

**Caroline County
Board of Supervisors Agenda
Executive Summary**

Meeting Date: December 14, 2021

Title: Consent Agenda – Approval of Engineering Task Contract –
Surveying Services for Rappahannock River Water Intake and
Water Treatment Plant Site Survey

(Check Mark)

<input checked="" type="checkbox"/> Consent	<input type="checkbox"/> Closed Meeting
<input checked="" type="checkbox"/> Action	<input type="checkbox"/> Public Hearing
<input type="checkbox"/> No Action (Information Only)	<input type="checkbox"/> Ordinance
<input type="checkbox"/> Resolution	<input type="checkbox"/> PowerPoint Presentation

Summary: Attached is a proposed task contract with Draper Aden Associates in the amount of \$54,840 for surveying services associated with the County’s proposed water withdrawal on the Rappahannock River. The surveying services will enable the County to move forward with property acquisition of the intake and water treatment plant sites in anticipation of obtaining a withdrawal permit.

Additional details are contained in the attached memorandum from Director of Public Works/Utilities Joseph Schiebel along with accompanying documents from Draper Aden.

Budget Impact: The design task contract with Draper Aden totals \$54,840 (lump sum fee).

The adopted Capital Improvement Budget includes \$400,000 for this project. These funds were included in the April 2021 borrowing.

Requested Action from Board of Supervisors: Authorize the County Administrator to sign Proposal No. R15287R-10 with Draper Aden Associates as presented

County of Caroline
Joseph C. Schiebel
Director
Public Works/Utilities
PO. Box 424
Bowling Green, Virginia 22427
(804) 633-4390 Main
(804) 633-9558 Fax
E-mail: jschiebel@co.caroline.va.us



MEMORANDUM

To: Charles M. Culley Jr.
County Administrator

From: Joseph C. Schiebel
Director of Public Works/Utilities

Date: December 6, 2021



SUBJECT: Engineering Task Contract – Surveying Services for the Rappahannock River Intake Site and Water Treatment Plant Site

The Joint Permit Application (JPA) for the Rappahannock River withdrawal was submitted to DEQ on March 24, 2020. DEQ has asked for additional information throughout this process. Our final revision to DEQ was October 29, 2021. It is expected that Caroline County will revise our draft permit in 2022.

In our JPA, we were required to identify both the Intake site and the Water Treatment Plant Site. In addition, the County had to perform the following tasks:

- Phase I Historical and Archaeological Evaluations
- Threatened and Endangered Species Study
- Phase IB Cultural Resources Survey
- Wetland Delineation
- Bathymetric Survey – Intake Site Only
- Fish Larve Study – Intake Site Only
- River Intake Concept Drawing – Intake Site Only
- Sanitary Survey – Intake Site Only

Caroline County has invested significant money in obtaining a withdrawal permit on the Rappahannock River. Therefore, it is essential for Caroline County to

secure the Intake Site and Water Treatment Site property to protect our sizable investment specific to these properties.

The next step in acquiring these properties is to have the site surveyed. As such, Caroline County has requested a task contract from Draper Aden and Associates to perform the following services:

- Topographic Survey and Mapping
- Provide Subdivision Plats
- Provide Easement Plats

Draper Aden and Associates have provided a task contract to perform these services in the amount of \$54,840.

Therefore, staff recommends that the Board of Supervisors approve the task contract for the Surveying Services by Draper Aden and Associates in the amount of \$54,840. Funding for this project in the amount of \$400,000 has been provided in the CIP Water supply and Well Development.

Attached:
Task Contract



8090 Villa Park Drive
Richmond, Virginia 23228
804.264.2228
www.daa.com

September 24, 2021

Mr. Joseph C. Schiebel
Director
Caroline County Public Utilities Department
12613 Mill Creek Road
Ruther Glen, VA 22546

**RE: Proposal for Surveying Services
Intake and WTP Site Survey
Draper Aden Associates Proposal No. R15287R-10**

Dear Mr. Schiebel:

On behalf of Draper Aden Associates (DAA), thank you for allowing us the opportunity to present our proposal to provide for professional surveying services associated with Caroline County's proposed water withdrawal on the Rappahannock River. This scope of services will support Caroline County (the County) in the next phase of the water withdrawal project.

I. PROJECT DESCRIPTION AND BACKGROUND

Phase III of the Rappahannock River water withdrawal project included submittal of a Joint Permit Application (JPA) to obtain a permit to withdraw water from the Rappahannock River. The JPA was completed and submitted to the review agencies in December 2019, and we are currently in the process of responding to review agency comments. In anticipation of obtaining a withdrawal permit, the County desires to move forward with property acquisition of the intake and water treatment plant (WTP) sites. To assist the County with the acquisition process, DAA will perform surveying services as outlined below.

