

TASK ORDER FOR
SPOTSYLVANIA COUNTY CONTRACT AGREEMENT
FOR PROFESSIONAL SERVICES
Contract #16-16-TV-03

In accordance with the Spotsylvania County Contract Agreement for Professional Services this Task Order and Proposal for Thornburg Wastewater Treatment Plant ("WWTP") Expansion & Upgrade – Final Design is made as of _____, 2018 by and between Spotsylvania County, a political subdivision of the Commonwealth of Virginia, ("COUNTY"); and O'BRIEN & GERE ENGINEERS, INC., a New York 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 and the Proposal, dated April 25, 2018 and prepared by CONTRACTOR attached hereto, and made a part hereof. The Task Order and Proposal for Thornburg WWTP Expansion & Upgrade – Final Design shall not exceed EIGHT HUNDRED FORTY-SEVEN THOUSAND SEVEN HUNDRED EIGHTY-SIX DOLLARS (\$847,786.00).

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 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 and Proposal for Thornburg WWTP Expansion & Upgrade – Final Design to be duly executed by their duly authorized officials as of the date first written above.

SPOTSYLVANIA COUNTY, VIRGINIA

By: _____
Mark B. Taylor
County Administrator

Dated

O'BRIEN & GERE ENGINEERS, INC.

By:  _____
William J. Meinert, P.E.
Vice President

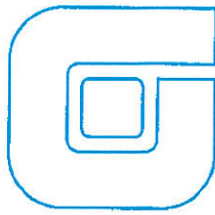
5/22/18

Dated

Approved as to form:

 _____
DEP. COUNTY ATTORNEY

5/25/2018
Dated



Benjamin L. Loveday 5/1/18
Benjamin L. Loveday, P.E.
Deputy Director
Utilities/Public Works
County of Spotsylvania, VA

OBG | There's a way

April 25, 2018

Mr. Benjamin Loveday, Deputy Director - Utilities, Public Works, Capital Projects
Spotsylvania County, Department of Utilities
600 Hudgins Road
Fredericksburg, VA 22408

RE: Professional Engineering Services, Contract #16-16-TV-03 – Task Order Letter Proposal,
Thornburg WWTP Expansion & Upgrade – Final Design
FILE: \Spotsylvania Co.5842 \ BD \

Dear Mr. Loveday,

O'Brien & Gere Engineers, Inc., (OBG) submits this task order proposal in response to completing the Thornburg WWTP Preliminary Engineering Analysis (PEA) report (3/9/18 draft, 4/3/18 final) and our subsequent discussions, including the 4/20/18 planning meeting. OBG will provide professional engineering services to advance preliminary engineering to final design stage for the Thornburg WWTP treatment upgrades, in an expedited fashion.

Background

The existing Thornburg WWTP permit No. VA0029513 was last issued on January 22, 2015, set to expire on January 21, 2020 – after the Chesapeake Bay Program's deadline for DEQ to draft and submit its Phase III Watershed Implementation Plan (2018) to EPA Region 3. The 0.345-MGD-rated facility, located at 5225 Mudd Tavern Road, Woodford, VA 22580, is situated upon a constrained site at the end of a relatively long access road right-of-way, within the Thornburg Service District and west of I-95. Treated effluent is discharged to an Unnamed Tributary to the Po River, in the York River Basin (above the fall line). The current VPDES Permit requires what may be characterized as advanced secondary treatment. The facility, rated for less than 0.5-MGD, is not on the VA significant discharger list, and therefore no TN, TP, or sediment annual WLA (York) is assigned. It is currently anticipated that VA / DEQ will formally adopt the Fresh Water Nutrient Criteria (FWNC) Ammonia rule in 2018-9, before the scheduled renewal of the TWWTP VPDES Permit.

The existing lagoon-based biological treatment system has difficulties meeting its current ammonia limit during extreme cold (wastewater) temperatures. New lower limits could be difficult to achieve at all times, with monthly average and weekly limits employed, without significant aeration control system, process equipment / technology, or tankage modifications - especially near design rating, during cold wastewater temperatures, and/or higher peak flow rates. Based on recent economic development inquiries and approved developments in the Thornburg Service District, calibrated as part of the W & WW Master Plan (currently in Phase 3 of completion), the TWWTP will need to accommodate growth beyond its existing treatment capabilities in the near-term and average daily flows higher than its current rating in the near-term or buildout conditions – timing being a function of prospective commercial / industrial development combined with residential growth. Recent development plans forecast that actual average flows will exceed 50% of the plant rating within two years, and upgrade plans call for one-half of the plant to be taken out of service for replacement (expansion / upgrade) at a time, maintaining treatment on a constrained WWTP site.



