

WESTERN BELTWAY SUNPASS™ GANTRY

Abrasion, ultra-violet (UV) light and exterior weathering can take their toll on structures along Florida's Turnpike, which is why engineers chose a coating system from Tnemec Company to protect several 80-foot open road tolling (ORT) gantries that span the heavily traveled roadway. "They're rather unique structures that require a high-performance coating with a long service life," according to Tnemec coating consultant Mike Kendig. "Engineers also wanted to match the finish to existing toll road structures that have a galvanized appearance."

The gantry is constructed using two vertical columns and horizontal tubular beams connected by a grated floor system that creates a six-foot, six-inch walkway. It stands approximately 20 feet above the road surface. The gantry is equipped with electronic toll collection (ETC) technology, lights, cameras and SunPass™ antennas. Motorists with SunPass ETC transponders will be able to pass underneath the ORT gantries at highway speeds, mitigating the possibility of bottlenecks that contribute to congestion.

Working closely with the applicator, Kendig specified a coat of Series 90-97 Tneme-Zinc, an advanced, two-component, moisture-cured, zinc-rich primer. Tneme-Zinc was spay-applied to the carbon steel substrate, which had been prepared in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning.

Series 66 Hi-Build Epoxoline, a polyamide epoxy, was also shop-applied as the intermediate coat, followed by a finish coat of Series 1077 Enduralume, a metallic aliphatic acrylic polyurethane. Enduralume is a highly durable coating that resists abrasion, wet conditions and exterior weathering. It also features UV absorbers for extended color and gloss retention, which is especially important in the Sunshine State.

"Each gantry was delivered to the jobsite in sections, where they were erected and the finish coating was touched up," Kendig added. "They really look terrific."

Florida's Turnpike Enterprise, which is part of the Florida Department of Transportation (FDOT), owns and operates the fourth-largest toll road system in the U.S. Expanded to meet consistently high population growth rates in the Sunshine State over the past 50 years, it now comprises 460 miles of roadway, more than 130 interchanges, eight service plazas and five toll bridges. SunPass is an innovative statewide prepaid toll system implemented by the FDOT on most of Florida's toll roads.

FEATURED PRODUCTS

- Series 66 Hi-Build Epoxoline
- Series 90-97 Tneme-Zinc
- Series 1077 Enduralume



PROJECT INFORMATION

Project Location
Kissimmee, Florida

Project Completion Date
February 2008

Owner
Florida Department of Transportation
Tallahassee, Florida

Engineer
URS
Tampa, Florida

Applicator
POPS Painting
Lakeland, Florida

Fabricator
Florida Structural Steel
Tampa, Florida

A finish coat of Series 1077 Enduralume was applied to the Western Beltway SunPass Gantry in Kissimmee, FL to help protect it from abrasion and exterior weathering.

