



**Clockwise from Bottom Left:**  
A worker applies BD Multi-Use Primer; Workers install Bridge Deck Membrane; A worker installs Integrated Ballast Mat.

# RIVERSIDE AVENUE UNDERPASS PROJECT

Riverside, California



**Partially Completed Installation**  
Workers install the final seal coat of Integrated Ballast Mat.

In late October of 2014, Murphy Industrial Coatings installed the Bridge Preservation™ Integrated Ballast Mat™, a high performance spray applied ballast mat on the Union Pacific Bridge over Riverside Avenue in Riverside, California. This project lowered Riverside Avenue approximately 300 feet and replaced the Riverside Avenue at-grade crossing with a two track railroad bridge to carry train traffic. Riverside Avenue has an ADT (Average Daily Traffic) count of 16,000, and approximately 36 trains per day cross Riverside Avenue each day. This project eliminates over one hour per day of gate down time per day and saves over 13.64 tons per year of greenhouse gas emissions due to idling vehicles delayed by crossing trains.

**Project Information**  
Project Number: 7185  
Owner: Union Pacific Railroad  
Project Size: 2,100 SF  
General Contractor: SEMA Construction, Inc.  
Installer: Murphy Industrial Coatings

The installation of the high performance spray applied ballast mat began on October 27 with

abrasive blasting of the deck surfaces, followed by application of BD Multi-Use Primer™ to “hold the blast” and ensure rust would not form on the surface of steel. The following day, on October 28, Bridge Deck Membrane, spray applied waterproofing membrane was installed on the deck, followed by installation of the high performance spray applied ballast mat Integrated Ballast Mat™.

The Bridge Preservation™ high performance spray applied ballast mat meets or exceeds recommendations in AREMA Chapter 8, Part 29.9.10 Cold Liquid-Applied Elastomeric Membrane, as well as the relevant recommendations in AREMA Chapter 8, Part 29.10.3 Asphaltic Panels. Bridge Preservation™ Integrated Ballast Mat is also been subjected to the North American Ballast Impact Test, withstanding 2 million cycles of ballast loading at 9.2 to 28.1 kips.



**Completed Bridge Deck**  
Completed steel bridge deck with Integrated Ballast Mat.



**Bridge Preservation**  
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