

APPROVED in Open Session
9/22/15
Manatee County Board of County
Commissioners

Manatee County Government Administrative Center
Commission Chambers, First Floor
9:00 a.m. - September 22, 2015

September 22, 2015 - Regular Meeting
Agenda Item #24

Subject

IFB #15-2195DC SWWRF Recharge and Monitoring Wells Construction

Briefings

None

Contact and/or Presenter Information

Contact: Deborah Carey-Reed, FMD Purchasing, Ext. 3074

Contact: Jeff Streitmatter, PW Project Management, Ext. 7335

Action Requested

Authorization to award IFB #15-2195DC, SWWRF Recharge and Monitoring Wells Construction, to the lowest, responsive, and responsible bidder, Southeast Drilling Services, Inc., Tampa, Florida, for a total base bid of \$2,018,205 (Option A, 450 calendar days); and authorize the County Administrator, or designee, to execute the Agreement and accept and date the Performance and Payment Bonds.

Enabling/Regulating Authority

Manatee County Code of Laws

Background Discussion

This project provides for a contractor to construct and operationally test a non-hazardous injection well system consisting of one Class V recharge well for the purpose of recharging excess reclaimed water which has received high level disinfection from the Southwest Water Reclamation Facility. The project is funded in part through the State of Florida Department of Environmental Protection.

Formal competitive sealed bid procedures were followed resulting in a total of six (6) bidders submitting a sealed bid for consideration.

Memorandum from the Public Works Department concurs with the consultant's, CH2M Tampa, recommending award of the project to Southeast Drilling Services, Inc.

County Attorney Review

Not Reviewed (No apparent legal issues)

Explanation of Other

Reviewing Attorney

N/A

Instructions to Board Records

Agreement No. 15-2195DC to Board Records.

Email copy to:

Southeast Drilling Services, Attn: WB Ziegler at wbz@southeastdrilling.net

PW Project Management, Attn: Kathleen Casey at kathleen.casey@mymanatee.org

FMD Purchasing, Attn: Deborah Carey-Reed at deborah.carey-reed@mymanatee.org

Emailed 9/24/15 KR

Cost and Funds Source Account Number and Name

4166069081534000 Recharge Well

Amount and Frequency of Recurring Costs

N/A

Attachment: [award rec.SWWRF Recharge Well.PW.pdf](#)

Attachment: [award rec.SWWRF Recharge Well.ch2m.pdf](#)

Attachment: [tab.SWWRF Recharge Well.pdf](#)

Attachment: [15-2195DC Agreement.pdf](#)

Attachment: [15-2195DC Bond and Insurance.pdf](#)

MEMORANDUM

To: Melissa M. Wendel, CPPO, Purchasing Official
From: Jeff Streitmatter III, P. E., Project Management
Division Manager
Date: September 4, 2015
Subject: SWWRF Recharge and Monitoring Wells Construction
Southeast Drilling Services Inc.
Recommendation for Award - IFB#15-2195DC



The bids for the above referenced project have been reviewed by staff. The bid tabulation form is attached for your review. It is recommended that the contract Bid "A", with a construction time of 450 days be awarded to the lowest responsive, responsible bidder, Southeast Drilling Services Inc. in the amount of \$2,018,205.00 and in accordance with the terms and conditions of the bid package. Upon completion of project award, please provide a copy of the purchase order assigned to the contractor. The funding source for this contract is Utility Rates.

Please contact Anthony Benitez, P. E., Project Engineer II if you have any questions regarding the attached documents.

Thank you for your continued assistance.

JS/ab

cc: Mike Gore, Director, Utilities
Ron Schulhofer, Director, Public Works
Sia Mollanazar, P.E., Deputy Director, Engineering Services
Anthony Benitez, P. E., Project Engineer II *AWB*
Prony Bonnaire Fils, Engineering Specialist II, w/attachments
Project File: 6069081 9.2

Public Works Department
Project Management Division
1022 26th Avenue East, Bradenton, FL 34208-3926
Phone number: (941) 708-7450

LARRY BUSTLE * CHARLES B. SMITH * JOHN R. CHAPPIE * ROBIN DISABATINO * VANESSA BAUGH * CAROL WHITMORE * BETSY BENAC
District 1 District 2 District 3 District 4 District 5 District 6 District 7

S:\PWD_PJM_Share\Projects\Wastewater\SWWRF-Recharge Well & ASR Well Improvements_60690 81\PM\Bids\2015 Recommendation for
Award IFB Fully Funded Memo.docx



CH2M Tampa
4350 West Cypress Street
Suite 600
Tampa, FL 33607
Tel 813.874.0777
Fax 813.874.3056
www.ch2m.com

August 31, 2015

Mr. Anthony Benitez, PE Project Manager
Manatee County Public Works
1022 26th Street East
Bradenton, FL 34210

Subject: Southwest Regional Water Reclamation Facility Recharge Well System
IFB#15-2195DC - Bid Review and Recommendations

Dear Mr. Benitez:

This letter, with attachments, summarizes CH2M's review of the bids submitted for the subject project. A total of six (6) bidders responded to the invitation for bids which are summarized in the following table:

Contractor	Bid A – 450 Day Completion	Bid B – 240 Day Completion
A.C. Schultes of Florida, Inc. ¹	\$3,104,512	\$3,680,391
Layne Christensen Company	\$2,390,575	\$2,148,025
Florida Design Drilling Corporation	\$2,449,958	\$2,445,008
Hausinger & Associates, Inc.	\$2,769,962	No Bid
Rowe Drilling Company, Inc.	\$2,534,020	No Bid
Southeast Drilling Services, Inc.	\$2,018,205	No Bid
¹ Price based on unit cost bid calculation, Contractor submitted incorrect total		

We have also attached a bid tabulation that summarizes the individual unit price bid items and total price bid. This tabulation also indicates the documentation submitted by each bidder.

General Bidder Review

- Bids proposed reflect the competitive nature of the current construction market.
- All six bidders submitted Bid A, and three of the six bidders submitted Bid A and Bid B.
- The apparent low bidder for Bid A (450 day completion) is Southeast Drilling Services, Inc. at \$2,018,205. This bidder has submitted all required bid documentation.
- The apparent low bidder for Bid B (240 day completion) is Layne Christensen Company at \$2,390,575. This bidder has submitted all required bid documentation.
- Southeast Drilling Services, Inc. is qualified to perform the work as supported by the list of relevant project experience included in their bid documents.

- CH2M has had direct experience working with Southeast Drilling Services, Inc. This contractor successfully completed the well rehabilitation of the County's Cortez Rd. injection well in 2013.