II. SCOPE OF SERVICES

The following section outlines the scope of services to be performed:

Task A - Topographic Survey and Mapping

Draper Aden Associates will utilize remote sensing to conduct an LiDAR collection using a small Unmanned Aerial System (sUAS) as well as photogrammetric mapping for approximately 15 acres on the intake and WTP sites. The aerial component will consist of FAA licensed Remote Pilots planning, setting ground control, locating ground control, conducting multiple sUAS flights, post processing GPS and aerial LiDAR to produce a 3D Point Cloud, point cloud clean up

to extract the surface and generation of contours on a 1' interval. Draper Aden Associates will use conventional surveying methods to supplement the LiDAR and photogrammetry collections to show overhead utilities and above ground evidence of subsurface utilities, as-built existing storm, and sanitary sewer, if present.

Task B - Subdivision Plats

DAA will prepare the required plats to create a five (5) acre parcel for the intake site and a ten (10) acre parcel for the WTP site. The plats will be prepared in accordance with County standards for a Minor Subdivision.

Task C – Easement Plats

DAA will perform courthouse research and a field inspection of property evidence, enough to place proposed easements. In the event enough field evidence is not found, and we are not able to satisfactorily determine property lines, the client will be notified and an estimate, to resolve the issue, will be provided. DAA will prepare up to eight (8) utility and access easement plats for the intake and WTP sites.

III. SCHEDULE

Work will be conducted in an expeditious manner subject to limitations such as weather, information acquisition, communications, and other factors outside of DAA's control. Both parties recognize that the schedule of services is subject to factors that may be unknown at the time of this agreement. A detailed project schedule will be prepared after receiving authorization to proceed.

IV. FEES

The above-listed services will be performed on a lump sum basis. The following is a breakdown of the proposed fees for each task:

Task A – Topographic Survey and Mapping	\$29,880
Task B – Subdivision Plats	\$19,480
Task C – Easement Plats	\$5,480
Total	\$54,840

V. CONTRACT TERMS AND PROVISIONS

The terms and provisions of our existing agreement for professional services dated May 25, 2021, will apply to all project work.

VI. DELIVERABLES

DAA will provide the following deliverables:

- (2) hardcopies, a pdf copy, and a digital file in AutoCad2018 format of the topographic survey will be provided
- Subdivision and easement plats will be provided as needed to meet County standards

VII. ADDITIONAL SERVICES

Any additional services requested can be undertaken on a time and materials basis or negotiated lump sum fee based on your requirements in addition to the fees outlined herein. If any additional services should become necessary or desirable, a Request for Additional Services will be submitted.

VIII. ASSUMPTIONS / LIMITATIONS

This proposal was developed based on the following assumptions:

- The lump sum fees above include reimbursable expenses such as copying, printing, and mileage.
- Field crews will have un-restricted access to the property. The County will assist with private property notification and access.
- No project-specific or site-specific safety training is required to perform this work.
- No permits will be required to perform the surveying tasks outline herein.
- Draper Aden Associates assumes no traffic control will be needed to perform surveying tasks.
- Horizontal measurements shall be referenced to Virginia State Plane Coordinate System (North Zone), NAD83 (2011). Vertical measurements shall be referenced to NAVD88.
- A boundary survey is not included in this scope. In the event a full boundary survey is required for the subdivision process, a cost estimate will be provided to the client.
- RPA determination and Wetland delineations are not included in this scope.
- DAA will mobilize within one week after receiving NTP.
- Application fees associated with the subdivision plats are not included.
- Property and easement acquisition assistance is not included.
- Additional easement plats can be prepared as an additional service.
- The topographic survey of the intake site parcel will be tied to the previously completed bathymetric survey.

On behalf of Draper Aden Associates, thank you for giving us the opportunity to provide our proposal for surveying services. If this proposal meets with your approval, please sign the Authorization to Proceed below and return it to us. Please keep a copy of the proposal for your records.

We look forward to working with you on this project. Please do not hesitate to contact us if you have any questions or require any additional information.

Sincerely,
Draper Aden Associates

A handwritten signature in black ink, appearing to read "Michael S. Haggerty". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Michael S. Haggerty, P.E.
Program Manager

A handwritten signature in black ink, appearing to read "Adrianna Dimperio". The signature is cursive and somewhat stylized.

Adrianna Dimperio, P.E.
Utilities Division Manager

Attachments: Intake, raw water and WTP site survey limits

AUTHORIZATION TO PROCEED

**Proposal for Surveying Services
Intake and WTP Site Survey
Draper Aden Associates Proposal No. R15287R-10**

I/We agree and accept Draper Aden Associates' proposal to provide the above-described services. We understand the Scope of Services as provided herein and agree to the fees estimated for these services. We further acknowledge that Draper Aden Associates will provide a proposal for any change in the Scope of Services described herein and that a signed agreement to provide those additional services will be executed prior to any work being performed.

Printed Name

Title

Signature

Date