

TASK ORDER FOR

FOR PROFESSIONAL SERVICES

In accordance with the Spotsylvania County Contract Agreement for Professional Services, Task Order #07 and Proposal for Pump Station #23 & Pump Station #24 Replacement Project is made as of _____, 2018 by and between Spotsylvania County, a political subdivision of the Commonwealth of Virginia, hereinafter referred to as the ("COUNTY"); and RUMMEL, KLEPPER & KAHL, LLP (RK&K) a Maryland Limited Liability Partnership licensed to do business in the Commonwealth of Virginia ("CONTRACTOR").

WITNESSETH:

WHEREAS the COUNTY and the CONTRACTOR entered into an Agreement made as of May 25, 2016, which was subsequently modified by “Modification #1 to Spotsylvania County Contract Agreement for Professional Services” dated June 3, 2016 and subsequently renewed by “Modification #2 to Spotsylvania County Agreement for Professional Engineering Services” dated May 10, 2017 and subsequently renewed by “Modification #3 to Spotsylvania County Agreement for Professional Engineering Services” dated May 9, 2018 to provide professional engineering services for Spotsylvania County, and

NOW, THEREFORE, the COUNTY and the CONTRACTOR, pursuant to the Agreement, and in consideration of the mutual promises herein contained, and intending to be legally bound, do hereby agree to accept this Task Order #07 and the Proposal, dated June 14, 2018 and prepared by CONTRACTOR attached hereto, and made a part hereof. The Task Order and Proposal for Pump Station #23 & Pump Station #24 Replacement Project shall not exceed FOUR HUNDRED TWENTY THOUSAND FIVE HUNDRED THIRTY-SEVEN DOLLARS (\$420,537.00).

Except as provided herein, the AGREEMENT remains unchanged and in full force and effect. Any conflict which may exist between the terms of this Task Order #07 and the underlying Agreement shall be resolved in favor of the terms in the AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have caused this Task Order #07 and Proposal for Pump Station #23 & Pump Station #24 Replacement Project to be duly executed by their duly authorized officials as of the date first written above.

SPOTSYLVANIA COUNTY, VIRGINIA RUMMEL, KLEPPER & KAHL, LLP (RK&K)

By: _____
Mark B. Taylor Dated _____
County Administrator

By: _____
Michael W. Myers Dated _____
Partner

Approved as to form:

 9/26/18
Asst COUNTY ATTORNEY Dated



June 14, 2018

Mr. Ronnie Baker
Project Manager
Spotsylvania Utilities / Public Works Department
Director, Engineering & Construction Division
600 Hudgins Road
Fredericksburg, VA 22408

RE: Spotsylvania County Contract Agreement For Professional Services (Contract #16-16-TV-04)
Task Order #07 – Pump Station 23 & Pump Station 24 Replacement Project

Dear Mr. Baker:

RK&K is pleased to present our proposal to assist Spotsylvania County with design services for this sanitary sewer project. The purpose of this project is to install approximately 3,800 linear feet of force main replacing existing force main and approximately 4,300 linear feet of water main replacing existing water main, and to install approximately 500 linear feet of new gravity sanitary sewer. The project also includes the relocation and replacement of Pump Stations #24 and #23.

We appreciate the opportunity to submit this proposal and look forward to working with you on this important project. Should you have any questions, please do not hesitate to contact me at 703-232-6981.

Sincerely,

Rummel, Klepper & Kahl, LLP

Michael A. Klevenz, P.E.
Senior Manager, Municipal Engineering

7/6/18
Benjamin L. Loveday, P.E.
Deputy Director
Utilities/Public Works
County of Spotsylvania, VA

cc: Michael Myers – RK&K
Jeff Kapinos – RK&K

SCOPE OF SERVICES

SPOTSYLVANIA COUNTY CONTRACT AGREEMENT FOR PROFESSIONAL SERVICES (Contract #16-16-TV-04)

Task Order #07 – Pump Station 23 & Pump Station 24 Replacement Project June 14, 2018

PROJECT DESCRIPTION

RK&K has completed the Preliminary Engineering Report (PER) for the above referenced project, and Spotsylvania County has requested RK&K to proceed with the design phase of this project. The project involves the abandonment of existing Pump Station #24, and its replacement with a new pump station, east of the Ni River. Approximately 3,600 linear feet of new force main will be installed from the new pump station up to Pump Station #23, which will be rebuilt/replaced adjacent to its current location. There will be approximately 530 linear feet of gravity sewer. The existing water main that parallels the existing force main will also be replaced with approximately 4,300 linear feet of new water main, and the existing water main will be abandoned. A preliminary construction cost estimate is also included as an attachment.

