TASK ORDER #36-I FOR
SPOTSYLVANIA COUNTY CONTRACT AGREEMENT
FOR PROFESSIONAL SERVICES
Contract #16-16-TV-06

In accordance with the Spotsylvania County Contract Agreement for Professional Services this Task Order #36-I and Proposal for Lake Bottom Sewer and Waterline Booster Pump Design Amendment is made as of _____ ____, 2018 by and between Spotsylvania County, a political subdivision of the Commonwealth of Virginia, ("COUNTY"); and SULLIVAN, DONAHOE AND INGALLS, P.C. a Virginia professional corporation 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 11, 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 #36-I and the Proposal, dated October 3, 2018 and prepared by CONTRACTOR attached hereto, and made a part hereof. This Task Order and Proposal for Lake Bottom Sewer and Waterline Booster Pump Design Amendment shall not exceed ONE HUNDRED FORTY-THREE THOUSAND NINE HUNDRED NINETY-THREE DOLLARS AND FORTY-FIVE CENTS ($143,993.45)

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 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 #36-I and Proposal for Lake Bottom Sewer and Waterline Booster Pump Design Amendment to be duly executed by their duly authorized officials as of the date first written above.

SPOTSYLVANIA COUNTY, VIRGINIA

By:_____
Mark B. Taylor Dated
County Administrator

SULLIVAN, DONAHOE & INGALLS, P.C.

By: _____ 2018-11-26
Richard H. Furnival Dated
Partner/Director

Approved as to form:

11/27/18
COUNTY ATTORNEY Dated
Asst.

SDI SULLIVAN DONAHOE & INGALLS

ENGINEERS, LAND PLANNERS & SURVEYORS

A Professional Corporation
Since 1965

ERIC V. SULLIVAN, L.S.
NOLAND C. DONAHOE
MICHAEL E. MOORE, P.E.
RICHARD H. FURNIVAL, P.E.
EDISON L. SULLIVAN, L.S., (Ret.)
ERNEST N. DONAHOE, JR., P.E., (Ret.)
LARRY W. INGALLS, P.E., (Ret.)
THOMAS Y. WELSH, P.E., (Ret.)

P.O. Box 614
FREDERICKSBURG, VIRGINIA 22404
10720 COLUMBIA DRIVE
FREDERICKSBURG, VIRGINIA 22408
TELEPHONE: (540) 898-5878
FAX: (540) 898-3390

WT 1118

October 3, 2018

Mr. Ronnie Baker
Spotsylvania County Department of Utilities
600 Hudgins Road
Fredericksburg, VA 22408

10/16/18
Benjamin L. Loveday, P.E.
Director
Utilities/Public Works Department
County of Spotsylvania, Virginia

RE: **Engineering & Surveying Proposal**
Lake Bottom Sewer and Waterline
Booster Pump Design Amendment
Task #36-I

Dear Mr. Baker:

Sullivan, Donahoe and Ingalls, PC (hereinafter referred to as the Professional) is pleased to submit this proposal to provide civil engineering and surveying services for the above referenced project. In this proposal, we have included an outline of the scope of services required, and the proposed fees for our services.

Should the project change and the scope of services increase, we will prepare a new proposal or proceed under the "Additional Services" section of this proposal with your authorization.

Project Description

The project associated with this proposal consists of providing consulting services necessary to provide requested additional amended services for the Lake Bottom gravity sewer & waterline project, located within the proposed Whitehall project in Spotsylvania County, Virginia. The services described in detail below, include Client-requested revisions to the project plans and redesign of the proposed booster pump serving the Brock Road and Fawn Lake area in Spotsylvania County, Virginia.

The revised plans and other project documents for the subject project are to be prepared by the Professional or his sub-consultant(s) as a part of the overall Task Order for the project. Based on scope of service changes and necessary sub-consultant services, a Task Order amendment for the project is required. A man-hour estimate for the work associated with this scope of services is included with this proposal.

