

December 16, 2024

Weston & Sampson, PE, LS, LA, PC
1 Winners Circle, Suite 130, Albany, NY 12205
Tel: 518.463.4400

Mayor Marc Citrin
Village of Tuxedo Park
80 Lorillard Road
Tuxedo Park, NY 10987

Re: **Village of Tuxedo Park
Proposal for Engineering Services
Tuxedo Lake Water Main Replacement Design and Permitting Services
Amendment No. 1**

Dear Mr. Citrin:

Weston & Sampson is pleased to present this proposal to the Village of Tuxedo Park (Village) for engineering services related to the modification of the Tuxedo Lake Water Main project to separate out the Bi-Directional Metering Station Manholes into a separate phase of the Project. The Tuxedo Lake Water Main is an 8-inch cast iron pipe that spans 1,700 LF on the bottom of Tuxedo Lake that was reportedly installed in 1933. The water main originates by the Water Treatment Plant and crosses the lake to the west, providing water service to the west side of the Village. While the exact original construction method of the pipe is unknown, pipes of that vintage that crossed water bodies were typically constructed with "River Crossing Pipe." River crossing pipe from the 1920's and 1930's was constructed with cast iron in 12-foot sections with ball and socket type joints. The joints were typically packed with lead, however pipe movement over time could potentially allow for leaking. The Village reports up to 60% water loss within their water distribution system when comparing the Water Treatment Plant output vs. the billed water meter readings. This 87-year-old pipe is suspected to a potential cause of much of the water loss within the system. In addition, this is one of two pipes that service the west side of the Village. Due to the small pipe diameter and reported tuberculation within the distribution system, it is understood that to provide water to the west side of the Village, the water system requires both feeds to be active.

Previously and in consultation with the Village and the Orange County Department of Health (OCDOH), it was decided that the least invasive and cost-effective approach would be to replace the existing pipe with a new High-Density Polyethylene (HDPE) pipe, laid at the floor of Tuxedo Lake, in a parallel alignment as the existing pipe. The HDPE pipe would be fusion welded, eliminating joints along the alignment and would have a service life of 100 years. Weston & Sampson received conceptual approval and completed design work for this approach that included OCDOH requirements of a double walled pipe with blowoff, metering, and sampling stations on either side of the lake.

Since this water main is a critical piece of infrastructure and in a proactive approach to confirm if water loss is occurring through the existing main, the Village has requested that Weston & Sampson provide this amendment to separate out and adapt the metering station portion of the Water Main design into an initial phase that can be implemented immediately and allow for the installation of the new water main in the future, when determined necessary or when funds become available. This approach provides the added benefit of having some of the necessary infrastructure already in place if/when the main needs to be replaced. This work will include assistance in obtaining the necessary permits and coordination so that these stations can be installed on either side of the existing pipe.

Provided below is a scope of services to provide design, permitting, bidding, construction administration, and a mix of part-time and full-time construction inspection services. The anticipated tasks and steps necessary to complete this work are described as follows.

SCOPE OF SERVICES:

Weston & Sampson has based this scope of services on the following understanding and assumptions:

- We do not anticipate the need for permanent construction easements as the current pipe alignments are within the Village rights-of-way. Furthermore, if temporary construction easements are required, the Village

will address this separately and as such our work will not include any services related to easement delineation or acquisition, unless requested by the Village.

- The Village's GIS mapping and bathymetric survey shall be sufficient for development of base mapping of the project. If the water main configurations are different than shown on the plans, the Village will provide the necessary markups to update the plans to reflect existing conditions.
- Field mark-outs and survey by the Engineer is not required.
- Soil borings are not necessary at the connection locations on either side of the lake.
- The design approach of installing metering and sampling stations on either side of the lake will be acceptable to the OCDOH. Other design approaches will require a contract amendment.
- A temporary water system design is not required for this design approach.

Upon written authorization to proceed, Weston & Sampson will immediately begin work which will include the following tasks.