4201 Mitchellville Road, Suite 500
Bowie, MD 20716



p 301-731-5622
f 301-805-5984



OBG
www.obg.com

Figure 2 from the PEA is depicted below, depicting the basis-of-design site layout for the proposed Phase 1 0.75-MGD WWTP expansion & upgrade project.



This task order is organized to consist of the following components:

- Objectives & Project Approach
- Scope of Services
- Project Schedule
- Fee Estimate

OBJECTIVES & PROJECT APPROACH

Referencing the 2/6/17 memo, 8/10/17 W & WW master plan progress meeting minutes, 4/3/18 final PEA report, and 4/20/18 meeting minutes, the objectives of this task order are to:

- Provide on-call regulatory assistance to the County regarding the TWWTP VPDES Permit (0.345-MGD rating), set to expire January 2020; as well as DEQ WQIF grant funding application support for the proposed 0.75-MGD ENR project.
- Update available record information and operating data in further detail, beyond PEA stage, for design purposes. Include physical survey of the existing WWTP site in design, assuming no property acquisition. Geotechnical investigations were conducted during the PEA stage.
- Develop the Phase 1 (some sizing for Phase 2, refer to PEA report) final design for the recommended solution, without "Option 1" Reuse (Level 2), with "Option 2" Sludge Dewatering. Reuse would be a future consideration based on actual nearby commercial / industrial development.
- Implementation will expedite the expansion / upgrade project to meet the County's plans for the site and nearby development. The approach will include planned pre-purchase of major equipment systems by the County, namely the proposed Membrane BioReactor / Sludge Thickening system and Fine Screening (2 packages), during the design phase. Option-bid Dewatering equipment would be part of the construction documents for bidding by the County (a 3rd overall package), a future project phase.

The approach is to advance TWWTP upgrade plans from preliminary engineering (primarily process / mechanical design, preliminary input by other trades), to 100%-design, with County pre-purchase of major equipment systems to expedite schedule and reduce the potential for re-design. Regulatory and funding assistance during the design phase would confirm requirements, schedule, and refine the estimated local-share for the TWWTP project.

Proposed Phase 1 Project Basis-of-Design Summary

The following table summarizes the proposed Phase 1 project scope of improvements, as finalized with County review and input of the PEA:

Area / Treatment Process	Facilities & Capacity	Notations
Headworks	Headworks Building	
	Two Mechanical Screens	No dedicated Grit Removal
	Screenings Washing / Compacting	No Trucked Waste Receiving Station
	Influent Flow Measurement, Sampling	OC sized for Option-bid Dewatering
Biological Treatment	Odor Control Unit	
	Plug Flow Activated Sludge Bioreactors (1&2)	No primary treatment
	Internal Recycle Pumping, An/Ax/Ox Zones	Refer to preliminary layouts and modeling



	RAS/WAS Pumping Membrane BioReactor Equipment (1&2) Aeration Blower System	
Effluent Treatment	(Clarification & Filtration by MBR) Effluent UV Disinfection (future Reuse) Post Aeration Reaeration Cascade Effluent Flow Measurement, Sampling	Deferred, future Reclaimed Water (Reuse) system – supplemental UV and chlorination / transfer pumping
Sludge Handling	Solids Building(s) Membrane Thickening System Aerated Sludge Storage Tanks Option-bid Dewatering (Centrifuge, Polymer, Conveyors / Truck Loadout)	Phase 1 Solids Building rooms – Membrane Thickening system, Sludge Storage Blowers, Electrical; Option-bid Dewatering 2-story addition
Chemical Storage & Feed	Chemical Building Alkalinity Storage & Feed Coagulant Storage & Feed Supplemental Carbon Storage & Feed	Storage Room, Pump Room, and Three Chemical Storage Rooms MBR cleaning chemicals (Hypo, Citric) in Operations Building
Operations	MBR (1&2), RAS/WAS, Blower, Electrical, UV, and Operations rooms (Operations Building)	Refer to preliminary layouts
Site	Access Road improvements, staged Parking WWTP inter-unit piping Outfall relocation Primary Service, Emergency Generator Limited site improvements, fencing	Refer to PEA Figure 2 Influent Sewer improvements are not in TWWTP project Existing property, no acquisition or R/Ws No temporary treatment system included
TOTAL	0.75-MGD ADF Phase 1 Expansion / ENR Upgrade	Refer to PEA for certain facilities sized for 1.5-MGD ADF Phase 2, for efficiency and staging

Refer to the PEA report for preliminary codes & standards review and initial supporting trades input to the Phase 1 project scope of work (Civil,) Structural / Architectural, HVAC, Plumbing, Fire Protection, Electrical, Instrumentation & Control).