Scope of Services

I. Design Plan Revisions - Amendment

The Professional shall prepare Sanitary Sewer and Water Line Design Plan Revisions to accommodate adjustments to the project required by scope changes requested by the County.

Fee: Hourly (See attached man-hour estimate)

II. Plan Administration & Specifications - Amendment

The Professional shall assist in the plan approval process by meeting with reviewers, and by preparing plan revisions, letters of response and follow-up submittals, and project technical specifications. As well, the Professional shall prepare revised bid related documents, and assist the Client in obtaining and evaluating bids and awarding contracts. This task is a supplement to the original Task Order due to adjustments to the overall project scope.

Fee: Hourly (See attached man-hour estimate)

III. Booster Pump Plans – Amendment

The Professional and the booster pump design subconsultant will prepare revised plans for the proposed water booster pump station, connecting to the Brock Road – Fawn Lake area water system. Due to increased design flow requirements, a redesign of the booster pump associated with the project has been requested by the County.

The Professional's Architectural Subconsultant will revise the architectural building plans for the revised booster pump to accommodate the additional pump station requirements, based on information provided by the pump station designer.

The Professional's Geotechnical Subconsultant will provide soils borings and a geotechnical report in support of the pump station structural design.

A copy of the subconsultant agreements are attached to this task order proposal for information.

Fee: Hourly (See attached man-hour estimate)

IV. Meetings - Amendment

The Professional shall attend meetings as required in the Scope of Services

when requested by the Client. This task is a supplement to the original Task Order due to adjustments to the overall project scope.

Fee: Hourly (See attached man-hour estimate)

V. Reimbursables - Amendment

Prints, mylars, computer disc, mailings, Fed-Ex packages and other miscellaneous reimbursables shall be billed under the engineer's current rates.

Project Estimate: $500.00

Total Not-to-Exceed Task Order Amount: $143,993.45

VI. Additional Services

Any work or services, which are not listed above or are not expressly provided for in this proposal, may be performed by the Professional upon the request or prior approval of the Client. All additional services will be performed by the Professional on an hourly basis utilizing the hourly rates listed below:

HOURLY RATES

Senior Engineer or Surveyor	$ 135.00/hr.
Project Engineer or Surveyor	$ 120.00/hr.
Design Engineer or Surveyor	$ 100.00/hr.
Senior Civil Tech	$ 100.00/hr.
Civil Tech	$ 80.00/hr.
Inspector	$ 80.00/hr.
Field Crew	$ 155.00/hr.
Clerical	$ 45.00/hr.
Easement Acquisition Tech	$ 100.00/hr.

PRINT FEES

Prints	$ 2.25 per Sheet (24"X36") ($10.00 minimum)
Prints (Half-size)	$ 0.50 per Sheet (11"X17") ($5.00 minimum)
Color Prints on Bond Paper	$ 6.00 per Sheet (24"X36") ($30.00 minimum)
Color Prints on Photo Paper	$ 4.50 per Sheet (24"X36") ($30.00 minimum)
Photocopies	$ 0.15 each
CD-ROM Charge	$ 30.00 each

REIMBURSABLES

FedEx/UPS	Cost + 5% (Minimum $45.00)
Mail	Cost + 5% (Minimum $ 5.00)
Outside Consultants	Cost + 5% + Coordination Time
Deliveries	$ 45.00/hr. + Mileage

Travel	Federal Standard Rate
CADD Charge	$ 120.00/hr. ($ 200.00 minimum)

Rates are effective for eighteen months from the date of this proposal.

Thank you for the opportunity of submitting this proposal and we look forward to working with you and your company.