Task 1: Design & Cost Estimate

Weston & Sampson proposes to provide the following design services for the Tuxedo Lake Water Main Bi-Directional Metering Station Manholes. We propose the following tasks:

- Develop construction plans, profiles, details, and cross sections as necessary to accurately represent to the contractor the work to be performed.
- Establishing points of tie-ins between existing pipe and the proposed work limits, including other special considerations such as the Village's standards for valves, hydrants, etc.
- Develop technical specifications for the required work.
- Develop "front end" contract documents including such things as the Advertisement for Bid, Agreement, General and Special Conditions, Bid and Bid Bond Forms also conforming to CSI format.
- Develop a construction cost estimate for the work.

A complete set of the technical contract documents and cost estimate will be provided to the Village for their review and feedback. These technical documents will contain plans showing the location of the metering stations, tie ins to the water main, and other details as may be required to illustrate the full extent of the work.

Task 2: Permitting:

Weston & Sampson will assist the Village is obtaining OCDOH and New York State Department of Environmental Conservation (NYSDEC) permits. All permit application fees shall be paid directly by the Village and are not included in the budget proposed herein. Weston & Sampson contacted the New York State Department of Environmental Conservation (NYSDEC) regarding permit requirements pertaining to the project and completed a permit jurisdiction review form. In response to the permit jurisdiction review, the NYSDEC cited the following potential permits. Based on the scope of the project, Weston & Sampson will provide the following anticipated permitting services.

OCDOH: Weston & Sampson shall submit design plans, technical specifications, engineer's report, and permit application to OCDOH with assistance from the Village. Our budget for this work presumes receipt of a single round of comments from OCDOH prior to approval.

NYSDEC Protection of Waters: The Tuxedo Lake is a Class AA(T), waterbody with a Status of Protected, Navigable, and a DEC Water Index Number of NJ 12-15-P1007. A Protection of Waters permit is required to physically disturb the bed or banks (up to 50 feet from stream) of any streams identified as "protected." A Protection of Waters permit is required for any excavation or filling below the mean high-water line of any waterbodies and contiguous wetlands identified above as "navigable."

In addition, a time restriction may be required for protection of cold-water trout fisheries (waters classified under Article 15 of the Environmental Conservation Law (ECL) with a "T" or "TS" designation), beginning October 1 and ending April 30.

The design documents will include provisions for the Contractor to ensure that work shall not pollute any stream or waterbody. The Contractor shall be required to stabilize any disturbed areas promptly after construction, and all necessary precautions shall be taken to prevent contamination of the stream or waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.

Weston & Sampson will assist the Village in preparing a Protection of Waters Permit Application for this project. Our budget for this work presumes receipt of a single round of comments from NYSDEC prior to approval.

NYSDEC Freshwater Wetlands: The NYSDEC has determined that the project site is not within a New York State protected Freshwater Wetland therefore we have not included this permit within our scope of services.

Army Corps. of Engineers – Nation Wide Permit (NWP): Based on anticipated scope of work, this project should fall under the NWP 3 for maintenance. Under this NWP, this covers repair, rehabilitation or replacement of any previously authorized, currently serviceable structure or fill. The permit also authorizes minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement. This would be the case for the Tuxedo Lake Water Main as we are replacing the existing water main with a different material as recommended by the OCDOH. Since this project would be covered by the NWP 3, a separate permit would not be needed. For this activity, a pre-construction notification would not be required to be submitted to the local district engineer. Therefore, we have not included this permit within our scope of services. If additional or new permits Army Corps. permits are necessary, we reserve the right to request a contract amendment commensurate with the level of effort required to complete the required permitting services.

NYSDEC State Listed Species: The NYSDEC has reviewed the State's Natural Heritage records and has determined that the site is located within or near records of the following state-listed species:

<u>Name</u>	<u>Status</u>
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Threatened
Northern long-eared bat (<i>Myotis septentrionalis</i>)	Threatened
Timber rattlesnake (<i>Crotalus horridus</i>)	Threatened

Any potential impacts of the proposed project on these species should be fully evaluated during the review of the project pursuant to the State Environmental Quality Review Act (SEQR). A permit is required for the incidental taking of any species identified as "endangered" or "threatened," which can include the removal of habitat. In addition, project modifications may be needed to avoid or adequately mitigate any potential impacts identified.

