



SUMMER 2009

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Take 5 Schools

News from the Editor

Summer 2009

IBSTOCK DZINE MAGAZINE

Published by:
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Front cover:
Upton Meadows Primary School, Northampton

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Ibstock-Kevington

Ibstock and Kevington Building Products have combined in an ambitious move to change the way in which special shapes and brickwork components are provided. The new special shapes business will offer customers a unique service in terms of manufacturing scale and expertise.

Ibstock has had the largest special shapes capability of any UK manufacturer for many years with manufacturing facilities right across the country. The Company produces the largest range of manufactured specials and many of the most popular brick types are kept as stock items.

Kevington's diverse product range spans cut and bond special shapes and arches, through to its innovative FastStack® chimneys and FastWall® cladding systems as well as Manchester Brick and its unmatched capability in precast precision masonry

components. This will create a business that will deliver exceptional quality and value, as well as service and innovation in every market sector, from everyday special shapes through to the most intricate and precise specification detail.

Under the guidance of John Richards, managing director of Ibstock-Kevington, the new business will be unrivalled in its resources and capacity to service customer needs from 14 dedicated factories across the country.



CoolVault®

Designed to harness the benefits of thermal mass in a building, even with lightweight timberframe construction - the new CoolVault® flooring system from Ibstock has recently been launched.

- Quick and easy to install based on 'beam and block' techniques
- Ideal to add thermal mass to lightweight construction
- Available in Natural Cream or Terracotta
- Light reflective clays require no decoration or finishing
- Suitable for use with underfloor heating
- Sustainable manufacture in the UK for low delivery mileage and incorporating recycled clays
- Innovative registered design

There are two sizes available, 135mm deep for domestic situations and 165mm deep for commercial situations. A self-adhesive recycled felt is used between each unit and over the beams to take up any site tolerances, act as an acoustic seal and give a coloured joint.

For more information call 0844 800 4576.

For more information on any product visit www.ibstock.com

Supporting Architectural Education

For many years Ibstock has supported the education of young architects either through prizes on courses or through sponsorship of field trips at universities right across the UK. In the next few issues of Dzine we will be featuring reports from just a few of the trips that have happened recently - in this issue we start with the Berlin Field Trip undertaken by students from the University of the West of England.

Berlin Field Trip

On a cold misty night in November 2008 forty-five third year students arrived from Bristol by a variety of routes at a grim looking - but very well appointed—hostel in Friedrichshain not far from Alexanderplatz, the centre of the old East Berlin. Over the next few days they were to explore the architecture, urban design, history and culture of this extra extraordinary and exciting city.

Each day there was a choice of group activities: a series of guided walks through the city centre, visit to the great Berlin city model in the Senate planning office, the Dutch Embassy and the Jewish museum. Highlights of this year's course were the opportunity for all students to visit the Berlin studio of the UK practice Ellis Williams Architects, a guided tour of the regenerated Spandauer Vorstadt and a visit to Sauerbruch Hutton's GSW building.

In the afternoons students were free to explore independently, gathering information for their coursework assignments and recording the city in sketchbooks. On the last day of the visit students constructed their own programme seeking out the work of significant architects, visiting particular districts, exploring some of the city's huge number of museums - or making trips further afield, including the 18th century palaces of Potsdam and the Bauhaus and Environment Agency in Dessau.

These annual visits are immensely valued by students. It is hard to think of a better place to study the interface between architecture and planning in their political, economic and cultural context than Berlin.

Richard Parnaby
UWE



UWE Students in Berlin

Technical Topic

Wall Ties for Non-Standard Brick Sizes

Ibstock has a large choice of bricks in various heights, 50mm, 68mm, 73mm, 80mm, as well as the Linear range of long thin bricks and Fireborn Freedom. When laying these in conjunction with standard metric sized blocks the placement of wall ties becomes difficult due to the inner and outer leaves of the wall not coursing through. Similar problems may result from the use of thin-joint blockwork.

Timber framed buildings do not present a problem as L-shaped frame-ties can be screwed to the timber exactly where needed.

For the masonry inner leaf the traditional types of tie may not be suitable. One solution is to use helical wall ties which can be hammered into lightweight blocks. These can accommodate a cavity size of between 50 and 150mm. Insulation bats are kept in place by a slip-on retaining clip.

For inner leaves incorporating dense block, concrete, stone or solid brick there are ties that can be hammered into position after pre-drilling and plugging the substrate.

Steel framed buildings can be accommodated by using self drilling screws fixed through a steel channel and insulation of

up to 60mm thick into the steel frame. Ties can then be placed in the steel channel at whatever height is required.

For all applications the ties must be embedded in fresh mortar as work proceeds with a minimum embedment of 50mm in the outer leaf.

Always consult the wall tie manufacturer for their advice on type of tie for block strength, location and building height.



Staifix-Thor TJ2 Helical Wall Tie from Ancon Building Products



New Music Building, Latymer Upper School

Latymer Upper School is a co-educational Independent School, based in Hammersmith. The majority of its teaching space is located on a site which fronts King Street, although the Prep School faces Upper Mall, overlooking the Thames. The site was split in the 1960's by the construction of the Great West Road, and the Senior and Prep Schools are now linked by an underpass beneath that road. The site is extremely constrained, with little open space, all of which is hard-surfaced playground.

Brick Type: Berkshire Orange Stock
Architect: van Heyningen & Haward

The new Music and Drama/Dance building is contained in a new 4-storey building occupying the site of the former music room and library building, located between the recently completed Latymer Arts Centre and the main building. The new building takes full advantage of this location at the southern end of the newly created central square with a fully glazed foyer that addresses this space. The location of the new building, close to the existing Arts Centre, allows it to be linked to the new building by means of glazed links at an upper floor level.

The ground floor of the new building houses a 100 seat double-height music recital room. Acoustic design ensures that the room acoustic itself is correct and the noise break-out and break-in are eliminated. The recital room has a flat floor, providing flexibility for other uses, although it is first and foremost a music venue.

Brick was chosen for the envelope of the new building as a good quality low maintenance material. The elevation to the north, facing the school square is highly glazed to provide a dramatic statement in this important location. Generally the structural design is kept simple and economical, using in-situ concrete columns and flat slabs, with deeper beams as required to span the larger spaces.

