PROJECT DESCRIPTION:
State DOTs across the country are faced with an aging highway system littered with structurally-deficient bridges near or past their projected lifespan of 50 years. Route 23 in Northern New Jersey presented this challenge to the NJDOT with a bridge deck in Butler, NJ that had deteriorated due to deicing salts and extensive truck traffic from a local quarry. Power Concrete was charged by the NJDOT to restore the bridge deck using QUIKRETE® FastSet™ Latex Modified DOT Overlay to complete the job overnight and have Route 23 back open to traffic the next morning. Unlike the traditional multi-step process of restoring bridge decks by making individual full and partial depth patches and then applying a new 1 ½” overlay, QUIKRETE® FastSet™ Latex Modified DOT Overlay fills all partial and full depth repair areas and places a new ½” to 1” wear surface in a single pass. For this project, Power Concrete placed and finished the overlay in 54’ long by 15’ wide passes in 20 minutes. The restored bridge deck is expected to last 20 years.

QUIKRETE® FastSet™ Latex Modified DOT Overlay is a fiber reinforced, very low permeability, rapid-setting overlay material specifically designed to fast track concrete bridge deck repair and to extend the service life of concrete bridge decks. Each 3,000-pound bulk bag, which should be mixed to a slump of 8” to 10”, covers approximately 700 square feet when applied at a .5” depth, 350 square feet when applied at 1” depth and 250 square feet when applied at 1 ½” depth. Using a volumetric mobile mixer or in a ready mix truck, mix no more material than can be used in 30 to 45 minutes and with the proper surface preparation, QUIKRETE® FastSet™ Latex Modified DOT Overlay can be applied in full-depth repairs up to 8” in a single application. The material contains an integral corrosion inhibitor and reaches 3,000 PSI in just three hours.

OWNER: New Jersey DOT
CONTRACTOR: Power Concrete
QUIKRETE® PRODUCTS:
3,000 lb QUIKRETE® FastSet™ Latex Modified DOT Overlay: 8 bags

PROJECT START DATE: September 2013
PROJECT COMPLETION DATE: September 2013