Bald eagle: Bald eagle nests have been documented in close proximity to the project location. Impacts to this species should be assessed following the National Bald Eagle Management Guidelines.

If project related impacts cannot be fully avoided or minimized, a permit for incidental take may be needed. The acceptable work window that would not result in any impacts to breeding eagles would be October 1st to December 31st. For work proposed outside of this window, additional information is needed, including when construction activities are proposed to take place, what equipment would be used, and noise levels from construction and operational activities as compared to ambient noise levels.

Northern long-eared bat: To avoid adverse impacts to northern long-eared bats and the need for an Incidental Take Permit pursuant to 6 NYCRR Part 182, all tree removal must take place from November 1st to March 31st. If the project sponsor cannot complete tree clearing within this time of year restriction, then the Department will require further review on the impacts to this species. Additional project modifications may be needed to avoid or adequately mitigate any potential impacts identified.

Timber rattlesnake: The project location is within the screening distance of a known timber rattlesnake record. Impacts to the species and potential suitable habitat should be assessed following the Timber Rattlesnake Guidelines Document. At a minimum, conservation measures and take-avoidance measures will be needed during construction and operation of this project. These could include seasonal restrictions, a timber rattlesnake monitor, temporary barriers as appropriate based on project details, and the development of an Education and Encounter Plan for all contractors and workers. Additional information may be needed to determine if suitable habitat for this species will be impacted. If project related impacts cannot be fully avoided or minimized, an Incidental Taking permit pursuant to Article 11, Title 5, Endangered and Threatened Species may be required.

Please note that a project sponsor may not commence site preparation, including tree clearing, until the provisions of SEQR are complied with and all necessary permits are issued for the proposed project.

The absence of data does not necessarily mean that other rare or state-listed species, natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, NYSDEC files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. The NYSDEC cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

It is our opinion that the species mentioned will not be impacted by the scope of this project. Therefore, we have allocated time to meet with the NYSDEC to discuss the project with the intention of demonstrating that the aforementioned wildlife will not be impacted. We do not anticipate that the following will be necessary for this work:

- NYSDEC State Listed Species permit
- Species specific studies/analysis
- Additional permits (incidental takings)
- Mitigation design/measures as required by permit conditions

If additional or new permits are necessary, we reserve the right to request a contract amendment commensurate with the level of effort required to complete the required permitting services.

Stormwater Pollution Prevention Plan (SWPPP): Since this is a linear utility project and it is not anticipated to disturb one or more acres of land, we do not anticipate that a SWPPP will be necessary. Our plans, however, will include the necessary Erosion and Sedimentation controls required under the General Permit for Stormwater Discharge from Construction Activity (GP-0-20-001).

Other: Other permits from the NYSDEC or other agencies may be required for projects conducted on this property now or in the future, as noted by the NYSDEC during their permit jurisdiction review. Also, regulations applicable to the location subject to this determination occasionally are revised and the project sponsor should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year. We have not included scope for additional permits, however, if additional or new permits are necessary, we reserve the right to request a contract amendment commensurate with the level of effort required to complete the required permitting services.

SEQR: As replace-in-kind project, it is our opinion that this project is a SEQR Type II Action based on our experience with prior projects. We will provide the Village with draft resolution language to support its declaration of this project as a Type II action. The Village shall consult with its attorney for confirmation that the project meets the legal definition of a Type II action.

Task 3: Bid Phase Services

Weston & Sampson will provide bid phase assistance under the Village's administration of the Bid Phase. We understand that the Village will administer the bidding process including distribution of digital copies of bid documents. Our proposed scope of services for the bid phase includes the following components:

- Construction drawings package accurately depicting the project area limits.
- Bid form preparation to reflect all relevant bid items for the project area.
- Prepare a front-end contract to be used to the bidding and contract execution process between the Village and selected contractor.
- Review specifications to make sure they are current.
- Assist with development of an advertisement for bids.
- Assist the Village with distribution of plans and specifications to bidders. Plans and specs will be provided in .PDF format. We will provide ten full hard sets of plans and specifications to the Village.
- Respond to questions from prospective bidders.
- Prepare and issue necessary addenda.
- Attend a pre-bid meeting.
- Attend a bid opening.
- Tabulate bids.
- Provide a recommendation for contract award.

