



August 18, 2021

AIL Sound Walls equipment enclosure integrates with Florida water reclamation facility's slab

The City of St. Petersburg, Florida, was consolidating their water reclamation / biosolids operations at one facility in order to generate enough biogas to fuel their fleet of collection trucks. The biogas created also powers 40% of the plant itself. This unique and innovative project, called the “Southwest Water Reclamation Facility Biosolids Waste to Energy Project,” is the first of its kind in the country and is being led by Haskell under a construction management at-risk delivery method.



Project at a glance:

Name: St. Petersburg Biosolids to Energy

Location: St. Petersburg, FL

Owner: City of St. Petersburg

Consultant: Brown and Caldwell

Contractor: Haskell

Product: Silent Protector

Sector: Municipal (Water/Wastewater Treatment)

Application: Equipment Enclosures

Dimensions: 15' tall, 32' wide, 96' long (four-sided structure)

Installation Time: Three weeks

Large equipment enclosure mitigates noise from gas compressors. The plant's proximity to a college and to residential neighborhoods required an effective sound barrier enclosure around an array of gas compressors, supplied by Guild Associates. The AIL Sound Walls team worked very closely with the project consultants, Brown & Caldwell, to design the 32' x 96' equipment enclosure with our Silent Protector (Absorptive) system. Our sound barrier system had to integrate into their slab design and meet the wind load and acoustic requirements, as well as fire requirements to meet the City Fire Marshal's specifications.

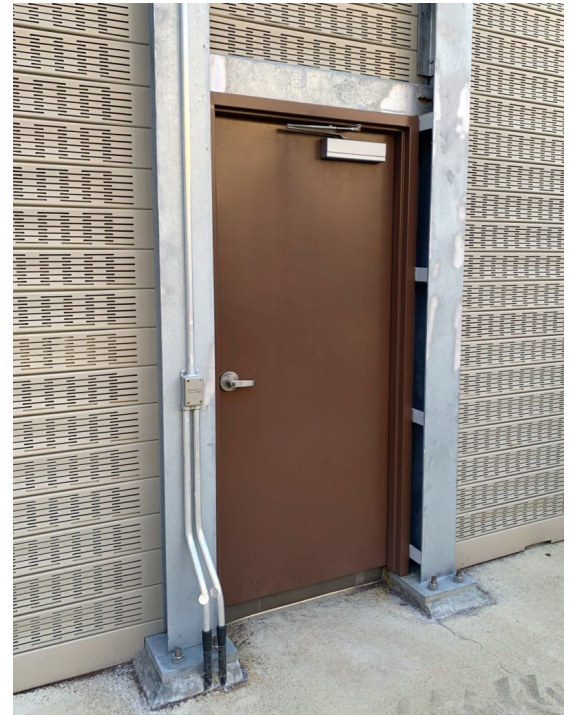
Sound barrier wall had to meet wind load, acoustic and fire requirements

Together, we worked out the optimal layout for the enclosure (which included two main doors, a large double gate for access, wiring/lighting and many apertures for utility lines and ventilation) and the mechanics of integrating our system into the slab design while still having sufficient resistance to Florida's high wind loads. Our system's lightweight PVC construction makes it much easier to integrate with slabs, roofs, retaining walls, parapets and other structures.

On the fire item, we provided documentation of our PVC panels' "self-extinguishing" characteristics, along with our experience on hundreds of similar gas compressor projects.

Detailed and consistent communication with Haskell throughout the design and manufacturing processes was key to the project's successful outcome. We were also on-site to provide installation support. Positive feedback was received from both Haskell and the City. Eckerd College's main administrative offices are a mere 100' or so away from the gas compressors but there have been zero noise complaints since the installation of the enclosure.

Incidentally, we are supplying another sound barrier wall for Guild Associates that is currently being installed in Quebec.



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