# Noise Analyses and Noise Barrier Design for Village of Freeport Power Plant

GPI

Environmental Services

**Owner**: Incorporated Village of Freeport
**Project Location**: Freeport, NY

The Village of Freeport retained GPI as part of a tri-venture to design and build additional electrical generating facilities at the existing Power Plant # 2 site located at 289 Buffalo Avenue in the Village. This was a fast-track project requiring the concurrent design and construction of the proposed site elements, with a substantial completion date only six months later than the notice-to-proceed. GPI's role on the project was diverse and included work efforts in the following disciplines: Civil, Geotechnical, Environmental, Structural, Electrical, Mechanical and Architectural.

***Specific noise analyses and noise barrier design elements*** required for the project include:

- Field measurement of existing noise levels.
- Determination of critical land uses including adjacent residential neighborhoods and yacht yard.
- Calculation of sound levels to be generated by each piece of equipment including generator, chillers, and emission stack.
- Evaluation of different noise barrier configurations and heights to reduce generated noise below Village Code maximums.
- Preparation of two separate noise reports required to obtain Village construction permits.
- Structural analyses, design and plans for a 45-foot-high noise barrier extending along Freeport Creek.
- Coordination with contractor to resolve handling, transportation and erection of the oversized wall posts and panels.