

National Level Crossing Programme

Client:	Kier Construction (Network Rail)
Location:	Kemps Footbridge, Balcombe, West Sussex
Value:	£300k
Duration:	3 Months



In Brief...

Barhale's subsidiary, BCS Fabrications were contracted by Network Rail (with Kier as the principal contractor) to design, fabricate and install a new footbridge near Balcombe in Sussex as part of the overall National Level Crossing Programme (NLCP). Kemp's foot crossing, which links the B2036 road with Stumble Field Wood and Balcombe village, was used previously to cross the dangerous 90mph main Brighton railway on a bend.

Network Rail were under pressure from the local authority to maintain a local right of way, but with only three disruptive possessions available during the final quarter of 2014, it provided a sizeable challenge to complete the construction in the shortest time possible.

Customer Benefits...

- A new safe route was created, enabling the public to cross the line without risk.
- The new footbridge was a welcomed addition to the community where residents could cross the railway line without compromising their own safety.
- A properly surfaced path leading up to the bridge was provided to improve access.
- Vegetation clearance was carried out to improve sighting on the west approach to the crossing.
- Good working relationship with several other contractors, minimising interference issues.
- Temporary overnight accommodation established for the site workforce cutting down on travel time and cost, which minimised Barhale's carbon footprint.

Technical Features...

Prior to the works taking place, Helical Piles were installed by the principal contractor. The piles offer an efficient solution because they are very quick to install and given the access restrictions could be installed using a medium sized excavator. As there are no RC foundations, no excavated material to tip and no concrete is required, providing a cost effective and green solution.

The bridge itself is made of carbon mild steel and weighs 30 tonnes altogether. Fabrication was completed off site in sections and delivered fully finished and painted ready for lifting.

The biggest and heaviest section is the span which crosses the railway line, which alone weighs 12 tonnes. It was delivered to Balcombe Station then transported by rail road vehicles to the new bridge location. It was installed using a Kirov Rail Crane, which gradually hoisted the components, which included two staircases, two trestles and the span, into place.

The bridge superstructure was delivered ahead of schedule and many obstacles had to be overcome within normal planning timescales. This would not have been possible without the positive collaboration of all the teams involved.