

CASE STUDY:

ROYAL VICTORIA INFIRMARY

Newcastle



**GEOFFREY
ROBINSON**
SINCE 1971



ELECTRICAL – Replacement of HV and LV transformers and switchgear

PROJECT OVERVIEW

The very complicated electrical upgrade of the HV and LV electrical services was undertaken during 2019. The works comprised of replacing 10 x 11KV transformers and the life expired electrical switchboard at Leazes Building. The replacement was required as the existing switchgear had reached end of life and no longer serviceable. It was also necessary to increase the electrical capacity at the site from 7.4MW to 11MW to provide spare redundant capacity at the site for the latest technological surgical and medical equipment.

Meticulous planning, cogent communication and inclusive programming of the works was a necessary and critical requirement. Liaison and communication meetings were co-ordinated between Kier Construction, the NHS Trust engineers and directors, the manufacturers of the switchgear and transformers, and the ward personnel. This was to check and double check, with every contingency considered, risks minimised and managed, and works only taking place when expected and agreed.

The works was all undertaken in the Leazes Building which is home to the Hospitals Critical Care wards, Operating Theatres, Intensive and Baby Care wards. Continual monitoring of supplies was undertaken, as during the hot summer air conditioning demand was at times peaking at 3 x normal levels. With this situation, works were delayed as the temporary cabling may have been dangerously close to capacity.

Shipping routes to the hospital switchboard rooms were extremely tight and existing flooring was protected and moves of the heavy switchgear was undertaken during the quiet hours. Conversely, some of the more complex changeovers of supplies were undertaken during the normal working day. The engineers recognised that if supplies were inadvertently lost, then it would be best to have all available hospital staff, ready and available to support patients in the event of power outage.

The construction phase of the £2 million project was 60 weeks, with substantive pre-project time spent engaging with all parties to plan the works. Our teams here at Geoffrey Robinson are flexible in our approach and methodology to meet with the timescale requirement of the hospital.

CONSTRUCTION DETAILS

SERVICES PROVIDED

- Principle Electrical Contractor
- Co-ordination and Programming
- All temporary and bypass supplies
- The removal and replacement of electrical terminator boxes on the transformers to allow transportation of large switchgear down restricted areas.
- 10 x 11KV transformers
- All new HV and LV cabling and terminators
- New earth loops and grounding
- Electrical Authorising Engineer
- All necessary checks and certification



We are very proud to confirm that, due to the critical and meticulous planning used in this project Geoffrey Robinson were Awarded the **National ECA Partnering Award 2019**



FURTHER INFORMATION AND CONTACT VIA:

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