

National Level Crossing Risk Reduction Programme

Client:	Network Rail (Kier Construction)
Location:	Barnt Green Footbridge, Bromsgrove
Value:	£220k
Duration:	3 Months

In Brief...

Barhale Construction Services Ltd were contracted by Network Rail (with Kier as the principal contractor) to fabricate and install a new double-span footbridge near Bromsgrove, North Worcestershire. The existing footbridge needed to be replaced with a new, higher structure so overhead lines can run underneath to power electric trains.

The project was part of a £100m Network Rail investment to electrify the lines between Barnt Green and Bromsgrove in the north of Worcestershire. The existing structure remained open for station pedestrians, whilst the project was being carried out.



Artist's impression of the new Barnt Green footbridge ahead of installation

The Challenge...

Barnt Green Station opened in 1840 and is located at the junction of the former Birmingham and Gloucester Railway. The existing footbridge which links the four platforms at Barnt Green Station was manufactured by W. Richards & Son Leicester and was erected in circa 1884. Due to the history tied to the existing station, it was insisted that the new bridge design feature had the same decorative elements and was safely practical to preserve the character and appearance of the original structure.

What we did...

- The new 51 tonne two-span footbridge is an attractive steel structure finished with decorative lattice panels to maintain the traditional appearance of the original bridge
- The replacement bridge was designed with three staircases complete with provisions for future lift shafts and was built in accordance with Eurocodes
- Installation was carried out over a series of 3 mid-week/ weekend "Rules of the Route" possessions of 7 hours duration each
- Additionally, as part of the dismantling and decommissioning of the existing footbridge, BCS Ltd manufactured and installed temporary struts and ties to allow its phased removal over a number of weeks. This ensured station users had a useable and safe route between all platforms until the new bridge was complete

Benefits...

An electrified railway will allow cleaner, greener, quieter and more regular trains to run through the area providing a better service to passengers. The 6 trains per hour that service the lines, currently terminate at Longbridge. Upgrading to the electrification line would allow three of these trains to continue to Bromsgrove.



The completed bridge superstructure installed at Barnt Green Station