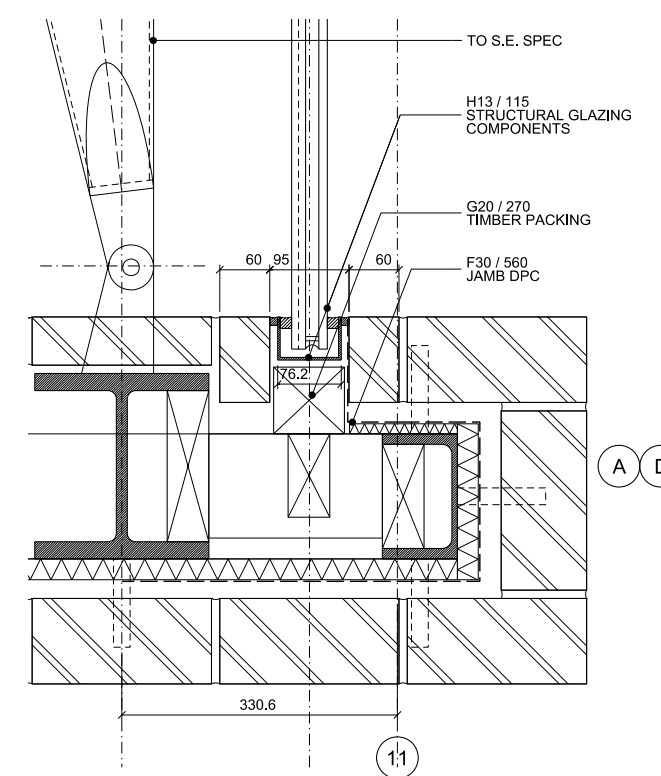
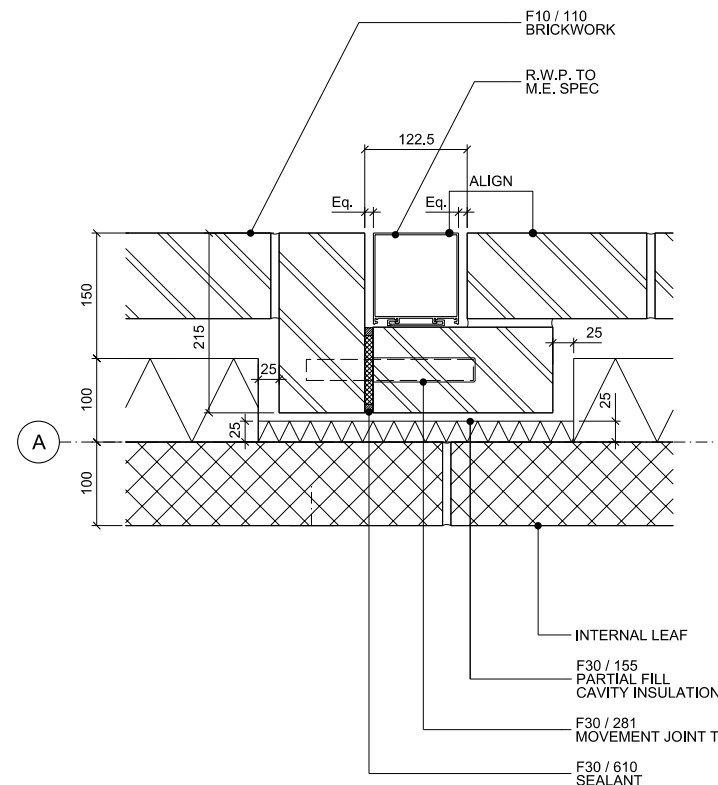
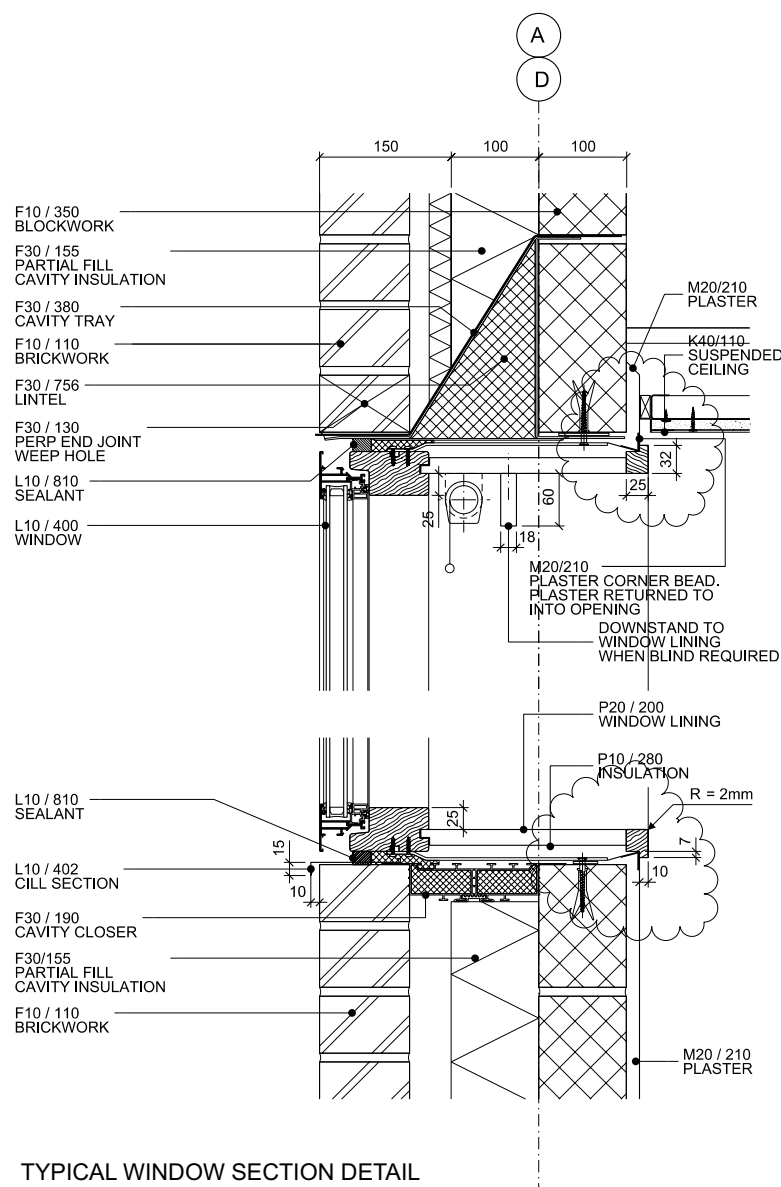
The judges in the 2008 Brick Awards praised the choice of brick for its warm colour and soft texture which help give the building presence without overwhelming this confined site.

“Brick was chosen for the envelope of the new building as a good quality low maintenance material.”



Photography: Nick Kane

BDA 2008 Brick Awards
supreme winner



Loch Primary School, Glasgow

Architect: RMJM
Contractor: Kier Scotland
Brick Types: Weston Red Multi Stock & Multi Grey Rustic

South Lanarkshire Council are currently on the second phase of a programme of rebuilding or refurbishing every primary and secondary school within their district. Loch Primary School in Rutherglen was demolished and rebuilt as part of this phase. This is one of twelve primary schools in South Lanarkshire that Kier Scotland is rebuilding, with RMJM as architects.

