

March 9, 2022

Hon. David McFadden  
Mayor  
Village of Tuxedo Park  
80 Lorillard Road  
Tuxedo Park, New York 10987

Re: **SSES, Phase 3, Sub-basins 2&10, Year 2 Construction  
Amendment No. 1 - Pond 3 Sewer Rehabilitation**

Dear Mayor McFadden:

In August of 2018, Weston & Sampson assisted the Village with preparing a New York State Infrastructure Improvement Act (WIIA) Clean Water Grant application, which is administered through the Environmental Facilities Corporation (EFC), requesting grant funding for construction and engineering support services necessary for various repairs to the Village's sewage collection system. In November of 2018, the Village was notified that the Clean Water Grant had been awarded in an amount not to exceed of \$132,938, 25% of the estimated project cost of \$531,750. This proposed project is effectively a continuation of a 3-year program of construction of collection system improvements that the Village is required to complete as a condition of its NYSDEC wastewater discharge permit. With the approval of the grant, the Village had asked Weston & Sampson to provide a proposal to the Village to move forward with bidding and construction phase services of Year Two repairs identified in our prior design of improvements to Sewer Sub-Basins 2 & 10 which are in the vicinity of Continental Road, Clubhouse Road, Circuit Road, Serpentine Road, Turtle Point Road, and neighboring connected areas. The construction project was awarded to Arold Construction and the work has been substantially completed, under budget, with a \$156,627.00 remaining contract value.

The Village's collection system also includes gravity trunk sewers that run along and within close proximity to the Village's three lakes: Tuxedo Lake, Upper Wee-Wah Lake (Pond 3), and Lower Wee-Wah Lake. Based on available information, the trunk sewers are constructed with different materials throughout the Village. These materials include cast iron, polyvinyl chloride (PVC), and vitrified clay (VCP). Over the years, upgrades to the trunk sewers surrounding the lakes have been implemented which include installation of Cured-in-Place Pipe (CIPP) lining and traditional dig and replacement of sewer pipes. The cast iron and PVC pipes are constructed with gasketed fittings for water tightness and, if installed correctly, CIPP lined pipes should be watertight as well. The VCP, which may be as much as 120 years old, typically has joints every 2 to 3 feet and were often installed as dry laid joints that are not watertight.

The Village periodically uses a consultant to analyze the water within its lakes. It has been reported that the samples recently obtained contained high levels of nutrients, in particular within Pond 3. The dry laid joints of the older VCP pipe have the potential to be a source of nutrients migrating to the lakes and or groundwater entering the sewer. In addition, the Village has excessive Infiltration and Inflow (I&I) into their sewer system and is required to reduce flow as a condition of their New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit. As such, Weston & Sampson provided services for I&I quantification and remote visual inspection of the interior of the gravity trunk sewers constructed with VCP using flow isolation and Closed-Circuit Television (CCTV) inspection techniques. This was done in an effort to assess their condition and potential for inflow and/or infiltration.

On January 13, 2021, the Village of Tuxedo Park authorized Weston & Sampson to conduct a desktop groundwater evaluation, manhole inspections, flow isolation, CCTV inspection, and prepare summary report for the VCP trunk sewers.

Based on the results of the flow isolation, the VCP sections of the Pond 3 Trunk were CCTV inspected. CCTV survey showed a mix a Vitrified Clay Pipe (VCP) and Cast-Iron Pipe from MH West-0180 to MH West-0240. MH West-0180 to MH West-0190 was 8" vitrified clay pipe. There were roots in this pipe that were thick and were in almost every joint on the run. Our Summary Report recommend that all sections of VCP be remediated through Cured-in-Place Pipe lining approaches to prevent future root growth. We also recommend that the manholes be rehabilitated with cementitious mortar and have sealed, gasketed frames and grates installed to prevent sanitary sewer overflows. Finally, we recommended that the first two sections of Sub-Basin 17 should be CIPP lined, their manholes rehabilitated, and a manhole should be installed at the trunk sewer to eliminate the blind connection to allow for DPW access for maintenance purposes.