Recommendations

Southeast Drilling Services, Inc. submitted the lowest, responsive bid for Bid A at \$2,018,205. Based on past project experience, Southeast Drilling Services Inc. has demonstrated the qualifications necessary to perform the work stated in the bid documents. Therefore, CH2M recommends award of the project (Bid A) to Southeast Drilling Services, Inc. as the lowest responsible bidder. Should you have any questions or require further discussion please contact me at your convenience.

Sincerely,
CH2M HILL Engineers, Inc.



Niel H. Postlethwait, PE
Project Manager

cc: Mark McNeal/ASRus LLC
Pete Larkin/ASRus LLC
Katus Watson/CH2M
Ryan Messer/CH2M

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #15-2183DC
 Description of Services: BMM&F Recharge and Monitoring Wells Construction

PART IA - RECHARGE WELL RW-1 (12 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shurtles		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IA-1.	Mobilize and Demobilize All Equip. to the RW-1 Well Site to Complete Drilling (in a 24 Hr/Day, 5 Day/Week Schedule) and testing Activities for RW-1, Complete, including Drilling Pad and Four Water Table Monitoring Wells	LS	1	\$ 125,000	\$ 125,000	\$ 195,000	\$ 195,000	\$ 170,000	\$ 170,000	\$ 50,000	\$ 50,000	\$ 189,000	\$ 189,000	\$ 131,000	\$ 131,000
IA-2.	Set Pit Casing, Complete	LS	1	\$ 55,000	\$ 55,000	\$ 50,000	\$ 50,000	\$ 25,000	\$ 25,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 55,000	\$ 55,000
IA-3.	Drill Pilot Hole - Drill Nominal 8 to 12-1/4 -inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 110	\$ 33,000	\$ 175	\$ 52,500	\$ 60	\$ 18,000	\$ 300	\$ 90,000	\$ 70	\$ 21,000	\$ 70	\$ 21,000
	b. 2,100 feet (Reverse-air)	FT	1,800	\$ 85	\$ 153,000	\$ 215	\$ 387,000	\$ 70	\$ 126,000	\$ 250	\$ 450,000	\$ 45	\$ 81,000	\$ 80	\$ 144,000
IA-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 42-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 210	\$ 63,000	\$ 250	\$ 75,000	\$ 150	\$ 45,000	\$ 250	\$ 75,000	\$ 350	\$ 105,000	\$ 300	\$ 90,000
	b. 34-inch Diameter to 1,000 feet (Reverse-air)	FT	700	\$ 180	\$ 126,000	\$ 200	\$ 140,000	\$ 100	\$ 70,000	\$ 175	\$ 122,500	\$ 250	\$ 175,000	\$ 225	\$ 157,500
	c. 23-inch Diameter up to 2,100 feet (Reverse-air)	FT	1,100	\$ 90	\$ 99,000	\$ 225	\$ 247,500	\$ 70	\$ 77,000	\$ 50	\$ 55,000	\$ 160	\$ 176,000	\$ 150	\$ 165,000
IA-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 1 of Section 02679 and:														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 3,900	\$ 3,900	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 3,560	\$ 3,560	\$ 4,000	\$ 4,000
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,100	\$ 3,100	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 3,110	\$ 3,110	\$ 4,000	\$ 4,000
	c. Pilot Hole to 1,000 feet	EA	1	\$ 13,000	\$ 13,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 7,440	\$ 7,440	\$ 4,000	\$ 4,000
	d. Reamed Hole to 1,000 feet	EA	1	\$ 6,500	\$ 6,500	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 3,210	\$ 3,210	\$ 4,000	\$ 4,000
	e. Pilot hole up to 2,100 feet	EA	1	\$ 15,000	\$ 15,000	\$ 5,200	\$ 5,200	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 8,465	\$ 8,465	\$ 4,000	\$ 4,000
	f. Completed Well up to 2,100 feet	EA	1	\$ 21,000	\$ 21,000	\$ 5,200	\$ 5,200	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 8,465	\$ 8,465	\$ 6,000	\$ 6,000
	g. Temperature Log Following Each Cement Stage	EA	5	\$ 4,000	\$ 20,000	\$ 1,500	\$ 7,500	\$ 1,000	\$ 5,000	\$ 2,500	\$ 12,500	\$ 1,000	\$ 5,000	\$ 1,500	\$ 7,500
IA-6.	Furnish and Install Casing:														
	a. 34-inch Dia. Carbon Steel	FT	300	\$ 195	\$ 58,500	\$ 145	\$ 43,500	\$ 150	\$ 45,000	\$ 200	\$ 60,000	\$ 230	\$ 69,000	\$ 200	\$ 60,000
	b. 24-inch Dia. Carbon Steel	FT	1000	\$ 180	\$ 180,000	\$ 95	\$ 95,000	\$ 150	\$ 150,000	\$ 250	\$ 250,000	\$ 350	\$ 350,000	\$ 115	\$ 115,000
IA-7.	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type II Cement with up to:														
	a. 0% Bentonite (Neat)	Cubic Foot	3200	\$ 25	\$ 80,000	\$ 12	\$ 38,400	\$ 30	\$ 96,000	\$ 15	\$ 48,000	\$ 21	\$ 67,200	\$ 20	\$ 64,000
	b. Up to 6% Bentonite	Cubic Foot	1000	\$ 18	\$ 18,000	\$ 15	\$ 15,000	\$ 35	\$ 35,000	\$ 15	\$ 15,000	\$ 20	\$ 20,000	\$ 25	\$ 25,000
	c. Up to 12% Bentonite	Cubic Foot	1000	\$ 15	\$ 15,000	\$ 17	\$ 17,000	\$ 20	\$ 20,000	\$ 15	\$ 15,000	\$ 20	\$ 20,000	\$ 30	\$ 30,000
IA-8.	Gravel - Furnish and Emplace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	20	\$ 400	\$ 8,000	\$ 29	\$ 580	\$ 85	\$ 1,700	\$ 100	\$ 2,000	\$ 280	\$ 5,600	\$ 100	\$ 2,000
IA-9.	Pressure Test Casing - Successfully Complete Pressure Test on Final 24-inch Casing Prior to Drilling Out Plug, Complete	LS	1	\$ 10,000	\$ 10,000	\$ 21,500	\$ 21,500	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 8,640	\$ 8,640	\$ 4,000	\$ 4,000

