

M27 North Fareham

43m clear span steel overbridge

Issue

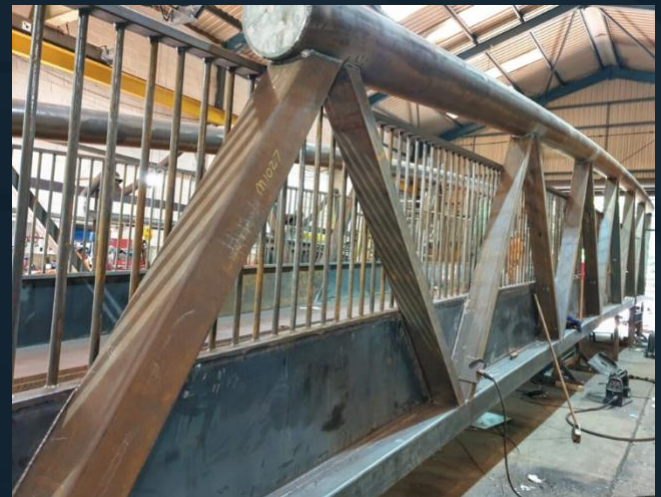
The Smart Motorways Programme (M27 Junctions 4 to 11) to convert the hard shoulders into running lanes, required the existing concrete brideway overbridge to be removed as the configuration was unsuitable for the new road layout.

A replacement steelwork structure with a clear span of 43m over the eight motorway carriageways, central reservation and roadside verges was to be provided.

Four-Tees Engineers (FTE) was appointed by the Bam Nuttall Morgan Sindall Joint Venture (BMJV) to detail, fabricate, coat, assemble and install the new structure.

Solution

The opportunity was taken to improve pedestrian, cyclist and equestrian access within the design of the new steelwork bridge.



Several equestrian related features were added, such as recycled rubber deck tiles, 1.8m high equestrian parapets and improved approach ramps that would ease safe access to the new overbridge.



The existing bridleway/public right of way crossing the motorway had to be closed to allow the removal of the existing bridge. Unfortunately, there was no alternative equestrian route available until the installation of the new bridge structure.

Recognising the impact of this potential disruption to walkers, cyclists and horse riders, FTE applied their intelligent integration approach to expedite in-house 3D modelling, detailing and fabrication timescales. This guaranteed that the fabricated sections of the structure could be transported to site and pre-assembled with a first time fit; then immediately installed into its final position in one single lift during the pre-scheduled closure of the motorway.

Outcome

FTE's new 43m span specialist steelwork structure was an important, whilst modest part, of this major BMJV project that increased the capacity of the highway by 33% on this vital route along the south coast between Portsmouth and Southampton.

FTE's two-stage detailing and production process eliminated potential clashes and enabled precise fabrication first time in our manufacturing facility. Continuity in the use of FTE's own onsite teams, plant and equipment, provided BMJV the assurance of a safe, quality, risk free installation and handover.



For more information about how we can help with your structural steelwork project visit www.fourtees.co.uk, call 01489 885899 or email info@fourtees.co.uk