SCOPE OF SERVICES

The scope of this task order will include:

- Brief amendment memo to the Final PEA, noting County decide on Options and Implementation approach to final design and schedule
- Regulatory review meeting with County and DEQ staff regarding project scope & schedule
- Funding meeting or conference call with County and DEQ WQIF staff to discuss and then develop grant eligibility determination
- Internal value engineering and memorandum to address DEQ cost control report requirements (>\$10M project), focusing on treatment technology selections (confirm ranking and effectiveness) or cost (major capital or O&M cost impacts), review of overall site plan for expansion steps
- Design-phase kickoff meeting and site visit (expanded design team)

- Final Design activities will also include:
 - Four (4) progress PE review meetings (workshops) with County staff
 - Up to three (3) calls with DEQ staff
 - Up to one (1) regional facility visits in the Mid-Atlantic region to tour one or more technology installations
 - Confirming and refining the Basis-of-Design which includes influent loading analysis, mass balance, and unit sizing criteria. Applicable codes, standards, and guidelines will be identified or confirmed for each unit process and equipment system.
 - Confirming the anticipated permits for final design and construction.
- PEA stage included Geotechnical Investigations. It is assumed that no additional geotechnical borings or analyses will be needed for design. It is assumed that no hazardous materials survey or abatement design will be required.
- PEA stage did not include physical survey, to expedite delivery and due to uncertainties with respect to property and adjacent development plans. Final Design includes survey of the existing WWTP site property.
- Expanded final-design building code & design standards review, in preparation for design development workshops.

Design Development Packages (60%-Design stage)


Design Development Packages will be prepared. The packages will be organized by design workshop, focusing on the plant areas under review. These packages will represent the principal design documents for the project under development at the time and be supplemented by proposed equipment cut sheets, design criteria, and capital cost / O&M information.

Key design issues must be confirmed prior to initiating Final Design in each area. Items to be included in the Design Development Package(s) (60% completion):

- Plant Civil Layout
- Hydraulic Profile
- Process Flow Diagrams
- Equipment Selection and Cut Sheets
- Preliminary Structural / Architectural Design
- Preliminary Electrical & Mechanical diagrams and layout
- Cost Estimates, by unit process (confirmation and detail) to PEA-stage)
- Materials Of Construction information
- Construction Sequencing issues.

It is anticipated that a County procurement contract, separate from general construction, will be prepared for pre-purchasing two equipment systems (Membrane Filtration System, Influent Screening). The pre-purchase contracts would be submitted to DEQ (NRO and WQIF) for technical and funding review (local-share financing





preliminarily estimated (planning-level) at this time). In-progress 60-to-90% Design documents would be utilized as reference for pre-purchase.

Complete Contract Documents (90%-Design stage)

Review by County and regulatory agencies to confirm project scope and regulatory compliance will be done at the “90%-design” completion stage. Contract documents (90%) prepared after 60%-Design drawings will include representative front-end bidding documents (templates provided by County Procurement) for County review and consideration, technical specifications (CSI MasterSpec Divisions), and construction drawings (all trades included in one general construction contract).

Permit Applications, Project Cost Estimate

VSMP storm water during construction permitting application, with construction-phase SWPPP, will be prepared and submitted. ESC Plan application package will also be prepared and submitted. CTC review submittal will be prepared and submitted to DEQ NRO (OWE), submitting the as-awarded pre-purchase contract information and pre-bid general construction contract documents. Application fees, where applicable, will be provided by the County. The updated project cost estimate will be issued after the submittal of the 90%-Design documents, with estimates for the pre-purchase contracts provided before County bidding.

100%-Design stage, Bid-ready

Final Design Drawings and Specifications 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).