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
Solicitation No. #18-219SDC
Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART 1A - RECHARGE WELL RW-1 (12 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shultes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
1A-10.	Cores - During Pilot Hole or Open Hole Drilling, Provide 10-foot Length, 4-inch Diameter Cores at Selected Intervals, Complete	FT	40	\$ 1,750	\$ 70,000	\$ 290	\$ 11,600	\$ 200	\$ 8,000	\$ 10	\$ 400	\$ 150	\$ 6,000	\$ 950	\$ 38,000
1A-11.	Packer Test Set up - Furnish, Setup, Operate, and Remove all Equip. Necessary to Run Packer Pumping Test, Complete	EA	4	\$ 10,000	\$ 40,000	\$ 35,000	\$ 140,000	\$ 7,500	\$ 30,000	\$ 10,000	\$ 40,000	\$ 12,960	\$ 51,840	\$ 10,000	\$ 40,000
1A-12.	Packer Test Pumping Time, Complete	HR	40	\$ 250	\$ 10,000	\$ 215	\$ 8,600	\$ 300	\$ 12,000	\$ 100	\$ 4,000	\$ 475	\$ 19,000	\$ 250	\$ 10,000
1A-13.	Pumping Test Setup, Complete	LS	1	\$ 40,000	\$ 40,000	\$ 7,200	\$ 7,200	\$ 25,000	\$ 25,000	\$ 10,000	\$ 10,000	\$ 6,480	\$ 6,480	\$ 12,500	\$ 12,500
1A-14.	Pumping Test Pumping Time, Complete	HR	10	\$ 475	\$ 4,750	\$ 215	\$ 2,150	\$ 600	\$ 6,000	\$ 100	\$ 1,000	\$ 660	\$ 6,600	\$ 250	\$ 2,500
1A-15.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 375	\$ 9,000	\$ 215	\$ 5,160	\$ 300	\$ 7,200	\$ 150	\$ 3,600	\$ 515	\$ 12,360	\$ 250	\$ 6,000
1A-16.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,500	\$ 1,500	\$ 15,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 2,400	\$ 2,400	\$ 1,500	\$ 1,500	\$ 3,500	\$ 3,500
1A-17.	Standby Time (Max. 12 hr/day)	HR	40	\$ 125	\$ 5,000	\$ 150	\$ 6,000	\$ 200	\$ 8,000	\$ 20	\$ 800	\$ 360	\$ 14,400	\$ 200	\$ 8,000
1A-18.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	40	\$ 175	\$ 7,000	\$ 300	\$ 12,000	\$ 200	\$ 8,000	\$ 200	\$ 8,000	\$ 360	\$ 14,400	\$ 300	\$ 12,000
1A-19.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02311 for:														
	a. Water Table Monitoring Wells Weekly Compliance Samples	EA	35	\$ 150	\$ 5,250	\$ 200	\$ 7,000	\$ 300	\$ 10,500	\$ 100	\$ 3,500	\$ 150	\$ 5,250	\$ 100	\$ 3,500
	b. Exhibit 1, List A	EA	30	\$ 400	\$ 12,000	\$ 300	\$ 9,000	\$ 200	\$ 6,000	\$ 100	\$ 3,000	\$ 400	\$ 12,000	\$ 200	\$ 6,000
	c. Exhibit 1, List B	EA	8	\$ 1,450	\$ 11,600	\$ 290	\$ 2,320	\$ 700	\$ 5,600	\$ 100	\$ 800	\$ 170	\$ 1,360	\$ 800	\$ 6,400
	d. Exhibit 1, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,300	\$ 2,300	\$ 5,000	\$ 5,000	\$ 100	\$ 100	\$ 3,000	\$ 3,000	\$ 5,000	\$ 5,000

TOTAL PART 1A	\$ 1,330,300	\$ 1,635,210	\$ 1,065,000	\$ 1,457,600	\$ 1,581,080	\$ 1,250,400
submitted price	\$ 1,330,300	\$ 1,635,210	\$ 1,065,000	\$ 1,457,600	\$ 1,581,080	\$ 1,250,400
submitted price minus actual sum based on unit cost	\$	\$ 1,050	\$	\$	\$	\$