SCOPE OF WORK

Rummel, Klepper & Kahl, LLP (RK&K) will provide Professional Engineering Services to Spotsylvania County for the development of design documents for this project. Based on our revised PER and subsequent meetings with the Spotsylvania County, the following scope of work is presented:

1. **Data Acquisition, Surveying, Base Map Development, and Easement Plats** – RK&K will obtain available information about the project site through Spotsylvania County provided as-builts and GIS. Subsurface utility engineering (SUE) will consist of calling Miss Utility to mark the project area. A topographic field survey (approximately 100-foot wide swath with 1-foot contours) will be conducted along the proposed alignment by our surveying subconsultant (SDI) and used to confirm and supplement the existing information; refer to SDI's proposal (attached) for a detailed breakdown of their services. Field verification of the base map will be conducted by RK&K prior to preparing the design drawings. It is our understanding that up to five (5) easement plats may be required. It is assumed that the County will obtain the easements and provide easement dedication documents. A detailed tree survey is not included.
2. **Sanitary Sewer Main Design** – RK&K will design approximately 3,800 linear feet of new 12-inch force main and 530 linear feet of new gravity sewer, per Spotsylvania's standards and requirements. The new pipeline will generally parallel the existing sanitary sewer between Pump Station #24 and Pump Station #23, but the actual location of the new sewer will be determined based on the field survey. RK&K will coordinate with SDI for the connection of the new force main to the Lake Bottom Municipal Improvements gravity sewer, which is currently under design. RK&K will prepare plan and profile drawings, specifications, and opinion of probable construction costs for the new force main and gravity sewer.
3. **Water Transmission Main Design** – RK&K will design approximately 4,300 linear feet of new 12-inch or 16-inch water transmission main, per Spotsylvania's standards and requirements; Spotsylvania County will confirm the size of the new water main prior RK&K proceeding with design. The new pipeline will generally parallel the existing water main between Pump Station #24 and Pump Station #23, but the actual location of the new water main will be determined based on the field survey. RK&K will prepare plan and profile drawings, specifications, and an opinion of probable construction cost for the new water main.

