

AUTHORIZATION No. 92
TO
AGREEMENT BETWEEN
CITY OF SMITHVILLE, MISSOURI
AND
HDR ENGINEERING, INC.
FOR
PROFESSIONAL ENGINEERING SERVICES

SMITH'S FORK PUMP STATION

In accordance with Section 1.A. of the December 18, 2003 Agreement, ENGINEER is hereby authorized to provide engineering services for the design, bidding and construction of the Smith's Fork Pump Station Replacement.

Background

The Smith's Fork Pump Station is located in the camp ground to the west of the Smithville Lake Dam on property owned by the United States Army Corps of Engineers (COE). The pump station receives domestic wastewater flow from other residential pump stations and serves the camp ground and park facilities west of the dam. In recent years the pump station has flooded, damaging electrical equipment at the pump station.

This Authorization is for the following engineering work:

- Preparation of engineering design and construction documents for the replacement of the existing Smith's Fork Pump Station.
- Review the capacity and design the new pump station for possible future flow.
- Raise the elevation of the pump station approximately six (6) feet to reduce the potential for flood waters overtopping the new pump station. Pump station will be located outside of the 100 year flood plain.
- Prepare a new easement for the new pump station site on COE property (3 parcels).

SCOPE

1. Engineer will perform data collection to obtain the necessary information to prepare drawings and specifications. The work will include the following:
 - a. Kick off meeting with the City to review the scope and obtain existing information about the pump station from the City.
 - b. Topographic and boundary survey
 - c. Preparation of one easement encompassing three (3) COE owned parcels.
 - d. Three (3) meetings with the COE to review design.
 - e. Geotechnical investigation to obtain soil borings, rock and water elevations to assist with design and construction of the elevated pump station, valve vault and generator.
 - f. Utility coordination for the increased electrical capacity of the pump station.
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2. ENGINEER will prepare design drawings and specifications for the bidding and construction of the new elevated Smith Forks Pump Station near the existing pump station site. The work will include
 - a. Preliminary design to finalize design flows, size pumps, and determine pump station layout.
 - b. Preparation of a design memorandum to be submitted to the Missouri Department of Natural Resources (MDNR).
 - c. Preparation of approximately fourteen (14) drawings.
 - d. Preparation of technical specifications.
 - e. Attend two (2) design review meetings with the City.
 - f. Preparation of four (4) permits as follows:
 - i. MDNR Construction Permit
 - ii. Flood Proof Certification
 - iii. Flood Plain Development Permit (assumes a No Rise certification is not required as the pump station will be located outside the 100 year flood plain. Revisions to the FEMA Flood Plain mapping (CLOMR/LOMR) are not included in the current scope.
 - iv. MDNR Land Disturbance Permit.
3. ENGINEER will assist with Bidding the project as follows;
 - a. This project will be combined with Authorization 89 - Raw Water Pump Station. As such the preparation of the advertisement, submittal of plans and specifications to Drexel Technologies for distribution to potential bidders, Bid evaluation, and preparation of contract documents are included in Authorization 89.
 - b. Answer questions from potential bidders and suppliers.
 - c. Prepare two (2) addendums if needed
4. Engineer will assist the OWNER with Construction Administration of the project as follows:
 - a. Attend preconstruction and monthly progress meetings, eleven meetings total
 - b. Review pay applications submitted by the Contractor
 - c. Perform special progress inspections of the work. Engineer is not providing a full time resident project representative.
 - d. Review shop drawings to be sure they conform to the contract documents
 - e. Review and evaluate change orders and Field Orders.
 - f. Perform substantial completion inspection
 - g. Perform final completion inspection
 - h. Prepare record drawings
 - i. Review Operation and Maintenance manuals submitted by the Contractor.
5. Engineer will perform internal project management and administration, quality control and technical review of the construction documents, and develop a project specific safety plan, as required for the development of the project.

FEE

The CITY shall compensate ENGINEER for the Design, Bidding, and Construction Administration assistance of the SMITHS FORK PUMP STATION in the amount of \$158,000.00.

SCHEDULE

Task(s) one and two shall be completed within 160 calendar days from notice-to-proceed.

This AUTHORIZATION shall be binding on the parties hereto only after it has been duly executed and approved by the CITY and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this AGREEMENT in duplicate on the respective dates indicated below.

CITY: SMITHVILLE, MISSOURI

By: _____

Type or Print Name

Title _____

Date _____

ENGINEER: HDR Engineering, Inc. (formally
E.T. ARCHER CORPORATION)

By:  _____
Joseph Drimmel (Sep 9, 2020 16:30 CDT)

Joseph Drimmel, P.E.

