Scott White and Hookins

London
Bedford
Winchester

Project Profile: Education

Structural Engineering

Glenthorne High School, Sutton

SWH provided structural engineering for a single-story extension to Glenthorne High School, using sustainable materials to reduce waste and improve thermal efficiency.

The Glenthorne High School project comprised of a single storey extension. The new structure was to be built next to an existing portal framed sports hall, with pile caps extending into the new structure's footprint.

Client
Glenthorne High School

Architect
Plan A

There were complicated site conditions to cope with, including identification of existing services that were not discovered during initial ground surveys. This resulted in a repositing of the building; repositioning of piles and the ground beam multiple times throughout the construction, to avoid live services.

This project stands out because of the use of sustainable materials for construction, This includes the use Posi-joists and timber cladding. In addition, hempcrete blocks were used for the inner skin of the external cavity wall and internal partitions, in conjunction with a steel frame which supports the roof and provides stability to the structure. Hempcrete was used to improve the thermal efficiency of the building, but also as a zero-waste alternative. Any further waste can be sent back to the manufacturer to be reformed into new blocks.

In recognition of the success of this project, it was chosen as **Winner of the Medium Project at the Structural Engineering Awards 2022,** awarded by the Institution of Structural Engineering South Eastern Counties Regional Group.