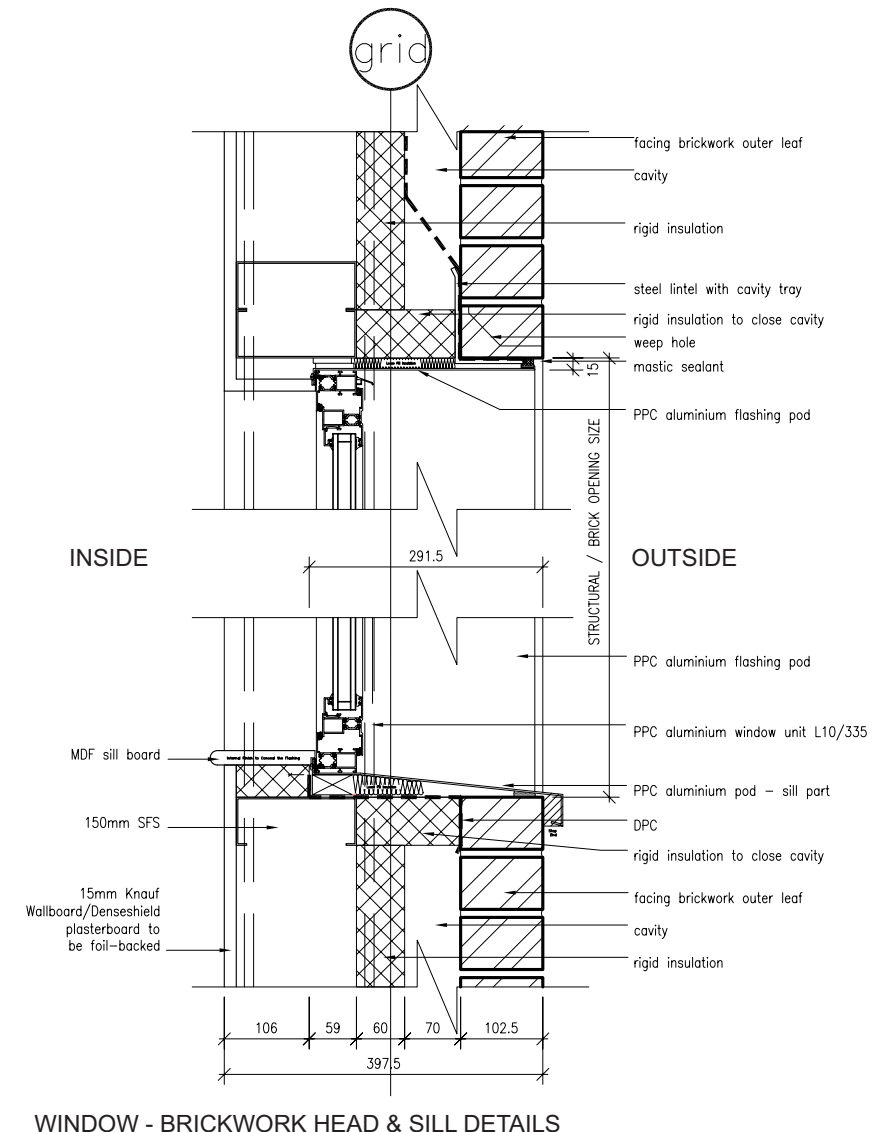
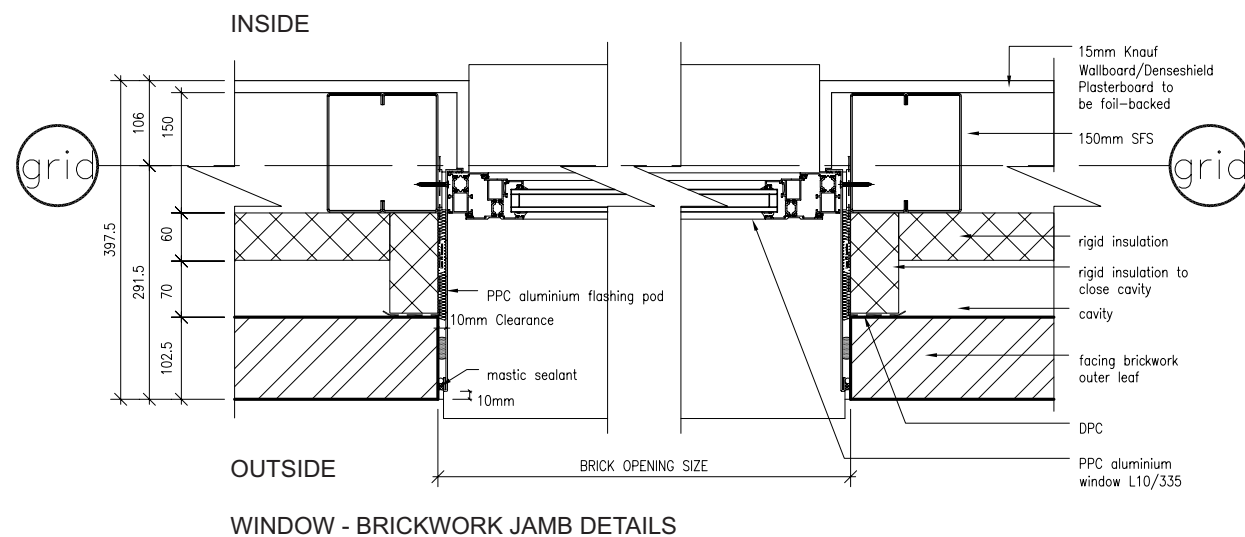
The pupils were decanted into a temporary building elsewhere on the site for one year, while the new building was built on the site of the old one. The new school has seven classrooms, along with a combined gym and dining hall, an open-plan general purpose teaching area, a library and a nursery.

The building itself is a two-storey linear building, split along its length into three bays. The side towards the site entrance houses staff and administration facilities, and the gym hall protrudes out from this side of the building. The central bay is a generously proportioned corridor, naturally lit and ventilated by means of clerestory glazing to both sides of a raised central roof. Voids along the first floor allow light and ventilation to the ground floor. The side towards the more private, playground houses classrooms and other pupil areas.

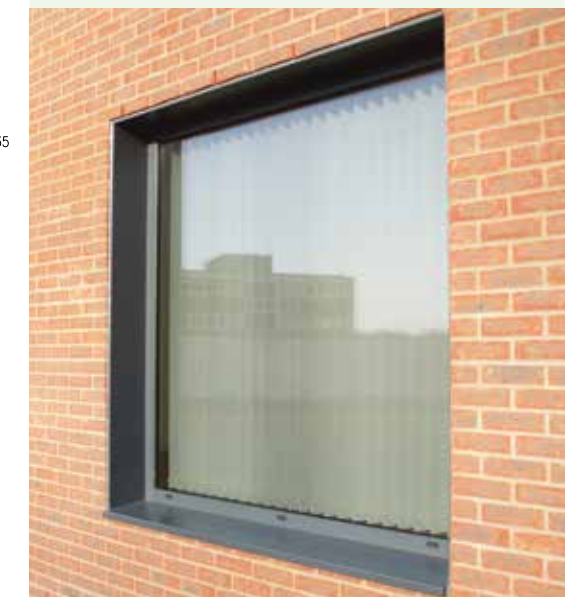
There is also a single-storey triangular piece to the front end of the building that houses a nursery. The standing seam roof folds down over the front end of the building to the single-storey part.

Brick was the obvious choice for the external facades, due to its robustness. In order to break down the overall mass of the building, two different colours of brick were used, with the contrast further enhanced by the use of a light mortar for the red brick and a dark mortar for the grey brick. The effect is to break down the external walls into blocks of red and grey, which the roof then oversails.

