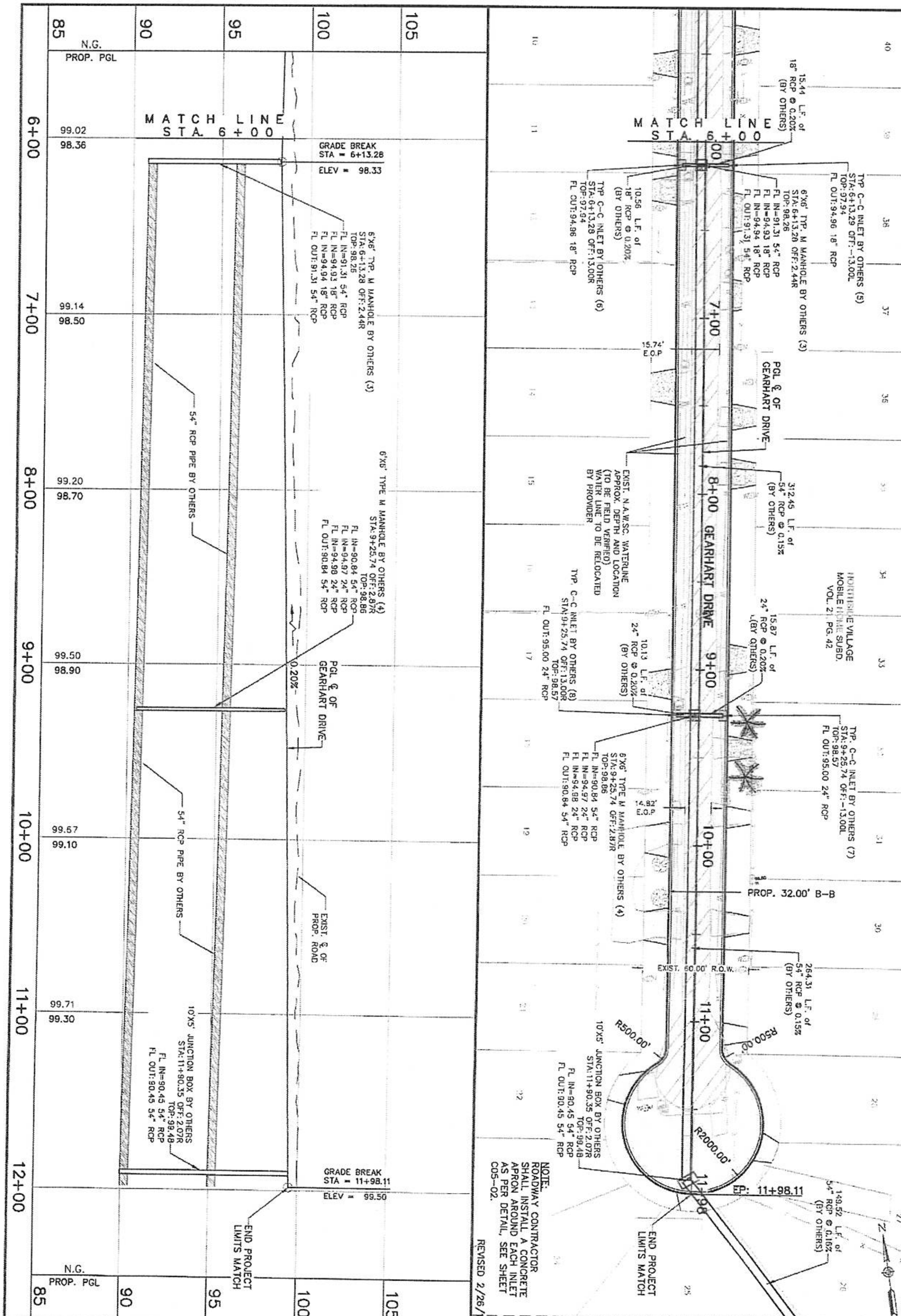
COMMISSIONER
HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2
IMPROVEMENT PROJECTS

GEARHART DRIVE IMPROVEMENT PROJECT

PLAN AND PROFILE
STA. 0+00 - STA. 6+00

STATE OF TEXAS
RAUL E. SESIN
86374
LICENSED
PROFESSIONAL
ENGINEER
This seal appearing on this document was authorized by Raul E. Sesin P.E. on the above designated date.
02/26/14
RAUL E. SESIN, P.E. No. 86374

SCALE: H.1"=50' / V.1"=5'
DRAWN BY:
CHECKED BY: RAUL E. SESIN
TOPO BY: EDGAR J.
SHEET: C03-01



GEARHART DRIVE IMPROVEMENT PROJECT

PLAN AND PROFILE
STA. 6+00 - STA. 12+00

COMMISSIONER
HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2
IMPROVEMENT PROJECTS

HIDALGO COUNTY PLANNING DEPARTMENT
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PLANNING ADMINISTRATOR

SCALE: H 1"=50' / V 1"=5'
CHECKED BY: RAUL E. SESIN
TOPO BY: EDGAR I.
SHEET: C03-02

STATE OF TEXAS §

COUNTY OF HIDALGO §

INTERLOCAL COOPERATION AGREEMENT BETWEEN HIDALGO COUNTY AND HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

THIS AGREEMENT is made effective the _____ day of _____, 2014, by and between HIDALGO COUNTY, hereinafter referred to as "County" and the Hidalgo County Drainage District No. 1, hereinafter referred to as "District", pursuant to the provisions of the Texas Interlocal Cooperation Act, as follows:

WHEREAS, the District is in the process of installing a trunk line storm sewer line which is capable of serving Northside Village Mobile Home Subdivision, a subdivision located in Hidalgo County, Texas (the "Subdivision");

WHEREAS, County desires to have installed in the Subdivision lateral storm sewer lines, eight inlets to such trunk line storm sewer line to connect the lateral lines and two manholes the ("Project");

WHEREAS, District through its own forces or third party contractor(s) is agreeable to construct the Project; and

WHEREAS, District and the County are authorized to enter into this Agreement pursuant to the Interlocal Cooperation Act, Texas Government Code Section 791.001 et. seq., (the "Act") which authorizes local governments to contract with each other to perform governmental functions and services under the terms of the Act.

NOW THEREFORE, District and County, in consideration of the mutual covenants expressed hereinafter, agree as follows:

1. The District shall construct the Project for the County in accordance with plans and specifications prepared by Raul Sesin, P. E.

2. County shall pay District against invoice an amount not to exceed the sum of Fifty Thousand and no/100ths Dollars for the Work.

3. **Conflict with Applicable Law.** Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, and whenever there is any conflict between and provision of their Agreement and any present or future law, ordinance or administrative, executive or judicial regulation, order or decree, or amendment thereof, contrary to which the parties have no legal right to contract, the latter shall prevail, but in such event the affected provision or provision of this Agreement shall be modified only to The extent necessary to bring them within the legal requirements and only during the times such conflict exists.

4. **No Waiver**. No waiver by any party hereto of any breach of any provision of the Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

5. **Entire Agreement**. This Agreement contains the entire contract between the parties hereto, and each party acknowledges that neither has made (either directly or through any agent or representative) any representation or agreement in connection with this Agreement not specifically set forth herein. This Agreement may be modified or amended only by agreement in writing executed by District and County, and not otherwise.

6. **Texas Law to Apply**. This Agreement shall be construed under and in accordance with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Hidalgo County, Texas. The parties hereby consent to personal jurisdiction in Hidalgo County, Texas.

7. **Notice**. Except as may be otherwise specifically provided in this Agreement, all notices, demands, requests or communication required or permitted hereunder shall be in writing and shall either be (i) personally delivered against a written receipt, or (ii) sent by registered or certified mail, return receipt requested, postage prepaid and addressed to the parties at the addresses set forth below, or at such other addresses as may have been theretofore specified by written notice delivered in accordance herewith:

If to District:	Hidalgo County District No. 1 Attention: Chairman of the Board 900 N. Doolittle Road Edinburg, Texas 78541
If to County:	Hidalgo County, Texas Attention: Ramon Garcia, County Judge P.O. Box 1356 Edinburg, Texas 78540-0758
With copy to:	Commissioner Hector "Tito" Palacios, Precinct No.2 300 W. Hall Acres, Suite G Pharr, Texas 78577

Each notice, demand, request or communication which shall be delivered or mailed in the manner described above shall be deemed sufficiently given for all purposes at such time as it is personally delivered to the addressee or, if mailed, at such time as it is deposited in the United States mail.

8. **Additional Documents**. The parties hereto covenant and agree that they will execute such other and further instruments and documents as are or may

become necessary or convenient to effectuate and carry out the terms of this Agreement.

9. **Successors.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective legal representatives, successors, and assigns where permitted by this Agreement.

10. **Assignment.** This Agreement shall not be assignable.

11. **Headings.** The headings and captions contained in this Agreement are solely for convenience reference and shall not be deemed to affect the meaning or interpretation of any provision of paragraph hereof.

12. **Gender and Number.** All pronouns used in this Agreement shall include the other gender, whether used in the masculine, feminine or neuter gender, and singular shall include the plural whenever and so often as may be appropriate.

13. **Authority to Execute.** The execution and performance of this Agreement by District and County have been duly authorized by all necessary laws, resolutions or corporate action, and this Agreement constitutes the valid and enforceable obligations of District and County in accordance with its terms.

14. **Governmental Purpose.** Each party hereto is entering into this agreement for the purpose of providing for governmental services or functions and will pay for such services out of current revenues available to the paying party as herein provided.

15. **Commitment of Current Revenues Only.** In the event that, during any term hereof, the governing body of any party does not appropriate sufficient funds to meet the obligations of such party under this Agreement, then any party may terminate this Agreement upon ninety (90) days written notice to the other party. Each of the parties hereto agrees, however, to use its best efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of each party hereto pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903.

WITNESS THE HANDS OF THE PARTIES effective as of the day and year first written above.

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

_____

Ramon Garcia, Chairperson, Board of Directors

HIDALGO COUNTY

ATTEST:

_____
Arturo Guajardo, County Clerk

_____
Ramon Garcia, County Judge

APPROVED AS TO FORM:

ATLAS, HALL & RODRIGUEZ, LLP

BY:_____
Stephen L. Crain

AI-43472 **Precinct #2 0.**

CC CONSENT

Meeting Date: 03/18/2014

Submitted For: Commissioner Hector Palacios **Submitted By:** Erika Zamora, COMM. PCT. #2

Department: COMM. PCT. #2

Information

CAPTION

1. Approval of Interlocal Agreement between Hidalgo County Drainage District No. 1 and the County of Hidalgo, Texas, for the construction of a drainage project in conjunction with a County road project (Gearhart).
2. In accordance with Section 791.014 of the Texas Government Code, requesting approval of the interlocal cooperation agreement project to coordinate the construction of a drainage system for both the Pct 2 Gearhart Rd project and the Drainage District Northside Village/Hidden Valley Subdivision Drainage Improvement Project.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2014 **ACCT. #:** 4-1200-431-00-122-092-0-731

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Funding was appropriated into account through AI# 43402 CC 3-5-14.

Attachments

Interlocal Agreement

Form Review

Inbox	Reviewed By	Date
Budget & Management		
Auditor's Office		
Purchasing Department		

Form Started By: Erika Zamora Started On: 03/06/2014

AI-43481 **11.**

DRAINAGE DISTRICT

Meeting Date: 03/11/2014

Submitted By: Jaime Salazar, DRAINAGE DISTRICT

Department: DRAINAGE DISTRICT

Information

CAPTION

2013 BOND SERIES

A.) Requesting approval of final negotiated Agreement for Professional Engineering Services with S&B Infrastructure, Ltd as it relates to repairs to Weir 4 on the Main Floodwater Channel in Willacy County, Texas. Approved for negotiations by HCDD1 Board of Directors on January 15, 2013.

B.) Requesting approval of Work Authorization No. 1 from S&B Infrastructure in the amount of $36,601 as it relates to Preliminary Engineering for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

C.) Requesting approval of Work Authorization No. 2 from S&B Infrastructure in the amount of $10,560.00 as it relates to Survey Services for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

D.) Requesting approval of Work Authorization No. 3 from S&B Infrastructure in the amount of $16,575.72 as it relates to Geo-Tech Services for Weir 4 on the Main Floodwater Channel in Willacy County, Texas.

BACKGROUND

Attachments

S&B Agreement
WA No.1 S&B
WA No.2 S&B
Wa No.3 S&B

Form Review

Inbox	Reviewed By	Date
Budget & Management	Debbie Tamez	03/07/2014 10:04 AM
Final Approval	Monica Badillo	03/07/2014 05:19 PM

Form Started By: Jaime Salazar Started On: 03/06/2014 04:38 PM

Final Approval Date: 03/07/2014

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

THIS AGREEMENT is made, by and between **HIDALGO COUNTY DRAINAGE DISTRICT NO. 1** hereinafter called the **"Owner"**, and **S&B Infrastructure, Ltd.** professional **Engineer**s, hereinafter called the **"Engineer".**

WITNESSETH:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide management and professional engineering services for **repairs to Weir 4 on the Main Floodwater Channel in Willacy County, Texas,** hereinafter referred to as the **"Project"**.

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

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

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

2.1 Scope of Work. If authorized under Article 7 of this Agreement, the **Owner** will furnish items and provide those services for the development of the **"Project"** and fulfillment of this Agreement, as identified in **EXHIBIT "A**" ***Services to be Provided by the Owner***, attached hereto and made a part of this Agreement and the **Engineer** will provide professional management and engineering services identified in **EXHIBIT "B"- *Services to be Provided by the Engineer,*** attached hereto and

made a part of this agreement, and outlined below:

I. General Contract Management (hereinafter referred to as "GCM"). For GCM, the primary role of the **Engineer** will be to perform professional management services. The **Engineer** as GCM manager, shall direct all tasks required by the project team (hereinafter referred to as **"Project Team"** and identified in the organization chart shown in **EXHIBIT "B2"-Project Team**, attached hereto), consisting of various sub-consultants, in the development of the project. As GCM manager, the **Engineer** shall organize and manage the project team, including: assigning the various engineering work tasks; directing and controlling the work; planning, conducting, and documenting internal and external meetings; establishing policy, procedures, and quality assurance; and furnishing the necessary technical and support staff to implement the preliminary project planning and development (including, but not limited to, the identification and procurement of funding, and the development of a capital improvement program), preliminary engineering, final design, and construction of the project.

II. Preliminary Project Planning & Development. For preliminary planning and development of the project, the primary role of the **Engineer** will be to perform engineering activities and work tasks associated with the preparation of an environmental document, public involvement, and the development of primary and secondary project field control through field surveying and aerial mapping.

III. Preliminary Engineering, Final Design & Construction. For these services, the **Engineer** will be performing engineering activities as follows:

(A) Preliminary Engineering. As identified in **EXHIBIT "A",** attached hereto, the **Owner** shall provide to the **Engineer** any available relevant data the **Owner** may have on file concerning the project for the **Engineer** to review. The **Engineer** will indicate any errors and omissions and corrections needed as a basis for the final

design of the project. The **Engineer** will prepare a report, hereinafter referred to as the **"Preliminary Engineering Report"**. The **"Preliminary Engineering Report"** will be prepared by the **Engineer** in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the **Owner**, to include preliminary layouts, sketches, and cost estimates and to set forth clearly the **Engineer**'s recommendations for the final design of the project. The **Engineer**'s recommendations for the final design of the project shall meet all federal, state and county permitting requirements.

(B) Final Design. Upon approval by the **Owner** of the **Engineer**'s final recommendations, as shown in the **"Preliminary Engineering Report"**, the **Engineer** will perform all required engineering tasks, as more particularly identified in **EXHIBIT "B",** attached hereto, to provide the **Owner** with a complete and approved set of plans, specifications, and estimates (incorporated herein by reference as "PS&E") for each phase of construction of the project.

(C) Construction. The **Engineer** will provide construction phase engineering services for each phase of construction of the project that is authorized and funded by the **Owner** for construction.

The steps or sequence for the professional management and engineering services outline for the scope of work above, and more particularly identified in **EXHIBIT "B"**, attached hereto, may be performed concurrently by the **Engineer**, if approved by the **Owner**.

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

(1) Basic Services: Basic Services, incorporated herein by reference as **"Basic Services",** includes those professional services not otherwise identified under Article 5.2 of this

Agreement.

(2) Special Services: Special services, incorporated herein by reference as "**Special Services",** includes those professional services identified under Article 5.2 of this Agreement.

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

ARTICLE 3. Period of Service. After execution of this Agreement, the Engineer shall not proceed with the work outlined under Article 2 hereof until authorized in writing by the Owner to proceed as provided in Article 7 hereof.

