003-2018

RESOLUTION

Mayor Brown introduced the following resolution, which was seconded by Trustee Rochfort, reading as follows:

WHEREAS, the Board of Trustees wishes to enter into a contract with Delaware Engineering for engineering services for a water filtration project and water storage tank rehabilitation upon the terms and conditions annexed hereto as **Exhibit A**; and

NOW, IT IS HEREBY RESOLVED that the Village Board of Trustees hereby authorizes the Mayor or Deputy Mayor to execute the proposed Agreement annexed hereto as **Exhibit A** or any other agreement having substantially the same or similar provisions.

The foregoing resolution was duly put to a vote which resulted as follows:

Mayor Brown	aye
Trustee Rochfort	aye
Trustee Herzog	~~absent~~ aye entered meeting @ 6:48 PM
Trustee Hicks	absent
Trustee VanDeWater	aye

DATED: Millbrook, New York
March 13, 2018

SARAH J. WITT, Village Clerk
Village of Millbrook

PROFESSIONAL SERVICES AGREEMENT

Final Engineering Design Report
Water Treatment Plant and Water Storage Tank Rehabilitation
("PROJECT")

This Agreement is by and between
Village of Millbrook ("CLIENT")
35 Merritt Avenue
P.O. Box 349
Millbrook, NY 12545
and,

Delaware Engineering, P.C. ("ENGINEER")
28 Madison Avenue Extension
Albany, New York 12203

Who agree as follows:

The CLIENT hereby engages the ENGINEER to perform the services described in Part I ("Services") and the ENGINEER agrees to perform the Services for the compensation set forth in Part II. Work shall be conducted pursuant to the Standard Terms and Conditions provided in Part III. The ENGINEER shall be authorized to commence the Services upon execution of this Agreement. The CLIENT and the ENGINEER agree that this signature page, together with Parts I-III and any attachments referred to therein, constitute the entire agreement between them relating to continuing Project assignments (Agreement).

APPROVED FOR CLIENT	APPROVED FOR ENGINEER
By: _____	By: _____
Printed Name: _____	Printed Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

PART I
ENGINEER'S RESPONSIBILITIES

Background

The Village of Millbrook owns a water distribution and water treatment facility that is operated by VRI Environmental Services, Inc. and is permitted by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health, NYS Public Water Supply ID# - NY1302770. The water treatment facility was constructed in the 1930's; there have been changes to the original design over the years. As regulations have changed the facility has had increasing levels of analytical testing performed; under the surface water treatment rule (SWTR) ground water sources within 200 ft. of surface waters are required to undergo chemical, physical and biological tests to determine if the water source is under the direct influence of the surface water. Surface waters can become contaminated with microscopic pathogens like Giardia & Cryptosporidium which are protozoan. The parasite can survive for lengthy periods outside a host and resists many common disinfectants, notably chlorine-based disinfectants. Water facilities under the influence of surface water can be required to add filtration when chlorination is the sole treatment process available. Dutchess County Health Department has issued a "Notice of Violation" to the Village of Millbrook because their water system has been determined to be under the direct influence of surface water and have been ordered to install adequate treatment because of the GWUDI (Ground Water Under the Direct Influence of Surface Water) determination.

Purpose

Biological testing was performed on the raw water; the initial results indicated that there was a biological influence between the stream and the raw water aquifer. To confirm the initial sample results a second round of samples was collected which confirmed that the aquifer is biologically influenced by surface water. The organisms found in the water samples are indicator organisms that are common in surface water, the organisms are not considered pathogenic organism. Under the Surface Water Treatment Rule and Part-5 of the NYS Sanitary Code public water supplies with source water that is under the influence of surface water must install treatment that will provide removal or inactivation of Giardia, Cryptosporidium and certain viruses. The Dutchess County Department of Health has issued an order which requires the Village of Millbrook to comply with the requirements of the regulation:

> 6. Based on the results of recent MPA testing, this office has determined the source water for this supply to be under the influence of surface water. Therefore, you have 18 months from the date of this letter to install an adequate filtration system. Please be advised engineering plans must be submitted to the New York State Department of Health as well as this office for review and approval prior to installation. If you wish to further discuss this matter, please contact this office to set up a conference.

A Preliminary Engineering Report was prepared to address a proposed design concept for treatment and to provide preliminary budget information; the report was accepted by the Village of Millbrook Board and the Dutchess Co. Department of Health, Delaware Engineering was authorized to prepare this contract for the final design of the water filtration system as presented in the preliminary report. In the interim the Village Board decided to investigate the possibility of developing a groundwater source as a means of complying with the requirements of the regulations. A test well was drilled and pump tested, water quality testing was performed and certain analytes were identified that would have to be removed to meet the regulations for drinking water. The Village Board asked Delaware Engineering for an alternative approach that would not require a new storage tank located at the water treatment plant, new building and new transfer pumps, This contract is for the design of an acceptable alternative process that meets the required filtration parameters and the rehabilitation of the 500,000 gallon storage tank which the Dutchess County Health Department has requested the Village 'paint'.