Design Guidelines & Regulations

The State Water Control Board of the Commonwealth maintains the SCAT regulations. SCAT regulations, as amended, are the main design reference and guideline for DEQ in the review of preliminary engineering and design documents submitted for permitting purposes. The design of new or major-modified facilities would also conform to local construction standards (Virginia Uniform Statewide Building Code (IBC, as amended – adopted statewide), NFPA 820 guidelines, and NEC (versions at time of this proposal). As noted in the PEA, for certain advanced treatment techniques and technologies, SCAT regulations are supplemented by 10-States Standards, TR-16, and/or documented VA-based performance where needed.

Requests For Information

Refer to prior proposals and agreements regarding WW Plan Update, Master Plan, and PEA phase requests for information. Supplemental data requests will be identified on an as-needed basis during each follow-on phase, such as most-recent DMRs and any significant changes to the Thornburg Service District wastewater characteristics.

Regulatory & Financial Assistance

Regulatory support services related to the VPDES Permit (including flow tiers) or VA nutrient removal program development may be required. After initial discussions with County and DEQ staff, the County may elect to authorize this Task or elements of this Task as described herein. Further, assistance with WQIF grant or VRLF loan program financial applications will likely be required, such as grant eligibility determination, local-share financing assistance / application input by the design engineer, etc.

With regards to the nutrient removal regulations and the VPDES Permit, design-phase evaluation of nutrient trading options is not envisioned at this time. Also, an Environmental Review, sometimes triggered by funding program requirements or the extent / degree of modification and expansion, is not anticipated.



It is anticipated that the County will complete the 2019 VPDES Permit Reapplication package, utilizing existing plant information, supplementing by in-progress design documents where relevant to requested flow tiers.

Procurement – Pre-Purchase Contracts Bid Phase Assistance

Two pre-purchase contracts have been incorporated into the schedule and engineering services, as part of the projected (future phase) construction contract period (CTC / CTO regulatory review processing times) needs to be mitigated by removing lead time for a major equipment element, as well as a means to establish as-bid costs for the major equipment system packages in advance of bidding the general construction work. Note that a similar approach was successfully used as part of the Massaponax WWTP Expansion / ENR Upgrade project with the Effluent Filters.

The bidding assistance scope of services includes:

- Provide drawings and specifications for bidding, with document distribution at both the County and OBG offices. Two contracts are envisioned – equipment system pre-purchase. General construction bid phase services are not included in this proposal, and since an Option-Bid, Dewatering Equipment would be included in general construction bidding (not pre-purchase).
- Assist with advertisement of project (County will place the required public advertisements), notifying prospective manufacturers.
- For the pre-purchases contract, OBG assumes that the procurement will be done concurrently, and with no pre-bid conference. OBG would assist the County in responding to vendor's questions.
- Provide clarification and addenda to bid documents if necessary (two contracts).
- Assist in receiving and reviewing bids (two contracts).
- Develop recommendation for award of bids (two contracts).

Other Services

Capital Improvement Plan (CIP) Assistance – provide during the design stage an updated project description, budgetary cost estimate (construction, project), and year-by-year cash-flow projection to County staff to facilitate the County updating its CIP projects.

On-call services specific to the Thornburg Service District's prospective growth and master planning will be conducted under the W & WW Master Plan task orders.

Requests For Information (RFIs) include, where not already provided as part of past project task orders, the following: 1) existing TWWTP record drawings and O&M manual(s); 2) current permits, three years of DMRs / MORs (electronic), information regarding representative existing peak loading conditions, and near-term growth wastewater characteristics and potential reuse demand (where available); 3) past engineering reports including basis of design, survey, property plat, and geotechnical report; 4) further information about prospective growth in the vicinity as it becomes available; 5) GIS-based information regarding the watershed, sewershed, and future TWWTP location (County's preference).

PROJECT SCHEDULE

Based on discussions, the task order schedule is as follows:

Activity

Completion

Assumed Notice-To-Proceed

6/15/18



Kickoff Meeting (Workshop), RFI material received	6/29/18
60%-Design (all packages & unit processes / areas)	10/19/18
Pre-Purchase Contracts to DEQ, Bid Ad	9/14/18
Preliminary WQIF Grant Eligibility Determination (anticipated, DEQ)	10/12/18
Anticipated DEQ Preliminary Approval – Pre-Purchase Contracts	10/26/18
Pre-Purchase Contracts Bid Opening, Bid Review	11/30/18
90%-Design, Permit Applications, Submit Final Design to DEQ (CTC Application)	12/28/18
Project Cost Estimate	12/28/18
VPDES Permit Reapplication (anticipated, County, before submission deadline)	1/26/19
100%/Bid-Ready Design (Construction Contract)	2/15/19
Construction Contract – Bid Phase	<i>Future Phase</i>
CTC Issuance – Phase 1 facilities (anticipated, DEQ)	4/12/19
Construction Phase, Initial Operational Assistance, CTO	<i>Future Phase</i>