4. **Pump Station #23 Replacement Design** – RK&K will design a new pump station to replace the current pump station (adjacent to current site). As indicated in our PER, the new pump system will be designed to operate by use of variable frequency drives (VFDs) over an approximate flow range of 200 gpm to 600 gpm. The new pump station will include a prefabricated control building, wet well, meter and valve vault, stand-by pump system, security fence, and SCADA controls. Odor control is not included for this pump station. It is assumed that SCADA components will be designed and provided by E-Merge systems. RK&K will coordinate with E-Merge regarding SCADA. An abandonment plan for PS#23 will also be prepared. It is assumed that a suction lift pump station will work for this site.
5. **Pump Station #24 Replacement Design** – RK&K will design a new pump station to replace the current pump station. As indicated in our PER, the new pump system will be designed to operate by use of variable frequency drives (VFDs) over an approximate flow range of 800 gpm to 1,600 gpm. The new pump station will include a prefabricated control building, wet well, meter and valve vault, all weather access road, odor control chemical (Bioxide), stand-by pump system, security fence, SCADA controls, and a new 3 phase power feed. It is assumed that SCADA components will be designed and provided by E-Merge systems. RK&K will coordinate with E-Merge regarding SCADA. An abandonment plan for PS#24 will also be prepared. It is assumed that a suction lift pump station will work for this site. However, should a dry pit submersible pump station be required, additional design costs will be necessary (included as option in fee estimate).
6. **All Weather Access Road and New Power Service** – RK&K will assist with the design of a new 2,800-foot long gravel access road (12-foot wide minimum), allowing for access to the new Pump Station #24 from Sawhill Boulevard. RK&K will provide site plans, details, and loading requirements for the new access road, and will provide any calculations required by the County for their review. RK&K will also coordinate with the appropriate Power company for the addition of a new three-phase underground power from Sawhill Boulevard to new Pump Station #24. It is anticipated that two (2) meetings with the County and Power company will be necessary.
7. **Geotechnical Engineering** – RK&K will subcontract the services of Schnabel Engineering to perform three (3) soil borings along the proposed gravity sewer alignment between existing Pump Station #24 and Pump Station #23. Schnabel has already performed several soil borings along the corridor during the PER phase of this project. The depth of the soil borings will be determined by RK&K based on an assumed depth of the new gravity sewer at each boring location. Schnabel will perform lab testing of the soils and prepare a geotechnical report detailing the results of their investigation. Refer to Schnabel's proposal (attached) for a breakdown of their services.
8. **Bidding Assistance** – RK&K will provide bidding assistance when directed by Spotsylvania County. These services may include, but not be limited to, the following: attend pre-bid meeting, assist with contractor RFI's, assist with preparation of addenda, evaluation of bids, and contractor validation for notice of award purposes.
9. **Permitting Assistance** – Some of the permits that RK&K may need to assist with are listed below:
 - a. **Wetland/Stream Delineation**– It appears that wetlands and waters may exist along the desired sewer route. Therefore, RK&K will perform field inspection and delineation identify potential waters and to assess any potential wetland impacts. RK&K will secure a Preliminary Jurisdictional Determination (PJD) from the USACE to support the water quality permitting.
 - b. **Water Quality Permitting** – If wetlands do exist within the proposed water main alignment, it is likely that the work can be performed under a USACE Nationwide 12 Permit, which allows

temporary disturbance of wetlands. Correspondence to the appropriate agencies to acquire the permit will include a Joint Permit Application (JPA). The JPA requires a review under Section 106 of the National Historic Preservation Act. Although the USACE will perform this coordination, RK&K will review the scope of work and location to anticipate the level of effort and possible schedule that may be required. Additionally, a database review of threatened and endangered species must be performed and reported within the JPA. We have included a fee to cover the preparation of the permit application.

- c. **Stormwater Management** – It is RK&K's understanding that this project will be subject to review by the County's Stormwater department, due to the increase in impervious area as a result of the new access road and new pump stations. RK&K will provide the necessary plans and calculations for the County's review and will address any comments from the reviewer.
 - d. **VDEQ SWPPP** – Because more than 1 acre of disturbance is anticipated from this project, a VDEQ Stormwater Pollution Prevention Plan (SWPPP) will be required during construction. RK&K will prepare the SWPPP and provide two (2) copies of the SWPPP to the County, with instructions for application of the permit. The County will be the permit applicant and holder and responsible for the application fee (which can be transferred to selected Contractor). A draft copy of the SWPPP will be included in the 100% pre-final plan submittal.
 - e. **National Park Service (NPS) Permitting and Coordination** – RK&K will provide assistance for the acquisition of any permits from NPS for all work on the National Battlefield Park property. It is anticipated that two (2) meetings with the County, NPS, and RK&K will be required for coordination with NPS.
 - f. **County Site Plan Review Process** – RK&K will prepare and submit the required documents to the County for site plan review and approval process.
- 10. Construction Administration Assistance** – Our services will include attendance and preconstruction and progress meetings, shop drawing review, RFI/CO requests, start-up services and final inspection. Our subconsultant, SDI, will provide final record drawings for the new pump stations, sanitary sewer, and water main. RK&K will review record drawings information with the County and contractor as well.

11. Reimbursable Expenses

SCHEDULE OF WORK

<u>Milestone</u>	<u>Time Period</u>
1. SUE, Surveying, and Base Map	60 Days from NTP
2. Preliminary Design (30%)	60 Days from Item 1
3. Review by County	30 Days from Item 2
4. Design Drawings (60%)	90 Days from Item 3
5. Review by County	45 Days from Item 4
6. Design Documents (90%)	90 Days from Item 5
7. Review by County	60 Days from Item 6
8. Prepare Easement Plats	30 Days from Item 7
9. Prepare and Submit Permits	60 Days from Item 7
10. Obtain Easements and Permits	90 to 180 Days from Items 8/9
11. Construction Drawings/Bid Ready	60 Days from Item 10

We believe the above schedule is conservative and should be utilized for planning purposes. The schedule will be updated as the project proceeds. There are several opportunities to improve this schedule, should it be desired by the County.

