

Cranmere Primary School



PROJECT	Cranmere Primary School
CLIENT	Cranmere Primary School
CONTRACTOR	Galliford Try
ARCHITECT	HLM Architects
VALUE	£7.5m
LOCATION	Surrey
GIFA	3,150m ²

"The main school was handed over about 4 months early. Originally scheduled for the summer holidays, we managed to hand over circa April 11th 2016, with the demolition and landscaping to the existing school taking place after the pupils had moved into the new school."

Claire Jackson, Galliford Try, Director - Education

Innovative Design Delivers an Exceptional Learning Space

Surrey County Council decided to expand the successful Cranmere Primary School to create additional school places. The new school was built adjacent to the original school to provide twenty-one classrooms, an early years' foundation stage teaching area, assembly hall and ancillary facilities.

The challenge was to deliver a high performing building to tight timescales and budgets with as little disruption as possible to the existing school. The design also called for innovative solutions to incorporate high-level ribbon windows, lintels concealed within the roof structure and removable room partitions.

A high-performance building delivered to a tight budget

The use of Innovaré's i-SIP System met the important goals of minimising noise and disruption to the existing school.

Fewer site deliveries and less onsite labour were needed compared to traditional methods. The high strength and excellent thermal insulation of i-SIP panels met the architect's desire for thinner wall sections to create larger classrooms and a sleeker overall aesthetic.

Early collaboration between HLM Architects, Galliford Try and the Innovaré team meant, for example, that the removable room partitions were accommodated within the i-SIP System build up. To maximise efficiency and productivity, Innovaré erected the steel frame as part of the package and optimised delivery of the panels using two cranes on site simultaneously.

As part of the innovative technical solution, Innovaré, Teco and James Jones Timber Systems developed a novel installation method for top hung JJ i-joists in pitched roofs. Special consideration was given to how the i-joists for the roof were installed as the lintels to some of the windows

needed to be hidden within the structure.

The detailing around valleys posed particular challenges owing to complex compound angle cuts being required on the ends of the i-joists. Detailed planning and collaboration ensured that roof sections were installed quickly and easily, despite the complex design challenges. The inherent thermal insulation and air-tightness of the i-SIP System simplified the process of meeting the energy efficiency and sustainability targets.



Delivered 6 months early and snag free

All of the clients' needs and wants were delivered. These included an energy efficient structure built using sustainable materials, waste elimination, low energy use, carbon reduction, and environmental protection and enhancement. The stringent education building performance requirements were met, and the building was delivered early and within budget.

The timber frame resulted in direct and indirect programme and cost savings such as changing the foundation design due to the lighter frame. Rapid assembly reduced the structure build time from 16 weeks to 14 weeks. A quickly established watertight envelope and greater predictability of completion meant an earlier start for follow-on services like M & E, fenestration and fit out trades. There were minimal post completion defects and the building was handed over four months ahead of schedule.

"The speed of erection on site was brilliant. Large panels craned into place and then 'capped' with the roof sections allowed internal first fix to begin much earlier in the programme. The i-SIP System also enabled the external wall thickness to be reduced due to its exceptional insulation performance. A further benefit encountered was the panel construction which allowed for simple brick tie details.

Working with Innovare's technicians HLM Architects were able to effectively coordinate the building in CAD including the provision for M & E installation and other follow on trade requirements. When onsite the team worked together to resolve any changes requested by the client quickly. The construction of the system allowed for most alterations to be carried out easily with minimal delays or disruption."

Alex Perry from HLM Architects



"The on-site team were flexible and adapted to changing site conditions and coordinated deliveries accordingly to minimise the need for site storage. All in all a solid collaborative approach has been developed resulting in further successful projects being delivered."

John Hunt, Senior Contract Manager,
Galliford Try