3.1 Termination Date. This Agreement shall terminate on March 11, 2017 (hereinafter referred to as the "**Termination Date**"), unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date**, or otherwise terminated as provided in Article 3.4 herein and below. The **Owner** assumes no liability or obligation for payment to the **Engineer** for work performed or costs incurred by the **Engineer** prior to the date authorized by the **Owner** for the **Engineer** to begin work, during periods when work is suspended, or subsequent to the **Termination Date.**

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

3.3 Suspension of Work. Should the **Owner** desire to suspend the work under this Agreement,

but not terminate this Agreement, the **Owner** shall provide thirty (30) calendar days verbal notification to the **Engineer**, followed by written confirmation from the **Owner** to the **Engineer** to that effect. The thirty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the **Owner** to the **Engineer**. The sixty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer.**

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

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

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

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

(3) By the **Owner,** upon failure of the **Engineer** to fulfill the **Engineer's** obligations set forth herein in a satisfactory manner as determined by the **Owner** and in sole opinion of the **Owner**, after the **Owner** provides written notice to the **Engineer** of such failure and the

Engineer has not corrected such failure within (30) days of such written notice by the **Owner.**

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

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

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

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

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

If the **Engineer** defaults in the performance of this Agreement or if the **Owner** terminates this Agreement for fault on the part of the **Engineer**, the **Owner** will give consideration to payment of an amount in settlement to include: the actual costs incurred by the **Engineer** in performing the work to the date of default, the amount of work required which was satisfactorily completed to date of default, the value of the work which is usable to the **Owner**, the cost to the **Owner** of employing another consultant

and/or firm to complete the work required and the time required to do so, and other factors which affect the value to the **Owner** of the work performed at the time of default. This Agreement shall not be considered as specifying the exclusive remedy for any default by the **Engineer,** but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

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

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

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

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

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

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

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

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

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

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

5.1 ***Basic Services.*** For and in consideration of the Basic Services to be rendered by the **Engineer**, as identified in Article 2 and more particularly identified in **EXHIBIT "B"**, attached hereto, the maximum amount payable by the **Owner** to the **Engineer** for Basic Services, subject to adjustment in accordance with Article 6.1 herein, is equal to eight and one-half percent (8.5%) of the construction cost of the **"Project"** as mutually-agreed between the Owner and the Engineer and more particularly defined in Article 6.1 herein, (hereinafter referred to as the "Basic Services Fee"), plus up to an additional one-half percent (0.5%) if the Engineer furnishes the requirements for incentives specified in Article 5.3 herein, as more particularly described in **EXHIBIT "D2"**.

5.2 ***Special Services***. Those services that may be required to be provided by the **Engineer** as ***Special Services*** include those set forth below and more particularly described in **EXHIBIT "B"**, attached hereto. For and in consideration of ***Special Services*** rendered as required by the **Engineer**, the

Owner shall pay the **Engineer** a negotiated lump sum fee (hereafter referred to as "Special Services Fee") at the hourly labor rates and non-labor rates (hereinafter referred to as "Contract Rates") specified in **EXHIBIT "D" - *Contract Rates***, attached hereto and made a part of this Agreement.

1. **RESIDENT OR SITE ENGINEER, INSPECTOR:** Actual performance of services of **"Project"** site **Engineer**, resident **Engineer** and/or inspector, if required by **Owner**.

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

3. **EXTRA TRAVEL:** Extra travel required of **Engineer** and authorized by **Owner** to points outside of **HIDALGO COUNTY DRAINAGE DISTRICT NO. 1**.

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

5. **MISCELLANEOUS**. Investigations involving detailed consideration of operation, maintenance and overhead expenses and (unless otherwise agreed) the preparation of rate schedules, earning and expense statements; preparation of feasibility studies; environmental document preparation; appraisals, valuations, and material audits; or inventories required for certification of force account construction performed by the **Owner**; preparation of change orders for extra work done by the **Contractor.**

5.3 ***Incentives***. The **Owner** shall provide an incentive opportunity to the **Engineer** in consideration for services rendered regarding the corporate sponsorship performed by the **Engineer**, as more particularly identified in **EXHIBIT "B"** (under Funding Sources), attached hereto, for obtaining funding from potential funding sources for the **Project**. This incentive is stated in **Exhibit "D2"- Funding Source Incentive**, attached hereto and made a part of this Agreement. Payments to the **Engineer** for meeting the incentive requirements will be made by the **Owner**, upon presentation of the **Request for Payment** by the **Engineer** in accordance with the terms and provisions of Article 6 hereof.

ARTICLE 6. Method of Payment.

6.1 Request for Payment. Payments to the **Engineer** for services rendered will be made while work is in progress as executed through a lump sum fee assigned to each work authorization (hereinafter referred to as **"Work Authorization**") in accordance with **Article 7** herein. For each **Work**

Authorization, the **Engineer** shall prepare and submit to the **Owner** monthly progress reports in sufficient detail to support the progress of the work and in support of a request for payment (hereinafter referred to as "**Request for Payment**"). The progress report shall indicate the percent completion of the work accomplished by the **Engineer** during the billing period and to the date of the **Request for Payment**. On or before noon of the first Monday of each month during the performance of the services, the **Engineer** shall submit to the **Owner** for approval a **Request for Payment**. Payment of the lump sum fee for each **Work Authorization** identified in the **Request for Payment** will be in proportion to the percent completion of the work tasks identified in such **Work Authorizations** together with a detailed breakdown of the amount and the sum of all prior payments. The **Owner** shall review each such **Request for Payment** and may make such exceptions as the **Owner** reasonably deems necessary or appropriate under the circumstances then existing. About ten (10) working days after the Commissioners Court of the **Owner** meets approving such payment, the **Owner** shall make payment to the **Engineer** in the amount approved as aforesaid subject to Article 6.3 herein and below.

Should the **Project** or portions of the **Project** be awarded for construction, the **Owner** will reconcile and determine the final maximum amount payable for the **Basic Services Fee,** as identified in Article 5.1 hereof., for that portion of the Project that has been awarded for construction as follows:

(1) Construction Cost - An estimated construction cost will be developed for each phase of the project, and be updated throughout engineering (advance planning, final design and plans and specifications) development. A construction cost will be mutually agreed between the **Owner** and the **Engineer** in writing at the time of submittal of the final plans and specifications to the **Owner** (the "Final Estimated Construction Cost"). A fee will be calculated as eight and one-half percent (8.5%) of the Final Estimated Construction Cost ("Preliminary Basic Services Fee"). After the project is constructed, and the final construction cost of the project is determined, the Preliminary Basic Services Fee will be

adjusted no more than plus or minus then percent (+/-10%) as follows:

(a) If the final construction cost of the project is more than the Final Estimated Construction Cost, the Basic Services Fee for engineering will be adjusted up, but the adjustment will be no more than plus ten percent (+10%) of the Preliminary Basic Services Fee; or,

(b) If the final construction cost of the project is less than the Final Estimated Construction Cost, the Basic Services Fee for engineering will be adjusted down, but the adjustment will be no more than minus ten percent (-10%) of the Preliminary Basic Services Fee.

(2) Incentives – The portion of the Basic Services Fee for funding incentive will be reconciled and based on funding received at the time of reconciliation.

This reconciliation and determination by the **Owner** will be performed on a yearly basis throughout the development of the **Project,** and within the period of service established in Article 3. Payment due to the **Engineer** or credit owed to the **Owner** by the **Engineer** in the amount of this reconciliation and determination shall be applied to the next applicable **Request for Payment.**

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

6.3 Qualification on Obligations to Pay. Any provision hereof to the contrary notwithstanding,

the **Owner** shall not be obligated to make any payment (whether a payment under Article 6.1 hereof or **Final Payment**) to the **Engineer** hereunder if any one or more of the following conditions precedent exist:

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

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

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

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

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

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

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

ARTICLE 7. Work Authorization. After execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof, only as authorized by the **Owner** through an agreed **Work Authorization** document in the form identified in **EXHIBIT "E"**- ***Work Authorization Form***, attached hereto and made a part of this Agreement. The **Engineer** will identify, as approved by the **Owner,** the needed services for the **"Project",** as required through the course of the development to the **"Project".** The **Owner** shall authorize the **Engineer** to perform one or more of the agreed tasks identified in **EXHIBIT "B",** attached hereto, in the form of individual work authorizations. Upon authorization from the **Owner,** the **Engineer** will prepare a **Work Authorization** document, which will include a description of the work to be performed, including a description of the tasks and milestones, a work schedule, and an estimated cost proposal agreed upon by the **Owner** and the **Engineer**. The estimated cost proposal shall set forth in detail the computation of the cost of each work task, at the hourly rates established and identified in **EXHIBIT "D",** attached hereto. The **Work Authorizations** shall not waive the **Owner's** and the **Engineer's** responsibilities and obligations established in this Agreement.

The estimated cost proposal for each **Work Authorization**, developed by the **Engineer** and approved by the **Owner** shall be used by the **Owner** to appropriate a purchase order for the **Work Authorization.** Each executed **Work Authorization** shall become a part of this **Agreement**. Upon

satisfactory completion of the **Work Authorization**, the **Engineer** shall submit the **"Project's"** deliverables as specified in the executed **Work Authorization** to the **Owner** for review and acceptance.

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

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

ARTICLE 8. Supplemental Agreements. The terms of this Agreement may be amended by supplemental agreement if the **Owner** determines that (1) there is a need to extend the **Termination Date** identified in Article 3.1 hereof, (2) there has been a significant change in the scope, complexity or character of the services to be performed by the **Engineer,** and/or (3) for any other reason agreeable to the **Owner** and the **Engineer**. All supplemental agreements will be developed in the form identified in **EXHIBIT "F"** - ***Supplemental Agreement Form***, attached hereto and made a part of this Agreement, and incorporated herein by reference as "**Supplemental Agreement".**

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

Any **Supplemental Agreement** must be executed by both the **Engineer** and the **Owner** prior to

the **Termination Date** specified in Article 3 hereof.

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

ARTICLE 9. Additional Work. If the **Engineer** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement and constitutes extra work, the **Engineer** shall promptly notify the **Owner** in writing. In the event the **Owner** finds that such work does constitute extra work, the **Owner** shall so advise the **Engineer** and a written supplemental agreement will be executed between the **Owner** and the **Engineer** as provided herein. The **Engineer** shall not perform any proposed additional work or incur any additional cost prior to the execution by both the **Engineer** and the **Owner** of a supplemental agreement. Additional compensation from the **Owner** to the **Engineer** shall be paid as a negotiated lump sum fee at the Contract Rates specified in **EXHIBIT "D"** attached hereto. The negotiated lump sum fee shall be incorporated into the supplemental agreement as specified in Article 8 hereof. The **Owner** shall not be liable or under any obligation to compensate the **Engineer** for work performed or costs incurred by the **Engineer** relating to additional work not directly associated with the performance of the work authorized in this Agreement or as amended through supplemental agreement.

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

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

the applications of sound engineering principles.

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

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

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

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

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

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

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

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

course of action may be mutually agreed upon by the **Owner** and the **Engineer.**

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

ARTICLE 14. Subcontracting and Assignment. The **Engineer** shall not assign, subcontract or transfer the **Engineer's** interest in this Agreement without the prior written consent of the **Owner.** The **Engineer** shall bind every sub-consultant by written subcontract to observe all the terms of this Agreement to the extent that they may be applicable to each sub-consultant. No subcontract relieves the **Engineer** of any responsibilities under this Agreement.

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

ARTICLE 15. Patents. The **Engineer** shall indemnify and save the **Owner** harmless from all liability for alleged or actual infringement of any patent resulting from the use of apparatus or equipment furnished or designed by the **Engineer** or from the use of any process designed by the **Engineer** or effected by said apparatus or equipment, and the **Engineer** shall indemnify and save the **Owner** harmless from and against all costs, legal fees, expenses and liabilities incurred in or about any claim of or action for such infringement: provided, however, that the **Owner** shall promptly transmit to the **Engineer** all papers served on the **Owner** in any suit involving such claim of infringement, and

provided further, that the **Owner** permits the **Engineer** to have entire charge and control of the defense of any such suit. If because of actual infringement the use of such apparatus, equipment, or process is enjoined, the **Engineer** shall refund the purchase price thereof in proportion to the length of service uncompleted, the life of such apparatus or equipment being assumed as five years. The **Engineer** hereby grants to the **Owner** a non-exclusive, royalty-free license under patents now or hereafter owned by the **Engineer** covering any machines, apparatus, processes, articles, or products included in the **Engineer's** work hereunder.

ARTICLE 16. Confidential Information, Inventions and Other Restrictions.

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

take all reasonable precautions and exert all reasonable efforts to assure conformance with such restrictions by all of its officers, employees, and agents, obtaining from them if necessary, agreements satisfactory to the **Owner,** effectuating the purposes of this Article.

16.2 Inventions. The **Engineer** shall communicate to the **Owner** at once, and require the **Engineer's** employees assigned to this **Project** to communicate to the **Owner** all inventions and improvements which any of the **Engineer's** employees, either alone or in conjunction with any of the **Owner's** employees may conceive, make or discover during the course of or as a result of work on this **Project** under this or any ensuing agreement with the **Owner** that relates to the processes, products, compositions, machinery or plants of the **Owner**, or relating in any way to any of the operations in which the **Owner** may be obligated to pay to the **Engineer** as compensation for services rendered by the **Engineer** under contract with the **Owner**. The **Engineer** shall require its employees to execute patent applications and assignments thereof to the **Owner** or its nominees, and powers of attorney relating thereto for any country the **Owner** may designate, and shall take all other actions as the **Owner** may request to maintain and protect such inventions and improvements. The **Owner** shall pay all costs or charges incurred in protecting such inventions and improvements if the **Owner** desires to protect them. Before assigning any of the **Engineer's** employees to work under any contract with the **Owner** concerning this **Project,** the **Engineer** shall obtain from them agreements satisfactory to **Owner** complying in all respects with the terms and provisions of this Article.

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

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

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

Professional Engineers.

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

The **Engineer's** responsibility for all questions arising from design errors and/or omissions will be determined by the **Owner** or a designee appointed by the **Owner**. The **Engineer** will not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the **Project** has been completed.

17.3 Warranties.

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

(b) Notwithstanding anything to the contrary contained in this Agreement, the **Owner** and the **Engineer** agree and acknowledge that the **Owner** is entering into this Agreement in reliance on the **Engineer's** experience and abilities with respect to performing the **Engineer's** services hereunder. The **Engineer** accepts the relationship of trust and confidence established between it and the **Owner** by this Agreement. The **Engineer** covenants with the **Owner** to use the **Engineer's** best efforts, skill, judgment and abilities to design the **Project** and to further the interests of the **Owner** in accordance with the **Owner's** requirements and procedures, in accordance with all professional standards, and in compliance with all applicable national, federal, state, county and municipal laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction. If the development of plans, specifications and estimates (hereinafter referred to as **"PS&E"**) are identified in this Agreement under

Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project**, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the **Project**, and the improvements when built in accordance therewith, conform to all applicable governmental regulations, statutes and ordinances then in effect. The **Engineer** represents covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the **Engineer's** services.

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

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

(e) If the development of **PS&E** is identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project,** the **Engineer** represents, covenants and agrees that the **PS&E** of the **Project** will be accurate and free

from any material errors. The **Engineer** additionally represents, covenants and agrees to the following: that the design of the **Project** will conform to its foreseeable use as a **Project** with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the **Project**; that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the **Project** is designed; and the **Project** will be inspected in a workmanlike, professional manner and will be suitable for the **Project's** intended purpose. The **Engineer's** responsibilities as set forth herein shall at no time be in any way diminished by reason of any approval by the **Owner** of any **PS&E** developed by the **Engineer** for the **Project**, nor shall the **Engineer** be released from any liability by reason of such approval by the **Owner**, it being understood that the **Owner** at all times is ultimately relying upon the **Engineer'**s skill and knowledge in preparing such **PS&E.**

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

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

18.1 Project Manager. The **Engineer** shall provide a manager **(Project Manager)** for the **Project** that is a registered professional **Engineer** in the State of Texas. The **Project Manager** shall have such knowledge and experience as will enable the **Project Manager** to perform the duties required for the services under this Agreement. The Engineer may not change the **Project Manager** during the course of the **Project** without prior consent of the **Owner.** If, due to situations beyond the control of the **Engineer,** the **Engineer** must change the **Project Manager** prior to the completion and acceptance of the **Project,** the **Engineer** will submit a request to change the **Project Manager** to the **Owner** for

approval.

18.2 Employees of the Engineer. All employees of the **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them and required for the services under this Agreement. Any employee of the **Engineer** who, in the opinion of the **Owner**, is incompetent, or whose conduct becomes detrimental to the work required under this Agreement, shall immediately be removed from association with the **Project** when so instructed by the **Owner.** The **Engineer** certifies that the **Engineer** presently has employed sufficient and qualified personnel, and will maintain sufficient and qualified personnel for performance of the services under this Agreement.