All window and door reveals are detailed with a dark grey powdercoated flashing, the smaller punched windows being set into pre-fabricated flashing 'pods' slotted into the external walls, providing a crisp, high quality of finish to the external façades of the building.



“Brick was the obvious choice for the external façades, due to its robustness.”





Upton Meadows Primary School, Northampton



Brick Type: Melton Antique Blend;
Staffordshire Slate Blue Smooth
Architect: Johnson Design Partnership

Johnson Design Partnership is the architect for the new 2fe (2-form entry) Primary School, which forms the centre piece of a new urban development near Northampton.

It is the first school in the country to achieve an 'excellent' BREEM assessment (provisional), the highest level attainable.



The school's front entrance courtyard is an exciting place to be, with a wide range of materials and contrasts, showing radial paving and curved slate banding with soldier stack bonded brickwork incorporated to the front elevation and patent glazing hanging out over the main entrance. The high ridgeline soars over the traditional materials highlighting the entrance.

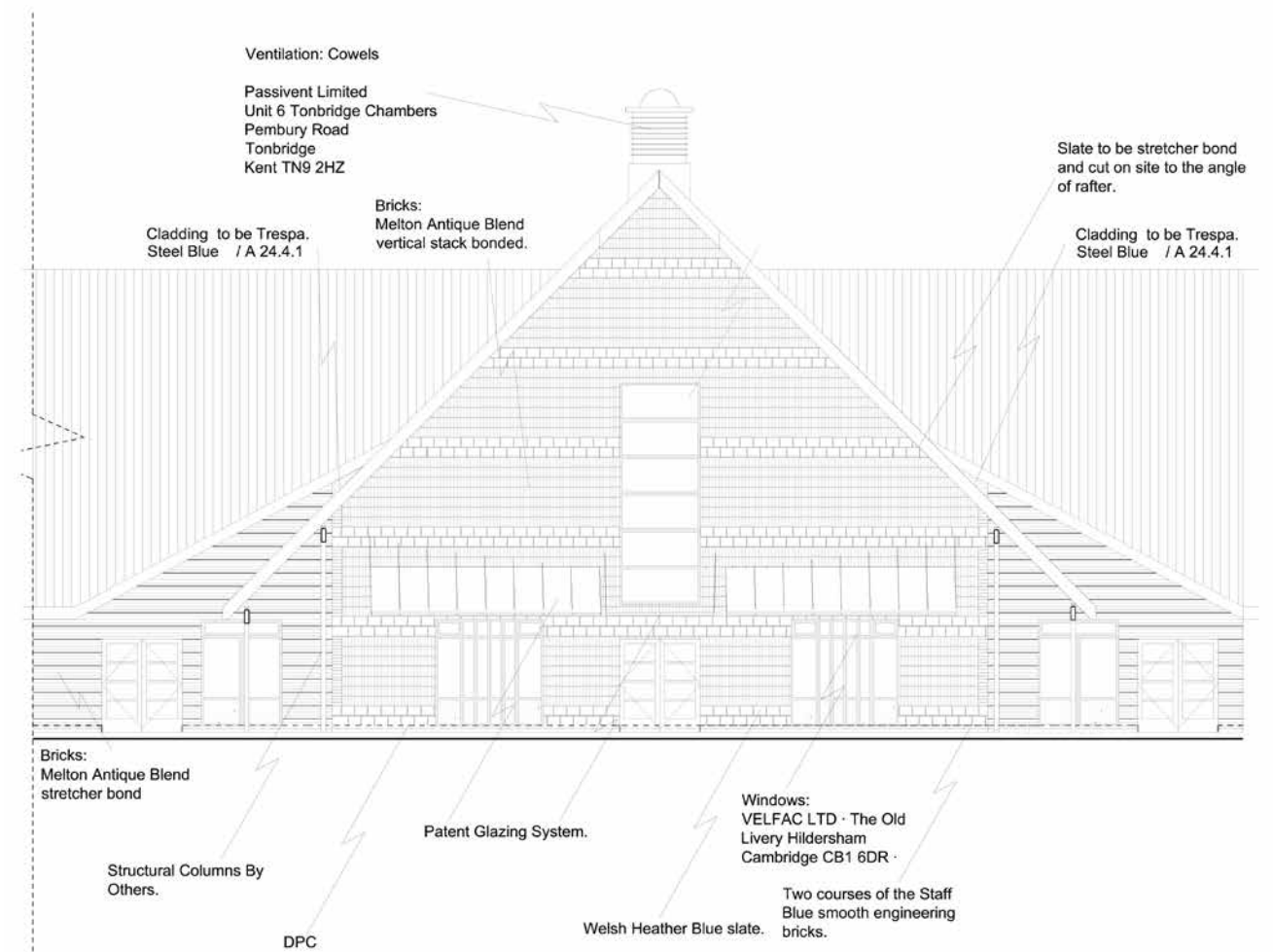
At the entrance gates, the complex metalwork visually interlinks with the slate and brickwork of the building. The walls either side of the gates appear to be floating and at night they glow blue from the lighting underneath.

At the rear of the school, use of Trespa as cladding and the oversailing roof of the library and toilet pods allow for areas of the building to be defined by the colours used.

Within the hall, the barrel-vaulted suspended ceiling gives the space, light and acoustics required.

Standard bricks were used to create the sweeping curves of the serpentine wall.

“The walls either side of the gates appear to be floating and at night they glow blue from the lighting underneath.”





Abbey School, Reading



Brick Type: Heritage Red Blend; Berkshire Orange
Architect: Denning Male Polisano

The Abbey School was founded in 1887 and has been in its present location since 1905. The area is in a newly established conservation area and the extension to the school was developed in conjunction with both Reading BC and English Heritage.

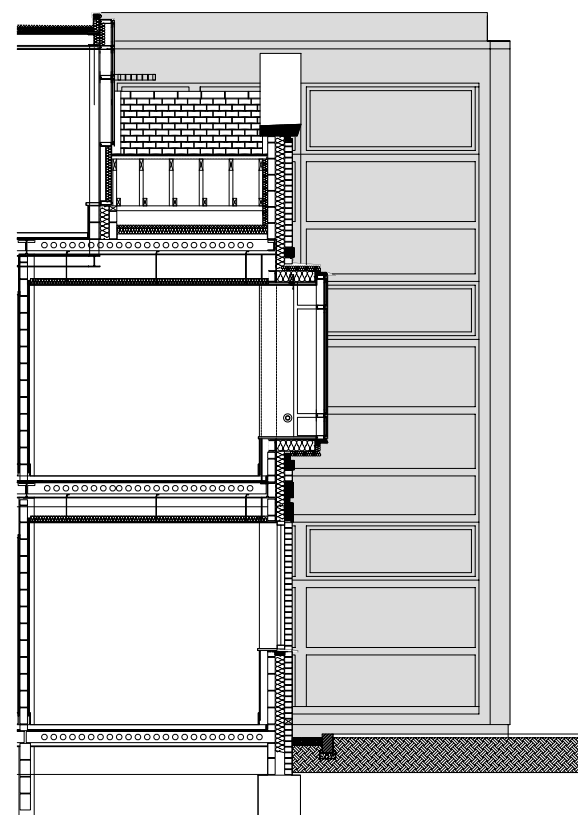
The project involved the demolition of part of the existing school building, renovation of the 100 year old reception and main hall, and a 3 floor extension building comprising 12 classrooms and a school administration centre.