SCOPE OF SERVICES

Services to be provided include:

- Task 1 – Revised Design plan, includes amending the existing wetland permit as may be required.
- Task 2 – Final Design Services
- Task 3 - Bid/Award Services
- Task 4 - Engineering during Construction
- Task 5 - On Site Observation and Certification Services
- Task 6 – As-Built Drawings
- Task 7 - Subcontractor Services

A description of the services for each of these tasks is as follows.

Task 1 – Revised Design Plan

Includes amending the wording in the existing wetland permit to reflect the revised scope.

The cost for Task 1 is a budgeted amount of up to $20,000.00, as shown on Table 1 annexed hereto.

Task 2 - Design Services

Delaware will provide the following design services that will result in the design, approval, construction and certification of a cartridge filtration process that will meet the requirements of the DCHD and NYSDOH and will provide the necessary treatment to resolve the GWUDI determination issue:

1. Travel to site to review existing conditions and gather additional information as needed.
2. Coordinate and review project work with the Village and operating staff via site visits, telephone and email.

3. Review the recommended plan with the Village & Water operating staff and confirm the scope of work.
4. Contact NYSDOH and review the project scope.
5. Prepare Contract Documents [i.e., plans and specifications] for bidding and construction in 2018-2019 in accordance with NYS Municipal Law.
6. Obtain prevailing wage schedules from NYSDOL.
7. Prepare specifications to include bid notice/advertisement, information for bidders, work item descriptions, bid forms, bond requirements, agreement information, general conditions, special conditions, technical specifications, prevailing wage schedules & permits. It is anticipated that a storm water pollution prevention plan (SWPPP) will not be required; as such erosion and sediment control details will be included in the specifications. Note – the water filtration project and the storage tank rehabilitation will be bid separately.
8. Prepare all Contract Drawings as necessary. Plan drawings will be 1" = 20' scale and will be based on the topographic survey conducted by the surveying subcontractor. Profiles will be 1" =20' horizontal and 1"= 5' vertical.
9. Review Contract Documents with the Water Operating staff & Village Board liaison, and revise to address comments.
10. Forward up to three sets of contract documents to NYSDOH & DCHD for review and comment. Also provide one copy of the Engineering Report for information.
11. Review and address NYSDOH and DCHD comments and provide written response letter to each agency.
12. If required, forward up to three sets of revised contract documents to NYSDOH &.
13. Provide Village with an updated probable cost estimate (one time) at completion of design.

Site Visits:

- To site – periodic as necessary
- To Village Board Meetings – monthly as needed

Deliverables:

- Contract documents/drawings for NYSDOH & DCHD for review and approval

The cost for Task 2 is a budgeted amount of up to $60,000.00, as shown on Table 1 annexed hereto under the category "Final Design" Services.

Task 3 - Bid/Award Services

1. Once NYSDOH & DCHD approvals are received; reproduce and provide up to 15 sets of contract documents to the Village for bidding purposes.
2. Provide a copy of the bid notice to the Village Clerk for their subsequent publication of the legal notice in their local newspaper and fax the notice to several contractors who have performed well on previous projects.
3. Prepare for and attend a pre-bid meeting with potential contractors, and Village to review the scope of work and project requirements. NYSDOH & DCHD will be invited to attend this meeting.
4. Reply to questions from prospective bidders, prepare clarifications and addendums.
5. Attend bid opening and pick up all bid documents from the Village for bid review.
6. Review and tabulate bids.
7. Provide the Village with bid review results and recommendations regarding award of the prime construction contract.

8. Prepare and submit to the Village a Notice of Award for execution by the Mayor, and subsequently submit Owner-signed notices to the one prime contractor, for execution and return with bonds and certificates of insurance.
9. Review contractor bonds and certificate of insurance, and if acceptable, prepare Notice to Proceed for the contract.
10. Prepare and submit to the Village three "execution" copies of the Contract Documents for the contract (one copy each for the Village, each prime contractor and engineer) that include copies of the contractor's bid sheets bid (e.g., actual bid sheets, non-collusive forms, etc.), bonds, certificate of insurance, Notice of Award, Notice to Proceed for subsequent endorsement by the Village and the successful contractor.
11. Provide three sets of construction documents to the successful contractor for use during construction.

Site Visits:

- To site – at pre-bid
- To Village Hall – for bid opening
- To Village Board Meetings – monthly as needed

Deliverables:

- Contract documents – up to 15 sets to Village for bidding purposes
- Bid Notice to Village Clerk
- Bid Tabulation and Award Recommendations for the one prime contract to Village
- Execution copies for the one prime contract

The cost for Task 3 is a budgeted amount of up to $9,200.00, as shown on Table 1 annexed hereto.

Task 4 - Engineering During Construction/Construction Administration:

These services are conducted by field, design & office staff.