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

ARTICLE 19. Indemnification. To the fullest extent permitted by applicable law, the **Engineer** and its agents, partners, subcontractors, and consultants (collectively **"Indemnitors**") shall and do agree to indemnify, and hold harmless the **Owner**, the **Owner's** respective directors, elected officials, employees and agents (collectively **"Indemnitees**") from and against all claims, damages, losses, liens, causes of action, suits, judgments and expenses, including attorney fees, of any nature, kind or description (collectively "Liabilities") of any person or entity whomsoever arising out of, caused by or resulting from the negligent performance of the **Engineer's** services through activities of the **Engineer**, its agents, partners, subcontractors and/or consultants performed under this Agreement, and

which are caused by or result from error, omission, or negligent act of the **Engineer** or of any person employed or contracted by the **Engineer** provided that any such **Liabilities** (1) are attributable to bodily injury, personal injury, sickness, disease or death of any person, or to the injury to or destruction of tangible personal property including the loss of use and consequential damages resulting there from and (2) are caused in whole or in part by any negligent act or omission of the **Engineer,** anyone directly or indirectly employed by the **Engineer** or anyone for whose acts the **Engineer** may be legally liable. The **Engineer** shall also save harmless the **Owner** from any and all expense, including but not limited to, attorney fees which may be incurred by the **Owner** in litigation or otherwise resisting said claim or liabilities which may be imposed on the **Owner** as a result of such activities by the **Engineer,** its agents partners, subcontractors and/or consultants. In this connection, it is agreed and understood that the **Engineer** shall not be responsible for any portion of the liability proximately caused by the **Owner's** negligence.

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

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

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

Texas").

(2) **Commercial General Liability**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** ***all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20*** herein, in limits of liability not less than one million dollars (**$1,000,000**) combined single limit each occurrence and in the aggregate for bodily injury and property damage.

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

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

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

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

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

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

ARTICLE 25. Payment of Franchise Tax. The **Engineer** hereby certifies that the **Engineer** is not delinquent in Texas franchise tax payments, or that the **Engineer** is exempt from, or not subject to, such as tax. A false statement concerning corporation's franchise tax status shall constitute grounds for

termination of the Agreement at the sole option of the **Owner.**

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

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

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

OWNER: **Hidalgo County Drainage District No. 1**
Attn: Godfrey Garza, District Manager
902 N. Doolittle Rd, Edinburg, TX 78542

ENGINEER: **S&B Infrastructure, Ltd.**
Attn: Sharlotte L. Teague, PE, Project Manager
5408 N. 10th Street, McAllen, TX 78504

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

ARTICLE 29. Miscellaneous Provisions.

(a) This Agreement constitutes the entire Agreement between the **Engineer** and the **Owner** relating to the work herein described and supersedes any prior understanding or written or oral contracts between the parties respecting the subject matter defined herein. These are no previous or contemporary representations or warranties of the **Owner** or the **Engineer** not set forth herein.

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

to do so.

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

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

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

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

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

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

ARTICLE 30. Signatory Warranty The undersigned signatory or signatories for the **Engineer** hereby represent and warrant that the signatory is an officer of the organization for which he or she has executed this Agreement and that he or she has full and complete authority to enter into this Agreement on behalf of the **Engineer.** The above-stated representations and warranties are made for the purpose of inducing the **Owner** to enter into this Agreement.

IN WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Engineering Services** to be effective as of the ____ day of _____, 2014.

ENGINEER:

BY: _____
Daniel O. Rios, PE, Senior Vice-President
S&B Infrastructure, Ltd.

OWNER:

BY: _____
Ramon Garcia, Chairman of the Board
Hidalgo County Drainage District No. 1

APPROVED AS TO FORM:

ATLAS, HALL & RODRIGUEZ, LLP

By: _____

ATTACHMENTS:

EXHIBIT "A"	- Services to be Provided by the Owner
EXHIBIT "B"	- Services to be Provided by the Engineer
EXHIBIT "B2"	- Project Team
EXHIBIT "C"	- Work Schedule
EXHIBIT "D"	- Contract Rates
EXHIBIT "D2"	- Funding Source Incentive
EXHIBIT E	- Work Authorization Form
EXHIBIT F	- Supplemental Agreement Form
EXHIBIT G	- Certificate of Insurance (*Hidalgo County Drainage District No. 1*)

EXHIBIT "A"
Services to be Provided by the Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **"Project"**.

The **Owner** will provide to the **Engineer** one or more of the following (when authorized in accordance with Article 7 of this Agreement):

(1) Authorization to the **Engineer** to begin work in accordance with Article 7 of this Agreement.

(2) Payment for work performed by the **Engineer**, and accepted by the **Owner** in accordance with Article 6 of the Agreement.

(3) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies that the **Engineer** cannot easily obtain.

(4) Provide any available relevant data the **Owner** may have on file concerning the **"Project"**.

(5) Provide timely review and decisions in response to the **Engineer's** request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed-upon work schedule prepared in accordance with **EXHIBIT "C"** of this Agreement.

(6) Attend and participate in progress meetings as required and as coordinated and conducted by the **Engineer**.

(7) Assist the **Engineer** in the preparation of the **"Project"** mailing list; provide representation, a site and stenographer for all public meetings; additionally:
   (a) Approve agenda and all exhibits prior to any public meetings;
   (b) Approve dates and locations of any public meetings; and
   (c) Review/approve Public Meeting Report.

(8) Attend the Preliminary Concept Conference and/or Design Concept Conference coordinated and conducted by the **Engineer** and more particularly identified in **EXHIBIT "B"** of this Agreement.

(9) Review and approve the **"Project"** design criteria.

(10) Review and approve change orders as required and prepared by the **Engineer**.

EXHIBIT "B"
Services to be Provided by the Engineer

The following provides an outline of the services to be provided by the Engineer in the development of the "Project". The Engineer will provide to the Owner one or more of the following (when authorized in accordance with Article 7 of this Agreement):

INDEX

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

CLASSIFICATION OF SERVICES. In accordance with Article 2.2 of this Agreement, the services to be provided by the **Engineer** shall be classified as either **Basic Services** or **Special Services**. The expanded descriptions of the services identified later in this exhibit are classified as follows:

Management:

I. GENERAL CONTRACT MANAGEMENT (GCM)

A. Preliminary Project Planning and Development

(1)	Project Development Schedule	***Basic***
(2)	Construction Estimate	***Basic***
(3)	Quality Control / Quality Assurance Program	***Basic***
(4)	Subcontract Administration	***Basic***
(5)	Funding Liaison and Funding Application Preparation	***Special***
(6)	Capital Improvement Program (CIP)	***Basic***
(7)	Management / Coordination of Engineering Activities	***Basic***
(8)	Implementation of QC/QA Program	***Basic***

B. Preliminary Engineering

(1)	Preliminary Concept Conference	***Basic***
(2)	Management / Coordination of Engineering Activities	***Basic***
(3)	Implementation of QC/QA Program	***Basic***
(4)	Preparation of "Preliminary Engineering Report"	***Basic***
(5)	Coordination with all reviewing agencies (FEMA, USACE, etc.)	***Basic***

C. Final Design

(1)	*"Design Policy & Procedures Manual"*	***Basic***
(2)	Design Concept Conference	***Basic***
(3)	Management / Coordination of Engineering Activities	***Basic***
(4)	Implementation of QC/QA Program	***Basic***

D. Construction Management

(1)	*"Construction Management Policy & Procedures Manual"*	***Basic***
(2)	Construction Bidding	***Basic***
(3)	Owner's Representative	***Basic***
(4)	Defects and Deficiencies	***Basic***
(5)	Monthly Construction Progress Reports	***Basic***
(6)	Recommendations for Payment to the Construction Contractor	***Basic***
(7)	Project Site Management	***Special***
(8)	Implementation of QC/QA Program	***Basic***
(9)	Change Orders	***Special***
(10)	Final Acceptance, Performance Testing, Shop Drawing Review	***Basic***

Engineering:

II. PRELIMINARY PROJECT PLANNING & DEVELOPMENT

(1)	Environmental Document Preparation & Public Involvement	***Special***
(2)	Field Surveying & Photogrammetry (if not provided by Owner)	***Special***

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

CLASSIFICATION OF SERVICES, continued.

III. PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION

A. Preliminary Engineering

(1) Preliminary Field Surveying	***Special***
(2) Data Collection	***Basic***
(3) Geographical Information System	***Basic***
(4) Hydrologic Analysis	***Basic***
(5) Hydraulic. Analysis	***Basic***
(6) Flood Plain Mapping	***Basic***
(7) Alternate Solutions /Recommendations for Final Design	***Basic***
(8) Final Report — "Preliminary Engineering Report"	***Basic***

B. Final Design

(1) Right-of-Way Data and ROW Map	***Special***
(2) Design Field Surveying	***Special***
(3) Geotechnical Investigations and Reports	***Special***
(4) Permitting	***Basic***
(5) Channel / Drainage Design	***Basic***
(6) Roadway Design	***Basic***
(7) Bridge Design	***Basic***
(8) Plans, Specifications & Estimates	***Basic***

C. Construction Phase Services

(1) Construction Bidding Documents	***Basic***
(2) Project Site Representation:	***Special***
a. Engineering Support Data for Defects & Deficiencies	***Special***
b. Daily and Weekly Construction Reports	***Special***
c. Measurement / Calculations for Contractor Payment	***Special***
d. Project-Engineer-Resident Engineer Services	***Special***
(3) Miscellaneous Technical Activities:	
a. Construction Field Surveying	***Special***
b. Shop Drawing Review	***Special***
c. Control of Materials & Equipment	***Special***
d. Change Orders	***Basic or Special****
(4) Final Acceptance:	
a. Performance Testing	***Special***
b. As-Built Drawings	***Basic***

***dependent on type of change order – if Engineer Error/Omission then would be Basic.**

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES. The expanded descriptions of the services is as follows:

I. GENERAL CONTRACT MANAGEMENT (GCM)

For GCM services, the Engineer shall manage the Project Team, consisting of various sub-providers as defined and more particularly described in EXHIBIT "B2" attached to this Agreement, in the development of the Project. Specific *GCM* activities to be provided by the Engineer, if identified in a work authorization as outlined in Article 7, will include:

A. Preliminary Project Planning and Development. In general, this will include *management* of the preliminary planning process and advance project development (APD) that is required for the Project. (A summary of specific requirements for *engineering* activities are outlined later in this exhibit.) The **Engineer** will identify, coordinate, and implement the *management* requirements for preliminary planning and APD for the Project. Specific work activities to be provided by the Engineer will include:

(1) Project Development Schedule. The Engineer will prepare a Project Development Schedule. This schedule will be developed from the notice to proceed with work through final record drawings. The schedule will be monitored, by the Engineer, throughout Project development. It will be provided, as well as any updates to the Owner and each Project Team member. The schedule will identify all major milestones and Project deliverables. The Engineer will inform the Owner (in reasonable advance of the delay) should the Engineer encounter delays that would prevent the performance of all work in accordance with the established schedule.

(2) Construction Estimate. The Engineer shall prepare a preliminary estimate for the construction of the Project. The preliminary construction estimate shall be monitored, verified and updated throughout the course of Project development.

(3) Quality Control / Quality Assurance. The Engineer shall develop a quality control and quality assurance program for the Project to ensure the Project Team is producing quality work for the Project.

(4) Subcontract Administration. The Engineer shall initiate, execute and monitor all subcontracts for the duration of the Project. The Engineer shall advise and/or provide recommendations to the Owner, as the Project progresses, should additional sub-providers be required. All subcontracting and assignment will be in accordance with Article 14.

(5) Funding Sources. If approved by the Owner as *Special Services*, as outlined in Articles 5.2 and 5.3, the development and construction of the Project may be eligible for funding from outside sources, If approved by the Owner as *Special Services*, the Engineer's responsibilities regarding funding sources will include the following:
   a. Liaison (Engineer) will act as Corporate Sponsor for obtaining funding from potential funding sources for the Project. The Corporate Sponsor will act as liaison for the Owner to applicable State and Federal resource agencies for possible funding assistance.
   b. The Engineer will identify and develop a list of possible funding sources for the Project.
   c. The Engineer will prepare all required applications to funding sources.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(6) Capital Improvement Program (CIP). If approved by the Owner as Special Service, as outlined in Article 5.2, the Engineer will prepare a CIP based on conceptual sequence of construction for the Project as identified in the final recommendations shown in the "Preliminary Engineering Report" developed by the Engineer under the preliminary engineering activities identified later in this exhibit. The primary focus will be to address the overall needs of the system, the funding availability, the identification of operational issues, the acquisition of right of way, and the prioritization of those needs and issues in a cost effective and efficient manner (conducive of funding availability). The CIP will be continuously monitored and updated by the Engineer throughout Project Development.

(7) Management / Coordination of Engineering Activities. The Engineer shall manage and coordinate the specific *engineering* work activities, tasks, special services for Environmental Document Preparation (if required by Federal agencies), Public Involvement, and Field/Reconn/Surveying and Photogrammetry (more particularly identified later in this exhibit under II - Preliminary Project Planning and Development).

(8) Implement QC / QA Program. The Engineer will monitor and perform the program developed to ensure the quality of the Environmental Document (if required by Federal agencies), public involvement procedures, and the products and data from field/recon/surveying and aerial photogrammetry, and their compliance with applicable standards and requirements.

B. Preliminary Engineering. The Engineer will ultimately deliver the final recommendations for the design of the project in the *"Preliminary Engineering Report"*. (Specific requirements for *engineering* activities are outlined later in this exhibit under II - Preliminary Engineering, Final Design and Construction.) The Engineer shall *manage* and coordinate the activities of the Project Team in the collection of geographical information and *engineering* data, the selection of computer software, and the distribution of Project information and status to the Owner and Project Team throughout the development of the *"Preliminary Engineering Report"*. Specific *management* tasks to be provided by the Engineer will include:

(1) Preliminary Concept Conference. The Engineer will coordinate and conduct a preliminary concept conference (PCC) with the Owner and any stakeholders approved by the Owner. At the PCC, the Engineer will outline the issues and aspects involved in the development of the *"Preliminary Engineering Report"*, identify existing conditions and design requirements, and present the approach to the development of the report for approval by the Owner.

(2) Management / Coordination of Engineering Activities. The Engineer shall *manage* and coordinate the Project Team in the preparation of specific *engineering* work activities, tasks, special services for the final development of the *"Preliminary Engineering Report"*, including Field Surveying, Data Collection, the development of a Geographical Information System, Hydrologic/Hydraulic Analysis, Flood Plain Mapping, Alternate Solutions, and Final Recommendations (more particularly defined with the *engineering* activities identified in this exhibit under II - Preliminary Engineering, Final Design and Construction (Preliminary Engineering)).

(3) Implement QC/QA Program. The Engineer will monitor and perform the QC/QA program developed to ensure the quality of the *"Preliminary Engineering Report"*, and its compliance with standards of sound *engineering* principles and the agreed-upon design criteria established at the PCC.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(4) Final Report: "Preliminary Engineering Report". The Engineer will provide, to the Owner, five (5) bound, color copies of the *"Preliminary Engineering Report"*, including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimate.

(5) Coordination with Reviewing Agencies. The development of the "*Preliminary Engineering Report"* may require documentation and/or coordination with various agencies. The Engineer will act as a liaison for the Owner, and will attend any meetings, and develop / prepare any required correspondence, documentation, and/or applications to satisfy the applicable Federal, State, and local regulations.

C. Final Design. After the Owner has approved the Engineer's final recommendations as shown in the *"Preliminary Engineering Report"* and the recommendations meet all Federal, State, and County permitting requirements, the Engineer will coordinate the activities of the Project Team during the final design of the Project by developing and preparing all policies and procedures, managing the sub-providers activities and performance, and performing quality control and quality assurance for all design documents associated with the Project. One of the primary deliverables for the Engineer to provide the Owner is a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the Project. Specific *management* work activities to be provided by the Engineer will include:

(1) *"Design Policy & Procedures Manual"*. The Engineer will provide a policy and procedures manual for final design to be used by the Project Team in the development of the Project. The purpose of this will be to set policy with regards to the approved design criteria, and to provide consistency in the development of the documents for design, plans, specifications and estimates. Once the manual has been provided by the Engineer it will be distributed by the Engineer to each member of the Project Team. The Engineer will be responsible for updating and maintaining the manual and distributing any revisions throughout Project development. Items to be identified in the *"Design Policy & Procedures Manual"* provided by the Engineer will include, but not be limited to, the following:

a. Project Description and Final Recommendations of the "Preliminary Engineering Report"
b. Environmental
c. Correlation and Agreement with Other Agencies
d. Application of Design Standards (City, County, State, AASHTO)
e. Requirements for Preliminary Submittals
f. Basic Design Criteria
g. Preparation for Plans, Specifications, and Estimate (PS&E) Submittals
h. Formats for Supporting Documents
i. CADD Standards Specifications

(2) Design Concept Conference. The Engineer shall coordinate and conduct a design concept conference (DCC) with the Owner and Project Team. At the DCC, the Engineer will distribute the *"Design Policy & Procedures Manual"* and discuss the Project Development Schedule with the Project Team.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(3) Management / Coordination of Engineering Activities. The Engineer shall *manage* and coordinate the Project Team in the development of the documents for final design, including: Right of Way Data, Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the engineering activities identified in this exhibit under III Preliminary Engineering, Final Design and Construction (Final Design)).

