

Case Study: St Georges Primary School Heating & Lighting Refurbishment

Case Study: Education - complete electrical and heating upgrade

Client: Forward as One Multi Academy Trust

Designer and Contract Administrator: Lancaster Maloney Martin Limited

Sector: Education

Electrical Budget: £165,000

Mechanical Budget: £263,000

Completed: October 2025

Services Used

- 👤 Project management
- 🔧 Electrical Engineering
- 🔧 Mechanical Engineering
- 🔧 Joiners
- ↔️ Core Hole Specialist
- 🔧 Decorators



St George's CE Primary School is in Mossley, Ashton-under-Lyne, Lancashire, and is part of the Forward as One Multi-Academy Trust. Meel Group were commissioned to undertake the replacement of the outdated electrical and heating systems within the school's buildings.

The school's electrical and heating systems were inefficient and had reached the end of their serviceable life.

Project Summary:

The mechanical scope of the Works consisted of the complete removal of the end of life heating system and re-installation of a new efficient low surface temperature radiator system, in addition the plantroom was relocated replacing a classroom within the building.

The electrical works consisted of a complete strip-out and re-installation of the electrical power and lighting systems. In addition, the scheme was designed to improve the appearance of the school's interior with new radiators, modern light fittings and boxed-in pipework.

Project Challenges:

We had to relocate the plant room from its old external position to an internal location. We employed supply chain partners to assist with this, including the formation of a fully fire-rated enclosure and the installation of a new fire door.

Due to the age of the property and being an old church building, the walls were exceptionally thick, which meant we had to use a dedicated core hole specialist to allow us to run services through the thick stone walls.



Electrical Scope

Strip Out Works:

- Isolate & remove all existing lighting and strip out all existing small power.
- Isolate & remove all existing sub mains and distribution boards.

Installation of New Sub Mains & Distribution & Surge Protection:

- Supply and install three new 16mm 3c LSF SWA to new distribution boards.
- Supply and install three new Schneider 10×10 way Split metered DB's.
- Supply and install one 8-way Schneider DB with 100 NSX ML2.2 Incomer.
- Supply and install Type 1,2 & 3 Surge protection to all distribution.

Containment:

Supply and install a new containment throughout the school, consisting of 300mm basket and PVC conduit fixed with metal saddles.



Small Power Installations:

- Supply and install surface-mounted wall and dado trunking outlets for new sockets, fused connection units.
- All small power socket outlet circuits are Type "A" 30ma RCBO protected at the particular distribution board.

Lighting & Controls:

Supply and install a new Signature lighting scheme, delivered with high-efficiency, low-energy LED luminaires installed recessed, suspended, or surface-fixed, depending on the room or ceiling type.

- All luminaires to be supplied with a Neutral White (4000K).
- Classrooms & staff rooms to be supplied with DALI dimmable control gear and be connected to absence/presence detection and lighting control devices. These shall be installed with retractive switches to enable override and dimming/ramp up functions of the local area lighting.
- Supply & installation of CP lighting controls, including intelligent LCM (Lighting Control Module) control boxes and all ancillaries, plug-in connectors, flexibles & control detectors.

Testing & Commission:

- Produce Electrical Installation and Emergency Lighting Completion Certificates.
- Commission the scheme and fine-tune all devices to their optimised performance functionality.



Mechanical Scope

Removal:

- Removal of redundant low-temperature hot water plant and associated equipment within the plantroom.
- Removal of all hot water generation within the plantroom.
- The complete removal of all low-temperature hot water distribution throughout the building.
- Minor removal and rerouting of mains cold water pipework and hot water services pipework to make way for the formation of a new doorway

Installation:

- New plantroom, including the installation of two gas-fired boilers, serving the new low-temperature hot water distribution network.

Installation of new pumps, pressurisation sets, dirt air separator, low loss headers and associated pipework valves and ancillaries.

Local gas modifications to existing pipework serving boilers.

New distribution pipework was installed using a stainless press system.

All pipework drops and low-level pipework were to be thermally insulated and boxed in.

Heating provision within the building (excluding the main hall) using Jaga and Stelrad radiators.

Heating provision in the main hall is via Biddle Air Systems fan convectors.

A whole new BMS is to be installed to manage the system.



Health and Safety

At the Meel Group we take Health & Safety very seriously and all RAMs were in place. This project involved working at heights and height access equipment was used in line with safety protocols. The scheme also required electrically safe isolations.

No accidents or near misses occurred during the project.

Results:

This project was delivered on schedule, and the client is very happy with the results. St George's CE Primary School's staff and pupils now benefit from a modern, energy-efficient heating and lighting system. All systems are fully tested & compliant, and our documentation and certificates were supplied to the client during the handover process.



Project feedback:

Meel Group installed new, updated, and fully operational building services that are much more efficient, effective, and reliable than the pre-existing ones.

