

NEXUS®

Next Generation Brick Faced Support Systems

Create feature brick faced soffits –
lighter, faster and with **perfect alignment**

CI/SfB
(F10)
February 2017

IBSTOCK | KEVINGTON

Building Components

Ancon®
BUILDING PRODUCTS

A lifetime of **experience** and technical **excellence**

NEXUS® - WORLD LEADING DESIGN & INNOVATION

Developed by two of the UK's foremost innovators in prefabricated brickwork manufacture and support, Ibstock Kevington and Ancon, Nexus® is an advanced lightweight solution that makes modern brick faced soffits and lintels simple and achievable, even in the most demanding structural environments, where speed is essential and access limited.

Backed by over 150 years of combined technical knowledge, manufacturing excellence and expertise in developing innovative solutions for buildings in the UK and across the world, Nexus® is a next generation system that brings together Ancon's high integrity steel support system with engineered brick faced units from Ibstock Kevington.

WITH NEXUS® YOU GET DOUBLE:

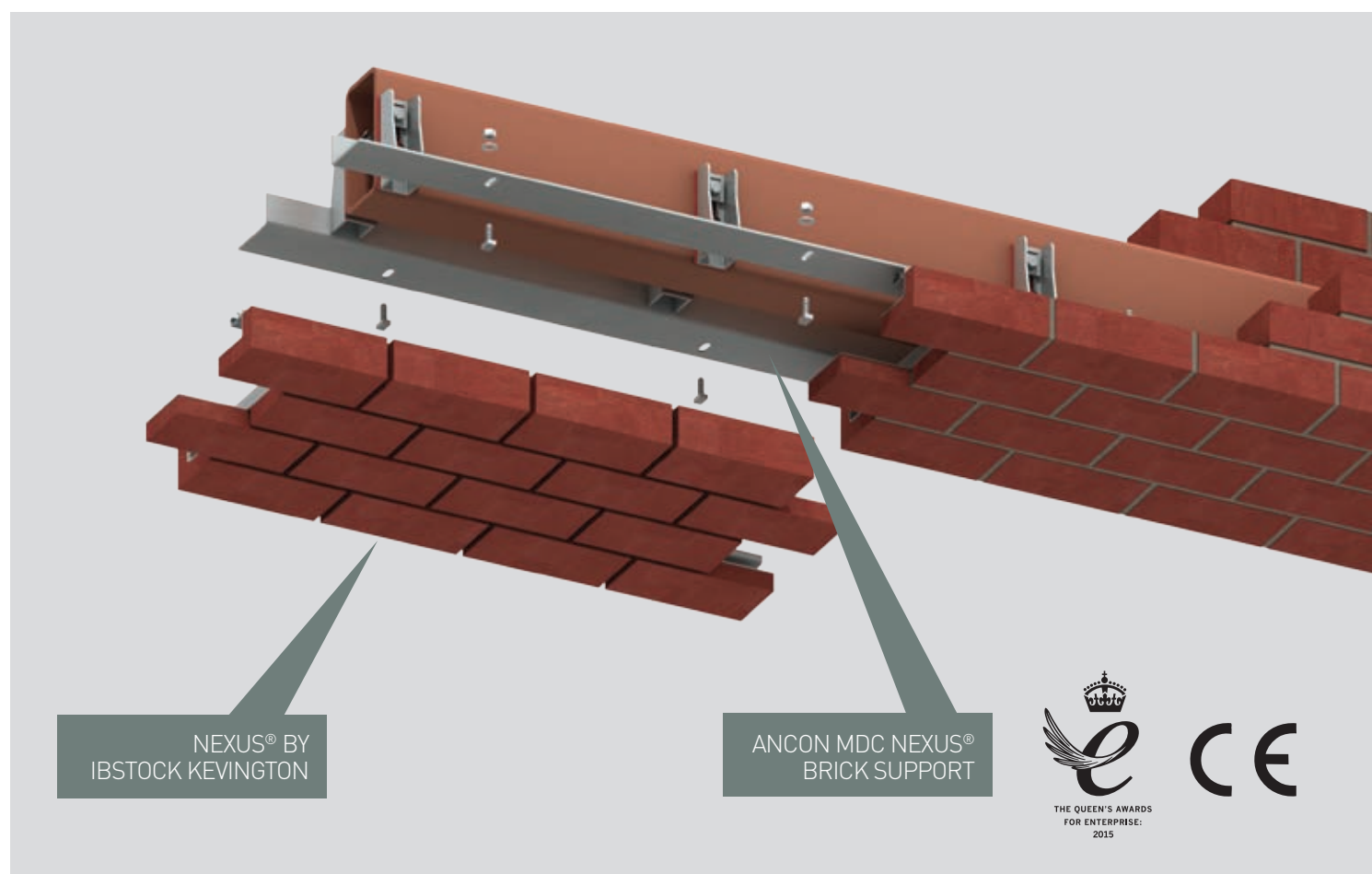
- ✓ Double the expertise – combined expertise of two UK market leading companies.
- ✓ Double the knowledge – long experience in high integrity brickwork support and brick engineering.
- ✓ Double the technical support – technical experts in both fields.
- ✓ Double the commitment – two companies with a history of innovation, quality and excellent customer support.

