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**PROJECT NAME:**

Bishop Wilson School, Birmingham

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**M&E ORDER VALUE:**

£2 million

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**CONTRACTOR:**

Morgan Sindall

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The works included the full provision of new electrical and mechanical services to the primary school development incorporating a new church and tenant health care centre.

The works included the full provision of electrical distribution, small power, lighting, fully integrated lighting control system, data networks, fire alarms and security services, along with the provision of a full PA and entertainment system to both the main hall and church facilities for local community use.

The mechanical systems included the provision of new heating, mechanical and natural ventilation, water and drainage systems. The heating plant was routed to a full underfloor heating network throughout the development combined with local controllers to give occupants local control to the individual spaces, and zonal controls to monitor the operation and regulate overall energy use as necessary.

Unique to this project was the installation of the underfloor heating pipe networks within the structural concrete slab. By introducing the pipework within the slab there were considerable benefits cost and programme wise by removing the separate insulation and screed activities, however, close liaison with the underfloor heating specialist was required to ensure operational performance of the system in this substrate. There was also a large emphasis architecturally on the aesthetics particularly ceiling types and layouts and close co-ordination of the services installations were required to ensure future access for maintenance could be achieved whilst providing architecturally pleasing Quattro board ceiling features.

The project included a Window master natural ventilation system which was fully integrated with the Building Management System and included wind/rain sensors, local wall activation switches / co sensors and also linked with the intruder alarm system to close all windows automatically out of hours. The link with the BMS controls maintained energy efficiency operation through integrated heating and cooling set points ensuring the systems worked in conjunction rather than against each other to optimise occupant control.