1. Advise NYSDOH in writing of the construction schedule.
2. Review and process contractor shop drawings and submittals as necessary to confirm that the contractor is providing the required items.
3. Maintain two files containing contractor shop drawings and submittals. Provide one copy to the Village for use during construction and for future record purposes.
4. Prepare for and attend a preconstruction meeting with Village and the successful contractor to review project requirements (e.g., pay request protocols/requirements, storage and staging areas, anticipated order of work/work schedule, etc.). NYSDOH & DCHD will be invited to attend this meeting.
5. Prepare for and attend periodic, but not more frequently than monthly, progress meetings throughout construction with Village staff and contractor. Minutes from these meetings will be prepared and distributed to involved parties.
6. Periodically visit the project site to review progress of work. Design engineering staff will periodically visit the project sites to review progress of work; duration of on-site visit of up to 4 hours. We have budgeted up two visits per month for this activity.
7. Review and process monthly contractor payment request including review of the draft "pencil" copy of the AIA forms, generation of final AIA payment request cover sheet form and spreadsheet form to substantiate the costs.

8. Submit recommendation for payment letter, with cost information (e.g., AIA forms, cost summary spreadsheet, etc.), for each contractor payment request to the Village. Project budget is based on preparation of up to ten (including the final) payment requests for the one prime contractor.
9. Process project change orders. Costs are based on preparation of up to a total of six change orders for the one prime contract for this project. All proposed changes will be reviewed with the Village. All changes will require Village approval prior to proceeding in order to be considered eligible for payment.
10. Discuss project activities with the onsite representative, Village and the prime contractor.
11. Forward new waterline disinfection testing (two consecutive 24-hour tests), provided by the contractor, to NYSDOH for approval prior to allowing new waterline to go into service.
12. Conduct Final Inspection with the DCHD, NYSDOH, Village and the contractor to confirm that work has been successfully completed in accordance with the approved Contract Documents, and any approved changes, and to develop a punch list of remaining work if needed. Contractor will complete remaining

    work before submitting for final payment request. Prepare contract close-out package, including the certificate of substantial completion, contractor's affidavit of release of liens and final payment request and forward to the prime contractor and Village for processing. Forward fully executed copies to the Village and contractor.
13. Develop letter and forward to NYSDOH & DCHD certification that the project was constructed in accordance with the approved plans and specifications (NYSDOH form for Certification of Completed Works).

Costs for construction administration services are based on a ten-month construction period (six months of onsite work and two months of pre- and post- work). If the construction period extends beyond the ten-month period, and if the Village desires to have services continue, we can prepare a contract amendment for additional services for Village consideration.

Site Visits: (minimum)

- To site – average of 2 per month during construction
- To Village Board Meetings – monthly as needed

Deliverables:

- Construction commencement/schedule letter to DCHD and NYSDOH
- Contractor Payment Requests (not more frequently than monthly – 10 budgeted)
- Submittals/Shop Drawing Files
- Change Orders
- Contractor Closeout package
- Certification of Completed Works to NYSDOH

The cost for Task 4 is a budgeted amount of up to $41,667.00, as shown on Table 1 annexed hereto.

Task 5 - On-Site Observation Services:

Services to be provided by the on-site representative include:

1. Provide on-site construction observation during significant work events. For this project we have budgeted and anticipate full time (up to 8 hours per day) inspection for approximately 6 months (24 weeks) (960 hours) inspection during onsite work performed by the contractor, for a total of up to 960 hours. Costs billed to the Village will be based on the Engineering Rate Schedule located on pg-9; plus reimbursable expenses, for the on-site representative at actual on-site hours. Observe on-site construction activities to ensure that work is conducted in accordance with the approved

Contract Documents and will maintain regular contact the Village and design/office staff to review progress and discuss project issues.

2. Complete daily reports (forms to be provided by Delaware) and maintain in a three-ring binder. Maintain two copies of the binder and provide one copy of the binder to the Village at completion of work.
3. Take digital, date stamped job photos, and incorporate paper print outs of select photos into the daily report binder with the respective daily report. Provide a CD with all photos to the Village at completion of work.
4. Annotate and maintain one set of Contract Drawings to record as-built conditions and any changes.
5. Attend preconstruction, progress and final inspection meetings.

Site Visits:

- To site – estimated 40 hrs/wk for a 6 months construction schedule.
- To Village Board Meetings – as necessary

Deliverables:

- Daily report binder with daily reports and project photographs (one copy to Village)
- Markup of contract drawings – for as built preparation

The cost for Task 5 is a budgeted amount of up to $60,000.00, as shown on Table 1 annexed hereto.

Task 6 - As-Built/Record Drawings

1. Prepare as-built/record drawings, based on as-built information provided by the contractor and collected by the on-site representative.
2. Provide two sets of paper 24" x 36" drawings and a digital copy in PDF format to the Village for record purposes.
3. Provide up to two sets total of paper 24" x 36" and/or 11" x 17" drawings NYSDOH.