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #13-21950C
 Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART IIA- RECHARGE ZONE MONITOR WELL RZMW-1 (12 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shufes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IIA-1.	Mobilize and Demobilize All Equip. to the RZMW-1 Well Site to complete Drilling (in a 24 Hr/Day, 5 Day/Week Schedule) and testing Activities for RZMW-1, Complete, Including Drilling Pad and Four Water Table Monitoring Wells	LS	1	\$ 40,000	\$ 40,000	\$ 68,000	\$ 68,000	\$ 65,000	\$ 65,000	\$ 33,000	\$ 33,000	\$ 55,000	\$ 55,000	\$ 49,000	\$ 49,000
IIA-2.	Set Pit Casing, Complete	LS	1	\$ 35,000	\$ 35,000	\$ 30,000	\$ 30,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 40,000	\$ 40,000	\$ 55,000	\$ 55,000
IIA-3.	Drill Pilot Hole - Drill Nominat 8 to 12-1/4 -inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 110	\$ 33,000	\$ 175	\$ 52,500	\$ 60	\$ 18,000	\$ 85	\$ 25,500	\$ 70	\$ 21,000	\$ 70	\$ 21,000
	b. 1,000 feet (Reverse-air)	FT	700	\$ 85	\$ 59,500	\$ 215	\$ 150,500	\$ 70	\$ 49,000	\$ 55	\$ 38,500	\$ 45	\$ 31,500	\$ 80	\$ 56,000
IIA-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 20-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 100	\$ 30,000	\$ 200	\$ 60,000	\$ 75	\$ 22,500	\$ 135	\$ 40,500	\$ 150	\$ 45,000	\$ 160	\$ 48,000
	b. 14-inch Diameter to 1,000 feet (Reverse-air)	FT	700	\$ 55	\$ 38,500	\$ 160	\$ 112,000	\$ 50	\$ 35,000	\$ 55	\$ 38,500	\$ 125	\$ 87,500	\$ 95	\$ 66,500
	c. 6-inch Diameter to 1,050 feet (Reverse-air)	FT	50	\$ 55	\$ 2,750	\$ 215	\$ 10,750	\$ 50	\$ 2,500	\$ 55	\$ 2,750	\$ 100	\$ 5,000	\$ 100	\$ 5,000
IIA-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 1 of Section 02679 on														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 3,900	\$ 3,900	\$ 5,000	\$ 5,000	\$ 4,500	\$ 4,500	\$ 3,560	\$ 3,560	\$ 4,000	\$ 4,000
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,100	\$ 3,100	\$ 5,000	\$ 5,000	\$ 3,000	\$ 3,000	\$ 3,110	\$ 3,110	\$ 4,000	\$ 4,000
	c. Pilot Hole to 1,000 feet	EA	1	\$ 13,000	\$ 13,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,500	\$ 5,500	\$ 7,440	\$ 7,440	\$ 4,000	\$ 4,000
	d. Reamed Hole to 1,000 feet	EA	1	\$ 6,500	\$ 6,500	\$ 5,000	\$ 5,000	\$ 9,000	\$ 9,000	\$ 3,500	\$ 3,500	\$ 3,210	\$ 3,210	\$ 4,000	\$ 4,000
	e. Completed Well to 1,050 feet	EA	1	\$ 16,000	\$ 16,000	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000	\$ 9,500	\$ 9,500	\$ 7,440	\$ 7,440	\$ 6,000	\$ 6,000
IIA-6.	Furnish and Install Casing														
	a. 14-inch Dia. Carbon Steel	FT	300	\$ 70	\$ 21,000	\$ 100	\$ 30,000	\$ 50	\$ 15,000	\$ 60	\$ 18,000	\$ 75	\$ 22,500	\$ 85	\$ 25,500
	b. 6-inch Dia. Carbon Steel	FT	1000	\$ 46	\$ 46,000	\$ 45	\$ 45,000	\$ 30	\$ 30,000	\$ 40	\$ 40,000	\$ 58	\$ 58,000	\$ 40	\$ 40,000
IIA-7	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type II Cement with up to														
	a. 0% Bentonite (Heat)	Cubic Foot	1500	\$ 25	\$ 37,500	\$ 12	\$ 18,000	\$ 30	\$ 45,000	\$ 16	\$ 24,000	\$ 21	\$ 31,500	\$ 25	\$ 37,500
	b. Up to 6% Bentonite	Cubic Foot	200	\$ 18	\$ 3,600	\$ 15	\$ 3,000	\$ 35	\$ 7,000	\$ 16	\$ 3,200	\$ 20	\$ 4,000	\$ 30	\$ 6,000
	c. Up to 12% Bentonite	Cubic Foot	200	\$ 15	\$ 3,000	\$ 17	\$ 3,400	\$ 20	\$ 4,000	\$ 16	\$ 3,200	\$ 20	\$ 4,000	\$ 35	\$ 7,000
IIA-8.	Gravel - Furnish and Emplace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	5	\$ 400	\$ 2,000	\$ 29	\$ 145	\$ 85	\$ 425	\$ 110	\$ 550	\$ 290	\$ 1,450	\$ 500	\$ 2,500
IIA-9.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 350	\$ 8,400	\$ 215	\$ 5,160	\$ 300	\$ 7,200	\$ 185	\$ 4,440	\$ 515	\$ 12,360	\$ 250	\$ 6,000
IIA-10.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,300	\$ 1,300	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 1,100	\$ 1,100	\$ 500	\$ 500	\$ 3,500	\$ 3,500
IIA-11.	Standby Time (Max. 12 hr/day)	HR	20	\$ 125	\$ 2,500	\$ 150	\$ 3,000	\$ 200	\$ 4,000	\$ 55	\$ 1,100	\$ 360	\$ 7,200	\$ 200	\$ 4,000

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
Solicitation No. #15-2196DC
Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART IIA- RECHARGE ZONE MONITOR WELL RZMW-1 (12 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shultes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
UA-12.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	20	\$ 175	\$ 3,500	\$ 300	\$ 6,000	\$ 200	\$ 4,000	\$ 250	\$ 5,000	\$ 360	\$ 7,200	\$ 300	\$ 6,000
IA-13.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02311 for:														
	a. Water Table Monitoring Wells Weekly Compliance Samples	EA	35	\$ 150	\$ 5,250	\$ 200	\$ 7,000	\$ 300	\$ 10,500	\$ 150	\$ 5,250	\$ 150	\$ 5,250	\$ 100	\$ 3,500
	b. Exhibit I, List A	EA	15	\$ 400	\$ 6,000	\$ 100	\$ 1,500	\$ 200	\$ 3,000	\$ 800	\$ 12,000	\$ 400	\$ 6,000	\$ 200	\$ 3,000
	c. Exhibit I, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,300	\$ 2,300	\$ 5,000	\$ 5,000	\$ 6,600	\$ 6,600	\$ 3,000	\$ 3,000	\$ 5,000	\$ 5,000

TOTAL PART IIA	Actual	\$ 429,500	\$ 640,255	\$ 387,125	\$ 379,190	\$ 472,720	\$ 472,900
	submitted price	\$ 429,500	640,255	\$ 387,125	\$ 379,190	\$ 472,720	\$ 472,900
	submitted price minus actual sum based on unit cost	\$	425	\$	\$	\$	\$

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #15-11930C
 Description of Service: SWWRF Recharge and Monitoring Wells Construction

PART IIIA- SUWANNEE LIMESTONE MONITOR WELL SLMW-1 [12 hours per day 5 days per week drilling schedule]

