



eliminator®



Georgian Court Bridge . New Jersey . USA

Client OCEAN COUNTY DEPARTMENT OF WORKS

Consultant Engineers JENNY ENGINEERING CORP.

Authorised Contractor CENTURION WATERPROOFING INC.

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A Historic Structure

The Georgian Court Bridge, a 15m long elliptical brick arch was constructed in 1899 over a man-made lagoon on the estate of railroad tycoon George Jay Gould. The picturesque bridge has served as a backdrop for many films and weddings and is a Historic Landmark listed on the New Jersey and National Registers.



A survey in the 1990s indicated that although the structure was badly deteriorated, none of the problems was serious enough to close the bridge - the arch was essentially sound. There was, however, significant water leakage through the structure creating a concern about the immediate future condition.

Upon excavating the approaches of the structure, it was found that the brick and mortar backwalls were in very good condition, considering they had been in service and buried for 100 years. The deck, however, while still carrying a 4-ton maximum load rating, showed signs of severe deterioration with bricks and mortar missing, broken away, eroded or split. After thoroughly cleaning the existing deck and filling in deep depressions with a cementitious mortar, a 80mm thick concrete topping was placed on the deck to create a strong, uniform substrate. This topping and the backwalls and buttresses were then waterproofed with the Stirling Lloyd **Eliminator®** bridge deck waterproofing membrane.

The thixotropic properties of the membrane meant that it could be applied on vertical surfaces and over any textured areas. The **Eliminator®** system comprises a spray-applied methyl methacrylate resin primer followed by two discrete colour-coded coats, each of which can be overcoated within 40 minutes of application and the complete system fully serviceable within one hour. As well as being free of vulnerable joints, the system adheres strongly to the substrate ensuring that water cannot track between the membrane and the substrate.

Stirling Lloyd's proprietary Bond Coat SA1030 was applied to provide a tenacious bond between the membrane and the asphaltic road surfacing, which was paved directly on top of the deck slab.



Waterproofing For The Next 100 Years

Alan R. Slaughter, P.E., Senior Associate for Jenny Engineering Corp., Project Manager stated, "There are many kinds of waterproofing on the market today ... We selected the Stirling Lloyd **Eliminator®** product ... for its waterproofing qualities and ability to cover those irregular edges of brick on the walls of the bridge." In 1999, the bridge won the New Jersey State Historic Preservation Award for Outstanding Restoration, the International Masonry Institute's Golden Trowel Award as Best in Restoration and honorable mention by the National Trust for Historic Preservation. ■

products in action

Ref: PIA_Elim010(3).pdf
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