Sincerely,

Richard H. Furnival, PE
Sullivan, Donahoe & Ingalls, PC

Man-hour Estimate	*Units*	*Rate*	*Estimate*

Design Plan Revisions - Amendment

Employee Type	Hours	Rate/Hr.	Estimate
Sr. Engineer/Sr. Surveyor:	40	$ 135.00	$ 5,400.00
Project Engineer/Surveyor:	40	$ 120.00	$ 4,800.00
Design Engineer/Surveyor:		$ 100.00	$ -
Survey Crew:		$ 155.00	$ -
Sr. Civil Tech:	40	$ 100.00	$ 4,000.00
Civil Tech:	8	$ 80.00	$ 640.00
Clerical:		$ 45.00	$ -
Total:			**$ 14,840.00**

Plan Admin and Specs - Amendment

Employee Type	Hours	Rate/Hr.	Estimate
Sr. Engineer/Sr. Surveyor:	4	$ 135.00	$ 540.00
Project Engineer/Surveyor:	24	$ 120.00	$ 2,880.00
Design Engineer/Surveyor:		$ 100.00	$ -
Survey Crew:		$ 155.00	$ -
Sr. Civil Tech:	8	$ 100.00	$ 800.00
Civil Tech:	8	$ 80.00	$ 640.00
Clerical:		$ 45.00	$ -
Total:			**$ 4,860.00**

Booster Pump Plans - Amendment

Employee Type	Hours	Rate/Hr.	Estimate
Sr. Engineer/Sr. Surveyor:	16	$ 135.00	$ 2,160.00
Project Engineer/Surveyor:	24	$ 120.00	$ 2,880.00
Design Engineer/Surveyor:		$ 100.00	$ -
Survey Crew:		$ 155.00	$ -
Sr. Civil Tech:	24	$ 100.00	$ 2,400.00
Civil Tech:	8	$ 80.00	$ 640.00
Clerical:		$ 45.00	$ -
Booster Pump Design Subconsultant	1	$ 102,112.50	$ 102,112.50
Architectural Design Subconsultant	1	$ 6,562.50	$ 6,562.50
Geotechnical Subconsultant	1	$ 1,878.45	$ 1,878.45
Total:			**$ 118,633.45**

Meetings - Amendment

Employee Type	Hours	Rate/Hr.	Estimate
Sr. Engineer/Sr. Surveyor:	24	$ 135.00	$ 3,240.00
Project Engineer/Surveyor:	16	$ 120.00	$ 1,920.00
Sr. Civil Tech:		$ 100.00	$ -
Clerical:		$ 45.00	$ -
Total:			**$ 5,160.00**

Reimbursables

Project Estimate	**$ 500.00**

Task Order not-to-exceed Total:	**$ 143,993.45**

September 24, 2018

Mr. Rick Furnival, PE
SDI- Sullivan Donahoe & Ingalls (SDI), PC
10720 Columbia Drive
P.O. Box 614
Fredericksburg, Virginia 22404

RE: Lake Bottom Water Booster Pumping Station – Fee Proposal for Development of design documents

FILE: 5842/BD/General/Lake Bottom Pump Station

Dear **Mr. Furnival**

O'Brien & Gere (OBG) is pleased to submit this proposal to provide professional engineering services for the new Lake Bottom Pump Station, as a follow up to our September 6th meeting. The proposal is organized as follows:

- Project Understanding and Approach
- Scope of Services
- Project Schedule
- Fee Estimate

Project Understanding and Approach

Spotsylvania County (County) owns and operates the existing Lake Bottom water booster pump station (existing BPS). The existing BPS pumps water from the County's Five Mile Fork pressure zone (481 HGL) to the Fawn Lake pressure zone (531 HGL). The Fawn Lake pressure zone is located in the north-western portion of the County's water distribution system service area and the only feed of potable water into the pressure zone is via the existing BPS. The Fawn Lake pressure zone has an elevated water storage tank (Brock Road Elevated Storage Tank (EST) and the County primarily operates the existing BPS to fill the EST. The existing BPS and portions of the 12" water main on the suction and discharge sides of the existing BPS follow an old railroad easement. Both the existing BPS and portions of the existing water mains are difficult to access and maintain due to the terrain. The County had contracted with Sullivan Donahoe & Ingalls (SDI) to design a replacement for the existing BPS at a location with better access and design portions of the connecting 12" water mains on the suction and discharge sides of the relocated BPS. The design is close to completion.

