



Bridge Deck Waterproofing

Eliminator® Product in Action



Williamsburg Bridge . New York City . USA

Client: NEW YORK CITY DEPARTMENT OF TRANSPORT
General Contractor: YONKERS CONTRACTING CO. INC.
Authorised Contractor: VENTURE CONSTRUCTION INC.

New York City Vital Link

The Williamsburg Bridge turned 100 years old in 2002. This vital link in New York City's transportation system carries eight lanes of traffic, two mass transit lines (the R and N subway trains) and a pedestrian walkway; funneling 100,000 vehicles, 90,000 transit riders and thousands of walkers and cyclists between Brooklyn and lower Manhattan daily.

In 1988 the City was faced with either having to repair the bridge or lose this integral part of NYC's complex transportation network. The decision was made to reconstruct the bridge.



In 1991, an extensive rehabilitation program was commenced, at the cost of over \$600m, all the time maintaining at least four lanes of vehicular traffic on the bridge in the peak direction during each rush hour. The entire existing concrete filled steel deck was replaced with a steel orthotropic deck.

Under Contract No. 5, the four lanes on to the South Roadway were completed in the summer of 1998, and an equal number on the North Roadway under Contract No. 7 in spring of 2002. For both contracts the City specified the installation of the **Eliminator** Waterproofing Membrane System for the steel highway deck. This choice was made on the basis of **Eliminator's** past performance on other long-span orthotropic steel decks worldwide. Its ease and speed of application, along with being environmentally safe, made it the perfect product for

installation on a heavily trafficked structure, where closure had to be kept to an absolute minimum and installation took place directly adjacent to slowmoving vehicular traffic.

The steel surfaces were shot blasted to SP10 near white metal finish in preparation. The surfaces were then primed with MR6 steel primer, followed by two spray applied colour-coded coats of **Eliminator**, each of 1.25mm. Each coat could be overcoated within 40 minutes of application and fully trafficked within one hour. As well as being free of vulnerable joints, the system adheres strongly to the substrate over all areas: this ensures that water cannot track between the membrane and the substrate, even under the pumping action of vehicular traffic.



The system was completed by application of Stirling Lloyd's proprietary Bond Coat SA1030 to provide a tenacious bond between the membrane and the asphalt, ensuring a long life for the new deck and its surfacing.

Ref. PIA_Elim018(4E).pdf
Available from stirlinglloyd.com



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