
Ventilation Tower Gets Fresh Air

At the nation's longest underwater vehicular tunnel, the ventilation tower gets a fresh new face.

By George LeTellier



At 9,117 feet, the 39-year-old Brooklyn-Battery Tunnel is still the nation's longest underwater vehicle tunnel. Even the ventilation building is a ten-story tower located on its own island in New York Harbor.

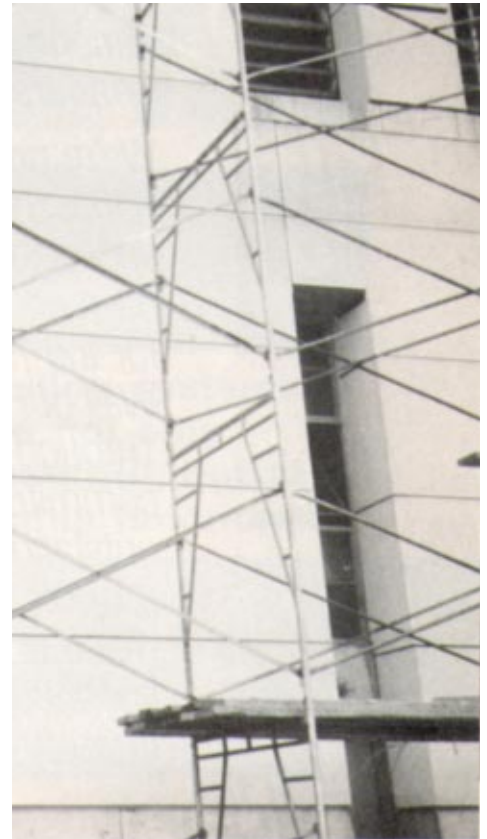
Recently, General Restoration Company, Inc., Bronx, NY, was awarded the contract for replacing the facade of the ventilation tower. The company stripped the existing glazed face brick and removed deteriorated exterior backup brick and mortar. They also thoroughly cleaned the masonry, repaired the masonry substrate behind the brickwork, waterproofed the exterior, and installed a new wall and insulation system.

General's President, Steven Weingarten, was pleased with the restoration process. "We corrected all structural deficiencies and created an aesthetic building in New York Harbor," says Weingarten. He explained all construction debris had to be removed from the island site by boat to maintain a clean environment.

Panelized Systems Limited (PSL), Brentwood, NY, was selected to construct approximately 1,350 "Energetex" panels. Light gauge steel studs were first welded together. Then the steel was rustproofed, and

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Refacing the Brooklyn Battery Tunnel's 10-story ventilation tower was a unique challenge, because the building lies on its own island in New York Harbor and was accessible only by boat.




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exterior grade gypsum sheathing was fastened to the frame with steel plated screws. Next, a matrix of synthetic acrylic resin, was trowelled to the back of a cured insulation board and adhered to the gypsum.

The matrix was then trowelled onto the face of the insulation board, and a woven mesh was embedded into the "wet" matrix. Once the matrix cured (approximately 10 hours), a white finish coat was applied in the desired texture to match the building's previous color. The finished panels were then quickly installed to clip angles, and the joints between the panels were sealed.

Neil Lamparter, president of PSL, believes prefabrication of the panels resulted in a cost-effective operation. "We manufactured the panels to precise specifications, shipped them by boat to a waiting construction crew, who then lifted and affixed the panels with a mobile hoist," said Lamparter.

Lamparter adds that the Energex four-component system supplied by Vitricon, a division of Polymer Plastics Corp., Hauppauge, NY, provides "permanent insulation and protection while creating a unique exterior wall. Several factors for choosing the Energex wall system were its ability to withstand extreme weather conditions, resistance to air pollutants, and its attractive appearance." 

About the Author . . . George LeTellier is with Polymer Plastics Corp., Hauppauge, NY, a division of Vitricon that specializes in protective and specialty coatings, waterproofing, wall and floor systems, and roofing systems.

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