OBG is currently completing a comprehensive water and wastewater master plan for the County. As part of that work, OBG identified deficiencies (i.e., pressures and available fire flows) in the Fawn Lake pressure zone. OBG recommended raising the hydraulic grade in the Fawn Lake pressure zone to address low system pressure issues and installing larger pumps at the Lake Bottom BPS to improve fire flows. A small portion of the existing distribution system near the EST will remain at the existing 531 HGL. This small area will be isolated (by others) from the new higher Fawn Lake pressure zone with pressure reducing valves.

The above noted hydraulic changes have a direct impact on the design of the relocated Lake Bottom BPS. Because the design of the pipeline is not impacted by OBG's recommendation, the County decided to proceed with bidding that work, while the Lake Bottom pumping station is re-designed to the new requirements. Figure 1 below shows the proposed location for the new Lake Bottom BPS.

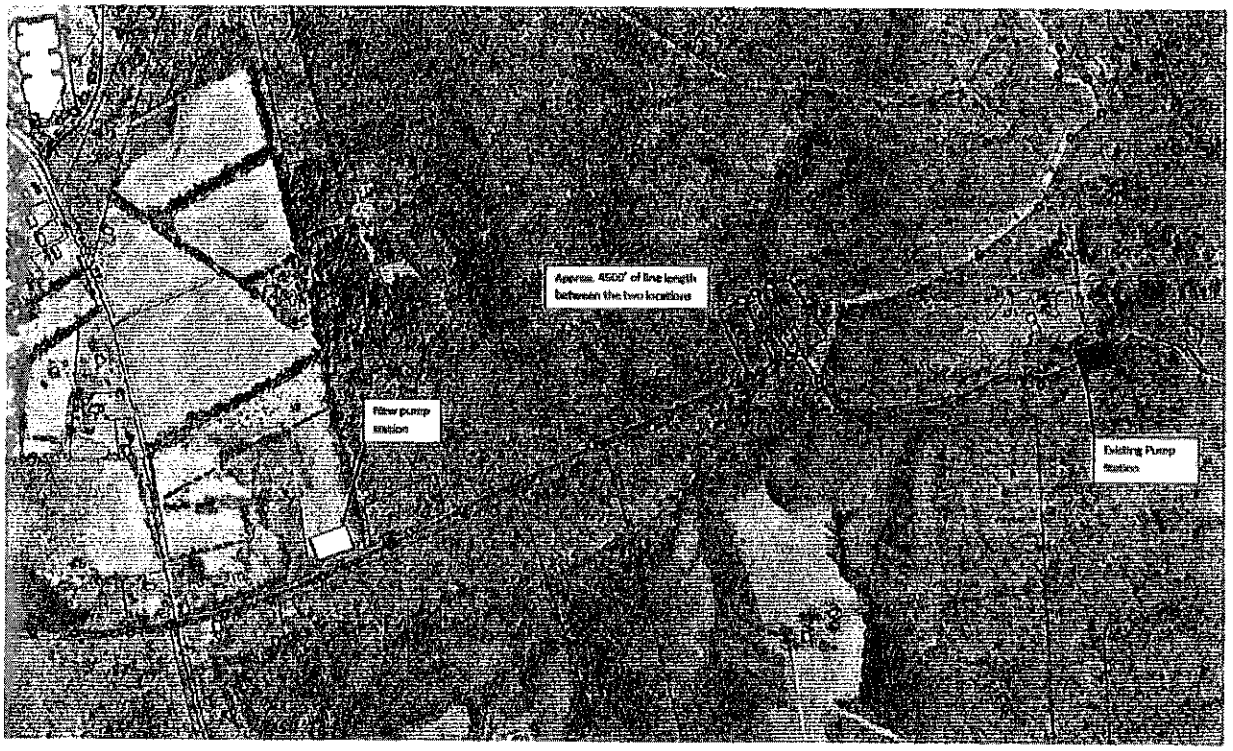
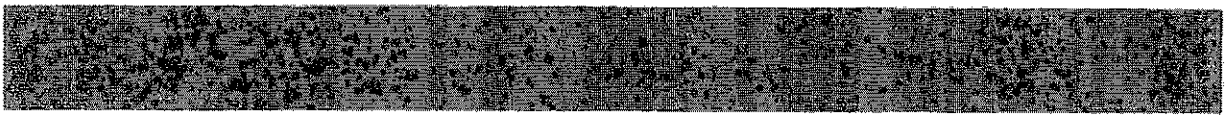