Type or Print Name

Title Senior Vice President _____

Date Sep 9, 2020 _____

**Smithville Authorization No 92 for Smiths Fork PS
Scope and Fee**

	Bresette, Aaron J	Newport, Kenton L	Hess, Brent	Boyd, Thomas K III	Buechler, Kathleen M	Wiseman, David L	Hopson, Anthony J	Craft, Robert Anthony	Hardee, Ronald B Water Resource Engr	Sherman, William A	Yakle, Johnny R	Ly, Pheng	Meyer, Timothy C	Jasper, James F	Harkins, Jeremy	Mynatt, Andrea B	Claytor, Stephanie	HDR Expenses	Subconsultants	Total
<i>Project Role</i>	<i>Sr. PM</i>	<i>Design Mgr.</i>	<i>Design EIT</i>	<i>Elect. Engr</i>	<i>Sr. Elect. Engr</i>	<i>Sr Struct Engr</i>	<i>Struct Engr</i>	<i>Struct EIT</i>	<i>Sr. CADD Tech</i>	<i>Sr. Land Surveyor</i>	<i>Survey Crew</i>	<i>Survey Crew</i>	<i>Survey Tech</i>	<i>Admin</i>	<i>Admin</i>	<i>Admin Assistant</i>				
Billing Rate	\$225.00	\$195.00	\$110.00	\$135.00	\$250.00	\$250.00	\$160.00	\$110.00	\$160.00	\$130.00	\$160.00	\$120.00	\$80.00	\$120.00	\$95.00	\$95.00	\$80.00			
TASKS																				
A. Task 1 - Data Collection																				
1	2	4	8	4			4											\$100		\$3,390
2		1									5	12	24					\$330		\$4,685
3		1							8	4				3				\$350		\$2,585
										11				11				\$600		\$3,680
4	4	6																\$140		\$2,210
5		1				2	2												\$6,000	\$7,015
6		1	4	4						1										\$1,335
Subtotal Hours	6	14	12	8	0	2	6	0	0	8	21	12	24	14	0	0	0			
Subtotal Dollars	1350	2730	1320	1080	0	500	960	0	0	1040	3360	1440	1920	1680	0	0	0	1520	6000	\$24,900
Total Task 1																				\$24,900
B. Task 2 - Design																				
1		8	16	8			4	8	4	8										\$7,600
2	4	4	16	4			2	2	2	8							8	\$60		\$6,580
3		16	24	24			8	16		160								\$100		\$32,940
4		16	24	24			8	16	4								32	\$65		\$15,305
5		8	4	4			4											\$80		\$3,260
6		1	4																	\$635
7		1	4							16								\$110		\$3,305
8		1	4						4									\$300		\$1,575
Subtotal Hours	4	55	96	64	0	0	26	42	30	176	0	0	0	0	0	0	40			
Subtotal Dollars	900	10725	10560	8640	0	0	4160	4620	4800	22880	0	0	0	0	0	0	3200	715	0	\$71,200
Total Task 2																				\$71,200
C. Task 3 - Bid Phase																				
1																				\$0
2		4	6	2			1	2												\$2,090
3																				\$0
4		2	8	2			1	2	2	8							8	\$90		\$4,010
5																				\$0
6																				\$0
Subtotal Hours	0	6	14	4	0	0	2	4	2	8	0	0	0	0	0	0	8			
Subtotal Dollars	0	1170	1540	540	0	0	320	440	320	1040	0	0	0	0	0	0	640	90	0	\$6,100
Total Task 3																				\$6,100



**Smithville Authorization No 92 for Smiths Fork PS
Scope and Fee**

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Project Role	Sr. PM	Design Mgr.	Design EIT	Elect. Engr	Sr. Elect. Engr	Sr Struct Engr	Struct Engr	Struct EIT		Sr. CADD Tech	Sr. Land Surveyor	Survey Crew	Survey Crew	Survey Tech	Admin	Admin	Admin Assistant				
Billing Rate	\$225.00	\$195.00	\$110.00	\$135.00	\$250.00	\$250.00	\$160.00	\$110.00	\$160.00	\$130.00	\$160.00	\$120.00	\$80.00	\$120.00	\$95.00	\$95.00	\$80.00				
TASKS																					
D. Task 4 - Construction Phase																					
1	Pre Construction Meeting/ Monthly Progress Meetings (11 total)	6	33	33														\$660		\$12,075	
2	Payment Applications - Project Oversight		4	8																\$1,660	
3	Special Progress Inspections		8	16	16			16												\$7,240	
4	Shop Drawing Review		8	16	16			12												\$6,800	
5	RFIs, Change Requests, Field Orders		8	16	4		2	8	2											\$5,380	
6	Substantial Completion Inspection		4	4	4		4											\$60		\$2,460	
7	Final Completion Inspection		4	4	4													\$60		\$1,820	
8	Record Drawings		2	4	2				16									\$145		\$3,325	
9	O&M Manual Review		2	8	2															\$1,540	
	Subtotal Hours	6	73	109	48	0	0	6	36	2	16	0	0	0	0	0	0	0	0		
	Subtotal Dollars	1350	14235	11990	6480	0	0	960	3960	320	2080	0	0	0	0	0	0	925	0	\$42,300	
	Total Task 4																			\$42,300	
E. Task 5 - Project Management																					
1	Project Setup and Administration	18	12													12	12			\$8,670	
2	QA/QC	6	2	2		4	4											\$40		\$4,000	
3	Safety Plan	1	1	2												2				\$830	
	Subtotal Hours	25	15	4	0	4	4	0	0	0	0	0	0	0	0	12	14	0	0		
	Subtotal Dollars	5625	2925	440	0	1000	1000	0	0	0	0	0	0	0	0	1140	1330	0	40	\$13,500	
	Total Task 5																			\$13,500	
	Total Hours	41	163	235	124	4	6	40	82	34	208	21	12	24	14	12	14	48		1,082	
	Total Billing Amount	\$9,225	\$31,785	\$25,850	\$16,740	\$1,000	\$1,500	\$6,400	\$9,020	\$5,440	\$27,040	\$3,360	\$1,440	\$1,920	\$1,680	\$1,140	\$1,330	\$3,840	\$3,290	\$6,000	\$158,000

Estimated Project Fee \$158,000