



OSBORNE

# Education – Greenford – Off-site solution saves 10 weeks



**PROJECT**

Greenford High School

**CUSTOMER**

London Borough of Ealing

**LOCATION**

Lady Margaret Road, Southall

**CONTRACT**

2 Stage Design and Build

# Need

Part of Ealing Council's plan to meet the growing demand for school places, was to increase capacity at Greenford High School in Southall to 1,500 pupils by 2022. This expansion would create a new landmark building on the busy operational PFI secondary school site providing two new form-entry and 20 extra resource spaces.

During the two stage Design and Build bid process, tenderers were asked to develop a modular construction solution to achieve a faster completion. Teaming up with our subsidiary, Innovaré Systems, we produced a joint response using structurally insulated panels which offered the speed of a modular build but without the short-term feel and issues of a complete modular building.

# Solution

The change to a structural insulated panel (iSIP) system, brought significant advantages over a volumetric modular solution or a traditional construction:

- Off-site SIP's componentry shortened the programme to guarantee opening for the new academic year at less cost than the other two options.
- The components could be manufactured and delivered in batches, four weeks apart to enable a very early programme start for the follow-on trades and better continuity.
- Erection could use mobile cranes positioned to improve efficiency and reduce disruption.
- Design of the roofing and external cladding was optimised for speed of installation, without compromising the aesthetics of the building.
- Similarly, the internal fit out was quicker by using SIPs for the internal walls too, which eliminated stud partitioning as a specific trade in the fit-out sequence, further benefitting the programme.

Alongside the programme improvements there were energy performance improvements too. The iSIP system creates a building with a low thermal mass. This means less mechanical heating and ventilation is required to maintain a comfortable learning environment, which in turn reduces operational carbon.

# Outcome

The council's decision to engage early in the bid process for alternative solutions paid dividends and the school was handed over 2 weeks before the start of the academic year.

Selecting the SIPs system saved:

- £90k against the budget
- 10 weeks off the original programme

As well as the time and cost wins, the panels could accommodate the external cladding design and finishes which best reflected the architectural language and material palette of the existing school. A tangible result over a full modular build.

The reduction in carbon and waste contributed towards BREEAM Very Good certification and supported the Council's aim for a 35% reduction in CO2 emissions prescribed in the London Plan.

The council were impressed by the delivery performance consistently scoring 10/10 for Outstanding Customer Satisfaction which was later reflected in an 'Outstanding Customer Satisfaction' award at the SEBCE Constructing Excellence Awards 2019.