

Case Study:

IAC Acoustics Sound Barrier

» NSTAR Transformer Substation
Wellfleet, Massachusetts



IAC Acoustics Gets a Gold Star!

NSTAR is the largest Massachusetts based, investor owned electric and gas utility. NSTAR transmits and delivers energy to 1.1 million electricity customers in 81 communities and also nearly 300,000 gas customers. The transformers in this substation were operating at a noise level that exceeded the regulating noise ordinance. IAC Acoustics was called in to design, engineer, and fabricate the Noishield® FS/S sound barrier system for this project. When the project was completed, the Town of Wellfleet's Health and Conservation Department required a noise evaluation of the site. Following receipt of the noise evaluation, the Wellfleet Board of Health closed the case as the report clearly depicted compliance with 310 CMF 7.10.

Manufacturing

The project was completed within eight weeks of receiving the order, including structural calculations, approval drawings and fabrication of the structural steel. IAC Acoustics supplied (159) Noishield® FS/S panels 5" thick, 24" high (on center) and various lengths up to 20'. The panels are constructed of cold rolled A-60 galvanized steel, fabricated using 4

gauge materials for the solid side, and 20 gauge materials for the perforated side of the panel. Fill materials used are fiberglass, non-corrosive, resistant to attack by fungus, fire-resistant, vermin proof and non-hygroscopic. It is free draining, self-supporting and retains physical and sound absorptive characteristics after long term exposure to the elements. All materials have a Class A fire rating.

Installation

Sound barrier panels can be installed with horizontal or vertical reveals to satisfy aesthetic and architectural considerations. The low weight panels are two foot tall and stacked to achieve desired height and configuration. The rugged panels are available in 24" and 18" heights up to 16' long, economical, and easy to install.

The Board of Health in Wellfleet commented, "It has been a pleasure working with you on this very complex issue. I am forever grateful for IAC's commitment to this project and strict adherence to established timelines set by the Wellfleet Board of Health. The residents in the area have also expressed satisfaction with the success of the mitigations. Thank you for all of your efforts."