Deliverables:

- As-Built Drawings (2 full size paper and one digital)- Village
- As-Built Drawings (up to two full size or 11"x17"paper)- NYSDOH & DCHD

The cost for Task 6 is a budgeted amount of up to $3,000.00, as shown on Table 1 annexed hereto.

Task 7 - Subcontractor Services:

Subcontractor services will be required for topographic site surveying and geotechnical evaluations (Borings). Delaware will retain qualified subcontractors to perform the work as needed. Site surveying will be conducted for the project length to collect topographic and elevation information needed for the plan and profile drawings for the design. Delaware will retain a qualified NYS licensed professional surveyor to perform field work and provide AutoCAD digital files of the plan view of the work area with 1'contours.

Surveying Services

Surveying services are planned to be provided by a qualified land surveying company as a subcontract to Delaware for this surveying work.

A qualified land surveying company shall provide the following surveying services, as a subcontractor to Delaware Engineering, P.C. (Engineer), in order to provide CAD drawings, and planimetric and topographic

information, for subsequent design of water system. Note, topographic and elevation information is needed to determine the location for the new building, tank and waterline:

1. Conduct site visits with Delaware Engineering to confirm locations for and extent of work.
2. Contact the One Call Center/Dig Safe NY/UFPO to request mark out of underground utilities along the project route
3. Field surveying to establish location and elevation information necessary to produce a plan and profile drawing for replacement/installation of the new water treatment facility, lines and appurtenances. Collect location and elevation information for all trees, shrubs, flower beds, as well as, structures within 50 feet of each side of the property line, including driveways (also identify type of each driveway (e.g., blacktop, gravel, etc.)), utility poles, fences, mailboxes, gardens, utilities, water valves (e.g., line valves, shutoffs/curb stops, etc), and storm manholes (including rim, invert and all pipe inverts and sizes), catch basins (including rim, invert and all pipe inverts and sizes), electric and telephone manholes and pull boxes, etc. to the maximum extent possible. Location and Elevation information to be based on USGS elevations geo-referenced in the NYS coordinate system in feet with vertical datum (as NAVD 88) in feet.
4. Field locate and show on the plan drawing existing property markers, pins, etc.
5. Provide property ownership demarcation based tax map information (i.e., overlay with County tax map information) and on property information found in the field.
6. Install recoverable, permanent stations at traverse points using 10" pole spikes or equivalent. Each traverse point shall have three ties. The ties will be shown as a detail on the plan drawing.
7. Install at benchmarks based on USGS NAVD 88. One benchmark every 500 lineal feet for water line work and two benchmarks at each non-waterline site. Indicate benchmark locations and elevations on the plan drawings.
8. Download and process the field data. Generate drawings which are suitable for use on AutoCAD Version 2012 and geo-referenced in the NYS coordinate system in feet with vertical datum (as NAVD 88) in feet. Plan and, where required, profile drawings to be 20 scale on 24" by 36" sheet of paper (D size) based on USGS datum. Review partitioning of drawing with Engineer if the information cannot fit on a single sheet. Profiles to be a grid with 100 foot stationing on the x-axis and USGS elevations on the y-axis with 1" = 5' vertical and 1" = 20' horizontal scale. Provide an existing grade line on each profile based on the location of the existing (i.e., if to be replaced in kind) or proposed (if in a new location) utility centerline.
9. Provide plan and profile drawings for all waterline work. Provide plan only drawings for all other non-waterline sites.
10. Provide an electronic copy and CD to the Engineer of the survey work with topographic and planimetric information suitable for use with AutoCAD Version 2012 and geo-referenced in the NYS coordinate system in feet with vertical datum (as NAVD 88) in feet.
11. Maintain proof of horizontal and vertical closures and provide one copy of same to Engineer if requested by the Engineer.
12. Maintain all survey notes and provide one copy of same to Engineer if requested by the Engineer.
13. Maintain copies of plans, maps, etc. used during the project, and provide one copy of same to Engineer if requested by Engineer.

Note that the Village will provide assistance to the surveyor to access water valves, manholes and catch basins in areas to be surveyed so that location and elevation information can be obtained

The cost this portion of Task 7 is a budgeted amount of up to $8,500.00, as shown on Table 1 annexed hereto.

Soils Borings/Geotechnical Investigations

This work is required to establish subsurface conditions at the location of the new structures and new waterline. Delaware Engineering plans to subcontract the investigative work to a qualified contractor who has effectively performed similar work on a number of similar projects over the last 4 years.