Task 4: Construction Administration

Weston & Sampson will provide construction administration and general project support during the construction of improvements, including the following services:

- Review and approval of shop drawings, our proposal is based on 2 reviews maximum for each item submitted.
- Response to Contractor questions and requests for information.
- Attendance at one pre-construction conference. A meeting agenda and meeting minutes will be prepared and distributed.
- Review of construction design changes and requested change orders, assist with execution of change orders.
- Review and certification of contractor's payment requests.
- Provide written certification for compliance with design and operational parameters including a system performance report.
- Coordinate construction activities, including any bypass and startup activities.
- Provide documentation of new system start-up and operation with an associated punch list.
- Provide certification of completion for release of retainage.
- Provide one reproducible set of record drawings.
- Provide a written certification to the OCDOH
- Provide a written certification to the NYSDEC

Task 5: Resident Project Representative

Weston & Sampson will provide a Resident Project Representative (RPR) during active construction to observe the Contractor's work. RPR services shall consist of tracking of Contractor progress, observation of installations, and witness of equipment testing and start-ups, as requested. We anticipate the Village's inspectors providing Inspection Reports and photos to our office so Weston & Sampson can certify the final installation to the Orange County DOH and NYS DEC.

For budgetary purposes, this proposal assumes a 4-month construction period. Weston & Sampson shall review information provided by Village Inspectors for critical installation components and to gather information necessary to certify the installation of the system components to the OCDOH. Since construction will also take place within the Village's ROW, our proposed budget is based on the provision of up to 160 hours of RPR services during the active construction duration.

COST PROPOSAL:

Based on the proposed scope of work described above, we have developed the following Fee Schedule. The fees below include all labor, equipment, materials, and expenses required to complete the scope of work as we have outlined above. Lump Sum (LS) tasks shall be billed on a percent complete basis and Not-to Exceed (NTE) Fee Allowances will be billed on any hourly basis in accordance with the rate chart provided below. Our proposed fees are summarized in the table below.

Project Task	Existing Contract	Amendment No. 1	Total Fee
Task 1: Design & Cost Estimate (Lump Sum)	\$25,100	\$10,200	\$35,300
Task 2: Permitting (Lump Sum)	\$10,100	\$7,600	\$17,700
Task 3: Bid Phase Services (Lump Sum)	--	\$3,300	\$3,300
Task 4: Construction Administration (Lump Sum)	--	\$19,100	\$19,100
Task 5: Resident Project Representative (Lump Sum)	--	\$24,100	\$24,100
TOTAL FEE	\$35,200	\$64,300	\$99,500

MISCELLANEOUS EXPENSES

- General photocopying/reproduction/printing – no charge
- Production/photocopying of construction documents – cost only
- Printing – outside services – cost only
- Mileage reimbursement – per federal reimbursement rate
- Lodging and meals, incidental out-of-pocket costs – cost only
- Subconsultant fees – cost plus 10%
- All other outside expenses – cost plus 10%

RATE SCHEDULE

The work performed under this Contract within Task 5 on an hourly basis will be performed on a 3.2 multiplier times the employee's salary direct cost.

SCHEDULE

Weston & Sampson will perform authorized work as expeditiously as possible and make every reasonable effort to prepare bid documents in a timely manner.

ADDITIONAL TERMS AND CONDITIONS

Weston & Sampson, PE, LS, LA, Architects, PC's services will be provided as described herein and in accordance with the attached General Terms and Conditions which are a part of our agreement with you. To accept this proposal please sign and return one copy of this proposal to us. Also, please initial, date, and return the enclosed Terms and Conditions that are hereby incorporated by reference.

To accept this proposal please sign and return one copy of this proposal to us. We look forward to assisting the Village with this project. If you have any questions, please contact us at 518-375-2109 or zongolj@wseinc.com.

Sincerely,

ACCEPTED FOR

WESTON & SAMPSON, PE, LS, LA, Architects, PC



Joseph M. Zongol, PE, NICET III
Senior Associate | Regional Manager (FL)

Village of Tuxedo Park

By: _____
(Signature)

Name: _____

Title: _____

Date: _____