(4) Implement QC/QA Program. The Engineer shall monitor and perform the QC/QA program developed to ensure the quality of the documents associated with Right of Way Data (Mapping), Design Field Surveying, Geotechnical Investigations, Permitting, Channel/Drainage Design, Roadway Design, Bridge Design, PS&E, and other miscellaneous design and plan preparation items (more particularly defined with the engineering activities identified in this exhibit under III – Preliminary Engineering, Design and Construction(Final Design)). These designs shall in all respects combine the application of sound engineering principles with a high degree of economy and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.

D. Construction Management. The Engineer shall provide construction *management* services for each authorized construction contract of the Project. The Engineer shall also assist the Owner in the advertisement for construction bids, the opening and tabulation of the bids, provide a recommendation as to the proper action on all bid proposals received, and assist in the preparation of formal contract documents for the award of contracts. Specific *management* work activities to be provided by the Engineer will include:

(1) *"Construction Management Policy & Procedures Manual"*. The Engineer will provide a manual that outlines the policy and procedures for the *management* and administration of construction of the Project. The manual's information will include, but not be limited to, construction contract recordkeeping (daily reports, weekly reports, monthly progress reports, etc.), contractor payment, change order format and procedures, site inspection, scheduling, and final inspection.

(2) Construction Bidding Documents. The Engineer shall perform the following in preparation of the construction bidding documents:

a. Upon completion of QC/QA, the Engineer shall furnish to the Owner all necessary copies of approved plans, specifications, Engineer's estimate, notice to bidders, and proposals for each authorized construction contract.
b. The Engineer shall assist the Owner in advertising for each authorized construction contract for the Project.
c. The Engineer shall assist the Owner in the opening and tabulation of bids for each authorized construction contract for the Project, and recommend to the Owner as to the proper action on all bid proposals received.
d. The Engineer shall assist the Owner in the preparation of formal contract documents for the award of construction contracts.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(3) Owner's Representative. In general, the Engineer shall provide the *management* activities required for consultation and advisement to the Owner during construction, and act as the Owner's representative as provided in the General Conditions of the Construction Contract. The extent and limitations of the duties, responsibilities and the authority of the Engineer as assigned in the General Conditions of the Construction Contract shall not be modified, except as the Engineer may otherwise agree in writing.

(4) Defects and Deficiencies. In providing the *management and administration* of the authorized construction contract, the Engineer shall use the Engineer's best efforts to protect the Owner against defects and deficiencies in the work of the construction contractor, hereinafter called the "Contractor". The Engineer does not guarantee the performance of the Contractor; however, the Engineer will promptly notify the Owner of any such defect or deficiency, and take all steps possible to require the Contractor to correct the defect or deficiency.

(5) Progress Reports. The Engineer will obtain the daily and weekly reports provided from the *engineering* activities identified under III – Preliminary Engineering, Final Design, and Construction (Construction) in this exhibit and prepare monthly progress report, which outlines the construction progress in a form and manner satisfactory to the Owner.

(6) Contractor Payment. The Engineer shall obtain the measurements and calculated quantities prepared under the *engineering* activities identified under III – Preliminary Engineering, Design, and Construction (Construction) in this exhibit, and prepare the monthly and final estimates for payments to the Contractor for those items of work accepted and conforming to the construction contract specifications. The Engineer will furnish to the Owner any necessary certifications as to payments to the Contractor and suppliers. *Note: The* Engineer *is not responsible for actual payments to the* Contractor.

(7) Project Site Management. The Engineer will coordinate and monitor the Project site inspection of the authorized construction contract by providing the following:

Project Manager. The Engineer will provide visits by the Project Manager or a competent representative of the Engineer to the site of construction at least twice a month for the purpose of monitoring the Contractor's progress and conformance to the construction contract plans and specifications. In the capacity of site inspection, the Engineer will issue instructions from the Owner to the Contractor and the Resident Engineer, issuing necessary interpretations and clarifications of construction contract documents, and make recommendations to the Owner as to the acceptability of the Contractor's progress and work.

(8) Implement QC/QA Program. The Engineer will monitor and perform the QC/QA program developed to ensure the quality of the *engineering* services and documents associated with Field Surveying, Shop Drawings, Control of Materials & Equipment, Change Orders, Performance Testing, and As-Built Drawings more particularly identified under III – Preliminary Engineering, Final Design, and Construction (Construction) in this exhibit. These services shall in all respects combine the application of sound engineering principles with a high degree of economy and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(9) Change Orders. When applicable, the Engineer will review and provide recommendations for all change orders developed under III – Preliminary Engineering, Final Design, and Construction (Construction) in this exhibit for purpose of preparing construction contract change orders. These change orders may be required due to actual field conditions encountered or new requirements directed by the Owner. The Engineer will prepare, explain, and submit proposed change orders, when applicable.

(10) Final Acceptance. Following the completion of construction by the Contractor, the Engineer will provide the *management* services required for the final inspection and recommendation for Project acceptance. This will include coordinating the activities required for the inspection for conformance and record-keeping of the necessary performance tests required by the construction contract specifications. If the Engineer provides construction management and inspection services, the Engineer will also review and approve all as-built drawings (to show the work as actually constructed), and furnish to the Owner one sets of prints of the as-built drawings.

Note: Services to be provided by the Engineer for Items II and III primarily involve the engineering and technical work tasks for the Project.

Engineering and Technical:

II. PRELIMINARY PROJECT PLANNING & DEVELOPMENT

In general, this will include all *engineering* and *technical* activities required for the advance project development. Primarily, this will involve the research and coordination for the social, economic and environmental impacts, public involvement and preliminary field surveying /aerial photography of the Project. Specific *engineering* and *technical* activities to be provided by the Engineer, if identified in a work authorization as outlined in Article 7, will include:

A. Environmental Document Preparation & Public Involvement.

(1) The Engineer shall prepare an environmental document in accordance with the National Environmental Policy Act (NEPA) and the applicable Code(s) of Federal Regulations. The Engineer will prepare an environmental document *in anticipation of a Finding of No Significant Impact (FONSI)*, as identified by the NEPA process. This document will include, at a minimum, the following:
   a. Project description
   b. need for Project
   c. alternatives considered
   d. impacts (socioeconomic, cultural resource, water resource, air quality, noise quality, biological, prime/unique farmland, construction impacts, hazardous materials)
   e. conclusion
   f. Project location map
   g. preliminary structure and channel locations/layouts
   h. scanned photographs

(2) The Engineer shall conduct and coordinate all public involvement in accordance with the National Environmental Policy Act (NEPA) and the applicable Code(s) of Federal Regulations.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(3) The Engineer shall coordinate with all resource agencies, government entities, and private landowners involved or impacted in the development of the Project. This will include individual meetings, newsletters and notices, as required.

(4) The Engineer shall coordinate and conduct the following formal public meetings:
   a. Public Meetings - These meetings will be scheduled to present the Project concept, including preliminary layouts and requirements for the Project, for the purpose of obtaining preliminary public comment.
   b. Public Hearing - After completion / preliminary approval of the environmental document and applicable approval to move the Project forward for further processing, public hearings will be scheduled to present the approved draft environmental document and the Project layout (schematic) for the purpose of obtaining final public comment.

(5) The Engineer shall develop a Project coordination and mailing list.

(6) The Engineer shall prepare required presentation materials (including hand-outs, agenda, and sign-in roster) and exhibits for two public meetings and two public hearings.

(7) The Engineer shall prepare and submit a written document summarizing each proceeding: two Public Meeting Reports and two Public Hearing Reports.

B. Field Surveying & Photogrammetry (if not provided by Owner).

(1) *Right of Entry*: It will be the responsibility of the Engineer to secure written permission to enter private property for purposes of survey, environmental and engineering investigations. The Engineer will, at all times, contact the property owner prior to any entry onto the property owner's property. The property owner will be informed, by the Engineer, the name of the survey party chief or other primary person of contact during each entry.

(2) For the purpose of schematic development, including a geographical information system of the Project, a map background will be developed by the Engineer through the use of field surveying and aerial photogrammetry.

(3) The Engineer shall establish primary Project control for field surveying by establishing horizontal and vertical control points, and establish secondary Project control for aerial photogrammetry to tie ground control to the State Plane Coordinate System.

(4) The Engineer shall obtain one or more of the following photogrammetric products:
   a. Contact Prints and mosaics
   b. Planimetric maps
   c. Contour maps
   d. Cross Sections
   e. Digital Terrain Model (DTM)
   f. LiDAR

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.
Engineering and Technical, continued:

III. PRELIMINARY ENGINEERING, FINAL DESIGN, AND CONSTRUCTION

The services listed below are a summary of the services to be provided for preliminary engineering, final design, and construction. Specific *engineering* and *technical* activities to be provided by the Engineer, if identified in a work authorization as outlined in Article 7, will include:

A. Preliminary Engineering. For this phase, the Engineer will ultimately deliver the *"Preliminary Engineering Report"*. The Engineer will prepare the *"Preliminary Engineering Report"* in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Owner; to include preliminary layouts, sketches, and cost estimates for the Project, and to set forth clearly the Engineer's recommendations.

(1) Preliminary Field Surveying.
   a. The Engineer shall establish benchmark identifications, if not already provided by the Owner.
   b. The Engineer shall obtain data for existing drainage facilities and/or structures, including size, type, and flowline (upstream & downstream) elevations of structures.
   c. The Engineer shall obtain profiles of intersecting roadways that cross existing and proposed channels.
   d. The Engineer shall obtain flood plain and channel cross-sections (along with appropriate overbank data), and establish reach lengths, as required.

(2) Data Collection.
   a. The Engineer shall perform site visits for field reconnaissance.
   b. The Engineer shall identify and obtain data to include, but not be limited to:
      1. *Previous Studies:*
      Available previous hydraulic and/or engineering studies
      Previous documentation and/or studies for Federal Emergency Management Agency (FEMA) floodway requirements.
      2. *Land Records:*
      Parcel mapping
      Property assessment
      USGS topographic mapping
      3. *Property and Facility Management*
      Land acquisition and disposition
      Building and property inventory
      4. *Land Use Planning and Zoning*
      General plan mapping
      Zoning mapping
      Demographic mapping
      Economic development
      Linking to permitting systems
      Existing aerial photographs and/or mapping
      5. *Engineering*
      Storm drain mapping
      Subdivision review/lot mapping
      Street mapping

EXPANDED DESCRIPTIONS OF SERVICES, continued.

6. *Public Safety*
Emergency preparedness plans
7. *Environmental Assessment*
Wetland mapping
National Pollution Discharge Elimination System (NPDES) permitting
Facility mapping
Vegetation mapping
Coastal zone management
8. *Elections*
District Boundary definition

(3) Geographical Information System. The Engineer shall develop a Geographical Information System (GIS) utilizing Environmental Systems Research Institute, Inc. (ESRI) ArcView with 3-D Analyst and GIS StreamPro. Import the collected data into ArcView for mapping purposes and presentations to facilitate the decision-making and analytical process for the development of the "*Preliminary Engineering Report"*. ArcView will also be used to export data to the USACE Hydrologic Center's computer program HEC-River Analysis System (HEC-RAS), which will be used to develop the engineering models required for the hydraulic analysis of each channel (and associated tributaries) and the plotting of the resultant floodplains. Specifically, ArcView will be used to export this data to HEC-RAS where it will be combined with the field surveyed channel data in order to construct full flood plain cross sections that reflect accurate channel and overbank data for the HEC-RAS models.

Note: During the performance of the following hydrologic/ hydraulic analysis and the development of the alternate solutions and final recommendation, the Engineer will address and incorporate any findings of the environmental documentation process.

(4) Hydrologic Analysis.
   a. The Engineer shall verify the hydrologic analyses of the Raymondville drainage watershed(s); the drainage area of the watershed will be divided into sub-areas and peak flow rate computations will be based on standard design storms, unit hyodrographs, and routing routines.
   b. The Engineer shall verify the comparison of peak flow rates with any available data from the National Flood Insurance Program (NFIP) or other studies to determine consistency of results.

(5) Hydraulic Analysis. The Engineer shall verify the hydraulic analysis for each existing and proposed structure location utilizing the HEC-RAS computer program; utilizing Manning's Equation to compute water surface profiles with the inputs of cross-section data, roughness coefficients, and flow rates. Specific steps for the hydraulic analysis are outlined in tasks (a) through (f) below.
   a. The Engineer shall create the terrain Triangulated Irregular Network (TIN). This will be developed from a combination of field survey, aerial photogrammetry, and topographic mapping data in the development of a point table. With this point table, an event theme will be created in ArcView, which will create the terrain TIN with 3-D Analyst.
   b. The Engineer shall create 2-dimensional lines representing the channel centerline, high bank locations, flow path lines, and cross-section locations by locating the various and required polylines over the terrain TIN; develop the watershed layout over the base map.

EXPANDED DESCRIPTIONS OF SERVICES, continued.

c. The Engineer shall create the HEC-RAS GIS import file (ASCII text file); this will involve the correlation of the alignment of the cross-sections with the terrain TIN by extracting the elevations from the terrain TIN and creating a 3-dimensional cross-section theme.
d. For verification of measured elevations, the Engineer shall edit the HEC-RAS GIS import file by selectively replacing the points taken from the terrain TIN at the channel with actual channel points obtained by the field survey. (In lieu of editing the HEC-RAS GIS import file verification of measured elevations may also be accomplished by snapping to the survey points in the CAD file and copied to the 2-dimensional cross-section them.)
e. The Engineer shall verify the HEC-RAS modeling of the existing and proposed structures within the Project's drainage watershed, and compare the hydraulic results to the effective FIS and existing 100-year flood levels for the Project's outfall and its tributaries.
f. After the HEC-RAS model is satisfactory and the output deemed acceptable, the Engineer shall apply the GIS export function to create the HEC-RAS GIS export file in preparation for the flood plain mapping.

(6) Floodplain Mapping.
a. Utilizing the HEC-RAS GIS export file, and ArcView GIS StreamPro, the Engineer shall map the floodplain over the terrain TIN.
b. The Engineer shall compare the results by placing the resulting floodplain mapping over the existing Flood Insurance Rate Map (FIRM): scan the FIRM and bring into ArcView an image for this comparison.

(7) Alternate Solutions & Recommendations.
a. The Engineer shall prepare preliminary cost estimates for each alternate solution and final recommendation.
b. The Engineer shall summarize each alternate solution in sufficient detail to indicate clearly the problems involved in order for the Owner to make the appropriate comparisons to the Engineer's final recommendations and provide the approval for the final design of the Project.
c. The Engineer shall provide a formal and clearly outlined recommendation regarding the final design of the Project.

(8) Final Report – "*Preliminary Engineering Report*". The Engineer shall prepare five (5) bound, color copies of the final "*Preliminary Engineering Report*", including all attachments, exhibits, preliminary layouts, sketches, profiles, and cost estimates.

B. Final Design. After the Owner has approved the Engineer's final recommendations as shown in the "*Preliminary Engineering Report*" and the recommendations meet all federal, state, and county regulations and requirements (including permittiing), the Engineer will perform all required *engineering* activities to provide the Owner with a complete and approved set of plans, specifications, and estimate (PS&E) for each phase of construction of the Project.

(1) Right of Way Data and Map. The Engineer shall provide a right of way (ROW) map to the Owner that properly describes the ROW the Owner is to acquire. All procedures and tasks involved in the development of the ROW map will be in accordance with the Owner's local operating procedures and the Texas Board of Professional Land Surveying Practices Act. Individual activities and/or requirements include:

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

a. Abstracting – The Engineer shall perform a preliminary title search and determine ownership information.
b. Surveying – The Engineer shall obtain the required survey data needed to establish existing and proposed right-of-way lines, channel centerline alignment, private property lines, county and/or city limits, and any topographic information not clearly indicated by the aerial photogrammetry.
c. The Engineer shall prepare the ROW map.
d. The Engineer shall prepare field note descriptions on 8-1/2" x 14", signed and sealed by a Registered Professional Land Surveyor, for each parcel of land to be acquired as shown on the ROW map.
e. The Engineer shall prepare parcel plats for each parcel of land to be acquired as shown on the ROW map. All parcel plats will be prepared on 8-1/2" x 14" sheets and signed and sealed by a Registered Professional Land Surveyor.
f. Any revisions required to the ROW map, and associated documents, shall be made by the Engineer promptly, and at no additional cost or expense to the Owner. The Engineer shall immediately furnish such revised right of way map, and associated documents to the Owner at no additional cost or expense to the Owner.

(2) Design Field Surveying. The Engineer shall perform field surveys and provide field layouts and/or information necessary to collect information required in the final design of the Project. This may include, but not be limited to, additional channel sections for the determination of final earthwork, roadway cross sections and profiles for intersecting roadways, soil bore staking, and right of way staking.

(3) Geotechnical. The Engineer shall perform geotechnical investigations and testing for the purpose of foundation studies and design for any pavement, retaining walls, bridges, and/or miscellaneous structures that may be required for final design.

