

Optimising daylight to improve learning spaces



PROJECT	Moorgate Primary School
CLIENT	EFA
CONTRACTOR	Interserve
ARCHITECT	Maber
VALUE	£3.6m
LOCATION	Tamworth
GIFA	1,789m ²

"We have worked with Innovaré on a number of occasions in the West Midlands region, integrating them into our team right from the start of a bid.

The programme benefits of the i-SIP system combined with the team's collaborative approach has given us tangible benefits."

Simon Butler, Divisional Director, Interserve

Delivering climate based daylighting to PSBP budget constraints

Moorgate was the first of eight schools designed by Maber using Innovaré's i-SIP System. The project called for the rapid build of a high quality community focused facility that complied with the demanding Facilities Output Specification (FOS). The school is within a conservation area and a nearby railway track posed a potential issue with noise.

Flexible solution to optimize the façade and integrate north-lights

Creating the structure using the i-SIP System allowed maximum design flexibility while ensuring that thermal, daylight and noise performance standards were met. Panels used bespoke engineering and design to meet the technical challenges of the Facilities Output Specification. 162 mm thick i-SIP panels were specified for the walls, achieving a U-Value of 0.15 W/m².k.

The potential for noise from the nearby railway track was overcome by the facade design using the i-SIP System 'clad anywhere' feature. Roof trusses created the clerestory roof pitched to centre to achieve excellent daylighting levels,

while louvres enabled natural cross flow ventilation to south-facing rooms.

A wide range of energy efficiency measures were designed into the new campus to reduce the overall energy consumption and CO₂ emissions.

Proven performance across multiple schools

The i-SIP panelised system allowed for rapid frame construction of the 1789m² school in eight weeks. The fast-track programme saw the building enclosed quickly while achieving excellent levels of air tightness and increased thermal performance.

Using the i-SIP System reduced both preliminary costs and energy consumption. The design allowed 90% of waste heat to be recovered by the M&E system and the building fabric reduced solar gain into the building.

Overall the project created an energy efficient and striking twenty-first century facility that inspires learners whilst being compliant to demanding Facilities Output Specification (FOS).