Figure 1: Selected site for the new Lake Bottom Booster Pump Station

OBG and County personnel conducted a site visit to the location of the relocated BPS on September 6, 2018 to perform a visual inspection of the project area and identify potential sources for electrical power to the new BPS. Based on our site visit, it appears three phase power from Rappahannock Electric Cooperative (REC) is available along Brock Road and the County decided that they prefer running power from this source rather than the source used in the prior design.

As part of the master planning study, OBG developed and calibrated a water distribution system hydraulic model and is aware of the challenges associated with improving low system pressures and fire flows in the Fawn Lake pressure zone. By raising hydraulic grade in the zone, effectively the new Lake Bottom BPS will be pumping into a closed pressure zone (i.e., no floating storage) and the existing Brock Road elevated storage tank will be too low for the zone. The new Lake Bottom BPS will include pumps for the smaller domestic water usage as well as the larger fire flows. The pumping system and its controls will be designed to prevent system over-pressurization. The objectives of this project are:

- Use the County's calibrated hydraulic water system model to identify design parameters for the new Lake Bottom BPS.
- Coordinate with SDI and prepare a preliminary engineering report for the pump station design for submittal to Virginia Department of Health for approval.



- Coordinate with SDI and prepare design documents, specifications and construction cost estimates for the new Lake Bottom BPS.
- Expedite project schedule to meet the County's plans for the overall upgrade to the Fawn Lake system.

Scope of Services

OBG will be responsible for the following aspects of the new Lake Bottom BPS design:

- Process mechanical design of the new booster pump, piping valves and appurtenances.
    - Two (2) domestic potable water pumps operating on variable frequency drives to meet system demands and to when needed, fill up the existing EST.
    - One (1) 1,500 gpm pump to provide fire flows.
    - Pressure relief/recirculation system to address system over-pressurization and to minimize pump(s) start/stops.
    - Pressure sensors on the discharge side of the pump station to control the start/stops of the domestic use pumps and the larger (fire flow) pump.
- Structural design of the new booster station foundation.
- Sizing of the new booster station structure for architectural design by others.
- Design of the yard piping (pump suction and discharge piping) within the pump station to tie-into the new 12" mains being designed by SDI.
- Electrical and instrumentation design of the new booster station and emergency power.
    - New electrical service
    - Standby generator and manual transfer switch to switch from primary to emergency power.
- HVAC and plumbing design for the new booster station building.

We understand all other aspects of the design will be handled by SDI.

OBG's work will be organized into the following tasks:

1. Information Review and Project Kickoff Meeting. Readily available data and information will be collected at the onset of the project and reviewed for information pertinent to the project. The following information is requested (please note that some of the information noted below has already been provided to OBG):
    a. Design drawings and specifications for the BPS design completed by SDI
    b. Available survey and geotechnical information from the pipeline design completed by SDI, specifically in the vicinity of the new BPS site.
    c. SCADA/operational information for the existing Fawn Lake system and the ex. BPS
    d. Available environmental reports for the new BPS site.

    OBG will advise if additional information will be required for the project.