The proposed approach to address the recommendations listed within the Summary Report is to use the remaining funds from the SSES Phase 3, Sub-Basins 2 & 10 Construction contract to remediate the recommended sanitary sewer segments identified within the summary report. To use these funds, Weston & Sampson will have to update the Engineering Report previously submitted to the New York State Environmental Facilities Corporation (NYSEFC) for the SSES project to gain approval to use funds for this project. Out of the remaining \$156,627.00 within the SSES Construction Contract with Arold Construction, using their bid prices and quotes obtained from Arold for work not included within their original bid, we anticipate the proposed remediation work to cost approximately \$144,500.

Therefore, Weston & Sampson is pleased to provide this Amendment to our existing SSES, Phase 3, Sub-basins 2&10, Year 2 Construction services contract to amend the NYSEFC report and provide additional Construction Administration and Inspection services for the rehabilitation of the Pond 3 Trunk Sewer. The following is our proposed detailed scope of work.

#### SCOPE OF SERVICES:

**Task 1: Bid Documents and Services:** Weston & Sampson will prepare an amendment to the original engineering report, stamped, and sealed by a NYS P.E., which will reference the original report in the amendment. The report will also include design drawings for the Pond 3 remediation work which will be used as construction documents for the contractor issued via change order. Weston & Sampson will also assist the Village in developing new SEQR documents to include the new Pond 3 work area.

**Task 2: Construction Engineering:** Weston & Sampson proposes to perform full time on-site observation of construction of Pond 3 repairs including maintaining on-site logs and materials quantity determinations. The work is expected to take four (4) weeks to complete. *Our proposed cost for construction observation is based on an estimate of two hundred (200) hours of field engineering coverage including travel time and expenses for the anticipated 4-week construction period.* This work is proposed to be performed on an hourly rate basis and final cost may be more or less depending on contractor progress and other factors. The Village will only be billed for incurred costs. Used funds for this task will not be billed to the Village.

**Task 3: Construction Administration and Closeout Services:** Weston & Sampson proposes to provide additional construction administration services for the Pond 3 construction which will include shop drawing review, project coordination with the contractor, and providing documentation to the Village in support of its grant administration efforts. Upon completion of construction, we will perform closeout services which include review and confirmation of completeness of as-built record plans prepared by the contractor and processing of pay requests.

**FEE:**

To cover the costs for the services described above, a summary of the requested amendment values are provided below.

Project Task	Current Value	Amendment No. 1 Values	Revised Contract Value
Task 1: Bid Documents and Services (LS)	\$7,500	\$6,900	\$14,400
Task 2: Construction Engineering (Hourly)	\$48,000	\$8,500*	\$56,500
Task 3: Construction Administration and Closeout Services (LS)	\$6,000	\$5,500	\$11,500
<b>PROJECT TOTAL</b>	<b>\$61,500</b>	<b>\$20,900</b>	<b>\$82,400</b>

\*Do date we have only billed \$34,848.56 for this phase, with \$13,151.44 still remaining. The amount requested has been reduced by the amount still remaining from the original contract.

Sincerely,

**PERFORMANCE SCHEDULE:**

Weston & Sampson is prepared to proceed with work immediately upon execution of an agreement and receipt of written notice to proceed.

**ADDITIONAL TERMS AND CONDITIONS:**

Weston & Sampson proposes to perform the work as described herein in accordance with our previously approved Standard Terms and Conditions.

We look forward to continuing working with the Village on this project. To accept this proposal, please sign below return a copy to this office. If you have any questions, please contact me at 845-454-3344.

Very truly yours,

**Weston & Sampson PE, LS, LA, PC**



Joseph M. Zongol, PE, NICET III  
Senior Associate | Team Leader

ACCEPTED FOR:

**Village of Tuxedo Park**

Accepted by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

(Print name)

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