



ATLANTA
AUGUSTA
ST. SIMONS ISLAND

March 10, 2021

City of Senoia
P.O. Box 310
Senoia, Georgia 30276

Attention: Mr. Harold Simmons, City Manager

Re: City of Senoia
Water System Modeling Proposal

Dear Mr. Simmons

We are pleased to provide our proposal for evaluation of the City's distribution system. The project scope includes development of a computer-based water model of the existing water distribution system that will be used to evaluate the sufficiency of the existing distribution system to meet required water flow rates for new developments. Our proposal includes the following:

Scope of Work

1. Phase One
 - a. Meet with staff and perform hydrant flow tests in the field.
 - b. Convert Autocad drawings, shape files, spreadsheet data, and topographic information into the base model using Innovyze H2ONet software. Pump station performance will be modeled based on manufacturer's published pump curves.
 - c. The model will include all tanks, booster pump stations, wholesale connections and water lines 2-inches and above in diameter.
 - d. Calibrate the model using hydrant flow data from the fire department and field tests.
 - e. Input approximate customer demand to nodes throughout the model for peak and diurnal scenarios.
 - f. We request the following information from the City:
 - i. Fire Department Hydrant Testing Results
 - ii. Monthly reports on water sold for 2020.
 - iii. Photographs of any pump name plates.
 - g. Run the model to determine the sufficiency of the existing distribution system under the following scenarios:
 - i. Average Day, Peak Day and Peak Hour flow demands
 - ii. Fire Flow Analysis at selected locations

- h. Summarize the results of the water model in a report which will include:
 - i. Existing distribution capacity limitations
 - ii. Recommended improvements to eliminate capacity limitations
 - iii. Recommended improvements to allow for future growth and development
 - iv. Maps showing the existing pressure contours and proposed improvements
 - v. An estimate of the cost associated with each proposed improvement
2. Phase Two – Meet with staff or council to give a short presentation on available capacity and recommended improvements, if requested.
3. Phase Three – Turnipseed Engineers will be available in an on-call capacity to update the water model with new developments and to perform additional analysis, as requested by the City.

Fees

We propose to provide engineering services based on actual payroll cost times a multiplier of 1.7124. We estimate total fees will not exceed \$30,000 without prior written authorization from the City to proceed with further work. We estimate Phase One can be completed within 90 days of authorization.

The terms of this proposal are valid for 90 days. If this proposal is acceptable, please sign and date where indicated below and return one copy for our files. A copy of our General Conditions of Agreement is enclosed and made part of this proposal by reference. We appreciate your interest in allowing us to work with you. If you have any questions about our proposal, please call us.

Yours truly,



Kenneth E. Green, P.E., *President*
Turnipseed Engineers

KEG:jf

Enclosure

AUTHORIZATION TO PROCEED
CITY OF SENOIA, GEORGIA

Authorized Signature

Date

Printed Name

Title



GENERAL CONDITIONS OF AGREEMENT

1. COORDINATION WITH THE OWNER:

The Engineer shall hold periodic conferences with the Owner, or his representatives, to the end that the Project, as it progresses shall have benefit of the Owner's experience and knowledge of existing needs and facilities, and be consistent with the Owner's current policies and construction standards. To implement this coordination, the Owner shall make available to the Engineers, for use in planning the Project, all existing plans, maps, field notes, statistics, computations and other data in his possession relative existing facilities and to the Project.

2. FEES

Unless otherwise specified, fees shall be paid the Engineer in accordance with monthly billings based upon work performed and expenses incurred during that month. Any payments not made within thirty (30) days on statements rendered shall be subject to charge for interest at a rate of one and one-half percent (1-1/2%) per month, beginning 30 days after date of the statement, and failure to make payments when due will entitle the Engineer to suspend services. The Engineer's final payment is due and payable upon completion of the Engineers services. The final payment to the Engineer shall not be withheld, due to refusal of the Contractor to perform a check list item, or because of disputes with the Contractor over liquidated damages, Contractor's performance, etc., since the Engineer cannot and does not serve as surety for the Contractor's performance.

3. OWNERSHIP OF DOCUMENTS AND RECORDS

It is understood that the Engineer is preparing documents for a specific installation, rather than standard documents for repetitive multiple use. Therefore, all documents, including original drawings, estimates, specifications, field notes and data are and remain the property of the engineer as instruments of service. The Owner may obtain, upon payment of fees due the Engineer, reproducible copies of drawings, and copies of other documents, in consideration of which it is mutually agreed that the Owner will use them solely in connection with the project, and shall not authorize their use on other projects, except by written agreement with the Engineer. The Engineer shall retain all pertinent records relating to the services performed hereunder for a period of three years after completion thereof. The Owner shall have access to such records at all reasonable times during such period as may be required for audit of reimbursable items.

4. MODIFICATIONS DURING DESIGN

The Engineer shall retain discretion as to whether changes made by the Owner or his representatives during the design phase shall constitute additional services. Minor modifications and dimensional adjustments are considered to be normal design development. Relocation of sites, relocation of structures, parking areas, and roadways may result in additional services if such changes result in loss of completed design work required.

5. TERMINATION; SUSPENSION OF WORK:

The Owner may at its discretion, terminate the work or indefinitely suspend the work under this Agreement, by giving a seven-day written notice. In such event, the Owner shall assume all obligations, commitments, and claims that the Engineer may have theretofore in good faith undertaken or incurred in connection with the Project. The Engineer shall be equitable paid for services rendered prior to effective termination notice date and for reasonable termination expenses.

6. PROFESSIONAL RESPONSIBILITIES

All services hereunder will be performed in accordance with sound and generally accepted principles by personnel experienced in the applicable technical fields.

The Engineer's scope of authority does not include the expenditure of the Owner's funds through changes, disbursement powers, or supervision of the Construction Contractor's men or his subcontractors. The Engineer shall not be responsible for construction methods, techniques, sequences or procedures, safety precautions and programs in connection with activities of the Construction Contractor. As to the warranty or guaranty of, or patent indemnity on, items or machinery, equipment or other products manufactured by others, or work of construction contractor's, subcontractors or manufacturers, the Engineer's responsibility with respect thereto is limited to the assignment by the Engineer to the Owner of the manufacturer's or construction contractor's warranty or guaranty and/or patent indemnity, and the Engineer agrees to cooperate with the Owner in the enforcement thereof. The Engineer shall use reasonable and acceptable methods in establishing basis for cost estimates, but cannot guarantee that the construction contractor's bid basis or costs will not vary above or below such estimates. The Engineer shall be included as additional insured, where construction is involved, on the Builder's Risk Policy and on the Contractor's General Liability Policy. In no event shall the liability of the Engineer for damages exceed \$50,000 or the total compensation received by the Engineer for services rendered hereunder, whichever is greater.

7. SUCCESSORS AND ASSIGNMENTS

The Owner and the Engineer each binds himself and his partners, successors, executors, administrators and assigns to the other party of the Agreement and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants, of the Agreement; except as above, neither the Owner nor the Engineer shall assign, sublet, or transfer his interest in the Agreement without the written consent of the other, and they further agree that the Agreement represents the entire understanding of the Owner and the Engineer and cannot be changed, added to or modified in any way except by an instrument in writing signed by the Owner and by the Engineer. The Owner and Engineer agree to the full performance of the covenants contained herein.

END OF GENERAL CONDITIONS OF AGREEMENT