Work to be performed by a qualified contractor:

- Agree upon locations of bore holes. Locations will be established by the Engineer and Village, in consultation with _____ (and if deemed necessary, in consultation with a directional drilling contractor), annotated on a site map and forwarded to others. Engineer and/or Village will field locate (painted or staked) planned locations so that utility mark out can be performed by others. Final locations to be confirmed the day of the work with the Village or the Engineer based on utility conflicts and access.
- Contact Dig Safely New York (811) to facilitate utility mark out.
- Mobilize/demobilize and drill up to four borings to depths ranging from up to 10' to 30'. Work to be performed by _____staff or a qualified and fully insured drilling subcontractor identified in advance to the Engineer.
- For each boring, spilt spoon sampling will be conducted at 5' intervals to the bottom of the borehole. If refusal is encountered above the planned termination depth then 5' will be cored. All fieldwork will be performed under supervision of subcontractor personnel.
- Upon completion of the fieldwork, all recovered soil samples and rock cores will be transported to the lab/office for review.
- Prepare a summary report, including a subsurface log for each test boring, boring location map and associated information.
- Provide four (4) copies of the report to Delaware Engineering for subsequent transmittal to the Village and for incorporation into the Contract Documents.

The cost for this portion of Task 7 is a budgeted amount of up to $10,000.00, as shown on Table 1 annexed hereto.

SCOPE OF WORK FOR WATER STORAGE TANK REHABILITATION:

In addition to the work outlined above, included within the total project cost for engineering services is work for the water storage tank rehabilitation. While the work for the water storage tank rehabilitation will be bid separately, engineering for both projects are covered by this agreement and will be included in the overall total budget of $237,367.00. The scope of services for this portion of the contract will include tasks 1 through 5; if necessary additional tasks can be added and the description of tasks 1 – 5 can be enhanced in an addendum with additional details once the relining bid specifications have been developed:

Task 1: Preparation of bid specifications.
Task 2: Bid/Award services.
Task 3: Project Oversight
Task 4: Regulatory Approval.
Task 5: Completed Works Certification.

TOTAL BUDGET:

The total budget for engineering services under this agreement, including those services to be sub-contracted, is $237,367.00. If it appears hours required will exceed that anticipated and budgeted total amount,

Delaware will discuss with the Village to determine if additional coverage (at additional cost) is desired and can prepare a contract amendment for additional services.

This completes the planned engineering scope of work for this project. Costs associated with the scope of work are set forth in Part II, Compensation, Billing & Payment.

PART II
COMPENSATION, BILLING AND PAYMENT

ENGINEER shall be compensated on a time and materials basis in accordance with the attached **Revised Professional Service Budget**. ENGINEER shall invoice CLIENT once monthly and invoices are payable within 30 days of receipt.

Delaware Engineering, P.C.

Engineering Rate Schedule Year 2018

Billing Category	Rate/Hour
Technical Typist / Administration	$65
Designer, Technician, Construction Inspector	$75 - $100
Senior Designer, Technician, Construction Inspector	$95 - $110
Senior Construction Manager	$125 - $135
Senior Planner I, GIS Specialist	$95 -$115
Engineer / Scientist / Planner I	$95 - $115
Engineer / Scientist / Planner II	$115 - $125
Engineer / Scientist / Planner III	$125 - $140
Senior Engineer / Scientist / Planner II	$140 - $155
Senior Engineer / Scientist / Planner III	$155 - $175
Principal Engineer / Scientist	$175 - $195

Reimbursable Expenses:

1. Mileage @ Federal Rate
2. Travel Expenses (Lodging, Meals) @ Federal Per Diem Rate
3. Telecommunications @ Cost
4. FedEx, UPS, US Postal, Courier @ Cost
5. Subcontract Management @ Cost
6. Other allowable costs @ Cost (Plan Reproductions, Photographs, etc.)
7. In-house Printing:

	B&W	*Color*
A size - 8½" x 11"	$ 0.05	$ 1.00
B size - 11" x 17"	$ 0.10	$ 2.00
D size - 24" x 36"	$ 0.50	$15.00
E size - 36" x 48"	$ 1.00	$30.00
other sizes	$ 0.10/s.f.	$ 2.50/s.f.

Revised Professional Service Budget

1) Professional Services			
1.1. Site Surveying:			
- Topo Survey	$	5,000.00	assuming wet land survey acceptable
- Construction Layout & As-Built Survey	$	3,500.00	
1.2. Geotechnical Investigation:	$	10,000.00	
1.3. Engineering			
-Preliminary Design plan:			
-Stormwater Pollution Prevention Plan (SWPPP) & wetland permit:	$	20,000.00	revise existing wetland permit to include building addition, <1 Acre
-Final Design:	$	60,000.00	
-Bidding/Award:	$	9,200.00	
-Construction Administration:	$	41,667.00	Engineering during construction. Based on 5 months construction.
-On-Site Inspection (5 months full time)	$	60,000.00	
-Grant applications writing & follow up	$	15,000.00	
-As-Built Drawings:	$	3,000.00	
1.4. SEQR/Environmental Review	$	10,000.00	Uncoordinated review; short EAF no SHPO
SUBTOTAL PROFESSIONAL SERVICES:	$	237,367.00	

Note: There is $40,000.00 left from the Dutchess County Grant.

