



April 24, 2024

Kevin Tollisen, Town Supervisor
Town of Halfmoon
2 Halfmoon Town Hall Plaza
Halfmoon, NY 12065

Re: Water Treatment Plant Septic System Replacement
MJ Proposal No. 2024167 for Engineering Services

Dear Supervisor Tollisen:

M.J. Engineering and Land Surveying, P.C. (MJ) is pleased to provide the Town of Halfmoon (Town) this proposal for engineering services associated with the replacement of the existing septic system at the Town's Water Treatment Plant, located at 8 Brookwood Road. Based on previous discussions with the Town, MJ's project understanding, and associated Scope of Services are included below.

PROJECT UNDERSTANDING

Based on our April 17, 2024, site visit with Mr. Frank Tironi and Mr. Paul Maiello, MJ understands the scope to entail:

- The Town's water treatment plant utilizes a septic system to treat domestic waste generated by the Town staff. The system was constructed in 2001, in conjunction with the original water treatment plant. The septic system is in the northeast corner of the site between the administration building and parking lot.
- Based on record drawings provided by the Town, the system was designed to accommodate a daily flow of 95 gallons per day and consists of a 1,000-gallon septic tank, distribution box, and two (2) 4-inch diameter perforated laterals in absorption trenches.
- The Town has noted that the existing system is exhibiting poor performance in the laterals/absorption trenches, with water levels backing up into the discharge pipe. The existing septic tank also requires pump outs every two (2) weeks to allow for the restroom facilities at the water treatment to be used.
- The Town recently had the laterals inspected by camera and the lines were found to be in poor condition. The existing distribution box area and absorption trenches appear to have settled as well, which can contribute to decreased performance.
- To address the deficiencies with existing septic system, the Town has requested that MJ provide design documents for replacement of the absorption field in an alternative location. The potential location identified with the Town is in the grass area, east of the parking lot and between the existing fence and driveway.



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Fishkill, NY
Levittown, NY
Picatinny, NJ
Melbourne, FL





SCOPE OF SERVICES

Task 01: Field Services

A. Survey and Mapping

1. Prepare topographic mapping to serve as the basis for the design of proposed septic system improvements. The survey shall encompass the area shown.
2. Base mapping will include but not be limited to, driveways, buildings, guide rail, signs, culverts, fences, above and below grade utilities, roadway pavement, and brush and/or tree lines. Underground utilities, if any, shall be shown based on any record information provided by the owner, visible evidence, and data collected during the field survey. Underground utilities shall be mapped in accordance with ASCE Quality Level C (QL-C) Standards.
3. Establish two horizontal control points tied to the New York State Plane Coordinate System, East Zone (1983 NAD). Two vertical control points tied to the North American Vertical Datum of 1988 (NAVD88) will also be established in areas unlikely to be disturbed by site activities for use during subsequent phases of the project. If required, elevations will be referenced to information shown on record plans.
4. Display contours at an interval of one foot (1.0') with spot elevations annotated as necessary to identify high and low points.
5. Prepare mapping in AutoCAD 2023 (Civil 3D), at a scale of 1'=20'.



B. Soil Testing

1. Conduct confirmatory in-situ soil testing to support the septic system design in the proposed location. This work will include up to three (3) percolation tests, as well as one (1) deep test pit to be excavated by Town staff. The soil testing will be conducted in conformance with the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (2014). Field test data will be provided on the design plans outlined under Task 02.

