

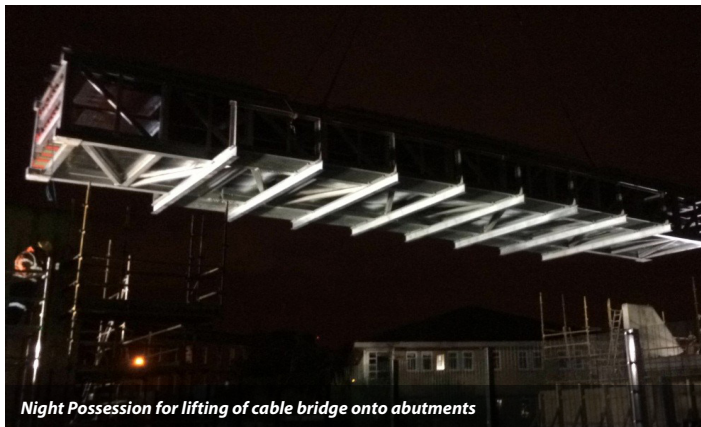
Finnieston Cable Bridge/Substation

Client: Scottish Power Energy Network

Location: Finnieston, Glasgow

Value: £450k

Duration: 7 Months



In Brief...

The site spans the Partick to Charing Cross railway line, from an area within the Scottish Power Depot on St Vincent Crescent (North Side) to an area on Minerva Way (South Side). Barhale were responsible for the construction of RC Cable Bridge (Foundations, Abutments, Wingwalls) over a live Railway Line serving Glasgow Central. The bridge now meets the requirement to carry a series of high voltage cables over the railway line.

Scope of Works...

The works included:

- Providing temporary security fencing to both the north and south side sites and compound. Barhale ensured that all security fencing remained in place until all works are complete including works by others
- The removal and disposal of existing south side fencing sufficient to allow the works to be carried out whilst not compromising the security of the compound area
- Removal of existing ducting and diverted live cables
- Excavated for and construct reinforced in-situ concrete bridge pier abutments on the north and south sides, including head wall with duct sleeves cast in
- Responsible for all other associated excavations, ducting and drainage
- Formed temporary hardstandings within increased north side area using compacted fill to protect the wall
- Allowed access to north side area for steelwork contractor to carry out the assembly of the steel gantry
- Construction of temporary crane access road and platform
- Barhale were also in attendance to provide assistance during the overnight lifting of the cable bridge undertaken by others
- Removed temporary hardstandings from the north side area on completion of the gantry installation
- Disposal of all surplus excavated materials
- Maintained roads and footpaths within and adjacent to the site and kept clear of mud and debris
- Responsible for earthing, landscaping as well as the replacement of the grasscrete access and provision of a surfaced car-park in line with the Planning Conditions for the site



View of Cable Bridge

Constraints & Customer Benefits...

North and south sides of the site; live railway line runs through the works area. Due to the gantry installation taking place during an overnight possession of the adjacent railway line (from 0020 to 0725 hrs), Barhale ensured that any equipment used was suppressed and operations carried out minimised the generation of noise. In doing so Barhale limited the negative noise externalities to pedestrians and third parties. The Barhale team were able to draw upon their wealth of experience to develop innovative solutions to mitigate un-foreseen circumstances. Whilst on site Barhale encountered live uncharted cables despite being informed that there wasn't. In addition, the team identified a medium pressure gas main in the vicinity of the works and through using temporary works the team were able to safely and successfully work around it. This proactive approach to potential problems saved the client time and money in delivering a very tight programme, with the civils work to the cable bridge being completed in time for the Commonwealth Games. Due to the nature of the works, Barhale had to liaise with Network Rail. This extensive stakeholder engagement throughout the works ensured that third party assets were protected and disruption was kept to a minimum.