(4) Permitting. The Engineer shall furnish the necessary engineering data required to apply for regulatory permits from local, state, or federal authorities.

(5) Channel / Drainage Design. The Engineer shall perform channel / drainage design for the proposed improvements to existing channels and/or facilities, as well as the proposed channels of the Project. The design of drainage improvements shall conform to the Project design criteria, and when possible the standard designs, required by the owner (city, county, or state) of any associated roadways. These designs shall in all respects combine the application of sound engineering principles with a high degree of economy, and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.

(6) Roadway Design. The Engineer shall perform roadway design for any intersecting roadway approaches to the proposed improvements to the existing channels and / or proposed channels of the Project. The design of these roadways shall conform to the Project design criteria, and when possible the standard designs, required by the owner (city, county, or state) of the associated roadway. These designs shall in all respects combine the application of sound engineering principles with a high degree of economy, and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(7) Bridge Design.
   a. The Engineer shall perform bridge design required for any roadway crossings to the proposed improvements to the existing channels and / or proposed channels of the Project. The design of these bridges shall conform to the Project design criteria required by the owner (city, county, or state) of the associated bridge structure and/or roadway, and the requirements set forth by the American Association of State Highway and Transportation Officials (AASHTO), "Standard Specifications for Highway Bridges". These designs shall in all respects combine the application of sound engineering principles with a high degree of economy, and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.
   b. Prior to performing structural detailing, the Engineer shall provide a bridge layout to the governing entity of the associated bridge structure and/or roadway for approval. Each bridge layout will include the required information set forth by the governing entity.

(8) Plans, Specifications, and PS&E.
   a. The Engineer shall prepare contract drawings, specifications and estimates for construction of the Project or portions of the Project as authorized by the Owner. These documents shall in all respects combine the application of sound engineering principles with a high degree of economy, and shall be submitted to the applicable city, county, state, and/or federal agencies for approval.
   b. All final plan sheets shall be developed, by the Engineer, on 11" x 17" reproducible, 4 mil, double-matte, white, opaque film.
   c. Graphics files shall be developed by the Engineer in Microstation design file format, and must plot consistent with the reproducible plots submitted.
   d. Plan Sheets. Plan sheets developed by the Engineer shall include, but not be limited to, title sheet, typical sections, sequence of construction, traffic control (as applicable), specification data (including schedules for minimum sampling and testing), estimate and quantity, plan-profile, channel details, roadway details (as applicable), bridge and culvert details, hydraulic details, and standards. (Standards may be used from governing entities, but must be signed and dated by the Project Engineer of responsible supervision as being applicable to the Project.)
   e. Specifications. Whenever possible, the Engineer shall use the Texas Department of Transportation's 1993 Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. Other specifications may be developed by the Engineer, but must incorporate, to the extent possible, references to standard requirements of AASHTO design and AASHTO testing procedures.
   f. Estimates. The Engineer shall prepare detailed cost estimates and proposals of authorized construction, which shall include summaries of bid items and quantities based, insofar as practicable, on the unit price system of bidding. The Engineer shall not be required to guarantee the accuracy of those estimates.

C. Construction Phase Services.
   (1) Construction Bidding. The **Engineer** shall prepare the documents for all necessary copies of approved plans, specifications, notices to bidders, and proposals.

   Note: Services for assistance in advertising for each authorized construction contract for the **Project,** opening and tabulation of bids, recommendations to the **Owner as** to the proper action on all bid proposals received, and the preparation of formal contract documents for the award of each construction contract will be performed by the **Engineer.**

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

(2) Project Site Representations.
   a. In general, the Engineer shall provide the *engineering support and data* required for consultation and advisement to the Owner, and to protect the Owner against defects and deficiencies in the work of the Contractor.
   b. Daily and Weekly Reports. The Engineer shall provide the *engineering support and data* required to monitor the Contractor's progress with daily and weekly reports as outlined in the "*Construction Management Policy & Procedures Manual* developed and more particularly identified under I – General Contract Management in this exhibit. This information will be provided to the *GCM* for the development of the *monthly progress report* to be provided to the Owner as identified under I- General Contract Management in this exhibit.
   c. Contractor Payment. The Engineer shall take measurements and calculate quantities, in accordance with the construction contract specifications, of those items of work accepted and conforming to the construction contract specifications, for the preparation of the monthly and final estimates for payment to the Contractor as identified and performed under I – General Contract Management in this exhibit. *Note: The Engineer is not responsible for actual payments to the Contractor*.
   d. The Engineer will provide Project site inspection of the authorized construction contract as follows:
      1. *Project Engineer*. The Engineer will provide visits by the *Project Engineer* or a competent representative of the Engineer to the site of construction at least three times each week for the purpose of monitoring the Contractor's progress and conformance to the construction contract plans and specifications.
      2. *Resident Engineer*. If authorized by the Owner, the Engineer will furnish the services of a *Resident Engineer* and/or construction inspector(s) for continuous on-the-site inspection construction.

(3) Miscellaneous Technical Activities. If authorized to perform construction management and inspection services under a work authorization in accordance with Article 7, the Engineer shall provide one or more of the following:
   a. Construction Field Surveying. The Engineer shall perform all field surveys and field layouts, including construction staking and right of way staking.
   b. Shop Drawings. The Engineer shall review and check all shop or working drawings furnished by the Contractor.
   c. Control of Materials & Equipment. The Engineer shall provide inspection of all materials and equipment furnished/used by the Contractor as follows:
      1. Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.
      2. Observe and/or perform Project record testing and/or independent assurance testing as outlined in the construction contract specifications.
   d. Change Orders. When applicable, the Engineer will prepare the engineering data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the Owner.

(4) Final Acceptance. If authorized to perform construction management and inspection services under a work authorization in accordance with Article 7, the Engineer shall provide one or more of the following:

EXHIBIT "B" (Continued)
Services to be Provided by the Engineer

EXPANDED DESCRIPTIONS OF SERVICES, continued.

a. Performance Testing. Following the completion of construction by the Contractor, the Engineer shall provide the engineering support and data required for the initial operation of the Project. This will include inspection for conformance and record-keeping for the necessary performance tests required by the construction contract specifications. The Engineer will provide this inspection with either the *Project Engineer* or *Resident Engineer*, as directed by the Owner.
b. As-Built Drawings. The Engineer shall develop as-built drawings to show the work as actually constructed only if the Engineer performs the construction management and inspection.

EXHIBIT "B2"
Project Team

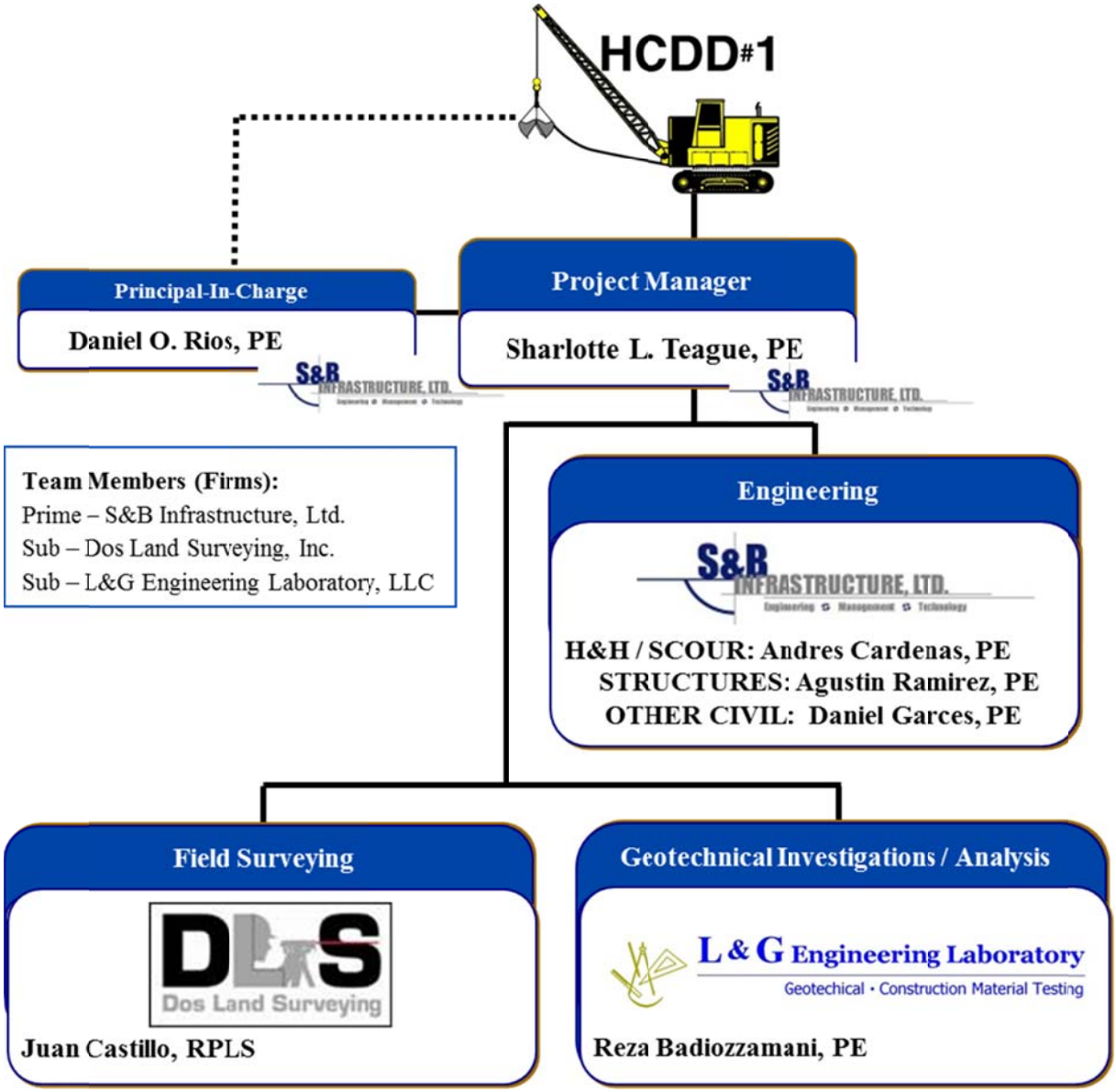


EXHIBIT "C"
Work Schedule

A detailed Work Schedule shall be prepared by the **Engineer** to be submitted and approved at the Preliminary or Design Concept Conference. The Work Schedule will provide specific work sequence and definite review times by the **Owner** and the **Engineer** of the work performed, in order that the "Project" may be completely constructed no later than the termination date of this Agreement.

The **Engineer** will diligently pursue the completion of the Work as defined by the milestones and deliverable due dates outlined in the Work Schedule.

The **Engineer** will inform the **Owner** (in reasonable advance of the delay) should the **Engineer** encounter delays that would prevent the performance of all work in accordance with the established Work Schedule.

EXHIBIT "D"
Contract Rates

Engineer's Contract Rates:

LABOR								
Job Description (NSPE Grade)	Base Rate*	Contract Rate**	Base Rate*	Contract Rate**	Base Rate*	Contract Rate**	Base Rate*	Contract Rate**
	2013	2013	2014	2014	2015	2015	2016	2016
Princ / Program Mgr	$95.00	$254.43	$99.75	$267.15	$104.74	$280.51	$109.98	$294.55
QC / QA Mgr	$60.00	$160.69	$63.00	$168.73	$66.15	$177.16	$69.46	$186.03
Project Mgr	$58.38	$156.35	$61.30	$164.17	$64.37	$172.40	$67.59	$181.02
Struct Engr	$48.06	$128.71	$50.46	$135.14	$52.98	$141.89	$55.63	$148.99
Hydra / Civil Engr	$57.51	$154.02	$60.39	$161.74	$63.41	$169.82	$66.58	$178.31
Engr Asst / Construction Inspector	$37.26	$99.79	$39.12	$104.77	$41.08	$110.02	$43.13	$115.51
Construction Recordkeeper	$32.90	$88.11	$34.55	$92.53	$36.28	$97.17	$38.09	$102.01
Env Scientist	$53.48	$143.23	$56.15	$150.38	$58.96	$157.91	$61.91	$165.81
CADD / GIS Tech	$24.03	$64.36	$25.23	$67.57	$26.49	$70.95	$27.81	$74.48
Secretary	$17.33	$46.41	$18.20	$48.74	$19.11	$51.18	$20.07	$53.75

Direct labor =	100.00%
Overhead =	**132.89%**
Direct Labor + Overhead =	232.89%
(232.89% X 0.15)	34.934
Multiplier = (232.89 + 34.9335)/100=	**2.6782**

* Base Rate = estimated raw salary without burden

**These are the labor rates to be used to negotiate work orders for special or excluded services, and/or additonal work.

NON-LABOR	
Mileage	$0.565 / mi
Car Rental	$70.00/day
Car Rental - Gas	at cost
Lodging	◊
Meals	◊
Air Travel	◊
B&W Copy, 8-1/2 x 11	◊
B&W Copy, 11 x 17	◊
Color Copy, 8-1/2 x 11	◊
Color Copy, 11 x 17	◊
B&W Mylars / Vellum, 11 X 17, including Plotting	◊
Postage	◊
Express Delivery	◊

◊ To be determined at time of negotiating work authorization.

These are the aniticpated non-labor rates to be used to negotiate work orders for special or excluded services, and/or additonal work.
Other non-labor rates may be determined at time of negotiation.

EXHIBIT "D", Contract Rates, continued.

Sub-Consultant's Contract Rates:

L&G Engineering

Labor:

	Senior Project Manager	Senior Geotechnical Engineer	Design Engineer	CADD Tech	Admin/ Clerical
Hourly Base Rates	$ 69.00	$ 55.00	$ 40.00	$ 21.00	$ 15.00
Direct Salary Cost	$ 276.00	$ 440.00	$ 1,200.00	$ 126.00	$ 30.00
Contract Rate*	$ 244.95	$ 195.25	$ 142.00	$ 74.55	$ 53.25
	* w/ Audited Overhead Rate of 217.19% & 12% Profit = 3.55 Multiplier				

Field Investigations / Testing:

SERVICES		UNIT
I.	**Project Management / Review**	
	Design Engineer (Staff)	**$ 142.00**
II.	**Utility Clearances / Boring Locates**	
	Technician (Locate Borings)(Util Clr)	**$ 46.15**
	Mileage	**$ 0.55**
III.	**Field Exploration**	
A	Mobilization/Demobilization	
	1a. Local Mobilization (Under 100 Miles RT	**$ 250.00**
	1b. Long Mobilization (Over 100 Miles RT)	**$ 500.00**
B	Field Exploration	
	1a. ASTM Drill & SPT/Tube Sampling (SS)	**$ 18.00**
	1b. ASTM Drill & SPT/Tube Sampling (Mu	**$ 27.00**
	2. TxDOT TCP Field Test (BL/ft)	**$ 15.00**
	3. Field Logger / Engineering Tech	**$ 46.15**
	4. 24 Hr. Water Level Observations	**$ 46.15**
	5. Piezometers	**TBN**
	6. Supp. Vehicle-Trailer, Tools Water Suppl	**$ 2.00**
	7. Vehicle Charge	**$ 0.55**
C	Miscellaneous Field Services	
	1. Channel Bank/Channel Sampling (Bulk) *includes eng tech time & sampling	**$ 50.00**
	2. Backfill w/ Bentonite Grout Mix *includes eng tech time & materials	**$ 50.00**

IV.	Engineering Data Analysis / Report	
	1. Senior Staff Engineer	**$ 142.00**
	2. Design Engineer (Soil Classification)	**$ 124.78**
	3. Design Engineer (Logs & Summaries)	**$ 124.78**
	4. Moisture Content	**$ 8.50**
	5. Atterberg Limits	**$ 65.00**
	6. -200 Determination	**$ 60.00**
	7. Sieve Analysis (w/ Hydrometers)	**$ 85.00**
	8. UC Testing (w/ Unit Weight)	**$ 50.00**
	9. Consolidation Testing	**$ 475.00**
	10. Dry Unit Weight	**$ 35.00**
	11. Soils Sulfate Content (Bridge/Culv.)	**$ 95.00**
	12. Determination of Soil pH	**$ 70.00**

EXHIBIT "D", Contract Rates, continued.