There are also additional Grant monies through the Water Infrastructure Improvement Act and Inter-municipal Water Infrastructure Grant which can pay up to 60% of the cost for design and construction.

PART III
STANDARD TERMS AND CONDITIONS

1. STANDARD OF CARE. Services shall be performed in accordance with the standard of professional practice ordinarily exercised by the applicable profession at the time and within the locality where the Services are performed. Professional services are not subject to, and ENGINEER can not provide, any warranty or guarantee, express or implied, including warranties or guarantees contained in any uniform commercial code. Any such warranties or guarantees contained in any purchase orders, requisitions or notices to proceed issued by CLIENT are specifically objected to.

2. CHANGE OF SCOPE. The scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement, including, if applicable, information supplied by CLIENT. For some projects involving conceptual or process development services, scope may not be fully definable during initial phases. As the Project progresses, facts discovered may indicate that scope must be redefined.

3. SAFETY. ENGINEER has established and maintains corporate programs and procedures for the safety of its employees. Unless specifically included as a service to be provided under this Agreement, ENGINEER specifically disclaims any authority or responsibility for general job site safety and safety of persons other than ENGINEER employees.

4. DELAYS. If events beyond the control of CLIENT or ENGINEER, including, but not limited to, fire, flood, explosion, riot, strike, war, process shutdown, act of God or the public enemy, and act or regulation of any government agency, result in delay to any schedule established in this Agreement, such schedule shall be amended to the extent necessary to compensate for such delay. In the event such delay exceeds 60 days, ENGINEER shall be entitled to an equitable adjustment in compensation.

5. TERMINATION/SUSPENSION. Either party may terminate this Agreement upon 30 days written notice to the other party. CLIENT shall pay ENGINEER for all Services, including profit relating thereto, rendered prior to termination, plus any expenses of termination. In the event either party defaults in its obligations under this Agreement (including CLIENT'S obligation to make the payments required hereunder), the non-defaulting party may, after 7 days written notice stating its intention to suspend performance under the Agreement if cure of such default is not commenced and diligently continued, and failure of the defaulting party to commence cure within such time limit and diligently continue, suspend performance under this Agreement.

6. OPINIONS OF CONSTRUCTION COST. Any opinion of construction costs prepared by ENGINEER is supplied for the general guidance of the CLIENT only. Since ENGINEER has no control over competitive bidding or market conditions, ENGINEER cannot guarantee the accuracy of such opinions as compared to contract ids or actual costs to CLIENT.

7. RELATIONSHIP WITH CONTRACTORS. ENGINEER shall serve as CLIENT'S professional representative for the Services, and may make recommendations to CLIENT concerning actions relating to CLIENT'S contractors, but ENGINEER specifically disclaims any authority to direct or supervise the means, methods, techniques, sequences or procedures of construction selected by CLIENT'S contractors.

8. CONSTRUCTION REVIEW. For projects involving construction, CLIENT acknowledges that under generally accepted professional practice, interpretations of construction documents in the field are normally required, and that performance of construction-related services by the design professional for the project permits errors or omissions to be identified and corrected at comparatively low cost. CLIENT agrees to hold ENGINEER harmless from any claims resulting from performance of construction-related services by persons other than ENGINEER.

9. INSURANCE. ENGINEER will maintain insurance coverage for Professional, Comprehensive General, Automobile, Worker's Compensation, and Employer's Liability in amounts in accordance with legal, and ENGINEER'S business requirements. Certificates evidencing such coverage will be provided to CLIENT upon request. For projects involving construction, CLIENT agrees to require its construction contractor, if any, to include ENGINEER as an additional insured on its policies relating to the Project. ENGINEER'S coverages referenced above shall, in such case, be excess over contractor's primary coverage.

10. HAZARDOUS MATERIAL. Hazardous materials may exist at a site where there is no reason to believe they could or should be present. ENGINEER and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. ENGINEER agrees to notify CLIENT as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered. CLIENT acknowledges and agrees that it retains title to all hazardous material existing on the site and shall report to the appropriate federal, state or local public agencies, as required, any conditions at the site that may present a potential danger to the public health, safety or the environment. CLIENT shall execute any manifests or forms in connection with transportation, storage and disposal of hazardous materials resulting from the site or work on the site or shall authorize ENGINEER to execute such documents as CLIENT'S agent. CLIENT waives any claim against ENGINEER and agrees to defend, indemnify, and save ENGINEER harmless from any claim or liability for injury or loss arising from ENGINEER'S discovery of unanticipated hazardous materials or suspected hazardous materials

11. INDEMNITIES. To the fullest extent permitted by law, ENGINEER shall indemnify and save harmless CLIENT from and against loss, liability, and damages sustained by CLIENT, its agents, employees, and representatives by reason of injury or death to persons or damage to tangible property to the extent caused directly by the willful misconduct or failure to adhere to the standard of care described in Paragraph 1 above of ENGINEER, its agents or employees.