PROPOSED FEE

Based on the above scope of work and deliverables, our annual contract hourly rates and projected labor hours, the following lump sum fee is presented:

Task 7.1 – Data Acquisition, Surveying, and Base Map Development	\$25,016
Task 7.2 – Sanitary Sewer Main Design	\$47,895
Task 7.3 – Water Transmission Main Design	\$23,155
Task 7.4 – Pump Station #23 Upgrade Design	\$71,625
Task 7.5 – Pump Station #24 Upgrade Design	\$105,319
Task 7.6 – All Weather Access Road and New Power Service	\$22,377
Task 7.7 – Geotechnical Engineering	\$11,462
Task 7.8 – Bidding Assistance/Stake Out	\$14,441
Task 7.9 – Permitting Assistance	\$53,959
Task 7.10 – Construction Administration Services	\$35,804
Task 7.11 – Expenses	\$ 9,484
Total Fee	\$420,537

This estimated fee will not be exceeded without your prior approval. Invoices will be prepared on a monthly basis.

TERMS AND CONDITIONS:

This work will be performed in accordance with the terms and conditions of the Spotsylvania County Contract Agreement For Professional Services (Contract #16-16-TV-04).

SERVICES NOT INCLUDED:

1. Agency approval/permitting fees will be the responsibility of the County.
2. Title Searches or easement acquisition assistance.
3. Hazardous materials Phase 1 or Phase 2 ESAs
4. The coordination or generation of a NEPA document and associated requirements such as noise and air pollution evaluations.