Pay Item	Description	Unit	Est. QTY	Layne		Shufes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IIIA-1.	Mobilize and Demobilize All Equip. to the SLMW-1 Well Site to complete Drilling (in a 24 Hr/Day, 5 Day/Week Schedule) and testing Activities for SLMW-1, Complete	LS	1	\$ 33,000	\$ 33,000	\$ 47,500	\$ 47,500	\$ 65,000	\$ 65,000	\$ 22,000	\$ 22,000	\$ 40,000	\$ 40,000	\$ 39,000	\$ 39,000
IIIA-2.	Set Pit Casing, Complete	LS	1	\$ 35,000	\$ 35,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 40,000	\$ 40,000	\$ 55,000	\$ 55,000
IIIA-3.	Drill Pilot Hole - Drill Nominal 8 to 12-Inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 110	\$ 33,000	\$ 175	\$ 52,500	\$ 60	\$ 18,000	\$ 85	\$ 25,500	\$ 70	\$ 21,000	\$ 70	\$ 21,000
	b. 650 feet (Reverse-air)	FT	350	\$ 85	\$ 29,750	\$ 215	\$ 75,250	\$ 70	\$ 24,500	\$ 60	\$ 21,000	\$ 45	\$ 15,750	\$ 80	\$ 28,000
IIIA-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 20-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 100	\$ 30,000	\$ 200	\$ 60,000	\$ 75	\$ 22,500	\$ 150	\$ 45,000	\$ 150	\$ 45,000	\$ 160	\$ 48,000
	b. 14-inch Diameter to 650 feet (Reverse-air)	FT	350	\$ 95	\$ 33,250	\$ 160	\$ 56,000	\$ 50	\$ 17,500	\$ 53	\$ 18,550	\$ 125	\$ 43,750	\$ 95	\$ 33,250
	c. 6-inch Diameter to 700 feet (Reverse-air)	FT	50	\$ 55	\$ 2,750	\$ 225	\$ 11,250	\$ 50	\$ 2,500	\$ 55	\$ 2,750	\$ 100	\$ 5,000	\$ 100	\$ 5,000
IIIA-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 1 of Section 02679 on:														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 3,900	\$ 3,900	\$ 5,000	\$ 5,000	\$ 4,900	\$ 4,900	\$ 3,560	\$ 3,560	\$ 4,000	\$ 4,000
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,100	\$ 3,100	\$ 5,000	\$ 5,000	\$ 3,000	\$ 3,000	\$ 3,110	\$ 3,110	\$ 4,000	\$ 4,000
	c. Pilot Hole to 650 feet	EA	1	\$ 12,000	\$ 12,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 4,500	\$ 4,500	\$ 7,440	\$ 7,440	\$ 4,000	\$ 4,000
	d. Reamed Hole to 650 feet	EA	1	\$ 6,500	\$ 6,500	\$ 3,100	\$ 3,100	\$ 5,000	\$ 5,000	\$ 2,500	\$ 2,500	\$ 3,210	\$ 3,210	\$ 4,000	\$ 4,000
	e. Completed Well to 700 feet	EA	1	\$ 15,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000	\$ 8,500	\$ 8,500	\$ 7,440	\$ 7,440	\$ 6,000	\$ 6,000
IIIA-6.	Furnish and Install Casing:														
	a. 14-inch Dia. Carbon Steel	FT	200	\$ 65	\$ 13,000	\$ 100	\$ 20,000	\$ 50	\$ 10,000	\$ 60	\$ 12,000	\$ 75	\$ 15,000	\$ 85	\$ 17,000
	b. 6-inch Dia. Carbon Steel	FT	650	\$ 50	\$ 32,500	\$ 45	\$ 29,250	\$ 30	\$ 19,500	\$ 40	\$ 26,000	\$ 58	\$ 37,700	\$ 40	\$ 26,000
IIIA-7	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type II Cement with up to:														
	a. 0% Bentonite (Neat)	Cubic Foot	850	\$ 25	\$ 21,250	\$ 12	\$ 10,200	\$ 30	\$ 25,500	\$ 16	\$ 13,600	\$ 21	\$ 17,850	\$ 25	\$ 21,250
	b. Up to 6% Bentonite	Cubic Foot	200	\$ 18	\$ 3,600	\$ 15	\$ 3,000	\$ 35	\$ 7,000	\$ 16	\$ 3,200	\$ 20	\$ 4,000	\$ 30	\$ 6,000
	c. Up to 12% Bentonite	Cubic Foot	200	\$ 15	\$ 3,000	\$ 17	\$ 3,400	\$ 20	\$ 4,000	\$ 16	\$ 3,200	\$ 20	\$ 4,000	\$ 35	\$ 7,000
IIIA-8.	Gravel - Furnish and Replace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	5	\$ 400	\$ 2,000	\$ 29	\$ 145	\$ 85	\$ 425	\$ 110	\$ 550	\$ 290	\$ 1,450	\$ 500	\$ 2,500
IIIA-9.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 350	\$ 8,400	\$ 215	\$ 5,160	\$ 300	\$ 7,200	\$ 185	\$ 4,440	\$ 515	\$ 12,360	\$ 250	\$ 6,000
IIIA-10.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,300	\$ 1,300	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 1,100	\$ 1,100	\$ 500	\$ 500	\$ 3,500	\$ 3,500
IIIA-11.	Standby Time (Max. 12 hr/day)	HR	20	\$ 125	\$ 2,500	\$ 150	\$ 3,000	\$ 200	\$ 4,000	\$ 55	\$ 1,100	\$ 360	\$ 7,200	\$ 200	\$ 4,000
IIIA-12.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	20	\$ 175	\$ 3,500	\$ 300	\$ 6,000	\$ 200	\$ 4,000	\$ 250	\$ 5,000	\$ 360	\$ 7,200	\$ 300	\$ 6,000

Project Name: Minnetonka County Southwest Water Reclamation Facility Recharge Well
 Solicitation No.: #15-2198DC
 Description of Services: SUWANNEE Recharge and Monitoring Wells Construction

PART IIIA- SUWANNEE LIMESTONE MONITOR WELL SLMW-1 (12 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shultes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IIA-13.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02911 for:														
	a. Exhibit 1, List A	EA	9	\$ 400	\$ 3,600	\$ 100	\$ 900	\$ 200	\$ 1,800	\$ 800	\$ 7,200	\$ 400	\$ 3,600	\$ 200	\$ 1,800
	b. Exhibit 1, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,300	\$ 2,300	\$ 5,000	\$ 5,000	\$ 6,600	\$ 6,600	\$ 3,000	\$ 3,000	\$ 5,000	\$ 5,000
TOTAL PART IIIA					\$ 332,600		\$ 450,455		\$ 303,425		\$ 298,490		\$ 355,620		\$ 375,800
				submitted price \$	332,600		\$ 450,718		\$ 303,425		\$ 298,490		\$ 355,620		\$ 375,800
				submitted price minus actual sum based on unit cost \$			\$ 263		\$		\$		\$		\$

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No.: #15-2196DC
 Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART IVA- WELL ACIDIZATION (ADD ALTERNATE BID ITEM)

Pay Item	Description	Unit	Est. QTY	Layne		Shults		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IV-1.	Mobilization - If Required, Re-Mobilize all Equip. Necessary to Acidize Recharge Well	EA	1	\$ 7,775	\$ 7,775	\$ 11,200	\$ 11,200	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
IV-2.	Acidization Setup - Setup for Acidization of RW-1. Complete, including well kills	EA	1	\$ 20,000	\$ 20,000	\$ 30,000	\$ 30,000	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000	\$ 25,000	\$ 25,000	\$ 15,000	\$ 15,000
IV-3.	Furnish and Emplace Acid, Complete	1000 GAL	25	\$ 2,100	\$ 52,500	\$ 2,000	\$ 50,000	\$ 2,500	\$ 62,500	\$ 2,750	\$ 68,750	\$ 2,500	\$ 62,500	\$ 7,000	\$ 175,000
IV-4.	Pump Set - Set Pump and Discharge Line for Post Acid Development, Complete	EA	1	\$ 3,500	\$ 3,500	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 15,000	\$ 15,000
IV-5.	Development Time	HR	24	\$ 315	\$ 5,160	\$ 200	\$ 4,800	\$ 400	\$ 9,600	\$ 100	\$ 2,400	\$ 250	\$ 6,000	\$ 250	\$ 6,000
TOTAL PART IV					\$ 88,935		\$ 196,000		\$ 87,100		\$ 101,150		\$ 118,500		\$ 226,000