Sub-Consultant's Contract Rates:

(2014)

Title	Hourly Rate
Principal	**$249.00**
RPLS	**$185.22**
Survey Tech	**$90.29**
CADD Tech	**$75.19**
Admin	**$60.64**

EXHIBIT "D2"
Funding Source Incentive

In accordance with Article 5.3 of this Agreement, the **Owner** shall provide an incentive opportunity to the **Engineer** in consideration for services rendered regarding the corporate sponsorship performed by the **Engineer** through the President of S&B Infrastructure, Ltd. (**Engineer**) for obtaining funding from potential funding sources for the development and construction of the "**Project".**

The **Owner** will increase the ***Basic Services Fee*** for compensation to the **Engineer**, from nine percent (9.00%) up to a maximum of nine and one-half percent (9.50%) of the construction cost of the **Project** for obtaining funding from potential funding sources for **Project** development and construction. The basis of compensation will be as follows:

(Funding Obtained / Construction Cost)%	Increase ***Basic Services*** **Fee** up to:
00.01% ~ 12.50%	2.8125%
12.51% ~ 25.00%	2.8750%
25.01% ~ 37.50%	2.9375%
37.51% ~ 50.00%	3.0000%
50.01% ~ 62.50%	3.0625%
62.51% ~ 75.00%	3.1250%
75.01% ~ 87.50%	3.1875%
87.51% ~ 100.00%	3.2500%

Payments to the **Engineer** in meeting the incentive requirements stated above will be made, in accordance with the terms and provisions of Article 6 of this Agreement, by the **Owner**, upon presentation of a **Request for Payment** by the **Engineer**. Previous payments made to the **Engineer** for compensation will be ultimately reconciled to the increased ***Basic Services Fee*** as obtained through these incentive requirements, and the amount of reconciled payment to the **Engineer** for the increased fee for ***Basic Services Fee*** shall be applied in the next applicable **Request for Payment** by the **Engineer**.

EXHIBIT "E"
Work Authorization Form

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

WORK AUTHORIZATION NO. _____

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the Agreement made by and between Hidalgo County Drainage District No. 1 hereinafter called the "**Owner**", and S&B Infrastructure, Ltd., professional engineers, hereinafter called "**Engineer**".

PART 1 – SCOPE OF WORK. The purpose of this Work Authorization is for the **Engineer** to provide: _____

The scope of services to be provided by the **Owner** is identified in ATTACHMENT "A"- Scope of Services to be Provided by the Owner attached hereto. The scope of services to be provided by the **Engineer** is identified in ATTACHMENT "B" – Scope of Services to be Provided by the **Engineer** attached hereto.

PART 2 - ESTIMATED COST. The estimated cost for services under this Work Authorization is $_____ . This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as ATTACHMENT "D".

PART 3 – PAYMENT. Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 5 and 6 of the Agreement.

PART 4 – FUNDING. This Work Authorization shall be funded through funding source:
Account No. _____ Requisition Number_____

PART 5 - PERIOD OF SERVICE. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization. A work schedule is included and attached hereto as Attachment "C".

PART 6 - RESPONSIBILITIES AND OBLIGATIONS. This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7 - ACKNOWLEDGEMENT AND CONFIRMATION. S&B Infrastructure, Ltd. hereby acknowledges and confirms the content and detail of this Work Authorization.

BY: _____
Name, Title

PART 8 - ACCEPTANCE AND APPROVAL. This Work Authorization is hereby accepted and approved by the Owner and Engineer as indicated below and effective as of the _____ day of _____, 20__.

THE ENGINEER:

BY: _____
Name, Title
S&B Infrastructure, Ltd.

THE OWNER:

BY: _____
Name, Chairman of the Board
Hidalgo County Drainage District No. 1

Attachments:
Attachment "A" – Scope of Services to be Provided by Owner
Attachment "B" – Scope of Services to be Provided by Engineer
Attachment "C" – Work Schedule
Attachment "D" – Estimated Cost Proposal

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____

EXHIBIT "F"
Supplemental Agreement Form

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

SUPPLEMENTAL AGREEMENT NO. _____
TO AGREEMENT FOR PROFESSIONAL SERVICES

THIS SUPPLEMENTAL AGREEMENT is made pursuant to the terms and conditions of Article 8 of the Agreement made by and between Hidalgo County Drainage District No. 1, hereinafter called the "**Owner**", and S&B Infrastructure, Ltd. hereinafter call the "**Engineer**".

WITNESSETH:

WHEREAS, the **Owner** and the **Engineer** executed the Agreement on the ____ day of _____, concerning **professional engineering services for repairs to Weir 4 on the Main Floodwater Channel in Willacy County, Texas** (hereinafter referred to as the **"Project"**); and

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

WHEREAS, it has become necessary to amend the contract to

AGREEMENT:

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

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

---

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

IN WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 20____.

THE ENGINEER:

BY: _____
Name, Title
S&B Infrastructure, Ltd.

THE OWNER:

BY: _____
Name, Chairman of the Board
Hidalgo County Drainage District No. 1

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____

EXHIBIT "G"
Hidalgo County Drainage District No. Insurance Certification Form

Hidalgo County Drainage District No. 1
CERTIFICATE OF INSURANCE

NOTE: Copies of the endorsements listed below are not required as attachments to this certificate.

The named Engineer, Consultant or Contractor shall not commence work until he/she has obtained the minimum insurance specified in Section II, below, and obtained the following endorsements: **Hidalgo County Drainage District No. 1** as an **Additional Insured** for coverages 3 and 4, and a **Waiver of Subrogation** in favor of the **Hidalgo County Drainage District No. 1** under coverages 2, 3 and 4. Only certificates of insurance published by **Hidalgo County Drainage District No. 1** are acceptable as proof of insurance; commercial carriers' certificates are unacceptable.

SECTION 1 IDENTIFICATION DATA

1.1 Insured Name (of Engineer, Consultant or Contractor)

1.2 Street/Mailing Address

1.3 City	1.4 State	1.5 Zip

1.6 Phone Number
Area Code ( )

SECTION II TYPE OF INSURANCE

Type	Policy Number:	Effective Date:	Expiration Date:	Limits of Liability Not Less Than:
2. ***WORKERS' COMPENSATION***				
	2.1	2.2	2.3	Statutory Texas

Endorsed with a **Waiver of Subrogation** in favor of **Hidalgo County Drainage District No. 1**.

3. ***COMMERCIAL GENERAL & PROFESSIONAL LIABILITY***				
Bodily Injury/Property Damage	3.1	3.2	3.3	$1,000,000 combined single limit each occurrence and in the aggregate

Endorsed with **Hidalgo County Drainage District No. 1** as an **Additional Insured** and endorsed with a **Waiver of Subrogation** in favor of **Hidalgo County Drainage District No.1**.

4. ***TEXAS BUSINESS AUTOMOBILE POLICY***				
A. Bodily Injury	4.1	4.2	4.3	$250,000 ea. Person
				$500,000 ea. Occurrence
B. Property Damage	4.4	4.5	4.6	$100,000 ea. Occurrence

Endorsed with **Hidalgo County Drainage District No. 1** as an **Additional Insured** and endorsed with a **Waiver of Subrogation** in favor of **Hidalgo County Drainage District No.1**.

5. ***UMBRELLA POLICY*** (If Applicable)				
	5.1	5.2	5.3	$

SECTION III CERTIFICATION

This Certificate of Insurance neither affirmatively or negatively amends, extends, or alters the coverage afforded by the above insurance policies issued by the insurance company named below.

Cancellation of the insurance policies shall not be made until THIRTY DAYS AFTER the undersigned agent or his/her company has sent written notices by certified mail to the Engineer, Consultant or Contractor and **Hidalgo County**.

THIS IS TO CERTIFY to **Hidalgo County** that the insurance policies above meet all the requirements stipulated above and such policies are in full force and effect.

6.1 Name of Insurance Company			7.1 Name of Authorized Agent		
6.2 Company Address			7.2 Agent's Address		
6.3 City	6.4 State	6.5 Zip	7.3 City	7.4 State	7.5 Zip
7.6 Authorized Agent's Phone No. Area Code ( )			Original Signature of Authorized Agent Date		

EXHIBIT "G" (Continued)
Hidalgo County Drainage District No. Insurance Certification Form

Hidalgo County Drainage District No. 1
CERTIFICATE OF INSURANCE (Back of Form)

Only the Hidalgo County Drainage District No. 1 Certificate of Insurance (COI) forms are acceptable as proof of insurance.

The named insured on the COI and the name of the Engineer, Consultant, or Contractor, as it appears on the Agreement for Professional Services, must be the same.

The signature of the agent must be original in ink; stamped/typed/printed signatures are unacceptable.

WORKER'S COMPESATION
The following requirements apply to *WORKER'S COMPENSATION* coverage:

- If the Engineer, Consultant, or Contractor has *any* employees, in addition to himself/herself, then the Engineer, Consultant, or Contractor is required to have workers' compensation insurance.
- The word STATUTORY, under limits of liability, means that the benefits allowed under the Texas Workers' Compensation Law will be paid by the insurer.
- Relatives of the Engineer, Consultant or Contractor (spouse, sons, daughters) must be covered by workers' compensation insurance.

GROUP HEALTH insurance may not be substituted for *WORKERS' COMPENSATION* insurance.

COMMERCIAL GENERAL & PROFESSIONAL LIABILITY
COMMERCIAL GENERAL & PROFESSIONAL LIABILITY insurance is usually sold in only Combined Single Limit coverage. In the event the coverages are specified separately, they must be *at least* these amounts:

Bodily Injury	-	$1,500,000 each occurrence
Property Damage	-	$500,000 each occurrence
		$1,000,000 aggregate

Note: This coverage was previously known as Comprehensive General Liability insurance. Some older policies may still carry this identification. This is acceptable.

MANUFACTURERS' AND CONTRACTORS' LIABILITY insurance is not an acceptable substitute for COMMERCIAL GENERAL LIABILITY insurance.

TEXAS BUSINESS AUTOMOBILE POLICY
The coverage amount for a *TEXAS BUSINESS AUTOMOBILE POLICY* may be shown as a minimum of $850,000 Combined Single Limit by a typed or printed entry and deletion of the specific amounts listed for Bodily Injury and Property Damage.

BASIC AUTOMOBILE LIABILITY insurance is *not* an acceptable substitute for a TEXAS BUSINESS AUTOMOBILE POLICY or COMPREHENSIVE AUTOMOBILE LIABILITY insurance.

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the Agreement made by and between Hidalgo County Drainage District No. 1 hereinafter called the "**Owner**", and S&B Infrastructure, Ltd., professional engineers, hereinafter called "**Engineer**".

PART 1 – SCOPE OF WORK. The purpose of this Work Authorization is for the **Engineer** to provide preliminary engineering, final design, and bid document services for the Project. The scope of services to be provided by the **Owner** is identified in Attachment "A"- Scope of Services to be Provided by the Owner attached hereto. The scope of services to be provided by the **Engineer** is identified in Attachment "B" – Scope of Services to be Provided by the **Engineer** attached hereto.

PART 2 - ESTIMATED COST. The estimated cost for services under this Work Authorization is $36,601. This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as Attachment "D".

PART 3 – PAYMENT. Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 5 and 6 of the Agreement.

PART 4 – FUNDING. This Work Authorization shall be funded through funding source:
Account No. _____ Requisition Number_____

PART 5 - PERIOD OF SERVICE. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization. A work schedule is included and attached hereto as Attachment "C".

PART 6 - RESPONSIBILITIES AND OBLIGATIONS. This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7 - ACKNOWLEDGEMENT AND CONFIRMATION. S&B Infrastructure, Ltd. hereby acknowledges and confirms the content and detail of this Work Authorization.

BY: _____
Daniel O. Rios, PE, Senior Vice-President, S&B Infrastructure, Ltd.

PART 8 - ACCEPTANCE AND APPROVAL. This Work Authorization is hereby accepted and approved by the Owner and Engineer as indicated below and effective as of the _____ day of _____, 20__.

THE ENGINEER:

BY: _____
Daniel O. Rios, PE, Senior Vice-President
S&B Infrastructure, Ltd.

THE OWNER:

BY: _____
Ramon Garcia, Chairman of the Board
Hidalgo County Drainage District No. 1

Attachments:
Attachment "A" – Scope of Services to be Provided by Owner
Attachment "B" – Scope of Services to be Provided by Engineer
Attachment "C" – Work Schedule
Attachment "D" – Estimated Cost Proposal

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____

Attachment "A"
Scope of Services to be Provided by Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Project**.

The **Owner** will provide to the **Engineer** the following:

(1) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 5 and Article 6, both of the Agreement.

(2) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, **State** and Federal agencies that the **Engineer** cannot easily obtain.

(3) Provide any available relevant data the **Owner** may have on file concerning the project.

(4) Provide timely review and decisions in response to the **Engineer**'s request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed-upon work schedule prepared in accordance with **Attachment "C"** attached hereto.

(5) Attend and participate in design concept conference and progress meetings as required and as coordinated and conducted by the **Engineer**.

(6) Review and approve the **"Project"** design criteria.

(7) **Construction Estimate.** Provide the **Engineer** a copy of historical bid tabulations and any other Owner data that may impact the determination of the construction cost estimate, if available, for similar projects and periodically review and approve the **Construction Estimate** as developed and prepared by the Engineer.

(8) Assist the **Engineer** as required in the coordination with the US Army Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA) and any other coordinating agency or entity.

Attachment "B"
Scope of Services to be Provided by Engineer

The following provides an outline of the services to be provided by the Engineer in the development of the Project:

A. Background / Project Description: The project involves the design of repairs to existing Weir 4 of the Main Floodwater Channel in Willacy County, Texas; location is shown below**.**

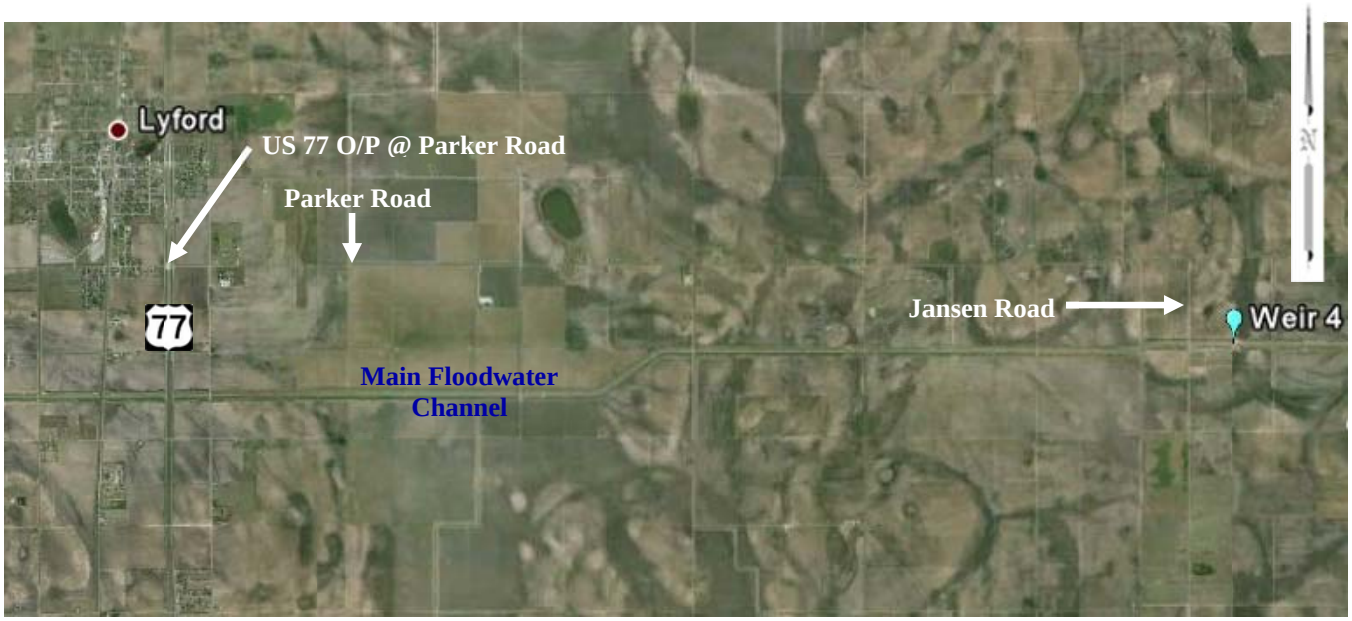
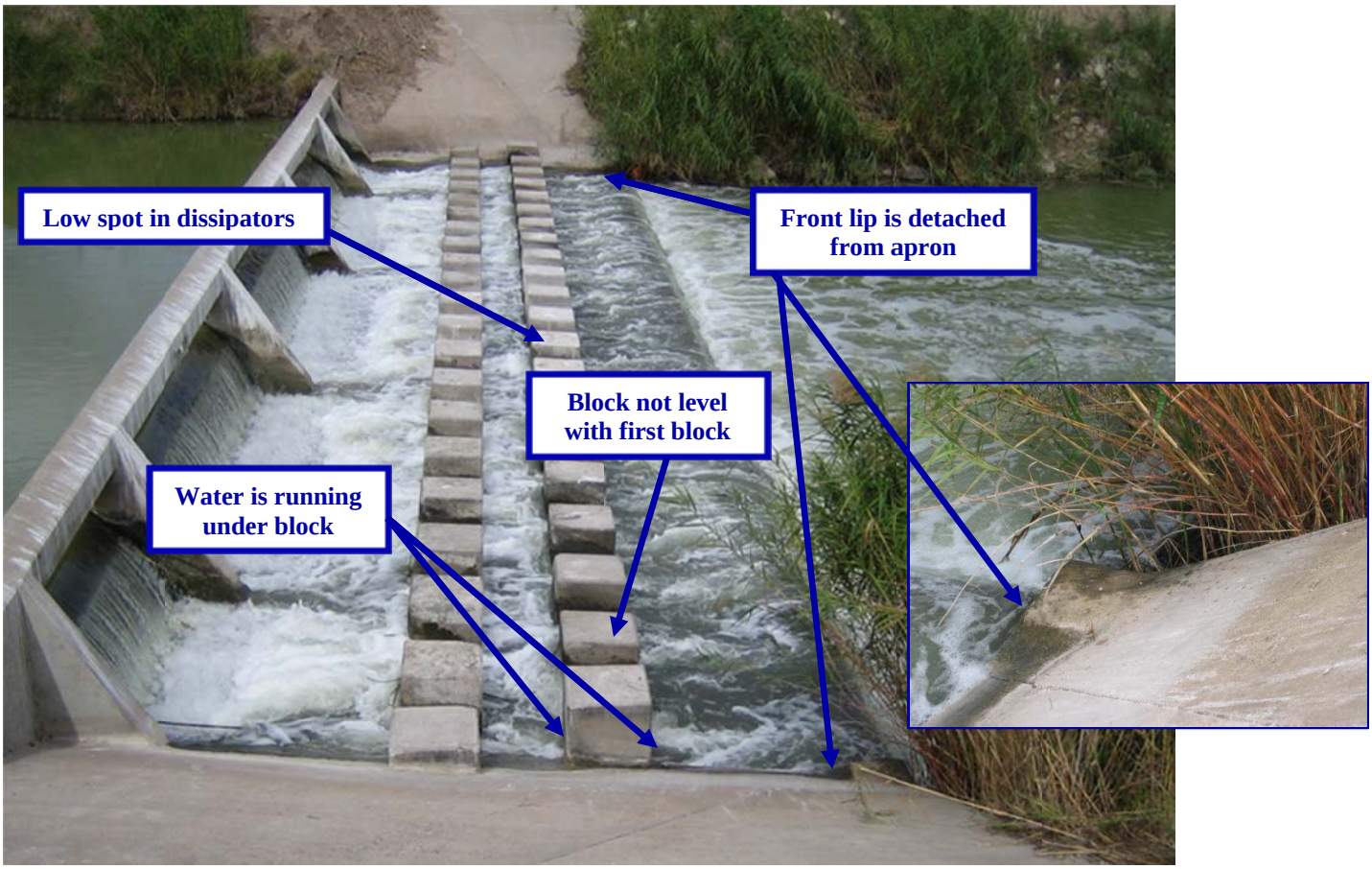


