

## HALL ROAD LIFT STATION

Dating back to 1859, the City of Sandwich, Illinois, has been dedicated to preserving both its historical architecture and contemporary construction projects required for future growth, such as the Hall Road wastewater lift station that's protected by a Tnemec Perma-Shield® lining system. "We wanted to prevent biogenic sulfide corrosion from destroying the concrete," recalled coating contractor Tom LeCuyer of LeCuyer Painting. "We used the same system on a couple lift stations in Aurora which is how we became familiar with it."

LeCuyer and his crew prepared the new cast-in-place concrete in accordance with SSPC-SP13/NACE No. 6, ICRI-CSP5 Surface Preparation of Concrete, which included abrasive blast cleaning to remove the weak laitance layer and produce a sufficient anchor profile for the specialty lining system. The applicators spray-transferred and back-troweled Series 218 MortarClad, an epoxy-modified cementitious resurfacer, to fill voids and bugholes in the lift station's concrete and create a smooth, contiguous surface for coating. They also applied a cant cove on the corners in the lift station by extending Series 218 with a prescribed aggregate.

Two coats of Series 435 Perma-Glaze®, a 100 percent solids epoxy lining, were roller-applied to seal the resurfacer and protect the concrete from high hydrogen sulfide (H<sub>2</sub>S) levels. "We used two different colors of Perma-Glaze," LeCuyer noted. "The first coat was gray and the second coat was beige, which is something we do with all of our projects to help ensure complete coverage with the second coat. We also performed high-voltage holiday testing in accordance with NACE SP0188 to make sure there were no voids in the lining system."

The lift station measured 30-feet in depth, so work was performed from scaffolding that was supported by a deck that LeCuyer's crew constructed over the base of the lift station. Approximately 200 gallons of specialty linings were required to achieve the recommended dry film thickness (DFT).

### FEATURED PRODUCTS

**Series 218 MortarClad**  
**Series 435 Perma-Glaze**



### PROJECT INFORMATION

**Project Location**  
Sandwich, Illinois

**Project Completion Date**  
August 2007

**Owner**  
City of Sandwich

**Engineer**  
Strand & Associates - Madison, Wisconsin

**Shop & Field Applicator**  
LeCuyer Painting - Yorkville, Illinois

A Perma-Shield® system from Tnemec was chosen for the Hall Road Lift Station in Sandwich, Ill., because of its ability to withstand elevated H<sub>2</sub>S levels and protect the concrete from biogenic sulfide corrosion.