To the fullest extent permitted by law, CLIENT shall defend, indemnify, and save harmless ENGINEER from and against loss, liability, and damages sustained by ENGINEER, its agents, employees, and representatives by reason of claims for injury or death to persons, damages to tangible property, to the extent caused directly by any of the following: (a) any substance, condition, element, or material or any combination of the foregoing (I) produced, emitted or released from the Project or tested by ENGINEER under this Agreement, or (b) operation or management of the Project. CLIENT also agrees to require its construction contractor, if any, to include ENGINEER as an indemnitee under any indemnification obligation to CLIENT.

12. LIMITATIONS OF LIABILITY. No employee or agent of ENGINEER shall have individual liability to CLIENT. CLIENT agrees that, to the fullest extent permitted by law, ENGINEER'S total liability to CLIENT for any and all injuries, claims, losses, expenses or damages whatsoever arising out of or in any way related to the Project or this Agreement from any causes including, but not limited to, ENGINEER'S negligence, errors, omissions, strict liability, or breach of contract and whether claimed directly or by way of contribution shall not exceed the limits of insurance under this Agreement. If CLIENT desires a limit of liability greater than that provided above, CLIENT and ENGINEER shall include in Part III of this Agreement the amount of such limit and the additional compensation to be paid to ENGINEER for assumption of such additional risk. IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL ENGINEER BE LIABLE TO CLIENT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES.

13. ACCESS. CLIENT shall provide ENGINEER safe access to any premises necessary for ENGINEER to provide the Services.

14. REUSE OF PROJECT DELIVERABLES. Reuse of any documents or other deliverables, including electronic media, pertaining to the Project by CLIENT for any purpose other than that for which such documents or deliverables were originally prepared, or alteration of such documents or deliverables without written verification or adaptation by ENGINEER for the specific purpose intended, shall be at the CLIENT'S risk. Further, all title blocks and the engineer's seal, if applicable, shall be removed if and when CLIENT provides deliverables in electronic media to another entity. CLIENT agrees that relevant analyses, findings and reports provided in electronic media shall also be provided in "hard copy" and that the hard copy shall govern in the case of a discrepancy between the two versions, and shall be held as the official set of drawings, as signed and sealed. CLIENT shall be afforded a period of 30 days in which to check the hard copy against the electronic media. In the event that any error or inconsistency is found as a result of this process, ENGINEER shall be advised and the inconsistency shall be corrected at no additional cost to CLIENT. Following the expiration of this 30-day period, CLIENT shall bear all responsibility for the care, custody and control of the electronic media. In addition, CLIENT represents that it shall retain the necessary mechanisms to read the electronic media, which CLIENT acknowledges to be of only limited duration. CLIENT agrees to defend, indemnify, and hold harmless ENGINEER from all claims, damages, and expenses, (including reasonable litigation costs), arising out of such reuse or alteration by CLIENT or others acting through CLIENT.

15. AMENDMENT. This Agreement, upon execution by both parties hereto, can be amended only by a written instrument signed by both parties.

16. ASSIGNMENT. Except for assignments (a) to entities which control, or are controlled by, the parties hereto or (b) resulting from operation of law, the rights and obligations of this Agreement cannot be assigned by either party without written permission of the other party. This Agreement shall be binding upon and inure to the benefit of any permitted assigns.

17. STATUTES OF LIMITATION. To the fullest extent permitted by law, parties agree that, except for claims for indemnification, the time period for bringing claims under this Agreement shall expire one year after Project completion.

18. DISPUTE RESOLUTION. Parties shall attempt to settle disputes arising under this agreement by discussion between the parties senior representatives of management. If any dispute can not be resolved in this manner, within a reasonable length of time, parties agree to attempt non-binding mediation or any other method of alternative dispute resolution prior to filing any legal proceedings. In the event any actions are brought to enforce this Agreement, the prevailing party shall be entitled to collect its litigation costs from the other party.

19. NO WAIVER. No waiver by either party of any default by the other party in the performance of any particular section of this Agreement shall invalidate any other section of this Agreement or operate as a waiver of any future default, whether like or different in character.

20. NO THIRD-PARTY BENEFICIARY. Nothing contained in this Agreement, nor the performance of the parties hereunder, is intended to benefit, nor shall inure to the benefit of, any third party, including CLIENT'S contractors, if any.

21. SEVERABILITY. The various terms, provisions and covenants herein contained shall be deemed to be separate and severable, and the invalidity or unenforceability of any of them shall not affect or impair the validity or enforceability of the remainder.

22. AUTHORITY. The persons signing this Agreement warrant that they have the authority to sign as, or on behalf of, the party for whom they are signing.

