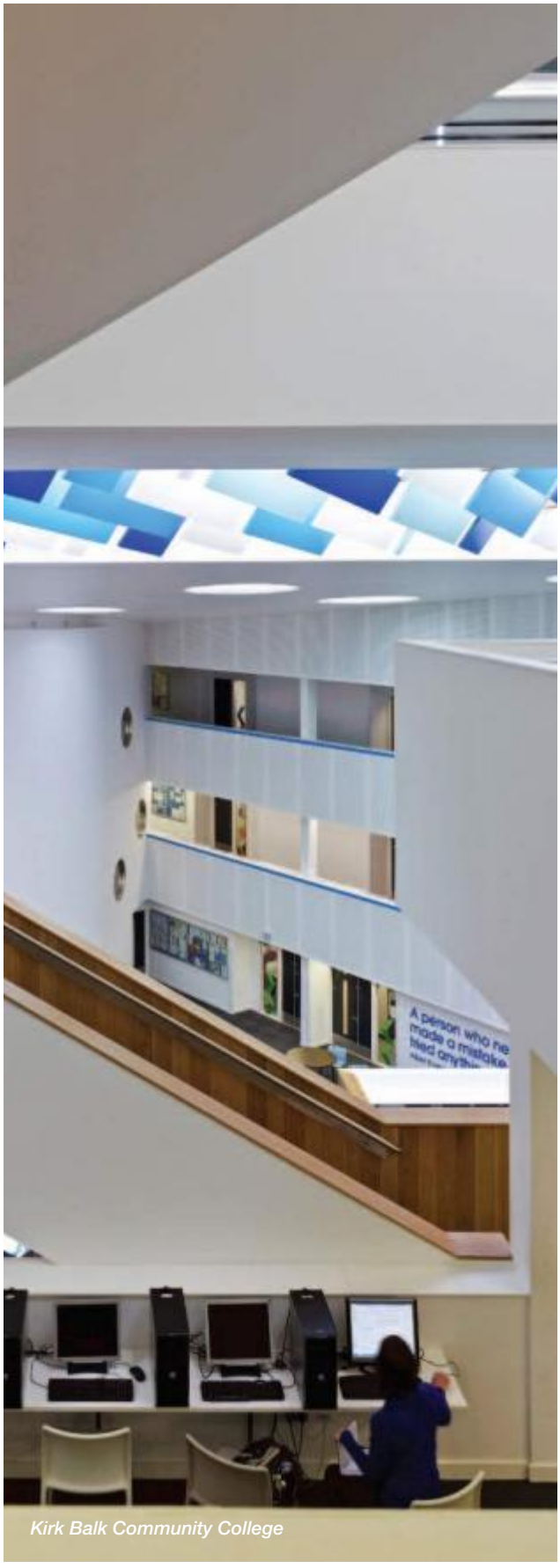
GCA

Structural and Civil Engineering
Schools, Colleges and University Projects

Selected Educational Building Commissions



Kirk Balk Community College

Avonbourne School
Bilton Grange School
Breadsall Hilltop
Brooksby College
Brookvale High School
Clarborough Primary School
Coventry University
De Monfort University
Derby College
Derby Grammar School
Dorridge Junior School
Durrand Primary School
Essex University
Flixton Junior School
Fortesque House School
George Elliot School
Griffe Field Primary School
Hall Green Infant School
Haltwhistle Community School
Henley College
King Edward VI College
Kings High School and St Mary's
Kings Hurst Primary School
Kirk Balk Community College
Leicester College
Light Hall School
Lyndon School
Oakwood Infants
Pembroke College
Saint Augustine's Priory
Shirley Heath Junior School
Solihull Centre for Inclusive Learning
Southam College
Stonehill School
Stratford Grammar School
University of Derby
University of Essex
Village Primary School
Warwickshire College
West Thames College
William Booth College
Woodlands School

Kirk Balk Community College

GCA Consulting Engineers provide creative, economic and sympathetic structural designs for education projects throughout the UK.

