

Grade II Listed Cast Iron Canopy Alterations

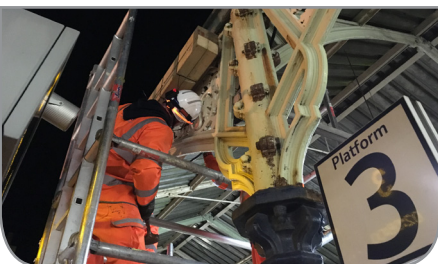
Kettering and Wellingborough Stations

Client
Network Rail

Principal Contractor
Galliford Try

Engineer
Mott MacDonald

Works Commenced
November 2017



The cast iron canopies at Kettering and Wellingborough Stations are Grade II listed. Due to the electrification of the Midland Mainline route, the canopies will need to be cut back or replaced. In order for the designers and Historic England to determine the most suitable solution, Freysinet was appointed to undertake a trial removal of one cantilever arm on each of Kettering platforms 2, 3 and 4 plus Wellingborough platform 1.

The member to be removed was the bracket arm that allowed the canopy to cantilever over the edge of the platform. These arms varied in length depending on which platform they were on but typically were 2.6m long and weighed 450kg. Prior to removing the arm, the roof glazing, purlins, ridge beam and valley gutter beam local to the arm had to be carefully removed. Every piece was tagged with an identity number and catalogued for future re-assembly.

A trial removal of a bolt demonstrated that it would be impossible to undo the nut and so Historic England gave permission to cut the bolts at the junction of two flanges. The spider crane was positioned on the platform and took the weight of the arm. The bolts were cut and the arm gently wiggled free. It could then be loaded onto a hand cart for removal to the long-term storage compound. The arms will undergo visual and ultrasonic inspection as well as metallurgical testing.

With the arm removed, the roof now lacked the counter-balancing effect of the cantilever. Consequently, before an arm could be removed it was necessary to install temporary supports consisting of aluminium beams and props. This proved to be the most difficult part of the process as the components were fairly large and access was not always completely clear.

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