Table 1
Villiage of Millbrook
DRAFT Water System Upgrade Project
Project Cost Estimate - Revised 2/10/18

Item	Unit	2018	Comments
A. Construction			
1. GENERAL CONTRACT			
Sitework:	lump sum	$ 30,000.00	Includes sitework & restoration. No local storage tank Rev.
Yard Piping:	lump sum	$ 20,000.00	
Excavation & Backfill:	lump sum	$ 30,000.00	
150,000 gallon Water Storage			
Tank Construction/Installation:			no tank - additional water main 400' @48"
Accessories:	lump sum	$ 20,000.00	
Site Restoration:	lump sum	$ 15,000.00	
Stormwater Facilities			
(per NYSDEC General Permit):	lump sum	$ 5,000.00	
Mobilization/Demob/Bonds/insurance:	lump sum	$ 20,000.00	
Addition - Water Treatment Building:	sq ft	$ 150,000.00	750 sq.ft. - @ $200/sqft. 25'x 30'
Filtration Equipment (Filters):	lump sum	$ 250,000.00	higher head and flow-direct filtration
Chemical Feed Equipment:	lump sum	$ 20,000.00	
New WTP Pumps:	lump sum	$ 15,000.00	Spare high lift pump in Rev. price
Process Piping and Valves:	lump sum	$ 35,000.00	
Existing Retrofit WTP Pumps:	lump sum	$ 7,500.00	
SUBTOTAL GENERAL CONTRACT:		$ 617,500.00	
2. ELECTRICAL CONTRACT - Water Treatment Plant			
Mobilization/Demob/Bonds/insurance:	lump sum	$ 15,000.00	
Sitework (New Service, etc.):	lump sum		
Site Restoration:	lump sum		
Electrical Work:	lump sum	$ 25,000.00	
SCADA System Work:	lump sum	$ 25,000.00	
New Emergency Generator:	lump sum	$ -	Generator
SUBTOTAL ELECTRICAL CONSTRUCTION:		$ 65,000.00	
3. HVAC CONTRACT - Water Treatment Plant			
Mobilization/Demob/Bonds/insurance:	lump sum	$ 3,000.00	
Sitework (New Service, etc.):	lump sum		
Site Restoration:	lump sum		
HVAC Work:	lump sum	$ 30,000.00	
SUBTOTAL HVAC CONSTRUCTION:		$ 33,000.00	
4. EXISTING WATER STORAGE TANK REHABILITATION CONTRACT NOT IN THIS PROJECT			Estimate unconfirmed with Paint Supplier
Mobilization/Demob/Bonds/insurance:	lump sum	$ 20,000.00	
Sitework (Scaffolding, Tenting, etc.):	lump sum	$ 100,000.00	
Site Restoration:	lump sum	$ 20,000.00	
Tank Recoating Work (no lead remediation):	lump sum	$ 400,000.00	
500,000 GAL. STORAGE TANK REHAB:		$ 540,000.00	Standard Coating System
maintaining water supply and fire reserve contingency 15%		$ 81,000.00	plan must be approved by DCHD & Millbrook Fire Co.
SUBTOTAL CONSTRUCTION :		$ 1,336,500.00	

Table 1
Villiage of Millbrook
DRAFT Water System Upgrade Project
Project Cost Estimate - Revised 2/10/18

Item	Unit	2018	Comments
B. Other Costs			
1) Professional Services			
1.1. Site Surveying:			
- Topo Survey		$ 5,000.00	assuming wet land survey acceptable
- Construction Layout & As-Built Survey		$ 3,500.00	
1.2. Geotechnical Investigation:		$ 10,000.00	
1.3. Engineering			
-Preliminary Design plan:			
-Stormwater Pollution Prevention Plan (SWPPP) & wetland permit:		$ 20,000.00	revise existing wetland permit to include building addition, <1 Acre
-Final Design:		$ 60,000.00	
-Bidding/Award:		$ 9,200.00	
-Construction Administration:		$ 41,667.00	Engineering during construction. Based on 5 months construction.
-On-Site Inspection (5 months full time)		$ 60,000.00	
-Grant applications writing & follow up		$ 15,000.00	
-As-Built Drawings:		$ 3,000.00	
1.4. SEQR/Environmental Review		$ 10,000.00	Uncoordinated review; short EAF no SHPO
SUBTOTAL PROFESSIONAL SERVICES:		$ 237,367.00	
2) Legal & Misc.			
-Legal:		$ 15,000.00	
-Financing Cons./Bookkeeping & Reporting Admin.:		$ 10,000.00	
SUBTOTAL LEGAL & MISC.:		$ 25,000.00	
3) Project Financing			
-Bond Counsel		$ 15,000.00	TBD
-Short Term Financing/Net Interest		$ 20,000.00	TBD
SUBTOTAL PROJECT FINANCING:		$ 35,000.00	
4) Village Administration Costs		$ 10,000.00	
VILLAGE ADMINISTRATION COSTS:		$ 10,000.00	
SUBTOTAL - OTHER COSTS:		**$ 307,367.00**	
C. Contingency (10%)			
Contingency (10%):		**$ 164,386.70**	
Village of Millbrook Water System Rehabilitation			
Estimated Total Project Budget Cost:		**$ 1,808,253.70**	

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