The dominant element of the original school is Hardcastle Hall which forms the entrance space to the school. The architecture of the new administrative block takes its lead from the forms and details of the moderately decorated entrance to the Hall and utilises them to establish a regular rhythm that harks back to the original buildings.

The brick used was a blend of Ibstock Heritage Red & Berkshire Orange stock in a 60 / 40 mix to match the existing building.

The materials have been chosen to be complementary to the original building without being a pastiche. The south elevation has a contemporary aesthetic with its architecture responding to the demands imposed by direct sunlight on the façade. The north elevation uses red bricks and light coloured architectural blocks which were selected to maximise the reflected light within the courtyard that the new building creates with the existing classrooms of Hardcastle Hall.

“The materials have been chosen to be complementary to the original building without being a pastiche.”



Percy Shurmer Primary School, Birmingham

Brick Type: Cheddar Red
Architect: Sjolander da Cruz

The existing grounds of Percy Shurmer Primary School in Birmingham were dominated by hard, uninspiring and disjointed spaces. The School wanted to transform their external grounds to create environments which would encourage learning and in doing so break up the existing sea of tarmac to better connect the school building to the outdoor space.



The brief was developed following the holding of an architecture day event. All pupils and staff were invited to explore their understanding of architecture, the concept of space and their aspirations for improving both the school and external spaces. Ideas were explored through discussion, sketching and model making amongst others.

These ideas formed the basis of the brief which was defined in conjunction with the school project committee. The objectives of the project were to improve the first impression of the school by creating an inspirational environment and to connect the school building to its surroundings and the city beyond.

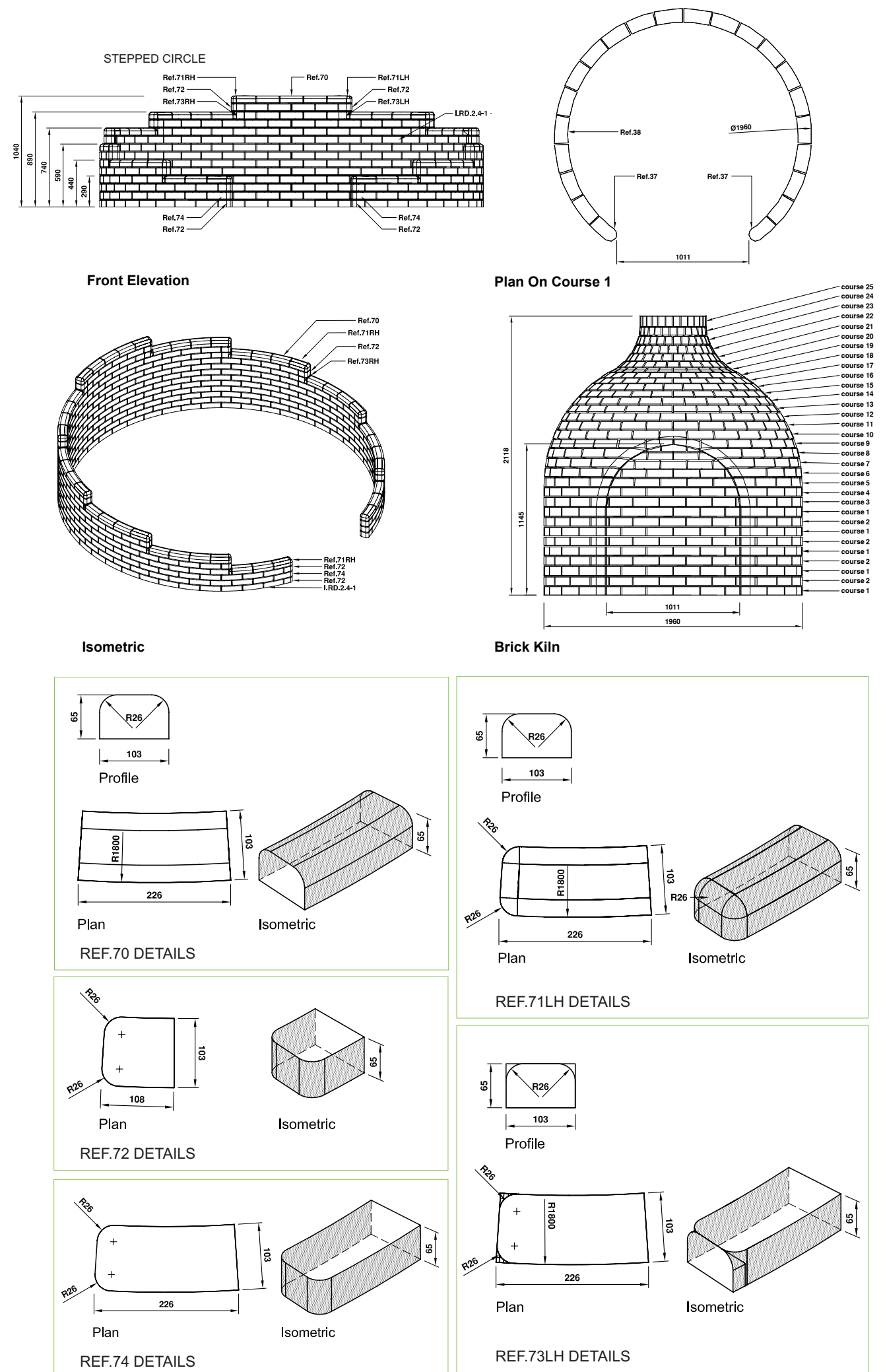
This was to be achieved by creating a mini townscape of individual spaces of architectural quality lined upon the existing site axes to create a context for the school building.

The first impression of the school was addressed by creating a new entrance pathway leading to the school square which identifies the main entrance to the school. The square itself is defined by a moulded brick seating wall with punctured holes offering a place to both sit and play. The seating wall connects the school square to the quiet square, a place for outdoor learning and contemplation.

A series of 'outdoor rooms' was created which encouraged exploration, risk and innovation through the use of a variety of textured materials and bespoke structures. This is most prevalent in the brick hut play square and exemplifies the desire of the school not to use 'off the shelf' play equipment.

Three brick structures were designed with Ibstock; the igloo, the bottle hut and the stepped circle. Each one provides a different sense of enclosure and sound distortion and together they combine to create a striking entrance to the playground.

