

Skyridge Water District
Infrastructure Improvements
Town of Manlius, Onondaga County, New York

PROJECT UNDERSTANDING

- In 1984 the Town of Manlius purchased an existing drinking water system for a neighborhood of 29 homes at the eastern edge of the Town. Onondaga County Water Authority (OCWA) is under contract to provide the operations and maintenance for the system. The main components of the system include two (2) community groundwater wells, two (2) well houses with sodium hypochlorite disinfection, one (1) booster pump station, a 50,000 gallon welded steel water storage tank, and approximately 3,450 of galvanized steel water main of various sizes. There are three (3) hydrants located on the main although they are not primarily used for fire fighting due to lack of pressure and tank recharge issues.
- The system has reached the end of the expected useful service life and needs to be replaced generally in kind. Previous efforts have revealed that tying into a new or extending an existing municipal water main is not feasible.
- Several small upgrades are planned to bring the system up to current code, reduce the operations and maintenance burden, and provide a backup fire protection option.

SCOPE OF SERVICES - TO BE PROVIDED BY THE ENGINEERING CONSULTANT

- Task 1: Provide boundary, topographic, and utility survey.**
- A. As needed to perform work.
 - B. As needed for project documentation for Town and outside agencies.
 - C. Incorporate previous plans and documents provided by the Town, Water District, and OCWA.
 - D. Existing utility and record mapping will be made available by the Town.
 - E. Intention for all work will be performed within existing easements and Town Right-of-Ways. Prepare easement maps and descriptions if needed.
- Task 2: Provide geotechnical investigation and engineering for design of project components.**
- A. Coordinate with Town forces for excavations wherever possible.
 - B. Coordinate borings if needed for design.
- Task 3: Estimate total project cost**
- A. Provide the Town of Manlius and the Water District with an estimate of the total Project Cost that may be used to arrange Bonding
- Task 4: Decommission, demolish, and dispose of existing facilities including tank, buildings, mechanicals, piping, etc. off-site.**
- Task 5: Provide new water storage tank.**
- A. New glass-lined tank shall be elevated, standpipe style that supplies pressure and is filled by the well pumps. Tank shall be in same location as existing tank.
 - B. Tank manufacturer and design to be approved by OCWA.
 - C. Structural design by consultant or design delegated.
 - D. Provide temporary potable water to residences to ensure continuous supply during construction activities.
- Task 6: Provide two (2) well houses that meet the new code.**
- A. Consultant to design, or provide prefabricated building such as Orenco Composites. Coordinate with OCWA on design and layout preferences.
 - B. Structural design by consultant or design delegated.
 - C. Consider need for protective fencing surrounding lower well house.

Task 7: Provide mechanical systems located in and adjacent to the two (2) wells and well houses.

- A. Pumps, chlorination system, chemical management, lighting, HVAC, interior process line, utility sink, exterior hose bib, electrical, etc.
- B. The existing 6" wells will remain in place for reuse.
- C. Provide natural gas generator at upper well for equipment necessary to provide continuous water to residences during power outages. There is no natural gas available at the lower well location.
- D. Coordinate with OCWA on requirements including all remote monitoring, SCADA system, instrumentation, etc.
- E. Water softening will remain the responsibility of homeowners.
- F. Systems shall meet NFPA requirements.
- G. Provide remote monitoring system with approval of Onondaga County Health Department.

Task 9: Provide new water distribution piping.

- A. Provide 8" main piping, hydrants, valves, residence shutoffs, etc.
- B. Preference is to re-use existing pipe trench.
- C. Systems shall meet NFPA requirements.
- D. Properly document and terminate supply and distribution piping to well(s) and residences no longer served by the system.

Task 10: Prepare SWPPP, NOI, etc. as needed.

Task 11: Consultant Coordination

- A. Prepare necessary SEQR paperwork assuming the Town of Manlius will be Lead Agency.
- B. Coordinate with and meet requirements of the Department of Health, NYSDEC, OCWA, Town of Manlius, etc.
- C. Confirm the project is subject to NYS Prevailing Wage requirements, this should be reflected in document preparation and estimating.
- D. Prepare for and attend one up to three (3) Town Board meetings to report on project. Graphic representations and figures shall be prepared and presented to assist in understanding the project. Questions will be taken and responded to when and where feasible.
- E. Prepare for and attend one (1) neighborhood informational meeting.
- F. Provide progress documents for Town review at the following: concept, design development, and pre-bid levels.
- G. This infrastructure project will be funded by DASNY. Progress reports and expense documentation must be in accordance with DASNY requirements.

Task 12: Contract Document Phase Services

- A. Prepare general and technical specifications including basis-of-design if needed.
- B. Prepare contract documents including but not limited to plans, elevations, sections, profiles, details, coordination schematics, notes, etc.

Task 13: Bid Phase Services

- A. Prepare Front End and Division 01 documents.
- B. Respond to bidder questions.
- C. Prepare Addenda and prepare conformed documents.
- D. Attend pre-bid meeting, walk through, bid opening.
- E. Review bids and make recommendation for award.

Task 14: Estimating

- A. Prepare construction estimates for the following: concept, design development, and pre-bid levels.
- B. Review and advise owner on contractor proposals for additional work during construction phase if needed.

Task 15: Construction Phase Services

- A. Provide construction administration, observation and inspections to confirm construction is generally proceeding according to contract documents, special inspections.
- B. Provide SWPPP Inspections.
- C. Prepare supplemental instructions, job drawings, as needed.
- D. Attend regular project meetings.
- E. Review contractor payment applications for Town.

- F. Perform punch list review, and final walkthrough.
- G. Prepare record drawings.
- H. Assist Town with preparation of project closeout documents.

SCHEDULE

- Project design to be completed for bidding over the winter of 2024/2025.
- Construction during 2025 season.

Task	Days	Duration	Meetings	Additional Info
Notice of Award				
Kickoff Meeting				
Concept Phase				
Design Development Phase				
Contract Document Phase				
Bid Phase				
Construction Phase				

FEE

Task 1 - Survey	\$
Task 2 - Geotechnical	\$
Task 3 - Removals	\$
Task 4 - Tank	\$
Task 5 - Well Houses	\$
Task 6 - Mechanicals	\$
Task 7 - Distribution system	\$
Task 8 - SWPPP	\$
Task 9 - Coordination	\$
Task 10 - Contract Document Phase	\$
Task 11 - Bid Phase	\$
Task 12 - Estimating	\$
Task 13 - Construction Phase	\$
TOTAL FEE	\$

The attached labor estimate shall correspond to the above line items.