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No: #15-21950C
 Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART 1B - RECHARGE WELL RW-1 (24 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shufes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
1B-1.	Mobilize and Demobilize All Equip. to the RW-1 Well Site to Complete Drilling (in a 12 Hr/Day, 5 Day/Week Schedule) and existing Activities for RW-1, Complete, including Drilling Pad and Four Water Table Monitoring Wells	LS	1	\$ 110,000	\$ 110,000	\$ 350,000	\$ 350,000			\$ 50,000	\$ 50,000				
1B-2.	Set Pit Casing, Complete	LS	1	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000			\$ 100,000	\$ 100,000				
1B-3	Drill Pilot Hole - Drill Nominal 8 to 12-1/2 -inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 90	\$ 27,000	\$ 219	\$ 63,000			\$ 200	\$ 90,000				
	b. 2,100 feet (Reverse-air)	FT	1,800	\$ 70	\$ 126,000	\$ 259	\$ 464,400			\$ 250	\$ 450,000				
1B-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 42-4-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 185	\$ 55,500	\$ 250	\$ 75,000			\$ 250	\$ 75,000				
	b. 34-inch Diameter to 1,000 feet (Reverse-air)	FT	700	\$ 125	\$ 87,500	\$ 200	\$ 140,000			\$ 175	\$ 122,500				
	c. 23-inch Diameter up to 2,100 feet (Reverse-air)	FT	1,100	\$ 70	\$ 77,000	\$ 258	\$ 283,800			\$ 50	\$ 55,000				
1B-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 3 of Section 02679 on														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 4,680	\$ 4,680			\$ 5,000	\$ 5,000				
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,720	\$ 3,720			\$ 5,000	\$ 5,000				
	c. Pilot Hole to 1,000 feet	EA	1	\$ 12,000	\$ 12,000	\$ 5,000	\$ 5,000			\$ 5,000	\$ 5,000				
	d. Reamed Hole to 1,000 feet	EA	1	\$ 6,500	\$ 6,500	\$ 5,000	\$ 5,000			\$ 5,000	\$ 5,000				
	e. Pilot hole up to 2,100 feet	EA	1	\$ 15,000	\$ 15,000	\$ 5,240	\$ 5,240			\$ 5,000	\$ 5,000				
	f. Completed Well up to 2,100 feet	EA	1	\$ 18,000	\$ 18,000	\$ 6,240	\$ 6,240			\$ 5,000	\$ 5,000				
	g. Temperature Log Following Each Cement Stage	EA	3	\$ 4,200	\$ 12,600	\$ 1,800	\$ 5,400			\$ 2,500	\$ 7,500				
1B-6.	Furnish and Install Casing:														
	a. 34-inch Dia. Carbon Steel	FT	300	\$ 195	\$ 58,500	\$ 174	\$ 52,200			\$ 200	\$ 60,000				
	b. 24-inch Dia. Carbon Steel	FT	1000	\$ 180	\$ 180,000	\$ 104	\$ 104,000			\$ 250	\$ 250,000				
1B-7	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type II Cement with up to:														
	a. 0% Bentonite (Neat)	Cubic Foot	3200	\$ 25	\$ 80,000	\$ 25	\$ 80,000			\$ 15	\$ 48,000				
	b. Up to 6% Bentonite	Cubic Foot	1000	\$ 18	\$ 18,000	\$ 18	\$ 18,000			\$ 15	\$ 15,000				
	c. Up to 12% Bentonite	Cubic Foot	1000	\$ 15	\$ 15,000	\$ 20	\$ 20,000			\$ 15	\$ 15,000				
1B-8.	Gravel - Furnish and Emplace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	20	\$ 400	\$ 8,000	\$ 35	\$ 700			\$ 100	\$ 2,000				
1B-9.	Pressure Test Casing - Successfully Complete Pressure Test on Final 24-inch Casing Prior to Drilling Out Plug, Complete	LS	1	\$ 12,000	\$ 12,000	\$ 25,800	\$ 25,800			\$ 5,000	\$ 5,000				

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #15-218SDC
 Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART (B - RECHARGE WELL RW-1 (24 hours per day 5 days per week drilling schedule))

Pay Item	Description	Unit	Est. QTY	Layne		Shults		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
1B-10.	Cores - During Pilot Hole or Open Hole Drilling, Provide 10-foot Length, 4-inch Diameter Cores at Selected Intervals, Complete	FT	40	\$ 1,750	\$ 70,000	\$ 348	\$ 13,920		\$ -	\$ 10	\$ 400		\$ -		\$ -
1B-11.	Packer Test Set up - Furnish, Setup, Operate, and Remove all Equip. Necessary to Run Packer Pumping Test, Complete	EA	4	\$ 9,000	\$ 36,000	\$ 35,000	\$ 140,000		\$ -	\$ 10,000	\$ 40,000		\$ -		\$ -
1B-12.	Packer Test Pumping Time, Complete	HR	40	\$ 250	\$ 10,000	\$ 258	\$ 10,320		\$ -	\$ 100	\$ 4,000		\$ -		\$ -
1B-13.	Pumping Test Setup, Complete	LS	1	\$ 40,000	\$ 40,000	\$ 8,640	\$ 8,640		\$ -	\$ 10,000	\$ 10,000		\$ -		\$ -
1B-14.	Pumping Test Pumping Time, Complete	HR	10	\$ 475	\$ 4,750	\$ 258	\$ 2,580		\$ -	\$ 100	\$ 1,000		\$ -		\$ -
1B-15.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 375	\$ 9,000	\$ 258	\$ 6,192		\$ -	\$ 350	\$ 3,600		\$ -		\$ -
1B-16.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,500	\$ 1,500	\$ 15,000	\$ 15,000		\$ -	\$ 2,400	\$ 2,400		\$ -		\$ -
1B-17.	Standby Time (Max. 12 hr/day)	HR	40	\$ 125	\$ 5,000	\$ 150	\$ 6,000		\$ -	\$ 20	\$ 800		\$ -		\$ -
1B-18.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	40	\$ 175	\$ 7,000	\$ 300	\$ 12,000		\$ -	\$ 200	\$ 8,000		\$ -		\$ -
1B-19.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02311 for														
	a. Water Table Monitoring Wells Weekly Compliance Samples	EA	20	\$ 150	\$ 3,000	\$ 200	\$ 4,000		\$ -	\$ 100	\$ 2,000		\$ -		\$ -
	b. Exhibit 1, List A	EA	30	\$ 400	\$ 12,000	\$ 100	\$ 3,000		\$ -	\$ 100	\$ 3,000		\$ -		\$ -
	c. Exhibit 1, List B	EA	8	\$ 1,450	\$ 11,600	\$ 348	\$ 2,784		\$ -	\$ 100	\$ 800		\$ -		\$ -
	d. Exhibit 1, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,760	\$ 2,760		\$ -	\$ 100	\$ 100		\$ -		\$ -

