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Project: Bridge Steelwork Protection



The Problem

The photograph shows the Bear Mountain Bridge, which spans the Hudson River in New York State. When it was built in 1924, it was the longest suspension bridge in the world.

The contract for protection of the steelwork below the road was awarded to 3MThortex, following the successful application of its single component, water-based, anti-corrosive acrylic coating Poly-Nox onto the Mid-Hudson Bridge.

Originally, the project requirement was to encapsulate the coated steelwork; however the New York State Bridge Authority (NYSBA) decided to remove all existing coatings on this occasion rather than adding additional layers over the next ten years and then having to remove them at great cost in the future.

The area to be coated in a phased program totaled 181,350ft².

Solution

During the blasting process, a recycling system using specialist ventilation and extraction had to be employed, as there were a number of coats of lead-based paints already applied to the steelwork. The whole bridge had to be tented-off to prevent dust and debris falling into the Hudson River below.

The system, which was applied by airless spray, comprised one coat Poly-Nox followed by a stripe coat on sharp edges (by brush) and finally a second full coat of Poly-Nox.

Poly-Nox offers superior elastomeric and adhesion properties as well as optimum levels of UV and corrosion resistance. It is simple, easy-to-use and can be applied as a high build encapsulation system to coated steelwork and concrete.



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