

SKYDANCE BRIDGE



FEATURED PRODUCTS

Series 90-97 Tneme-Zinc Series 750 UVX Series 1071 Fluoronar

On Harvey Avenue in Oklahoma City, between SW 7th and SW 10th, there soars a 197-foot-tall steel bird, lit up by festive lights. Situated atop a long pedestrian bridge that reaches across Interstate 40, the structure is an immediate glance into the future of a city - the beginning of a revitalization to the metropolitan area. Before it was built, Mayor Mick Cornett, summoning the talents of civil engineers nationwide, requested a bridge "of iconic status that reflects the cosmopolitan and vibrant qualities of Oklahoma City." And after 5 years of planning, over 500 tons of steel, and more than 400 gallons of Tnemec coatings systems, this idea is what stands today.

To construct the bridge that would reach 386 ft, the City of Oklahoma City needed an enormous amount of steel and a large quantity of coatings. "Everything needed to be coated with the same system for convenience," said Neil Stanek of Eagle Rock Coatings, Inc. "And the system needed to last, because they didn't want to shut down I-40 for recoating or maintenance."

All of the tubular steel – from the truss assembly, to the deck rail, to the steel pipe bones of the bird structure – was prepared in the shop according to SSPC-SP10/NACE No. 2 Near White Blast Cleaning. To extend the life cycle of the steel, they would need a corrosion-resistant zinc-rich primer, and they specified Tnemec's Series 90-97 for the task. Series 90-97 Tneme-Zinc is an aromatic urethane prime coat that provides extraordinary performance with fast cure characteristics.

The steel was then shop-applied with an intermediate coat of Series 750 UVX - a low-VOC polyurethane that stands up well to exterior weathering - at 2.0-3.0 mils dry film thickness (DFT). The topcoat specified for the steel was Series 1071 Fluoronar, which was applied at 2.0-3.0 mils DFT. Series 1071, the semi-gloss version of Tnemec's high-solids fluoropolymer, has unmatched color and gloss retention even in the most severe outdoor exposures.

"Only some small touch-up was done on location," remembered Stanek. "The steel was delivered to the jobsite with the whole coating system already applied and ready for construction."

The SkyDance Bridge's soaring sculptural structure was inspired by Oklahoma's state bird – the scissor-tailed flycatcher – and is illuminated nightly with LED lights, in a variety of colors, to welcome visitors to downtown Oklahoma City.

PROJECT INFORMATION

Project Location

Oklahoma City, OK

Project Completion Date

April 23, 2012

Owner

City of Oklahoma City

Architect/Engineer

Butzer Gardner Architects
Oklahoma City, OK

Field Applicator

Manhattan Road and Bridge
Oklahoma City, OK

Shop Applicator

W&W Steel
Oklahoma City, OK



Aside from the stainless steel feathers, all steel on this pedestrian bridge in Oklahoma City is protected by a fluoropolymer coating system from Tnemec. Photos courtesy of David Cobb.