OBG will hold a project kickoff meeting with the County and SDI to discuss the scope of services, confirm project objectives and gather input from stakeholders on other aspects of the project (site constraints, historical knowledge, design preferences).

OBG's will use the calibrated water hydraulic model to identify required flow and head conditions for the new BPS that addresses the fire flows and system pressures deficiencies in the Fawn Lake zone.

2. Preliminary Design and Development of Preliminary Engineering Report (PER). OBG will prepare a Preliminary Engineering Report (PER) (30% design) and submit to Virginia Department of Health (VDH) for approval of the selected design concept and parameters in a format that will meet VDH's requirements. The PER document will be prepared and include an overview, technical memoranda, preliminary design drawings, major equipment data sheets, preliminary construction cost, construction schedule and design calculations. The scope of services for the PER will also include the following:

    a. One (1) workshop with SDI and the County

    b. One (1) workshop with VDH staff

    c. Confirmation of the required permits for final design and construction

    d. Submission of 10 hard copies and one electronic copy of the draft PER to SDI for submission to County

    e. Submission of 10 hard copies and one electronic copy of the final PER to SDI for submission to the County

    f. Submittal of the final PER to VDH.

    g. Responses to VDH comments on the PER.

3. 90% - Design Stage Design Documents

    Plans and specifications for OBG's share of the pumping station design will be prepared and submitted to SDI. The design would also conform to local construction standards (Virginia Uniform Statewide Building Code (IBC, as amended – adopted statewide), NFPA 820 guidelines, County design guidelines and NEC (versions at time of this proposal) and Ten State Standards.

    Items to be included as part of this submittal are:

    a. Design plans and specifications (CSI MasterSpec Divisions)

    b. Construction cost estimates

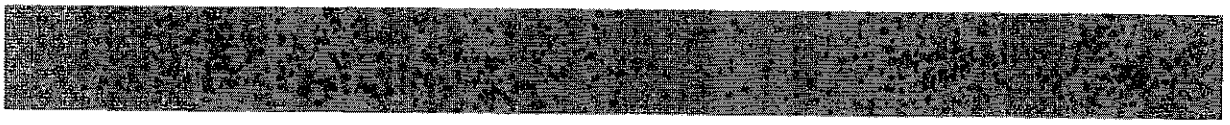
    c. Design calculations and major equipment data sheets

    d. Construction Sequencing Issues.

    We understand that it is SDI's responsibility to package OBG's design documents with SDI's design documents, which would include cover sheet, table of contents, location plan, general notes, sediment and erosion controls, stormwater management, wetland related issues, if any, access road improvements, standard details, general civil specifications, front-end bidding documents, and all other work that is not specifically included in OBG's scope, but that is required for bidding.

    The scope of services for the 90% review includes:

    a. One (1) workshop with SDI and the County



b. One (1) workshop with VDH staff

c. Submission of 10 hard copies and one electronic copy to SDI for submission to County

d. Responses to review comments.

4. 100%-Design stage, Bid-ready Design Documents

   Final Design Drawings, Specifications and construction cost estimate will be prepared for bidding purposes. A Statement of Special Inspections memorandum will be prepared by OBG, the design engineer, in accordance with the International Building Code (IBC).

   The scope of services for this task will also include the following:

   a. Submission of 10 hard copies and one electronic copy to SDI for submission to County

Additional deliverables to be submitted to SDI include the following:

- Meeting minutes – We will prepare minutes from workshops and other meetings with SDI, County and VDH or other agencies and submit the minutes to SDI within ten (10) days. The minutes will document meeting discussions as well as action items.

5. Project Management. OBG will manage and administer the project with SDI (i.e., invoicing, scheduling, etc.). OBG will conduct general project management and administrative duties needed to maintain the contract with SDI which may include the following:

   - Monitoring progress, scheduling, general correspondences, and administrative support
   - Preparing and submitting progress reports to SDI on a monthly basis.