FEE ESTIMATE

We propose to perform the work as a Task Order in accordance with the Contract Agreement for Professional Services (Contract #16-16-TV-03, Modification #3 Renewal #2 (effective 5/11/18, 3/28/18 Rate Schedule, OBG-signed 4/23/18)) between the County and OBG. The fee for services as set forth and described above shall be invoiced (monthly) on a Time & Materials (T&M) basis. This task order fee estimate is **\$847,786**, as detailed in the attached.

We very much appreciate the opportunity to provide further engineering services to the County. Should you have questions or concerns about the information in this proposal, please contact me at (301) 731-1130 or Bill.Meinert@obg.com. Thank you.

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



William J. Meinert, PE
Vice President

Attachment
Fee Breakdown Sheets

cc, w/att: OBG – David Wilkes, file
County – Doug Crooks, Chris Edwards

\\Spotsylvania Co.5842 \ BD \ Spotsy TWWTP FD letter proposal.docx



Spotsylvania County - Thornburg WWTP
Professional Engineering Services
Cost Proposal - Phase 1 0.75-MGD ENR Project, Final Design
O'Brien & Gere Engineers, Inc.

File No.: 5842 \ Proposal \
Prepared By: WJM
Reviewed By: DRW
Rev, Last Update: 0, 4/25/18

	<u>Labor</u>	<u>Directs</u>	<u>Total</u>
Final Design	\$685,638	\$76,350	\$761,988
Regulatory & Funding Assistance	\$42,282	\$2,055	\$44,337
Pre-Purchase Contracts Bid Phase Assistance	\$40,426	\$1,035	\$41,461
TOTALS	\$768,346	\$79,440	\$847,786

File No.: 5842 \ Proposal \
Prepared By: WJM
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Rev, Last Update: 0, 4/25/18

[illegible]

Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Total
		16				28	40	28		8	2	122
		72	16	16	24	80	60	16		24	8	316
		16				60	96	100				352
		20		80	40	180		240	240			800
		96	28	16	32	320	400	400		240		1532
		12		24		60	80		60			236
		16		80	140		120	240	160	200		956
		24	8	8	8	100	20	120	120		40	448
		20	16	16	16	60	60				4	192
		24	4	4	4	60	60	16		32	32	236
0	0	316	72	244	264	948	936	1160	660	504	88	5190
\$0	\$0	\$74,260	\$14,544	\$45,140	\$43,296	\$148,836	\$121,680	\$131,080	\$60,720	\$40,320	\$5,762	\$685,638

\$761,988

Spotsylvania County - Thornburg WWTP
Professional Engineering Services
Cost Proposal - Phase 1 0.75-MGD ENR Project, Regulatory & Funding Assistance
O'Brien & Gere Engineers, Inc.

File No.: 5842 \ Proposal \
Prepared By: WJM
Reviewed By: DRW
Rev, Last Update: 0, 4/25/18

WWTP - Nutrient Reduction - Final Design & Permit Applications

	Technical Specialist, Officer 2	Program Director, Officer 1	Mng Egr, Mng Scl, Proj Mgr 2; Sr Tech Director	Mng Egr, Mng Scl, Proj Mgr 1, Tech Director	Mng Assoc, Proj Assoc, Tech Assoc: E / S / Arch 3	Sr Proj Engr, Sr Proj Des, Sr Proj Scl, Sr Des, Sr Engr	Proj Engr, Proj Scl, Proj Desgr: Eng / Scl / Arch 2	Des Egr, Designer, Scientist, Eng Tech 3	Staff Egr, Staff Scl, Staff Desg: E / S / A 1 Admin 3	Des Draft, Technician, Sr/D Sec/OA	Tech Draft, Reg/OA Sec, Proj Cost Admin
Per Rate (\$18-9)	\$235	\$235	\$202	\$185	\$164	\$157	\$130	\$113	\$92	\$80	\$67

