Project Overview

Project: New Concrete Road Bridge across the A63 – Biarritz, France

Product: 54m x 7,5m Retro Heavy Bridge

Loading: Eurocode I –III; LM1

Working with local partner JB France, Retro Bridge BV recently supplied and erected a temporary Retro Heavy Bridge over the A63 between Pau and Biarritz in South West France for our client Vinci Construction SA. The project formed part of the widening of the A63 motorway which saw the replacement of many of its over-bridges. Whilst two of these were replaced, temporary bridges were needed to ensure vital road links were kept open to traffic.

The RHB was designed to carry Eurocode loading and also checked for local French BC loading. It had an oveall length of 54 metres, with a clear span over the A63 of 40.5 metres combined with a smaller side span of 13.5m.

The abutments, intermediate support and approaches were provided by the client. The decked width of the bridge was 7.5 metres and consisted of three 2.5 meter RHB units side by side providing space for 2 lanes of traffic and a 1 meter emergency refuge for pedestrians.

Bridge units were transported by road to a pre-assembly location close to the site in 3 elements of 27 meters and 6 elements of 13.5 meters. These were then assembled into 3 lengths of 40.5 meters and 3 of 13.5 meters complete with junction plates.

At 10.00 pm, the Spain – Bordeaux carriageway was closed and a 400 tonne capacity telescopic crane was positioned on the carriageway. 3 trucks each carrying a 40.5m bridge section were then called down to the crane one byone

and the elements lifted into position. By 05:30 am, all elements were in place, longitudinal connections were bolted up using HR 10.9 bolts and the crane had been dismantled and had left site. During the following day, the 13.5m sections were then installed using a crane positioned adjacent to the motorway.

After erection was complete, the client organized a load and deflection test using four 28 tonne asphalt trucks positioned in the middle of the main span, then over the intermediate support and then on the 13.5 meter span. Deflection readings were taken and compared with theoretical values. Results proved more than satisfactory and the bridge was opened to traffic.

The bridge was to be used at two separate locations, with the rental period for each location being 9 months.