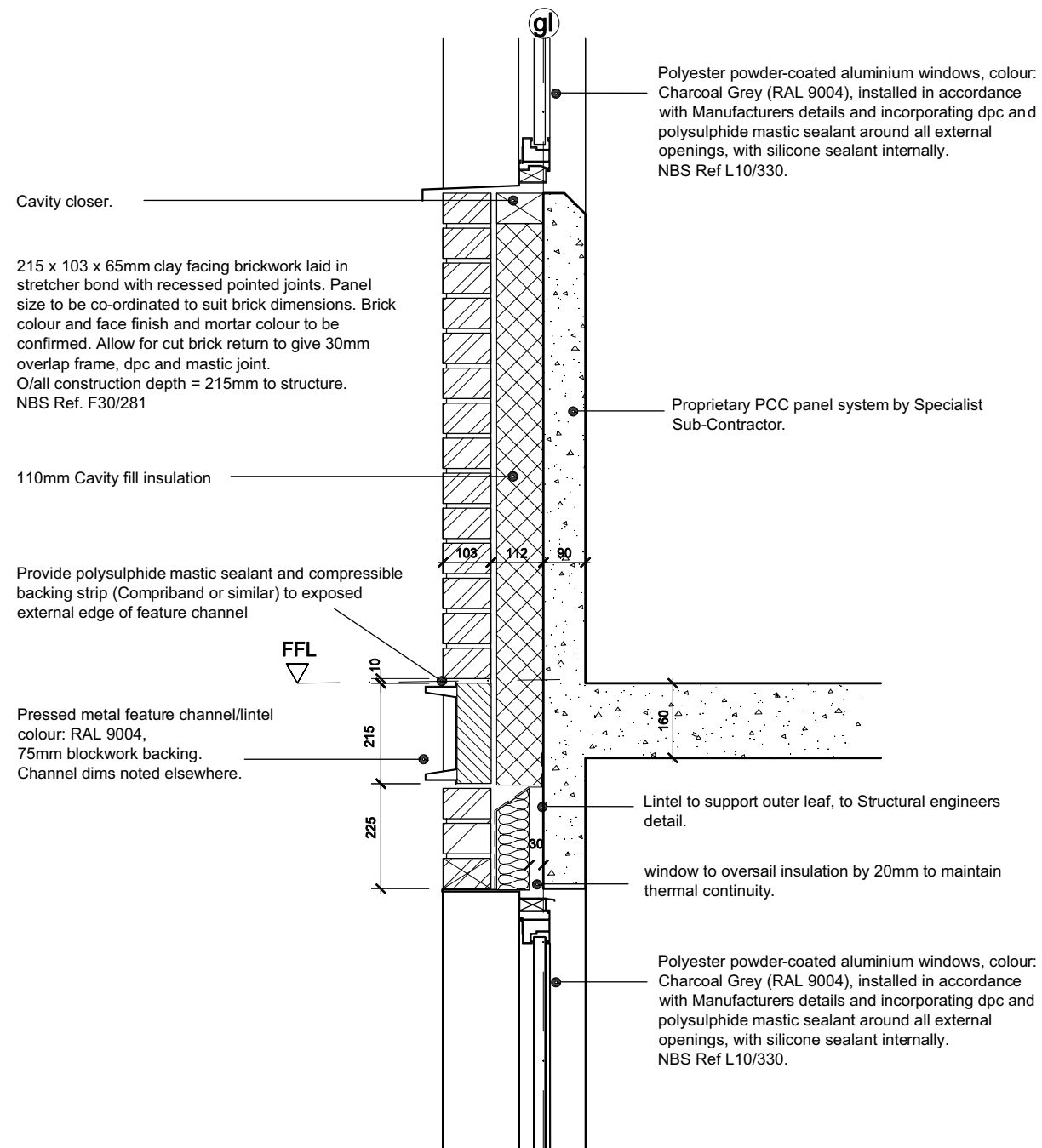
The new external learning environments have provided great excitement and challenge for the pupils and have transformed the image and useability of the external environment of the school. It is envisaged that over time the new spaces will help raise the aspirations of the pupils and provide a lasting, well used facility for the school.



Student Accommodation, University of Sheffield, Sheffield

Architect: Halliday Meecham
Main Contractor: Bovis Lend Lease
Brickwork Contractor: Marlborough Brickwork
Brick Types: Brunswick Autumn

Since 1987 the number of students who have enrolled with higher education institutions has increased from 0.8m to 2m. This increase in student numbers has not been matched by a proportional increase in university-run student accommodation. The bulk of the gap has been met by independent, private sector landlords, many offering low quality accommodation.