Project Management, Civil / Site, Process / Mechanical, E & M Support

Engineering Services

	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Total
VPDES Permit assistance			20				16					2	38
Supplemental regulatory mtgs / calls			20				8					2	30
WQIF Grant Elig Determination asst			16				20	16				2	54
In-house VE Session - 60%-stage			16	16	16	16	24	24				4	116
Other financial program asst - N/A													0
													0
													0
Total Hours	0	0	72	16	16	16	68	40	0	0	0	10	238
Labor	\$0	\$0	\$16,920	\$3,232	\$2,960	\$2,624	\$10,676	\$5,200	\$0	\$0	\$0	\$670	\$42,282
Avg Rate	\$178												

Notes Estimate based on projected Hourly Billing Rates (March 2018 schedule, effective May 2018-April 2019).

Direct Expenses

	Markup	Unit	Unit Cost	Qty	Cost	Notes
Routine Directs - phone, fax, postage, mileage, photos, copies	2%	LS		\$1,500	\$1,530	
Other Direct Expenses - travel, reproduction, shipping	5%	LS		\$500	\$525	
Equipment		Hours	\$0	0	\$0	
Technical Services		LS		\$0	\$0	
	5%	LS		\$0	\$0	
	10%	LS		\$0	\$0	
	0%	LS		\$0	\$0	

Direct

\$2,055

Total Fee - Proposal (BR)

\$44,337

Spotsylvania County - Thornburg WWTP
Professional Engineering Services
Cost Proposal - Phase 1 0.75-MGD ENR Project, Procurement - Pre-Purchase Contracts Bid Phase Asst
O'Brien & Gere Engineers, Inc.

File No.: 5842 \ Proposal \
Prepared By: WJM
Reviewed By: DRW
Rev, Last Update, 0, 4/25/18

WWTP - Nutrient Reduction - Pre-Purchase & Bid Phase

	Technical Specialist, Officer 2	Program Director, Officer 1	Mng Egr, Mng Scl, Proj Mgr 2; Sr Tech Director	Mng Egr, Mng Scl, Proj Mgr 1, Tech Director	Mng Assoc, Proj Assoc, Tech Assoc, E / S / Arch 3	Sr Proj Engr, Sr Proj Deg, Sr Proj Scl, Sr Deg, Sr Engr	Proj Egr, Proj Scl, Proj Degre: Eng / Scl / Arch 2	Deg Egr, Designer, Scientist, Eng Tech 3	Staff Egr, Staff Scl, Staff Deg: E / S / A 1 Admin 3	Osg Draft, Technician, Sr/D Sec/OA	Tech Dir, Reg/OI Sec, Proj Cost Adm
Hr Rate (18-9)	\$235	\$235	\$202	\$185	\$164	\$157	\$130	\$113	\$92	\$80	\$67

Project Management, Civil / Site, Process / Mechanical, E & M Support

Engineering Services	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Total
Project Management			2				2					1	5
Pre-Purchase Contracts (2)			8	4	4		24	24				8	72
Bid Advertisement & Distribution			2				2						4
Bidder Question / Answer Assistance			6	2	2	2	40	16		8		2	78
Pre-Bid Meeting - N/A													0
Bid Addenda			4	1	1	1	16	8	20	16	8	8	83
Bid Review, Award Recommendations			8				12	4		4		2	30
Confirm Project Funding			4					4					8
Total Hours	0	0	34	7	7	3	96	56	20	28	8	21	280
Labor	\$0	\$0	\$7,990	\$1,414	\$1,295	\$492	\$15,072	\$7,280	\$2,260	\$2,576	\$640	\$1,407	\$40,426
Avg Rate	\$144												

Notes Estimate based on projected Hourly Billing Rates (March 2018 schedule, effective May 2018-April 2019).
No specific local-share funding assistance has been identified.

Direct Expenses	Markup	Unit	Unit Cost	Qty	Cost	Notes
Routine Directs - phone, fax, postage, mileage, photos, copies	2%	LS		\$500	\$510	
Other Direct Expenses - travel, reproduction, shipping	5%	LS		\$500	\$525	not incl. Bid documents reproduction (County online and/or paper repro)
Equipment						
CAD, GIS		Hours	\$0	36	\$0	
Field	5%	LS		\$0	\$0	
Others	10%	LS		\$0	\$0	
Technical Services						
Affiliates	0%	LS		\$0	\$0	

Direct

\$1,035

Total Fee - Proposal (BR)

\$41,461