Established in 1975, GCA has gained wide experience working on junior, secondary, further and higher education projects.

We pride ourselves on the quality of our design services, delivered by Chartered Engineers to maximise opportunities for our Clients.

GCA (UK) Ltd offers the following:

- Condition surveys and reports.
- Specification of sympathetic repairs for existing defects.
- Creative structural solutions for new build or extensions to existing educational buildings.
- Refurbishment or remodelling works to existing structures.
- Calculations and design to justify changes of use.
- Complex and challenging projects.
- Foundation underpinning, increased loads.
- Surveys of derelict or fire damaged properties.
- Infrastructure, drainage, highway design and landscaping.
- CDM co-ordination.
- Party wall surveying.
- Expert witness work.
- Site access roads and highways work.

Key differentiators:

- Extensive experience working within the education sector.
- Family run business.
- Established in 1975.
- All senior engineers are Chartered.
- Accredited with ISO 9001 and ISO 14001.
- £5 million Professional Indemnity and £10 million Public Liability Insurance cover.
- ConstructionLine accredited.
- Investors in People certification.

Derby Grammar School, Derby

GCA have been involved with the Grammar School site for many years, beginning with the conversion of the original, historic hall into a new use as a Grammar School.

The addition of a modern assembly hall onto this historic property required careful co-ordination of the new and existing structure. GCA Consulting considered all aspects of this complex engineering project and developed a scheme which met the school's requirements for a robust, durable addition to its facilities.

In recent years GCA Consulting have also undertaken refurbishment of a stable block to create contemporary classrooms, bringing derelict spaces back into full functional use.

Henley College, Coventry

The project comprised both a first floor extension over an existing building, and a two-storey annex for stairs and circulation space.

GCA developed a steel braced frame solution for the new building which was supported on existing columns. Existing structural elements were demonstrated to be adequate to bear the additional load, saving cost and time on the construction of the new building.

A large central rooflight was supported on a pair of 2m deep, 20m long trusses, forming a key architectural feature at the heart of the building. The rooflight was angled on plan, and located off-grid, requiring careful co-ordination with the adjacent structure.

King Edward VI College, Nuneaton

The project comprised a new-build three storey teaching block which incorporated teaching rooms and science laboratories.

The brownfield site, located adjacent to existing buildings, provided a number of significant engineering challenges which GCA overcame with a steel frame on concrete pad foundations. A twin portal frame allowed the creation of large, open spaces, and the provision of long-span edge beams supported the timber façade.

The project was completed in two phases, comprising an initial single storey, and follow-on second and third storey construction.

King's High School, Warwick

King's High has been a grammar school since 1879, and, in addition to the design of a new Science Block, GCA were invited to provide full engineering services to support construction of the new 4-storey 6th Form Block.

Poor ground conditions required a piled foundation scheme which GCA co-ordinated with a brick and precast concrete structure. The fully-glazed feature atrium was hung from the top structure, allowing internal columns to be removed and large open spaces to be created below.

Structural and Civil designs were required, and GCA provided a co-ordinated solution to drainage and ensured that the restricted existing site access was maintained throughout the construction process.

Kirk Balk Community College, Barnsley

Kirk Balk Community College is a specialist technology college which teaches subjects including textiles and construction.

This dramatic building required significant engineering input to develop its built form, and the bold cladding scheme. GCA were commissioned to design the fixings for the Ruukki cladding to the main building and the expression cladding to the sports facilities.

The building received the RIBA National Award for Architecture 2012, and RIBA Regional Client of the Year 2012.

Light Hall School, Shirley

After significant damage from a fire, GCA were invited to provide full engineering design for replacement classroom accommodation.

Two years after the fire the new, state of the art, teaching block was unveiled. The fire damaged classroom block was replaced with a three storey steel framed building which was designed to BREEAM ‘excellent’ standard. The structure, as designed, allowed for key elements of the certification including rainwater harvesting.

GCA also provided civil engineering advice for the new site, including co-ordination and specification of all underground drainage and the design of access roads and car parking areas.