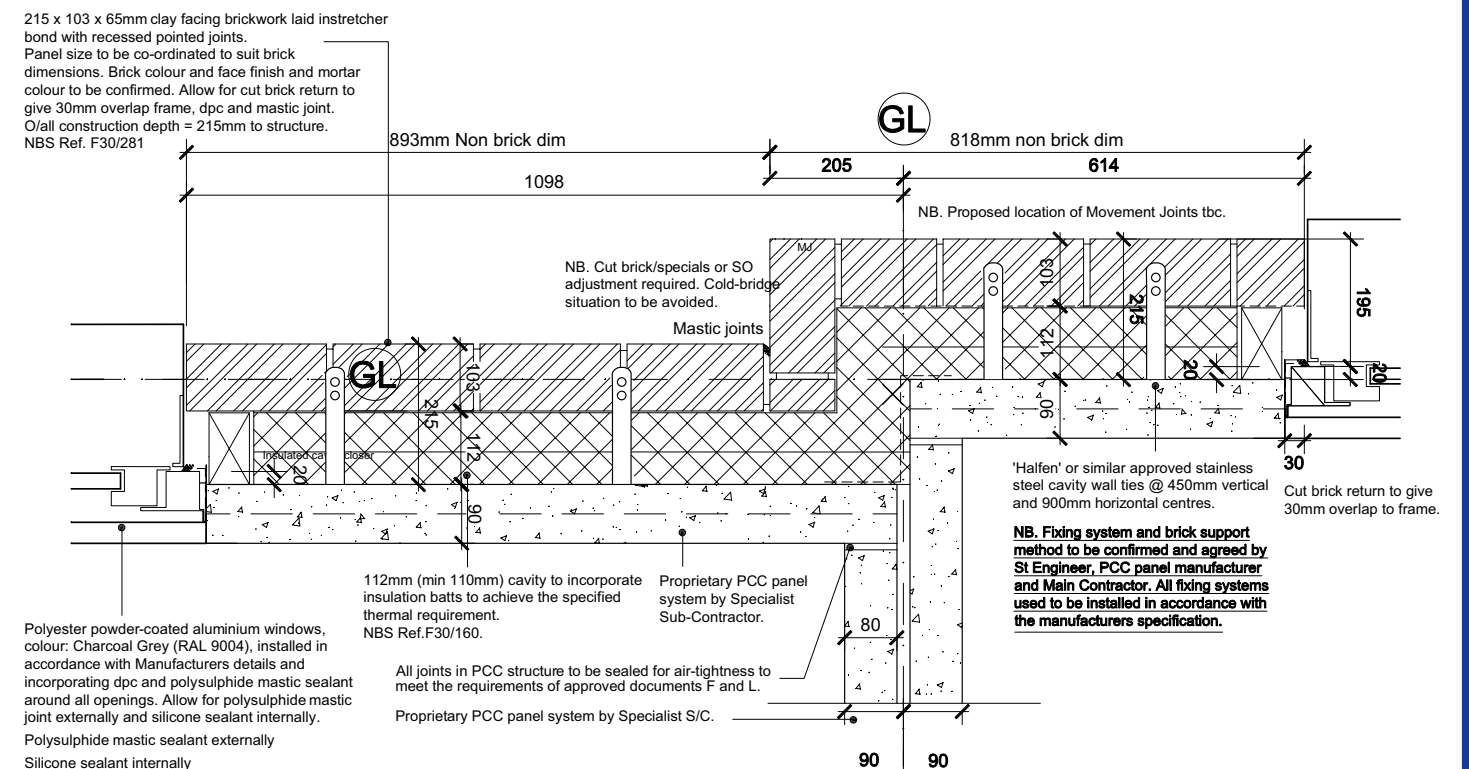


Large parts of the accommodation portfolio at the existing Student Village at Endcliffe were nearing the end of their useful lives and were uneconomic to maintain. This project entailed the design, construction, refurbishment, remodelling and maintenance of new bedrooms, refurbished bedrooms and 257 transferred rooms centred on the Endcliffe Campus, phased over three and a half academic years.

The work involved service enabling works, demolition of existing student residences and through a 4 phase construction period, the construction of new residential blocks and the refurbishment of existing blocks. Due to the location of the Student Village within a Conservation Area, quality materials with an emphasis on sustainability were specified throughout, and the designers worked closely with the city to achieve the final results. Paralleling other award-winning developments in the city and on the campus, the approach is to show striking quality which responds to Sheffield's unique spirit of place.

Traditional building methods have been used in conjunction with a pre-fabricated solution for as many accommodation blocks as possible.

The result is a range of accommodation that looks stunning, is energy efficient, and fits well within the Conservation Area with its wealth of natural materials and leafy context. The use of brick, wood and stone respond to the local context, and create a warm and enduring environment which speaks of Sheffield's culture but with a contemporary style



Back to Basics

Special Shapes

Special shapes have been used over the centuries to make bricklaying easier, to resolve bonding problems at changes of angles, to enhance the appearance of window and door openings or to create decorative features.

Now in the 21st century they are also being used to create special effects and designers are increasingly turning to brick manufacturers to help them create an ever broadening array of different products.

Over the next couple of pages this article will explore the standard special shaped bricks and prefabricated decorative features available.

The table below shows the standard range of Ibstock specials and what they would be used for.

Umбра

The new range of Umбра shapes from Ibstock is designed to create intriguing and exciting shadow effects across a façade. Umбра designs bring buildings to life, changing the appearance throughout the day, from dawn until dusk. The unique shapes can be installed as complete panels or interspaced with standard brickwork to develop bespoke looks. There are four designs available.

Sawtooth



Wave



Pyramid



Sphere



	Name	Code	Applications		Name	Code	Applications
	Angle & Cant Bricks	AN	<ul style="list-style-type: none"> Bricks to turn brickwork through angles on plan Vertical and horizontal chamfers to brickwork for doors and window openings Chamfered cappings to walls 		Plinth Bricks	PL	<ul style="list-style-type: none"> Splayed Bricks that create changes in depth to brickwork elevations
	Arch Brick	AR	<ul style="list-style-type: none"> Various profile double taper bricks to form arched openings 		Radial Bricks	RD	<ul style="list-style-type: none"> Shapes for curved brickwork on plan
	Bonding Bricks	BD	<ul style="list-style-type: none"> Specials to make brickwork bond Stop ends to brick on edge capping Popular Ibstock cill special Non standard cuboid bricks 		Shelf Angle Bricks	SA	<ul style="list-style-type: none"> Brick shapes designed to continue the bond pattern over a bearing angle in brickwork construction
	Bullnose Bricks	BN	<ul style="list-style-type: none"> Vertical and horizontal curves to brickwork for doors and windows Subtle curves to projecting brickwork Curved capping details to walls 		Slip Bricks	SL	<ul style="list-style-type: none"> Thin brick faces for cladding and refurbishment
	Cappings & Copings	CP	<ul style="list-style-type: none"> Flush and overhanging specials to cap or cope the tops of freestanding walls and parapets 		Soldier Bricks	SD	<ul style="list-style-type: none"> Returns for soldier courses in brickwork
	Cill Bricks	C	<ul style="list-style-type: none"> Ibstock shapes designed for durable bricks cills to openings 		Spiral Bricks	SP	<ul style="list-style-type: none"> Curved shapes to form decorative columns and chimneys
					Universal Joint Bricks (including Easyangle®)	UJ	<ul style="list-style-type: none"> Decorative specials used to turn brickwork through any angle on plan

Standard Specials

Using standard specials makes finishing brickwork easy and produces a crisper finish.

Easy Angle



Bullnose Bricks



Arches



Plinths



Spiral Bricks



Within each category there is a wide choice of sizes to suit most building applications which are illustrated in more detail on the Ibstock website (www.ibstock.com).

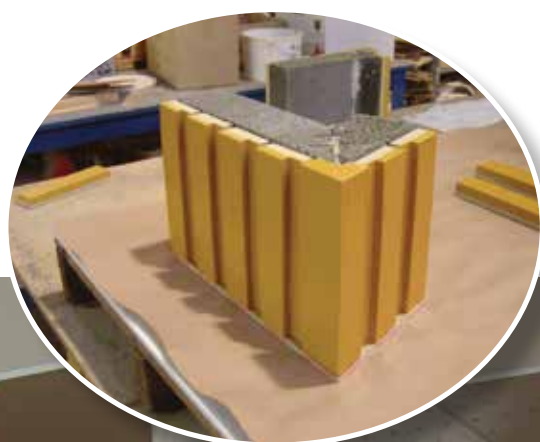
Prefabricated Brickwork Components

Brickwork components make brickwork details easy. They combine the speed and consistency of off-site manufacture with the flexibility and cost saving of on-site construction. There is also the added ability to produce structural brick and stone faced openings up to and in excess of 6m off-site.

Benefits

- Easy to handle
- Flexibility
- Quick to install
- Factory made to ensure accuracy and consistent quality
- Saves time
- Many components are light weight for one person installation
- Available in the majority of brick types
- Post pointed for a perfect match
- No special building skills required
- Where mechanical lifting is required, lifting points are provided

“Brickwork components make brickwork details easy.”



Range Available

Dentils

Dentilation is a tooth-like effect produced by the projection of alternate headers or cut bricks usually seen at eaves level or at a string course. In today's brick aesthetics, dentil courses offer a decorative opportunity which deserves wider use. It's easy to design a dentil detail with Brickwork Component units.

Soldier Courses

Soldier Courses are produced by laying the bricks on end, side by side. Traditionally this style of brickwork is used both above and below openings. A soldier course can also be used to create a horizontal band course around a building.

Stack Bonded Brickwork

Stack bonded brickwork – always popular with architects and clients alike for its modern appearance and crisp detailing. Stack bonding using traditional brick laying requires bed joint reinforcement, however using our pre-assembled brickwork range we've eliminated the need. Construction is also faster as the equivalent of six bricks are laid at a time.