Task 07 - Pump Station #23 and Pump Station #24 Replacement (6/11/18)									
	Senior Manager - PM	Senior Manager - QA/QC	Sr. PE	Sr. CAD	Eng	Electrical	Estimated Fee	Expenses	Total
7.1. SUE, Survey, Base Map, and Easement Plats	4	0	10	18	0	0	\$ 4,226	\$ 20,790	\$ 25,016
7.1.1 - Data Acquisition, Survey and Base Map Development	2		4	18			\$ 2,840	\$ 16,790	
7.1.2 - Easement Plats (5 @ \$1,000) plus RKK review	2		6				\$ 1,386	\$ 5,000	
7.2. Sewer Main Design	43	15	85	124	90	0	\$ 47,895	\$ -	\$ 47,895
7.2.1 - Preliminary Design - 3,800 LF Force Main	4		19	19	19		\$ 7,825		
7.2.2 - Preliminary Design - 530 LF Gravity Sewer - Phase 1	2		5	5	5		\$ 2,273		
7.2.3 - 60% Design (assumes 5 plan and profile pages - 1" = 50' scale)	10	5	15	40	20		\$ 11,675		
7.2.4 - 90% Design	10	5	15	40	20		\$ 11,675		
7.2.5 - 100% Design	5	5	15	20	14		\$ 7,920		
7.2.6 - Design Review Meetings (includes 3)	12		16		12		\$ 6,528		
7.3. Water Transmission Main Design	16	5	40	72	48	0	\$ 23,155	\$ -	\$ 23,155
7.3.1 - Preliminary Design - 4,300 LF Water Main	4		10	22	22		\$ 7,049		
7.3.2 - 60% Design (assumes use of sheets in item 2 above)	5	2	10	20	10		\$ 6,132		
7.3.3 - 90% Design	5	2	10	20	10		\$ 6,132		
7.3.4 - 100% Design	2	1	10	10	6		\$ 3,842		
7.3.5 - Meetings with County (included Sewer Main)							\$ -		
7.4. Pump Station 23 Design (assumes S/Lift)	34	14	102	198	96	128	\$ 71,625	\$ -	\$ 71,625
7.4.1 - Preliminary Design	8	4	24	40	24	16	\$ 14,800		
7.4.2 - 60% Design	8	4	24	60	24	60	\$ 22,050		
7.4.3 - 90% Design	8	4	24	60	24	32	\$ 18,685		
7.4.4 - 100% Design	4	2	16	30	16	12	\$ 9,926		
7.4.5 - Meetings with County (1)	4		6		4	8	\$ 3,241		
7.4.6 - PS 23 Abandonment Plan	2		8	8	4		\$ 2,924		
7.5. Pump Station 24 Design	52	25	170	298	152	136	\$ 105,319	\$ -	\$ 105,319
7.5.1 - Preliminary Design	12	6	36	50	32	16	\$ 19,815		
7.5.2 - 60% Design	12	6	36	80	32	60	\$ 28,046		
7.5.3 - 90% Design	12	6	36	80	32	36	\$ 25,162		
7.5.4 - 100% Design	6	3	24	40	24	16	\$ 14,158		
7.5.5 - Extra Structural if Wet Pit/Dry Pit PS	4	4	24	40	24		\$ 11,973		
7.5.6 - Meetings with County (1)	4		6		4	8	\$ 3,241		
7.5.7 - PS 24 Abandonment Plan	2		8	8	4		\$ 2,924		
7.6. Access Road and New Power Service	12	4	20	70	46	32	\$ 22,377	\$ -	\$ 22,377
7.6.1 - Preliminary Design	2	1	5	20	20	6	\$ 6,312		
7.6.2 - 60% Design	2	1	5	20	10	8	\$ 5,448		
7.6.3 - 90% Design	2	1	5	20	10	6	\$ 5,207		
7.6.4 - 100% Design	2	1	5	10	6	4	\$ 3,544		
7.6.5 - Meeting with Power Company	4					8	\$ 1,865		
7.7. Geotechnical Engineering Services	3	2	4	0	2	0	\$ 1,900	\$ 9,562	\$ 11,462
7.7.1 - Pump Station Sites (2)	3	2	4		2		\$ 1,900	\$ 9,562	
7.8. Bidding Assistance	6	0	16	8	0	0	\$ 4,531	\$ 9,810	\$ 14,441
7.8.1 - Bidding Assistance	6		16	8			\$ 4,531		
7.8.2 - Construction Stake-Out							\$ -	\$ 9,810	
7.9. Permitting Assistance	24	24	106	46	208	0	\$ 53,959	\$ -	\$ 53,959
7.9.1 - Wetland Stream Delineation	2	4	30	6	70		\$ 14,201	\$ -	
7.9.2 - Water Quality Permitting	2	8	12	8	40		\$ 9,038	\$ -	
7.9.3 - Stormwater Management	2	4	16	4	30		\$ 7,407	\$ -	
7.9.4 - VDEQ SWPPP	2	4	4	4	16		\$ 3,992	\$ -	
7.9.5 - National Park Service Permitting and Coordination	8	4	20		20		\$ 7,888	\$ -	
7.9.6 - County Site Plan Review Process	8		24	24	32		\$ 11,433	\$ -	
7.10. Construction Administration Services	26	0	91	22	30	52	\$ 31,764	\$ 4,040	\$ 35,804
7.10.1 - Preconstruction/Progress Meetings	8		40			16	\$ 9,958	\$ -	
7.10.2 - Shop Drawings	8		16		16	16	\$ 7,989	\$ -	
7.10.3 - RFI/Change Orders	4		16	12	8	12	\$ 6,898	\$ -	
7.10.4 - Start-Up/Final Inspection/CTCs	6		16			8	\$ 4,808	\$ -	
7.10.5 - Record Drawings			3	10	6		\$ 2,111	\$ 4,040	
7.11. Reimbursable Expenses	0	0	0	0	0	0	\$ -	\$ 9,484	\$ 9,484
7.11.1 - Vehicle Mileage (46 Trips @ 100 mi/trip * \$.54/mi)							\$ -	\$ 2,484	
7.11.2 - Printing/Reproduction Costs							\$ -	\$ 5,000	
7.11.3 - Postage/Other Misc.							\$ -	\$ 2,000	
Total Project Hours	220	89	644	856	672	348			
Total	\$ 49,702	\$ 16,853	\$ 100,268	\$ 83,973	\$ 74,229	\$ 41,826	\$ 366,851	\$ 53,686	\$ 420,537