Project Schedule

OBG proposes the following project implementation schedule:

Task	Duration
Kickoff Meeting	One (1) Week from Notice to Proceed
Identify design parameters and develop draft Preliminary Engineering Report (PER)	Six (6) Weeks from Kickoff Meeting
Workshop #1 – PER review	One (1) Week from draft PER review by County
Complete 90% Design Documents/Submit to VDH	Eight (8) Weeks from Workshop #1
Workshop #2 – 90% Design Review	Two weeks from 90% design submission
VDH Permit Re-Submittal	One week from Workshop #2
Bid Ready (100%) Design documents	Four weeks from Workshop #2

Fee Estimate

We propose to perform the work for a Lump Sum Fee of $97,250. The following assumptions have been made in the preparation of this proposal:

- Site survey, subsurface investigation, utility location services and environmental assessments as required will be completed SDI and information will be provided to OBG.
- OBG will provide dimensions for the building layout and SDI will develop the architectural plans for the new BPS.
- Site civil, erosion and sediment control and stormwater management design are by SDI
- Review of property records, obtaining easements, right of ways, coordination with property owners and property acquisition are by SDI.
- OBG's project scope is limited to the new pump station. Distribution system upgrades are considered to be out of scope of the project.

We are available to begin this work immediately upon authorization to proceed. We appreciate the opportunity to work for SDI. If you have any questions, please do not hesitate to contact the undersigned at (301) 731-1162.

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.

Narayan Venkatesan, PE
Project Manager

George B. Rest, P.E
Sr. Vice President

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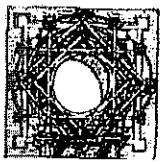

Sarah R. Hanson
A R C H I T E C T
2016 White Lake Drive
Fredericksburg, VA 22407
540.891.7789
sarah_hanson@hotmail.com

September 27, 2018

Lake Bottom Pump Station
Architectural Services Proposal

The fee for developing plans will be based on an hourly fee of $125.00 per hour. Structural/ Civil/ MEP Engineering and Landscape Architecture will not be included in this proposal.

Phase 1: Schematic - Floor Plan and Elevations

Architect will provide in schematic form: general design floor plans w/area calculations and 2(two) elevations for approval by Owner based on the written space needs and style/program or as described in meetings and consultation.

Estimated Hours	Description of Service
1.0	Initial meeting
2.0	Code review if required
6.0	Schematic plans/2 elevations of addition
1.0	Review Meeting

10.0 hours @ $125.00/hour = $1,250.00

Phase 2: Design Development Schematic

Not Required

Phase 3: Permit Set Construction Documents

Architect to complete the Architectural component of the 'Permit Set' drawings to include Foundation layout (Structural engineer to design and complete), Plan, Floor Plans, Exterior Elevations, Roof Plan, Electrical Schematic, Wall Section, , and typ. Footer Details. (Additional permits are customarily obtained by Contractor such as water, sewer or septic, electricity, environmental etc.) Construction documents will be drawn in standard US scale. All engineering by others under contract with Owner.

NOTE: Architect to include consultation time with Engineers or Landscape Architect, at no extra cost, but will bill hourly for presentations or consultation, meetings, or phone calls to governing bodies, Review Boards, environmental agencies, etc.

Estimated Hours	Description of Service
24.0	Construction Documents
6.0	Specifications
8.0	Coordination with Civil & Structural Engineers
2.0	Meeting to discuss details/finishes/etc.

40.0 hours @ $125.00/hour = $5,000.00

Total :

36.0 hours @ $125.00/hour = $6,250.00

Hourly services provided will be billed at the time of submission of drawings.

Owner to reimburse Architect for actual printing costs.