Task 02: Construction Documents

1. Prepare construction documents, including drawings and technical specifications, for the new septic system. It is assumed that wastewater flows via gravity from the building through the septic system and that no electrical equipment (i.e., pumps) will be required. The major design elements to be addressed in the detailed design for preparation of the construction documents include the following:



- Septic tank and leach field sizing calculations
 - Layout of septic tank, distribution box, and leach field
2. Prepare and submit 100% construction documents to the Town for review and comment. The 100% documents will also be submitted to the involved regulatory agencies (i.e., NYSDOH) for their review and comment. The anticipated plan set will include:
 - Title Sheet;
 - General Notes, Legend and Index;
 - Existing Conditions & Removals Plan;
 - Proposed Septic System Layout Plan, Sections, and Details;
 - Miscellaneous Construction Details.
 3. Prepare an opinion of probable construction costs to ensure conformance with the project budget.
 4. Finalize 100% construction documents, inclusive of any comments provided by the Town and regulatory agencies.
 5. Provide final documents, stamped and signed by a NYS-licensed professional engineer, to the Town for their use in solicitation of quotes for septic system improvements.

Technical specifications (Divisions 02 through 48) will be furnished for specific items not noted on the plans. A cost estimate will also be prepared and submitted to the Town for review and assessment relative to procurement requirements.

Task 03: Regulatory Permits and Approvals

Based on the anticipated flows to the new septic system (less than 1,000 gallons per day), it is assumed that a State Pollutant Discharge Elimination System (SPDES) P/C/I SPDES General Permit 0-15-001, Groundwater Discharge of Treated Sanitary Sewage, will not be required through New York State Department of Environmental Conservation (NYSDEC). Rather, the plans will be submitted to the New York State Department of Health (NYSDOH) for review and approval. MJ will prepare the permit application, including submission of construction plans, for NYSDOH review and approval. Comments provided by the NYSDOH will be addressed to secure final approval of the construction documents.

SCHEDULE

MJ is prepared to initiate the work identified in this proposal within 2 weeks of Notice to Proceed. MJ will perform the scope of work outlined herein within 6 weeks of project initiation.

Projected start and end dates are subject to change and are based on date from authorization to proceed. As certain aspects of the project are outside of MJ's control (e.g., review agency schedules, actions, and approvals), MJ cannot guarantee completion of the project within these proposed schedules.



FEE

MJ proposes to complete the above-listed services for a lump sum fee as follows:

Task 01: Field Services	
A. Survey and Mapping	\$3,700
B. Soil Testing	\$1,100
Task 02: Construction Documents	\$10,100
Task 03: Regulatory Permits and Approvals	\$800
Total Estimated Fee: \$15,700	

MJ will invoice the Town in accordance with the contract requirements. The fee assumes there are no significant changes resulting from decisions, conditions and/or events beyond MJ's control.

ASSUMPTIONS

The following assumptions were made in the development of this proposal:

1. Existing utility and record mapping will be made available to MJ by the Town.
2. Town will excavate deep test pit and expose distribution box and laterals.
3. The fee has been developed with the understanding that payment of NYS prevailing wage and supplemental benefits for field personnel will be required.
4. The proposed improvements are to be contracted directly by the Town and preparation of a public bid package is not required.

TASKS NOT INCLUDED IN THIS PROPOSAL

The following efforts are excluded from this scope of services:

1. Decommissioning assistance for the existing septic system.
2. Excavation of deep test pits.
3. Soil analysis via laboratory testing.
4. Full boundary survey.
5. Utility locating.
6. Wetland delineation, cultural resource, threatened and/or endangered species survey / permitting.
7. Preparation of an engineering report.
8. Electrical design services.
9. Preparation of front-end contract and Division 01 specifications.
10. Bid phase services.
11. Construction phase services, including inspection and stakeout services.
12. Third party special inspections and/or certifications.



SUMMARY

Thank you for the opportunity to provide a proposal for this project. We look forward to the opportunity to work with the Town on this project. Please do not hesitate to contact Carrie Dooley at 518-371-0799 or via email at carriedooley@mjteam.com. If you have questions or require additional information.

Sincerely,

Michael D. Panichelli, P.E.
President

Cc: Ca. Dooley
File

AUTHORIZATION TO PROCEED

I hereby authorize M.J. Engineering and Land Surveying, P.C. to proceed with the scope of services as described in this proposal.

_____	_____
Printed Name	Title
_____	_____
Signature	Date