TOTAL PART B	\$ 1,202,650	\$ 1,960,876	\$ -	\$ 1,458,100	\$ -	\$ -
submitted price	\$ 1,202,650	\$ 1,962,112		\$ 1,458,100		
submitted price minus actual sum based on unit cost	\$ -	\$ 1,136		\$ -		

Project Name: Maricopa County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #16-2199DC
 Description of Services: SWWRP Recharge and Monitoring Wells Construction

PART IIB- RECHARGE ZONE MONITOR WELL RZMW-1 (24 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shukles		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IIB-1.	Mobilize and Demobilize All Equip. to the RZMW-1 Well Site to complete Drilling (in a 12 Hr/Day, 5 Day/Week Schedule) and testing Activities for RZMW-1, Complete, including Drilling Pad and Four Water Table Monitoring Wells	LS	1	\$ 33,000	\$ 33,000	\$ 81,600	\$ 81,600	\$ -	\$ 33,000	\$ 33,000	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-2.	Set Pit Casing, Complete	LS	1	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-3.	Drill Pilot Hole - Drill Nominal 8 to 12-1/4 -inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 75	\$ 22,500	\$ 210	\$ 63,000	\$ -	\$ 85	\$ 25,500	\$ -	\$ -	\$ -	\$ -	\$ -
	b. 1,000 feet (Reverse-air)	FT	700	\$ 50	\$ 35,000	\$ 258	\$ 180,600	\$ -	\$ 55	\$ 38,500	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 20-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 90	\$ 27,000	\$ 200	\$ 60,000	\$ -	\$ 135	\$ 40,500	\$ -	\$ -	\$ -	\$ -	\$ -
	b. 14-inch Diameter to 1,000 feet (Reverse-air)	FT	700	\$ 45	\$ 31,500	\$ 192	\$ 134,400	\$ -	\$ 55	\$ 38,500	\$ -	\$ -	\$ -	\$ -	\$ -
	c. 6-inch Diameter to 1,050 feet (Reverse-air)	FT	50	\$ 45	\$ 2,250	\$ 258	\$ 12,900	\$ -	\$ 55	\$ 2,750	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 1 of Section 02679 or:														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 4,680	\$ 4,680	\$ -	\$ 4,500	\$ 4,500	\$ -	\$ -	\$ -	\$ -	\$ -
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,720	\$ 3,720	\$ -	\$ 3,000	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ -
	c. Pilot Hole to 1,000 feet	EA	1	\$ 12,000	\$ 12,000	\$ 5,040	\$ 5,040	\$ -	\$ 5,500	\$ 5,500	\$ -	\$ -	\$ -	\$ -	\$ -
	d. Reamed Hole to 1,000 feet	EA	1	\$ 6,500	\$ 6,500	\$ 5,000	\$ 5,000	\$ -	\$ 3,500	\$ 3,500	\$ -	\$ -	\$ -	\$ -	\$ -
	e. Completed Well to 1,050 feet	EA	1	\$ 15,000	\$ 15,000	\$ 5,040	\$ 5,040	\$ -	\$ 9,500	\$ 9,500	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-6.	Furnish and Install Casing:														
	a. 14-inch Dia. Carbon Steel	FT	300	\$ 65	\$ 19,500	\$ 110	\$ 33,000	\$ -	\$ 60	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -
	b. 6-inch Dia. Carbon Steel	FT	1000	\$ 40	\$ 40,000	\$ 55	\$ 55,000	\$ -	\$ 40	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-7.	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type II Cement with up to:														
	a. 0% Bentonite (Neat)	Cubic Foot	1500	\$ 25	\$ 37,500	\$ 15	\$ 22,500	\$ -	\$ 16	\$ 24,000	\$ -	\$ -	\$ -	\$ -	\$ -
	b. Up to 6% Bentonite	Cubic Foot	200	\$ 18	\$ 3,600	\$ 18	\$ 3,600	\$ -	\$ 16	\$ 3,200	\$ -	\$ -	\$ -	\$ -	\$ -
	c. Up to 12% Bentonite	Cubic Foot	200	\$ 15	\$ 3,000	\$ 20	\$ 4,000	\$ -	\$ 16	\$ 3,200	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-8.	Gravel - Furnish and Replace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	5	\$ 400	\$ 2,000	\$ 35	\$ 175	\$ -	\$ 110	\$ 550	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-9.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 350	\$ 8,400	\$ 258	\$ 6,192	\$ -	\$ 185	\$ 4,440	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-10.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,300	\$ 1,300	\$ 10,000	\$ 10,000	\$ -	\$ 1,100	\$ 1,100	\$ -	\$ -	\$ -	\$ -	\$ -
IIB-11.	Standby Time (Max. 12 hr/day)	HR	20	\$ 125	\$ 2,500	\$ 150	\$ 3,000	\$ -	\$ 55	\$ 1,100	\$ -	\$ -	\$ -	\$ -	\$ -

Project Name: Muskegon County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #16-219BDC
 Description of Services: BWWRF Recharge and Monitoring Wells Construction

PART IIB- RECHARGE ZONE MONITOR WELL RZMW-1 (24 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shutes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
HB-12.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	20	\$ 175	\$ 3,500	\$ 300	\$ 6,000		\$ -	\$ 250	\$ 5,000		\$ -		\$ -
HB-13.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02311 for:														
	a. Water Table Monitoring Wells Weekly Compliance Samples	EA	15	\$ 150	\$ 2,250	\$ 200	\$ 3,000		\$ -	\$ 150	\$ 2,250		\$ -		\$ -
	b. Exhibit 1, List A	EA	15	\$ 400	\$ 6,000	\$ 100	\$ 1,500		\$ -	\$ 800	\$ 12,000		\$ -		\$ -
	c. Exhibit 1, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,760	\$ 2,760		\$ -	\$ 6,600	\$ 6,600		\$ -		\$ -

TOTAL PART IIB	\$ 359,500	\$ 736,767	\$ -	\$ 374,190	\$ -	\$ -
submitted price	\$ 359,500	\$ 736,396		\$ 374,190		
submitted price minus actual sum based on unit cost	\$ -	\$ (371)		\$ -		

