

Green Lane Primary School

Bradford

West Yorkshire

SERVICES: MECHANICAL & ELECTRICAL ENGINEERING DESIGN

CLIENT: CITY OF BRADFORD M.D. COUNCIL

PROJECT DESCRIPTION:

PrestonBARBER worked closely with architects Bauman Lyons to provide new classrooms, dining and admin facilities from the existing 100 year old derelict school building on site at Green Lane Primary School, Bradford.



Although not listed, the building was of 'architectural interest' having contained the UK's first school kitchen and so therefore the extension and refurbishment works had to be in keeping with the original design and elevation details. The Conservation Officer took a keen interest in all aspects of the works.

The school and design team were keen to reduce the impact of the refurbishment works on the environment and to lessen the CO₂ emissions from the completed building; it should be understood that this project was started before the implication of the revised 2006 Part L Building Regulations. To achieve a reduction in CO₂ emissions air source VRF heat pumps were utilized throughout the classrooms and dining hall, elsewhere the school's central boiler plant was extended to provide a compensated LPHW radiator circuit.

With the exception of the toilets and kitchen the school was naturally ventilated, again to reduce the carbon footprint. Heat recovery was included within the kitchen exhaust again for the purpose of carbon reduction.

Hot water generation was provided by gas fired condensing water heaters with minimal storage but a fast recovery time.

Generally the school lighting used energy efficient fittings with daylight linkage and presence detection.



SERVICES PROVIDED:

Mechanical

- VRF Air Source Heat Pumps
- LPHW Compensated Heating
- Boosted Domestic Services
- Mechanical Ventilation

Electrical

- General & Decorative Lighting
- Small Power Installation
- CCTV & Security Installation
- Fire Alarms & IT Installation

Infrastructure

- New Site Electrical Supply
- New Building Gas Supply
- New Building Water Supply
- Site IT Service Extended

EDUCATION SECTOR PRIMARY SCHOOLS

TYPE: REFURBISHMENT

VALUE: £3.3M

DESIGN TEAM:

Architect -

Bauman Lyons Architects

Structural Engineer -

Hill Cannon LLP

Project Manager -

Smith Roberts Limited

Main Contractor -

J Bentley Limited



Building Services Consultants

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LOW CARBONCONSULTANTS



Competent Person Scheme
Building CO₂ emissions rate calculation - Hevacomp
Certificate Number ERC3057