

## PANSPORT BRIDGE, ELGIN

**Client:**

The Moray Council

**Main Contractor:**

Morrison Construction Ltd

**Person of Reference:**

Allan Russell  
01343554986

**Completed:**

June 2014

**Contract Value:**

£2.6m

**Tonnage:**

610 tonnes



**The Bridge** – Pansport Bridge is a suspended deck two-span twin arch bridge, and is the largest of three bridges forming part of the £86million Flood Alleviation Scheme in Elgin, Scotland. The total length of the bridge is circa. 75m.

**CBUK's Role** – Fabrication, supply and on-site erection of the steelwork superstructure, including the stainless steel handrailing and balustrades, and all associated temporary works engineering and design.

**Design** – Prior to contract award CBUK participated in a Value Engineering (VE) exercise, which included involvement from the Moray Council and their Consulting Engineer, Royal Haskoning DHV. Expert engineering advice was provided, which facilitated the derivation of significant cost savings in the steelwork elements, and in turn reduced some of the temporary works requirements that were detailed within the Engineer's original scheme – particularly temporary erection trestles within the river Lossie. This was extremely beneficial; as piling within the river may have contributed to detrimental consequences should a flood have occurred whilst the construction works were in progress. Throughout the project CBUK were involved in proposing solutions to complex engineering problems, stemming from the unconventional and bespoke design of the structure.

**Fabrication** – The steelwork elements of the structure were fabricated at CBUK's Darlington facility. The arches are constructed as plate fabricated trapezoidal boxes; providing support to the main carriageway deck via cable hangers. Large cantilever components are connected to the deck at either side of the arches, and provide segregated pedestrian walkways to which the stainless steel handrailing is assembled. In order to minimise the number of lifts required on-site, the walkways were fabricated and transported as modules of 4.8m in width, and lengths ranging from 15m to 21m.

**Erection of Superstructure** – The main erection of the North span was carried out using a 700te mobile crane, with the main erection of the South span carried out using a mobile crane with a 1000te capacity.

**Completion of Works** – CBUK commenced on-site at the end of July 2013, and completed erection of the superstructure at the end of October the same year. Following completion of the concrete pouring operations, stage 2 of CBUK's works then commenced in January 2014, which included tensioning the cable hangers, installation of the stainless steel handrail, and final cosmetic coating of the arch and walkway protective treatment system.