From: Kevin Northridge
To: Rick Furnival
Subject: FW: Lake Bottom
Date: Wednesday, October 3, 2018 10:28:57 AM
Attachments: image001.png
3401-P Lake Bottom Municipal.pdf

From: Kevin Parris [mailto:kparris@dea-inc.net]
Sent: Wednesday, October 3, 2018 9:11 AM
To: Kevin Northridge <KNorthridge@sdi-pc.com>
Subject: RE: Lake Bottom

Kevin
Proposal is attached, drillers have a minimum where there is not a lot of drilling footage, that is why mobilization is a little higher.

Let us know, thanks

Kevin L. Parris
President
Dominion Engineering Associates, Inc.
8511 Indian Hills Ct
Suite 202
Fredericksburg VA 22407
Phone: 540-710-9339
Cell: 757-710-0191

From: Kevin Northridge [mailto:KNorthridge@sdi-pc.com]
Sent: Tuesday, October 2, 2018 4:16 PM
To: kparris@dea-inc.net
Subject: FW: Lake Bottom

Kevin

Need a price [we can stake the location for you] for two borings 15 feet deep.
Site is located down a worn down gravel access 750 feet off Brock Road.

Thanks,

Kevin Northridge
Sullivan, Donahoe & Ingalls, P.C.
540-898-5878
KNorthridge@sdi-pc.com

From: Rick Furnival
Sent: Tuesday, October 2, 2018 4:02 PM
To: Kevin Northridge <KNorthridge@sdi-pc.com>
Subject: FW: Lake Bottom

Regards,
Rick Furnival, P.E.

SDI - Sullivan, Donahoe & Ingalls, PC
Engineers, Land Planners & Surveyors
10720 Columbia Drive
P.O. Box 614
Fredericksburg, Virginia 22404
Phone: 540-898-5878

From: Narayan Venkatesan <Narayan.Venkatesan@obg.com>
Sent: Monday, October 1, 2018 8:34 AM
To: George Rest <George.Rest@obg.com>; Rick Furnival <RFurnival@sdi-pc.com>
Subject: RE: Lake Bottom

Rick,
For the new Lake Bottom Booster pump station building, we would recommend two borings to gather subsurface information, approx. 15 ft deep, for the site. Please have your Geotech include this in their scope of work.

Thanks,
Narayan

Narayan Venkatesan, PE
OBG | Engineer III
Executive Plaza III, Suite 803
11350 McCormick Road,
Hunt Valley, MD 21031
443-541-1316 p | 410-771-3811 (f)
narayan.venkatesan@obg.com
www.obg.com

From: George Rest
Sent: Thursday, September 27, 2018 1:39 PM
To: rfurnival@sdi-pc.com
Cc: Narayan Venkatesan <Narayan.Venkatesan@obg.com>
Subject: Lake Bottom

Rick,
We are checking with our structural folks, and will get you a scope for the subsurface work.
George

George B. Rest, PE
Senior Vice President
OBG | Water
4201 Mitchellville Road, Suite 500
Bowie, MD 20716
p 301-731-5622 | f 301-805-5984
direct 301-731-1162
mobile 301-332-7557
george.rest@obg.com
www.obg.com

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Lake Bottom Municipal	QTY.	TOTAL UNIT	UNIT RATE		COST
Subsurface Exploration:					
Boring Coordinate	2 hours		$80.00	/hr.	$160.00
Drill Rig Mobilization	1 ls		$800.00	ls	$800.00
Drilling Borings	2 boring	15 lf. each	$12.00	/lf.	$360.00
Field Exploration Subtotal:					**$1,320.00**
Laboratory Testing:					
Visual Classifications/Logs	12 samples		$6.00	/sample	$72.00
Laboratory Testing Subtotal:					**$72.00**
Engineering Services:					
Principal Engineer	1 hours		$125.00	/hour	$125.00
Project Engineer	3 hours		$80.00	/hour	$240.00
Secretary	1 hours		$32.00	/hour	$32.00
Engineering Services Subtotal:					**$397.00**
ESTIMATED TOTAL COST:					**$1,789.00**

****Access/Clearing not included**

October 3, 2018