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No.: #15-21950C
 Description of Services: SSWRF Recharge and Monitoring Wells Construction

PART IIB- SUWANNEE LIMESTONE MONITOR WELL SLMW-1 (24 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. Qty	Layne		Shultes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
IIB-1.	Mobile and Demobilize All Equip. to the SLMW-1 Well site to complete Drilling (in a 12 Hr/Day, 5 Days/Week schedule) and testing Activities for SLMW-1, Complete	LS	1	\$ 31,000	\$ 31,000	\$ 75,000	\$ 75,000			\$ 22,000	\$ 22,000				
IIB-2.	Set PN Casing, Complete	LS	1	\$ 30,000	\$ 30,000	\$ 25,000	\$ 25,000			\$ 50,000	\$ 50,000				
IIB-3.	Drill Pilot Hole - Drill Nominal 6 to 12-1/2 -inch Dia. Pilot Hole Using Mud Rotary or Reverse-Air Drilling Techniques, Complete to Depth of:														
	a. 300 feet (Mud Rotary)	FT	300	\$ 75	\$ 22,500	\$ 210	\$ 63,000			\$ 85	\$ 25,500				
	b. 650 feet (Reverse-air)	FT	350	\$ 75	\$ 26,250	\$ 258	\$ 90,300			\$ 60	\$ 21,000				
IIB-4.	Pilot Hole Reaming or Open Hole to Depth of:														
	a. 20-inch Diameter to 300 feet (Mud Rotary)	FT	300	\$ 90	\$ 27,000	\$ 200	\$ 60,000			\$ 150	\$ 45,000				
	b. 14-inch Diameter to 650 feet (Reverse-air)	FT	350	\$ 45	\$ 15,750	\$ 192	\$ 67,200			\$ 55	\$ 19,250				
	c. 6-inch Diameter to 700 feet (Reverse-air)	FT	50	\$ 40	\$ 2,000	\$ 258	\$ 12,900			\$ 33	\$ 2,750				
IIB-5.	Geophysical Logging - Furnish, Setup, Operate, and Remove all Equip. to Conduct Geophysical Logs in Accordance with Table 1 of Section 02679 on:														
	a. Pilot Hole to 300 feet	EA	1	\$ 6,000	\$ 6,000	\$ 4,680	\$ 4,680			\$ 4,500	\$ 4,500				
	b. Reamed Hole to 300 feet	EA	1	\$ 4,500	\$ 4,500	\$ 3,720	\$ 3,720			\$ 3,000	\$ 3,000				
	c. Pilot Hole to 650 feet	EA	1	\$ 15,000	\$ 15,000	\$ 5,040	\$ 5,040			\$ 4,500	\$ 4,500				
	d. Reamed Hole to 650 feet	EA	1	\$ 6,500	\$ 6,500	\$ 3,720	\$ 3,720			\$ 2,500	\$ 2,500				
	e. Completed Well to 700 feet	EA	1	\$ 18,000	\$ 18,000	\$ 5,040	\$ 5,040			\$ 8,500	\$ 8,500				
IIB-6.	Furnish and Install Casing:														
	a. 14-inch Dia. Carbon Steel	FT	300	\$ 45	\$ 13,500	\$ 110	\$ 33,000			\$ 60	\$ 18,000				
	b. 6-inch Dia. Carbon Steel	FT	650	\$ 50	\$ 32,500	\$ 55	\$ 35,750			\$ 40	\$ 26,000				
IIB-7.	Grout Casing - Grout Carbon Steel Casing from Bottom to Land Surface and Pilot Holes Prior to Reaming Using ASTM Type III Cement with up to:														
	a. 0% Bentonite (Neat)	Cubic Foot	850	\$ 25	\$ 21,250	\$ 15	\$ 12,750			\$ 16	\$ 13,600				
	b. Up to 6% Bentonite	Cubic Foot	200	\$ 18	\$ 3,600	\$ 18	\$ 3,600			\$ 16	\$ 3,200				
	c. Up to 12% Bentonite	Cubic Foot	200	\$ 15	\$ 3,000	\$ 20	\$ 4,000			\$ 16	\$ 3,200				
IIB-8.	Gravel - Furnish and Emplace Clean Gravel Used to Plug Cavities, Complete	Cubic Yard	5	\$ 400	\$ 2,000	\$ 35	\$ 175			\$ 110	\$ 550				
IIB-9.	Development - Develop Well by Air Lifting, Complete	HR	24	\$ 350	\$ 8,400	\$ 258	\$ 6,192			\$ 185	\$ 4,440				
IIB-10.	Temporary Wellhead - Complete Wellhead in accordance with the Drawings, Complete	LS	1	\$ 1,300	\$ 1,300	\$ 10,000	\$ 10,000			\$ 1,300	\$ 1,300				
IIB-11.	Standby Time (Max. 12 hr/day)	HR	20	\$ 125	\$ 2,500	\$ 150	\$ 3,000			\$ 55	\$ 1,100				
IIB-12.	Extra Work - Furnish Drilling Rig and Crew to Perform Extra Work Not Included in the Specifications When Directed by the ENGINEER, Complete	HR	20	\$ 175	\$ 3,500	\$ 300	\$ 6,000			\$ 250	\$ 5,000				

Project Name: Manatee County Southwest Water Reclamation Facility Recharge Well
 Solicitation No. #18-3185DC
 Description of Services: SWWRF Recharge and Monitoring Wells Construction

PART IIIB- SUWANNEE LIMESTONE MONITOR WELL SLMW-1 (24 hours per day 5 days per week drilling schedule)

Pay Item	Description	Unit	Est. QTY	Layne		Shultes		SE DRILLING		FD Drilling		Hausinger & Ass.		Rowe	
				Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item	Unit Cost	Computed Total Price for Item
III-B-13.	Water Sampling - Collect, Analyze, and Report Water Samples in Accordance with Section 02311 for:														
	a. Exhibit 1, List A	EA	9	\$ 400	\$ 3,600	\$ 100	\$ 900		\$ -	\$ 800	\$ 7,200		\$ -		\$ -
	b. Exhibit 1, List C	EA	1	\$ 4,700	\$ 4,700	\$ 2,760	\$ 2,760		\$ -	\$ 6,600	\$ 6,600		\$ -		\$ -

TOTAL PART IIIB	\$ 310,350	\$ 533,727	\$ -	\$ 298,490	\$ -	\$ -
submitted price	\$ 310,350	\$ 533,611.00		\$ 298,490		
submitted price minus actual sum based on unit cost	\$ -	\$ (116)		\$ -		