Figure 1: Vicinity Map

Figure 2: Location Map

Weir 4, Main Floodwater Channel, Willacy County (January 21, 2013)

The existing condition of Weir 4 exhibits potential seepage and scour issues which could compromise it's structural integrity; issues are illustrated below.



Attachment "B", Continued
Scope of Services to be Provided by Engineer

Design repairs are proposed to include: cavity and void repairs with flowable fill, concrete repairs, steel sheet pile for seepage / scour cut-off wall, channel re-grading and rubble fill, channel rock bedding, geotextile fabric, plunge pool, and block and/or rock riprap.

B. Preliminary Engineering:
The Engineer shall prepare the weir design criteria and prepare a preliminary construction cost estimate.

C. Final Design. After the Owner has approved the Engineer's final recommendations and the recommendations meet all federal, state, and county regulations and requirements, the Engineer will perform all required engineering activities to provide the Owner with a complete and approved set of plans, specifications, and estimate (PS&E) for the Project. Specific engineering activities, tasks, and/or special services to be provided by the Engineer will include:

1. Weir Structural Design –
   a. The Engineer shall perform the structural design for the weir repairs. The designs shall in all respects combine the application of sound engineering principles with a high degree of economy.
   b. Prior to performing structural detailing, the Engineer shall provide a preliminary weir layout to the Owner for comment.
   c. After the Owner approves the preliminary weir layout, the Engineer shall perform final structural design.

2. Hydrology / Hydraulics (H&H) and Final Channel Improvements Design – The Engineer shall perform a scour analysis to determine the length of rock riprap apron for the weir, based on the structure's existing hydraulic capacities.

3. Field Surveying – to be performed under separate work authorization.

4. Geotechnical Investigations – to be performed under separate work authorization.

D. Plans, Specifications & Estimates (PS&E). The Engineer shall prepare contract drawings, specifications and estimates for construction of the Project as authorized by the Owner. These documents shall in all respects combine the application of sound engineering principles with a high degree of economy. Specific elements of the PS&E shall include:

1. All final plan sheets shall be developed, by the Engineer, on 11" x 17" reproducible, 4 mil, double-matte, white, opaque film.

2. Graphics files shall be developed by the Engineer in Microstation design file format, and must plot consistent with the reproducible plots submitted.

3. Plan Sheets. Plan sheets developed by the Engineer shall include, but not be limited to, title sheet, typical sections, sequence of construction, traffic control (as applicable), specification data (including schedules for minimum sampling and testing), estimate and quantity, plan-profile, channel details, roadway details (as applicable), bridge and culvert details, hydraulic details, and standards. (Standards may be used from governing entities, but must be signed and dated by the Project Engineer of responsible supervision as being applicable to the Project.)

Attachment "B", Continued
Scope of Services to be Provided by Engineer

4. Specifications. Whenever possible, the Engineer shall use the Hidalgo County Drainage District No.1's standard specifications. Other specifications may be developed by the Engineer, but must incorporate, to the extent possible, references to standard requirements of AASHTO design and AASHTO testing procedures.

5. Estimates. The Engineer shall prepare detailed cost estimates and proposals of authorized construction, which shall include summaries of bid items and quantities based, insofar as practicable, on the unit price system of bidding. The Engineer shall not be required to guarantee the accuracy of those estimates.

E. Construction Phase Services. The Engineer shall prepare the bidding documents for 5 hard copies of approved plans, specifications, notices to bidders, and proposals, as well as assistance in advertising, opening and tabulation of bids, recommendations to the Owner as to the proper action on all bid proposals received, and the preparation of formal contract documents for the award of the construction contract.

Attachment "C"
Work Schedule

All work for this work authorization shall be completed within 3 months of the notice to proceed.

Attachment "D"
Estimated Cost Proposal

FUNCTION CODE & ACTIVITY CODE	DESCRIPTION *from Attachment "B"*	FIRM	SERVICE	MAN-HOURS								ESTIMATED FEE	TOTALS
				Project Mgr	Struct Engr	Hydra / Civil Engr	Engineer Asst	Env Scientist	CADD / GIS Tech	Secretary	TOTAL HRS		
LABOR													
	TECHNICAL ACTIVITIES												
A	1 Perform site visits for field reconnaissance.	S & B	BASIC	3		4					7	$1,174.17	
	2 Gather data; set-up project files	S & B	BASIC		2		2		2	2	8	$849.52	
B	1 Develop weir design criteria (DSR).	S & B	BASIC	1	1		1				3	$482.56	
	2 Prepare preliminary cost estimate.	S & B	BASIC	2			8			4	14	$1,511.14	
C	1 Perform weir structural design.	S & B	BASIC		16	2			20		38	$4,693.96	
	2 Perform H&H-scour and final channel improvments design	S & B	BASIC	2		20	20		20		62	$7,252.26	
D	1 Develop plans and estimates	S & B	BASIC	2		12	20		40		74	$7,509.70	
	2 Develop specifications	S & B	BASIC	2	2	2	20			18	44	$4,319.84	
E	1 Construction Bid Documents	S & B	BASIC	2	2	2	8		20	20	54	$4,530.82	
	GEOTECHNICAL - *to be performed under separate work authorization.*	LG-Lab	SPECIAL								0	$0.00	
	SURVEYING - *to be performed under separate work authorization.*	DosLand	SPECIAL								0	$0.00	
	Sub Total Labor (Technical Activities)			14	23	42	79	0	102	44	304		$32,323.97
	PROJECT MANAGEMENT												
	1 Project Manager Coordination (1 External Meetings)	S & B	BASIC	3	2	2				2	9	$1,335.67	
	2 Project Manager Coordination (sub-coordination)	S & B	BASIC	6	2	1				6	15	$1,970.00	
	3 Quality Control Quality Assurance	S & B	BASIC								0	$0.00	
	Sub Total Labor (Project Management)			9	4	3	0	0	0	8.28390698	24		$3,305.67
	Sub Total (LABOR)			23	27	45	79	0	102	52	328		$35,629.64
	Total Hours	MULTIPLIER		23	27	45	79	0	102	52	328	0	
	CONTRACT RATES: ($/MAN-HOUR)	2.6782		186.03	181.02	154.02	115.51	165.81	74.48	53.75			
	BASE RATES: ($/MAN-HOUR)			69.46	67.59	57.51	43.13	61.91	27.81	20.07			
NON-LABOR													
	1 Data Reproduction	S & B	SPECIAL									$745.79	
	2 Travel - Mileage (to jobsite)	S & B	SPECIAL	Mileage per trip =	80		Trips =	5	Milage Rate ($/mi.)=	$ 0.565		$225.57	
	Sub Total (NON-LABOR)												$971.36
	PROJECT TOTAL												$36,601.00

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

WORK AUTHORIZATION NO. 2

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the Agreement made by and between Hidalgo County Drainage District No. 1 hereinafter called the "**Owner**", and S&B Infrastructure, Ltd., professional engineers, hereinafter called "**Engineer**".

PART 1 – SCOPE OF WORK. The purpose of this Work Authorization is for the **Engineer** to provide design field surveying services for the Project. The scope of services to be provided by the **Owner** is identified in Attachment "A"- Scope of Services to be Provided by the Owner attached hereto. The scope of services to be provided by the **Engineer** is identified in Attachment "B" – Scope of Services to be Provided by the **Engineer** attached hereto.

PART 2 - ESTIMATED COST. The estimated cost for services under this Work Authorization is $10,560.00. This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as Attachment "D".

PART 3 – PAYMENT. Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 5 and 6 of the Agreement.

PART 4 – FUNDING. This Work Authorization shall be funded through funding source:
Account No. _____ Requisition Number_____

PART 5 - PERIOD OF SERVICE. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization. A work schedule is included and attached hereto as Attachment "C".

PART 6 - RESPONSIBILITIES AND OBLIGATIONS. This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7 - ACKNOWLEDGEMENT AND CONFIRMATION. S&B Infrastructure, Ltd. hereby acknowledges and confirms the content and detail of this Work Authorization.

BY: _____
Daniel O. Rios, PE, Senior Vice-President, S&B Infrastructure, Ltd.

PART 8 - ACCEPTANCE AND APPROVAL. This Work Authorization is hereby accepted and approved by the Owner and Engineer as indicated below and effective as of the _____ day of _____, 20__.

THE ENGINEER:

BY: _____
Daniel O. Rios, PE, Senior Vice-President
S&B Infrastructure, Ltd.

THE OWNER:

BY: _____
Ramon Garcia, Chairman of the Board
Hidalgo County Drainage District No. 1

Attachments:
Attachment "A" – Scope of Services to be Provided by Owner
Attachment "B" – Scope of Services to be Provided by Engineer
Attachment "C" – Work Schedule
Attachment "D" – Estimated Cost Proposal

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____

Attachment "A"
Scope of Services to be Provided by Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Project**.

The **Owner** will provide to the **Engineer** the following:

(1) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 5 and Article 6, both of the Agreement.

(2) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, **State** and Federal agencies that the **Engineer** cannot easily obtain.

(3) Provide any available relevant data the **Owner** may have on file concerning the project.

(4) Provide timely review and decisions in response to the **Engineer**'s request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed-upon work schedule prepared in accordance with **Attachment "C"** attached hereto.

(5) Attend and participate in design concept conference and progress meetings as required and as coordinated and conducted by the **Engineer**.

(6) Review and approve the **"Project"** design criteria.

(7) **Construction Estimate.** Provide the **Engineer** a copy of historical bid tabulations and any other Owner data that may impact the determination of the construction cost estimate, if available, for similar projects and periodically review and approve the **Construction Estimate** as developed and prepared by the Engineer.

(8) Assist the **Engineer** as required in the coordination with the US Army Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA) and any other coordinating agency or entity.

Attachment "B"
Scope of Services to be Provided by Engineer

The following provides an outline of the services to be provided by the Engineer in the development of the Project:

A. Background / Project Description: The project involves the design of repairs to existing Weir 4 of the Main Floodwater Channel in Willacy County, Texas; location is shown below**.**

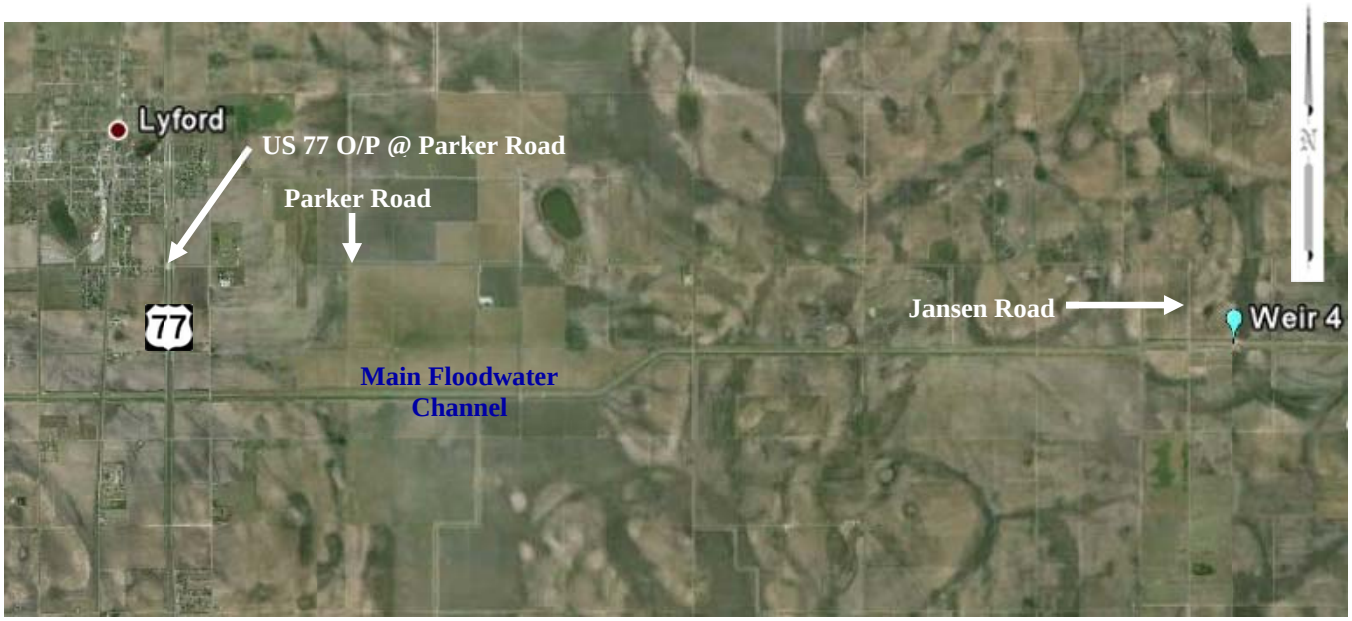


Figure 1: Vicinity Map

Figure 2: Location Map

Attachment "B", Continued
Scope of Services to be Provided by Engineer

Weir 4, Main Floodwater Channel, Willacy County (January 21, 2013)

Attachment "B", Continued
Scope of Services to be Provided by Engineer

B. Final Design – Design Field Surveying. The Engineer shall provide field survey services required to depict the topography at and near the project location of the Main Floodwater Channel Weir 4 in Willacy County, Texas. The location of Weir 4 is shown in the attached kmz; coordinates of the location from Google Earth are approximately: 26deg 23mins 38.63sec N 97deg 41min 05.68sec W.

1. Specific survey activities include, but are not limited to:

- **a.** Topo / survey features of existing weir structure.
- **b.** Survey 2 cross-sections upstream, from the outside of the spoil bank to the outside of the spoil bank on either side of the channel.
- **c.** Survey 6 cross-sections downstream, from the outside of the spoil bank to the outside of the spoil bank on either side of the channel.
- **d.** Locate and survey 2 geotechnical bores.
- **e.** Provide survey of other existing topographic features, including utilities and other elements, upstream and downstream of the weir, from inside spoil bank to inside spoil bank.
- **f.** Establish temporary benchmark at location that will not be disturbed by future construction.

2. The Engineer shall provide photos to illustrate existing conditions. The photos shall be indexed or labeled with date / time, direction looking, and description of what the photographer is looking at.

3. The Engineer shall process the field data and provide an electronic file of the field data conducive to the Engineer's engineering programs and drawings; additionally, three hard-copies of the survey layout shall be provided to the Engineer.

4. The Engineer shall provide three hard-copies to the Engineer of all field survey books and associated field notes.

Attachment "C"
Work Schedule

All work for this work authorization shall be completed within 1 month of the notice to proceed.

