

A specialist school for 16 to 19 year-old students with an exceptional aptitude and passion for mathematics.

Completion Case Study



KEY INFORMATION

CLIENT: The Rigby Education Trust

LOCATION:
Preston, Lancashire

CONSTRUCTION VALUE: £7.9m

CONTRACTOR: Galliford Try

START - FINISH DATE:
October 2021 to November 2022

SECTOR: Education

FORM OF CONTRACT:
JCT Design & Build 2016

DELIVERY TYPE: Two-Stage D&B

"We were very satisfied with the quality and pace of how Galliford Try delivered the new maths school building through the two stage design and build procurement process. Their proactive and collaborative approach enabled the scheme to be developed in only 27 weeks from the start of the procurement process, to receiving full planning consent and agreeing Contractor's Proposals. The approach to commercial management was particularly helpful in working together in a difficult market to achieve an affordable scheme, and working around delays in the funding approvals."

KERRIE NORMAN
DIRECTOR, FLINDERS CHASE

PROJECT OVERVIEW

The Lancaster University School of Mathematics (LUSoM) is a specialist school for 16 to 19 year-old students with an exceptional aptitude and passion for mathematics. Sponsored by Lancaster University and partnered by Cardinal Newman College, the School is operated by the Rigby Education Trust.

The School is located within Preston with its excellent transport links, in a prime position to serve students across the North West. The site is close to the main campus of Cardinal Newman College, which enables some sharing of specialist and support services.

KEY FEATURES

Rooftop Terrace: The School is four storeys high, with the fourth storey recessed away from the main road, creating a rooftop terraced area with a café for students to relax and study looking out onto the Preston cityscape. This area also has a breakout room, providing students with lots of space and to learn together outside of the classroom setting.

Materials: The exterior materials of the LUSoM building consist of a mixture of grey and red brickwork, glass and distinctive gold metal cladding. This innovative, unique look makes the building iconic within the area, and a landmark for people travelling into Preston city centre.

Three-Storey Atrium: The interior of the School lets in lots of natural light and is welcoming, with a three-storey atrium providing open learning for the students and an inviting environment for all visitors. This atrium also provides lots of collaboration space, which is a positive environment for students to complete breakout learning.

Auditorium: A specially designed, retractable 400-seat auditorium is included within the building to host lecture-style sessions in addition to other events and masterclasses. This is a great asset that utilises space to provide lectures on the first floor where 4K projection can be used. As the seating is retractable, it can easily be moved and stored out of the way so that the whole space can be used for exams.

Hellerup Seating: The innovative hellerup seating provides lots of seating space for students if they need to wait at the entrance of the college. It's a calm environment where students can socialise or complete activities while waiting between lessons or to be picked up from college.

Classroom Design: The classrooms have whiteboards across all of the walls so pupils can solve maths equations stood up in groups of 3-4. This helps with 'flipped teaching', where pupils can take active roles in leading lessons.



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COLLABORATIVE CLIENT ENGAGEMENT

We facilitated a series of Client Engagement Meetings (CEMs) where we collaboratively engaged with all parties, with design, cost, programme and risk discussed in a true open-book manner. We included representatives from the Rigby Education Trust, Cardinal Newman College, as well as our own core team in this process. Our established process used the BIM model, physical models and drawings to communicate the design. This led to an efficient design, meaning the budget was agreed quickly.

PROVIDING OUTSTANDING MATHEMATICS TEACHING FACILITIES

The School is a distinct and unique specialist provider of outstanding mathematics teaching for students wanting to immerse themselves in a close-knit community of like-minded scholars. It provides exceptional teaching, a high-quality environment and resources with undergraduate-level content. It caters for students from all backgrounds, within a learning community where talented and enthusiastic young mathematicians in years 12 and 13 can thrive.

REDUCING OUR ENVIRONMENTAL IMPACTS

Nuisance Monitoring: Throughout the build, Galliford Try implemented two nuisance monitoring system stations. These provided live information via data link that measured noise, dust, vibration, fumes and gasses. It allowed construction to be remotely monitored, providing transparent information. This meant that we were continuously aware of how we were affecting the wider environment like emissions submitted, dust in nearby areas and noise affecting local stakeholders.

Steel: We rationalised the steel frame, reducing the amount of steel used for the build. The steel work was designed to include composite action to minimise section sizes, and thus steel tonnage. This reduced material weight and the cost of the build.

Renewable Energy: The building utilises renewable solar PV energy to heat the building. Some of this energy is also used for the electric vehicle chargers, leading to a reduced staff and visitor carbon footprint.

Environmental Good Practice: During construction, best practice initiatives were observed to protect the environment. Phase 1 of construction was carbon neutral. HVO biodiesel was used in plant on site which reduced CO₂ levels by 90%. Environmental points were included in induction and toolbox talks.

SOCIAL VALUE OUTCOMES

Our social value commitment included community garden days and an environmental audit of the site each month. 80% of the project labour workforce were within 30 miles of site, generating a reduced travel carbon footprint.



Student and Procure Plus site visits to the LUSoM project