Herringbone Panels

Prefabricated Herringbone panels are a cost effective and simple alternative to traditional construction methods.

Basket Weave Panels

They are designed to co-ordinate with regular brickwork and masonry, making them ideal for use in claddings in domestic and commercial construction. Large panels can be built without additional use of bed joint reinforcement, as blocks are laid in half bond.

Quoins

A decorative corner detail projecting and/or contrasting to the main body of the brickwork.

Sills

The use of projecting or flush sills in matching or complementary brick colours enhances the aesthetic appeal of a window opening.

Polychromatics

Polychromatic brickwork is the use of bricks of different colours in decorative features, ranging from simple band courses of contrasting colour to complex patterns or murals. It can also be effectively used to reduce the scale of large expanses of brickwork and to add visual interest.

Chimneys

The Brickwork Components Faststack® Chimney System is a prefabricated range of 'cosmetic only' and 'working up to class 1' chimneys. They are available in a range of standard designs. They comprise GRP cores which are clad in traditional facing materials thereby complementing the properties on which they are to be installed.



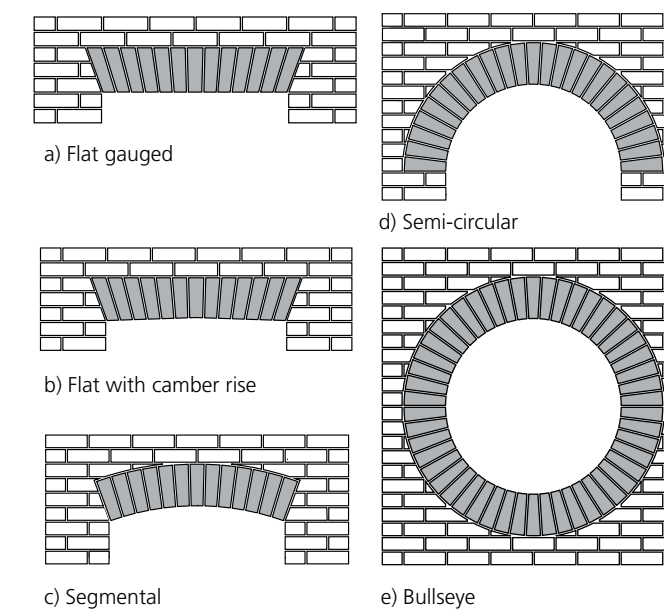
Arches

Ibstock provide a comprehensive arch design and manufacturing service. The following information details the options available to achieve the desired effect.

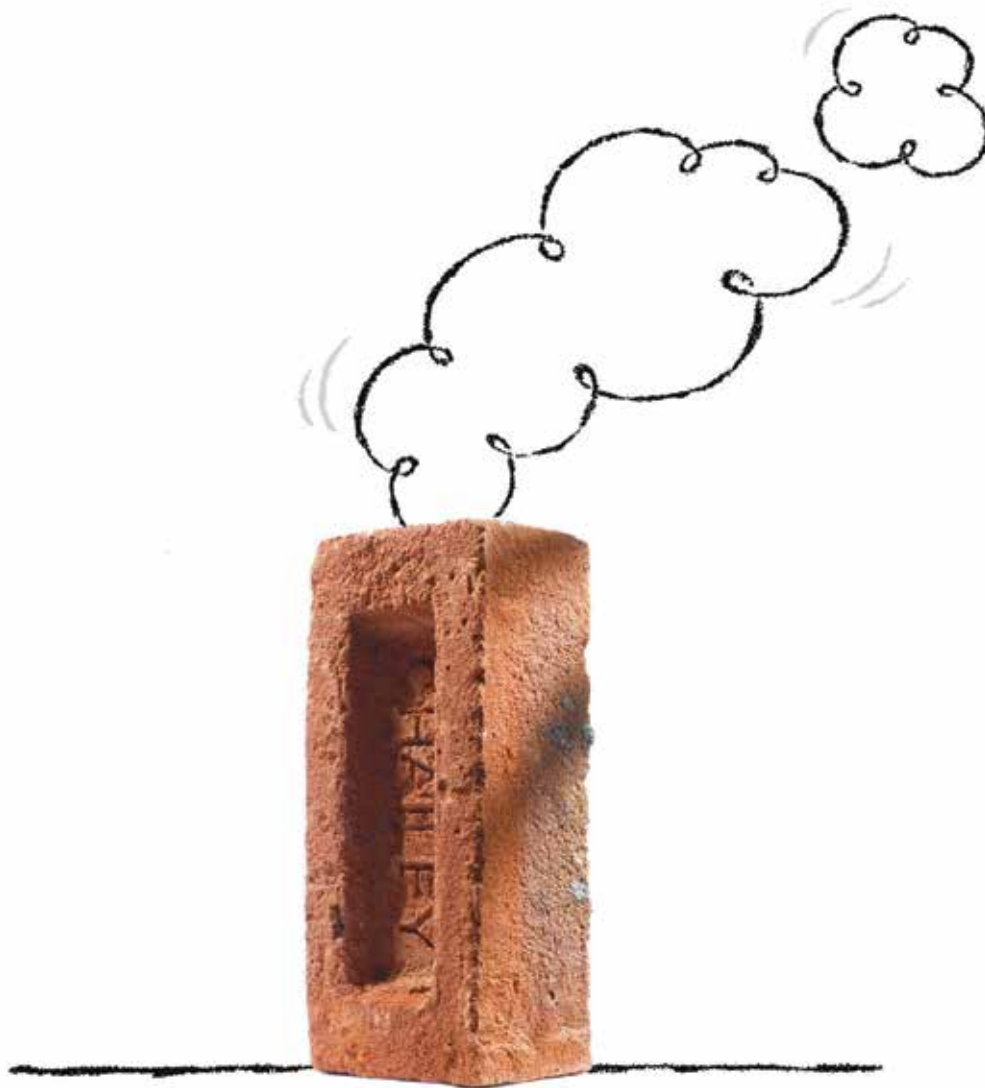
Arch Type

- Flat gauged (also called Skewback, Jack or Georgian)
- Flat with camber rise
- Segmental
- Semi-circular
- Bullseye

Many elements have been designed for one person installation. Where units are over the weight of a one person lift, mechanical lifting is recommended and appropriate lifting points are provided.



£55m shows we're not just talking about energy efficiency.



Nowadays, the debate about emissions and global warming generates almost as much hot air as the problem itself.

At Ibstock, however, we've put our money where our mouth is with a £55m spend on energy efficiency over the last five years. It's made our factories 5% more energy efficient and reduced our CO₂ output to just 28Kgs for each square metre of brick that we produce.

Always one of the most sustainable of materials for its durability, thermal mass and the fact it is so readily recycled, our commitment to an even more environmentally friendly brick makes Ibstock bricks the best choice cladding material for architects, planners and builders everywhere.

To find out how you can build a greener future using Ibstock bricks, visit www.ibstock.com/sustainability

Winner of the **Building** Awards for sustainability

IBSTOCK[®]
building sustainability