Attachment "D"
Estimated Cost Proposal

DIRECT LABOR:											
RATE:		$249.00	$185.22	$75.19	$90.29	$154.37	$60.64	TOTAL	COST	
DESCRIPTION:	Type of Service	PRINCIPAL	RPLS	CADD TECH	SURVEY TECH	3-MAN CREW	ADMIN	MAN-HOURS		
SCOPE OF WORK ACTIVITIES:										
1. Project Coordination	Special	1						1	$	249.00
2. Provide specific survey activities to include:										
a. Topo / survey features of existing weir structure.	Special		1		2	8		11	$	1,600.76
b. Survey 2 cross-sections upstream.	Special		2		2	8		12	$	1,785.98
c. Survey 6 cross-sections downstream.	Special		2		3	10		15	$	2,185.01
d. Locate and survey 2 geotechnical bores.	Special		2		2	4		8	$	1,168.50
e. Provide survey of other existing topographic features, including utilities and other elements, upstream and downstream of the weir, from inside spoil bank to inside spoil bank, and establish temporary benchmarks.	Special		2		2	2		6	$	859.76
3., 4., 5. Provide photos; process and verify field data.	Special		2		2	2		6	$	859.76
TOTAL HOURS:		1	11	0	13	34	0	59		
SUBTOTAL DIRECT LABOR:		$249.00	$2,037.42	$0.00	$1,173.77	$5,248.58	$0.00		$	8,708.77
OTHER DIRECT COSTS / NON-LABOR										
Mileage (060 / mile) 137.31 miles (two trucks)	Special							$137.31		
GPS (RTK $26.50 / hr) 24 hours	Special							$583.00		
Boat ($42.73 / day) 4 days	Special							$170.92		
	Special									
SUBTOTAL OTHER DIRECT COSTS (NON-LABOR):									$	891.23
	Special							Total, Sub-Consultant Cost:	$	9,600.00
	Special							SBI Special Service Mgmt:	$	960.00
								TOTAL COST (LUMP SUM AMOUNT):	$	10,560.00

PROFESSIONAL ENGINEERING SERVICES CONTRACT # _____

WORK AUTHORIZATION NO. 3

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the Agreement made by and between Hidalgo County Drainage District No. 1 hereinafter called the "**Owner**", and S&B Infrastructure, Ltd., professional engineers, hereinafter called "**Engineer**".

PART 1 – SCOPE OF WORK. The purpose of this Work Authorization is for the **Engineer** to provide geotechnical services for the Project. The scope of services to be provided by the **Owner** is identified in Attachment "A"- Scope of Services to be Provided by the Owner attached hereto. The scope of services to be provided by the **Engineer** is identified in Attachment "B" – Scope of Services to be Provided by the **Engineer** attached hereto.

PART 2 - ESTIMATED COST. The estimated cost for services under this Work Authorization is $16,575.72. This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as Attachment "D".

PART 3 – PAYMENT. Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 5 and 6 of the Agreement.

PART 4 – FUNDING. This Work Authorization shall be funded through funding source:
Account No. _____ Requisition Number_____

PART 5 - PERIOD OF SERVICE. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization. A work schedule is included and attached hereto as Attachment "C".

PART 6 - RESPONSIBILITIES AND OBLIGATIONS. This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7 - ACKNOWLEDGEMENT AND CONFIRMATION. S&B Infrastructure, Ltd. hereby acknowledges and confirms the content and detail of this Work Authorization.

BY: _____
Daniel O. Rios, PE, Senior Vice-President, S&B Infrastructure, Ltd.

PART 8 - ACCEPTANCE AND APPROVAL. This Work Authorization is hereby accepted and approved by the Owner and Engineer as indicated below and effective as of the _____ day of _____, 20__.

THE ENGINEER:

BY: _____
Daniel O. Rios, PE, Senior Vice-President
S&B Infrastructure, Ltd.

THE OWNER:

BY: _____
Ramon Garcia, Chairman of the Board
Hidalgo County Drainage District No. 1

Attachments:
Attachment "A" – Scope of Services to be Provided by Owner
Attachment "B" – Scope of Services to be Provided by Engineer
Attachment "C" – Work Schedule
Attachment "D" – Estimated Cost Proposal

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____

Attachment "A"
Scope of Services to be Provided by Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Project**.

The **Owner** will provide to the **Engineer** the following:

(1) Payment for work performed by the **Engineer** and accepted by the **Owner** in accordance with Article 5 and Article 6, both of the Agreement.

(2) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, **State** and Federal agencies that the **Engineer** cannot easily obtain.

(3) Provide any available relevant data the **Owner** may have on file concerning the project.

(4) Provide timely review and decisions in response to the **Engineer**'s request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed-upon work schedule prepared in accordance with **Attachment "C"** attached hereto.

(5) Attend and participate in design concept conference and progress meetings as required and as coordinated and conducted by the **Engineer**.

(6) Review and approve the **"Project"** design criteria.

(7) **Construction Estimate.** Provide the **Engineer** a copy of historical bid tabulations and any other Owner data that may impact the determination of the construction cost estimate, if available, for similar projects and periodically review and approve the **Construction Estimate** as developed and prepared by the Engineer.

(8) Assist the **Engineer** as required in the coordination with the US Army Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA) and any other coordinating agency or entity.

Attachment "B"
Scope of Services to be Provided by Engineer

The following provides an outline of the services to be provided by the Engineer in the development of the Project:

A. Background / Project Description: The project involves the design of repairs to existing Weir 4 of the Main Floodwater Channel in Willacy County, Texas; location is shown below**.**

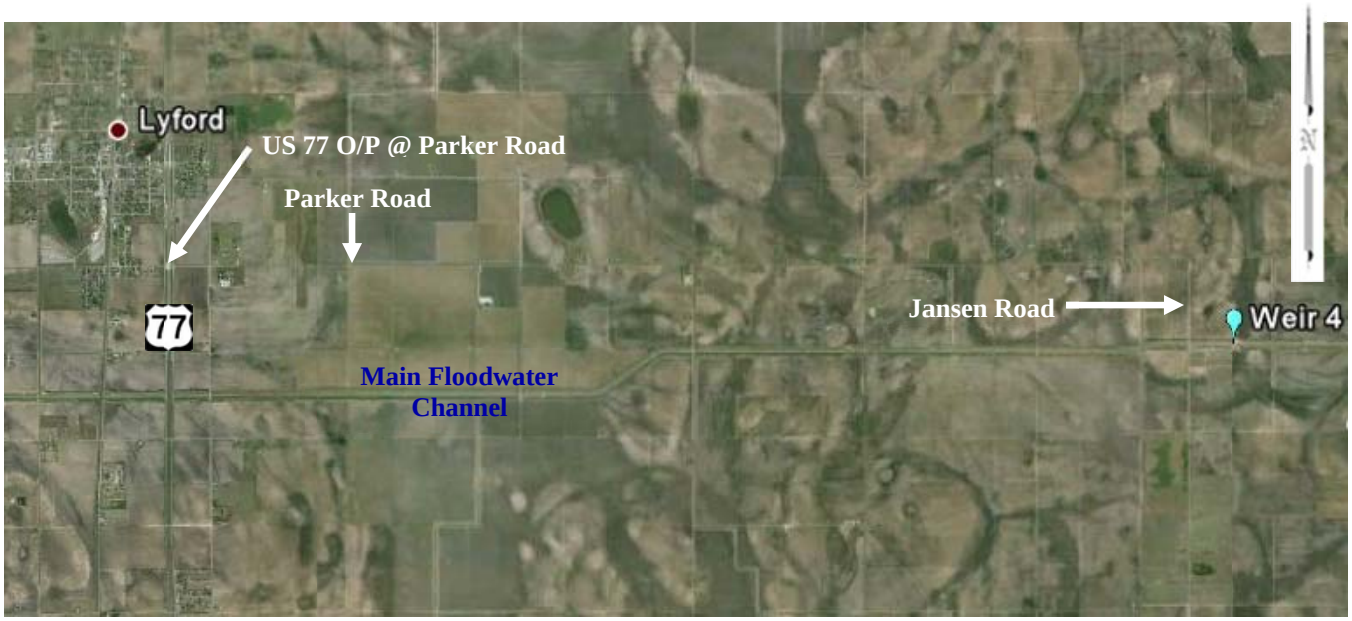


Figure 1: Vicinity Map

Figure 2: Location Map

Attachment "B", Continued
Scope of Services to be Provided by Engineer

Weir 4, Main Floodwater Channel, Willacy County (January 21, 2013)

B. Final Design – Geotechnical Investigations & Analysis. The work to be performed by the **Laboratory** under this work authorization shall consist of; Geotechnical Engineering Services for the Weir #4 Project – Main Floodwater Channel, Willacy County, TX hereinafter denoted as the **Project.** This report will include the tasks listed in detail below.

The **Laboratory** shall furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Work Authorization, except as otherwise specified to be provided by the **Engineer**.

The **Laboratory** will develop/submit a work schedule that identifies milestone activities and/or deliverables, and that is conformable to the schedule outlined in **ATTACHMENT "C"**.

Specific activities to be performed by the **Laboratory** include the following:

I. <u>Geotechnical Drilling and Miscellaneous Field Services</u>

The **Laboratory** will coordinate with the **Engineer** for verification of project vicinity map indicating general boring site locations.

The **Laboratory** will provide drilling/excavation and sampling of subsurface materials as follows in accordance with this Work Authorization:

- <u>Structural Borings</u> – Two (2) Borings (Borings will be advanced to a depth of approximately 50 feet below the existing top of natural ground)

Attachment "B", Continued
Scope of Services to be Provided by Engineer

The **Laboratory** will stake the boring locations and provide utility clearances prior to performing the field exploration portion of the project. The **Engineer** will be responsible to provide any necessary permits or authorization to access areas (right of entry) where borings are to be drilled. All borings will be located in the field by a representative of the **Laboratory**. All boring locations will be documented with GPS coordinates.

The borings will be advanced to the depth noted above and the in-situ soil testing will be performed in accordance with ASTM or TxDOT Standard Test Procedures (ASTM D1586 – Standard Penetration Testing or Tex-132-E – Texas Cone Penetration). The soils will be sampled as needed to verify subsurface materials and strata changes. Final drilling depths and elevations will be based on topographic conditions at the time of drilling operations.

All samples will be removed from the sample apparatus during drilling operations. The Laboratory will conduct various field tests on the recovered samples, visually classify the samples, and record the appropriate data on a field boring log. The samples will be appropriately packaged to minimize loss of their natural moisture content and to reduce the possibility of damage during transportation to the laboratory testing facility.

Drilling services will include an initial water strike depth and a 24-hour water level reading at each boring location. Following completion of drilling and sampling, all boreholes will be backfilled with a bentonite clay slurry mixture or bentonite clay chips.

Miscellaneous filed services specific to the Project, will include bulk sampling of channel/channel bank materials for subsequent testing in the geotechnical laboratory. Samples will be removed in bulk as near as practicable to the channel bank and/or channel.

This proposal does not include activities and corresponding costs that may be associated with the following:

- Providing an ATV mounted drill rig, dozer or special equipment to clear areas of vegetation and debris or to regrade the site to gain access to the boring locations;
- Re-grading the site or portions of the site after drilling activities are completed;
- Site safety meetings that may be required;
- Encountering hazardous or contaminated soils or substances during our field activities.

The **Laboratory** will notify the **Engineer** should these services become necessary to complete field exploration activities, and if approved by the **Engineer**, additional negotiated fee and scope will be incorporated through a Supplemental Work Authorization.

II. Geotechnical Laboratory Testing Services

Geotechnical Laboratory Testing will be performed on the samples recovered during the field study to evaluate their physical and engineering properties. Testing shall include several of the following test procedures:

(1) Atterberg Limits (ASTM D4318 or Tex-104-E, 105-E, 106-E)
This procedure will be used to aid in the classifying of the soil and to provide information on the potential vertical rise and contraction of the soil. Test data furnished will include Liquid Limit and Plasticity Index test results.

(2) Gradation (-200) (ASTM D1140 or Tex-111-E)
This procedure will be used to aid in the classifying of the soil. A No. 200 sieve will be used to distinguish fine grained material as well as for cohesive soils.

(3) Lab. Determination of Moisture in Soils (ASTM D2216 or Tex-103-E)
This procedure will aid in determining the in-situ moisture of the soil to be able to evaluate the potential vertical rise and contraction of the soil.

(4) Particle Size (Sieve) Analysis with Hydrometer (ASTM D422)
This procedure will aid in determining the complete gradation (full gradation curve) of a soil sample including hydrometer for tail-end portion of gradation curve. Full gradation curve can be utilized to extract D50 and D90 soil particle diameters for use in scour analysis and prediction for foundation design.

(5) Sulfate Content of Soil (ASTM C1580 or Tex-145-E)
This procedure will identify the soluble sulfate content of soil by using the colorimetric method. The results of this procedure are typically utilized to determine whether or not a subgrade material can be lime treated for stabilization or if other methods of stabilization will need to be proposed. The presence of extreme amounts of soluble sulfates will exclude lime treatment as a stabilization option. Additionally, high presence of sulfates in soils can mark a necessity for the use of Sulfate Resistant Concrete (> than 1000 ppm).

III. Geotechnical Engineering Services

The **Laboratory** will utilize information gathered from field and laboratory testing to provide the **Engineer** with Geotechnical Engineering Analyses for the **Project**. The findings and conclusions derived from analyses will be presented in a written engineering report and provided to the **Engineer** (three (3) copies). The report will include a boring location plan, boring logs with laboratory classification of recovered soil samples at the boring locations and subsurface water conditions encountered. The report will provide analyses and engineering recommendations as follows:

- Develop Plan View and Evaluate Existing Substrata for Typical Soil Profile
    - Boring locations will be developed and data obtained will be evaluated and stratified to determine the best fit Typical Soil Profile for the site for further development and use in analyses
- Evaluate Soil Engineering Properties, Strength Parameters, Gradation (D50/D90)
    - Borings (and Typical Soil Profile) will be structurally evaluated in terms of establishment of unit weight profiles, shear strength profiles and particle distribution profiles for extrapolation of D50/D90 for scour analysis

- Provide Seepage Analysis (Remediation Measures if Reqd.)
    - Seepage analysis will be completed for underseepage of the weir structure and recommendations will be provided if remediation measures are required
- Analyze Allowable Bearing Capacity of Channel Bed Soils (Shallow)
    - Bearing capacity will be investigated at the channel bottom depth with regard to the borings for use in any channel bed improvements (i.e. slab with dissipators, slab apron improvements)
- Provide Foundation and Construction Recommendations
    - Construction recommendations for riprap apron repairs, channel bank repairs, channel bottom repairs, construction materials, and construction testing schedule will be provided (where applicable)

The report will provide general comments and applicable recommendations regarding construction methods, sequences, and potential difficulties that may arise during overall construction as it relates to the soil aspects of this project. This information may serve to guide foundation selection and design and assist in the preparation of specifications for the project.

Attachment "C"
Work Schedule

All work for this work authorization shall be completed within 1 month of the notice to proceed.

Attachment "D"
Estimated Cost Proposal

	Tasks	MANHOURS						Total
		Senior Project Manager	Senior Geotechnical Engineer	Design Engineer	CADD Tech	Admin/ Clerical		
1	Develop Plan & Eval. Existing Substrata (Typ. Soil Profile)			2	2			4
2	Evaluate Soil Eng. Prop. , Strength Par., Grad. (D50/D90)			4				4
3	Provide Seepage Analysis (Remdiation Mesures if Reqd)			6				6
4	Analyze Allow. Bearing Capacity of Channel Bed Soils (Shallow)			2				2
5	Provide Foundation and Construction Recommendations (Geo)		2	4				6
6	Geotechnical Report	2	6	12	4	2		26
7	Meeting and Coordination	2						2
	Subtotal	**4**	**8**	**30**	**6**	**2**		**50**
	Labor Hours	**4**	**8**	**30**	**6**	**2**		**50**
	Hourly Base Rates	$ 69.00	$ 55.00	$ 40.00	$ 21.00	$ 15.00		
	Direct Salary Cost	$ 276.00	$ 440.00	$ 1,200.00	$ 126.00	$ 30.00		
	Contract Rate w/ Audited Overhead Rate of 217.19% & 12% Profit = 3.55 Multiplier	$ 244.95	$ 195.25	$ 142.00	$ 74.55	$ 53.25		
	Total Labor Costs	**$ 979.80**	**$ 1,562.00**	**$ 4,260.00**	**$ 447.30**	**$ 106.50**		**$ 7,355.60**
	LINE ITEM EXPENSES							
	Printing Reproduction						$ 150.00	
	*L&G Engineering Laboratory (Sub-Total for Geo. Field & Lab Services)						$ 7,563.12	
	** - (Please see page 2, for detailed estimates of testing)*							
	Total Expenses						**$ 7,713.12**	
							L&G Laboratory Total Cost:	**$ 15,068.72**
							SBI Special Service Mgmt:	**$1,507.00**
							TOTAL COST (LUMP SUM AMOUNT):	**$ 16,575.72**