Ancon®

Winner of two Queen's Awards for Enterprise, Ancon is a world expert in high integrity fixings. With a global reputation for innovation, quality and customer service it's products strengthen and stabilise many of the world's most complex and challenging structures.

IBSTOCK | KEVINGTON

The leading UK manufacturer of brick special shapes and prefabricated masonry components, Ibstock Kevington has a reputation for innovative building solutions. It is recognised for its technical expertise in designing and precision manufacturing prefabricated and precast elements to simplify traditionally complex construction requirements.



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- ✓ Bespoke Solutions
- ✓ Hidden support - no exposed steelwork
- ✓ 100% corrosion resistant stainless steel
- ✓ Free technical advice and design service
- ✓ UK manufacture



CASE STUDY

BOW RIVER VILLAGE, LONDON

KEY PROJECT FACTS

- ✓ Mixed use development on the southern fringes of the Olympic Park
- ✓ 219 homes, 10,000 square feet of commercial space and new public walkways
- ✓ Four individual brick buildings, varying from six to nine storeys

THE CHALLENGE

For Frank Reynolds Architects, it was key that this new development not only sat comfortably alongside its neighbouring buildings, which include a Grade I listed tidal mill and other historic industrial buildings, but reflected and enhanced the character and appearance of the area. To create the desired aesthetic, Ibstock brick façades are broken by a regular pattern of storey-height glazing with the only decoration provided by banks of simple glass-fronted open balconies. To maximise the clean, uncluttered lines, a quick and simple method of achieving flawless brick faced soffits to the hundreds of door and window heads was required.

THE SOLUTION

The flexibility of the Nexus system meant that a complete soffit and lintel solution could be developed for the project. Deep soffits above doorways to the ground and first floor were achieved easily with 215mm deep units featuring header bond facing, bolted directly to Ancon MDC brick support angles, while stretcher bond lintels, manufactured 150mm longer to accommodate site variations and ensure perfect alignment with the main facing brickwork, were used at each window head.

To create deep 'flying beams' above upper storey stairwells, a number of 'special' soffit units, featuring facing brickwork to all four sides, were designed and bolted directly to Ancon MDC brick support systems, which were pre-fixed to the structural steel frame.

As mechanical lifting equipment was not required, contractor, Flahive Brickwork, was able to install the Nexus units in around one tenth of the time of traditional heavyweight precast concrete alternatives.

With a delivery schedule of 25 Nexus units per day, equivalent to a soffit run of 75 metres, the Ancon-Ibstock Kevington partnership was able to meet the tight project programme set by the clients.



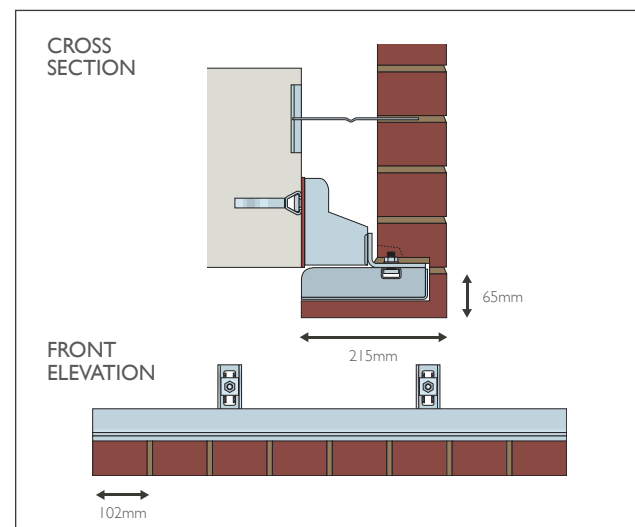
“ Being a two-part system, we found the Nexus® brick faced support system easier to install on site than a single piece system. We were able to adjust it quickly and simply and appreciated the flexibility the two-part system offered. ”

MARC COLEMAN
PROJECT MANAGER
Flahive Brickwork

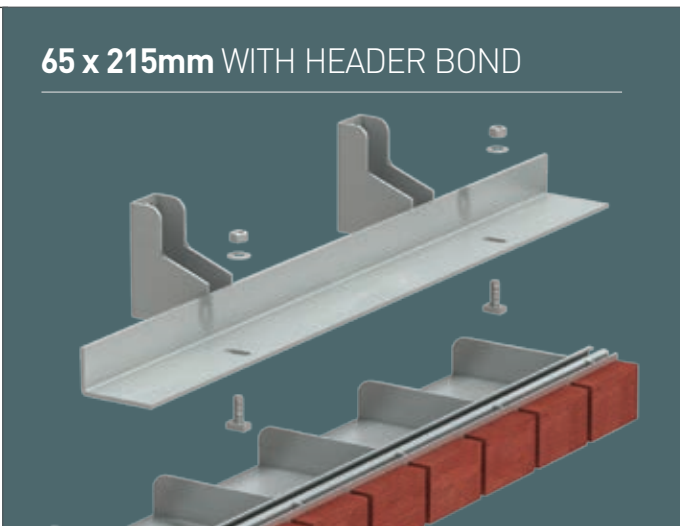
NEXUS® SUPPORT SYSTEMS - TYPICAL SOLUTIONS

Deep reveals and soffits are an increasingly popular design feature that adds an extra depth and dimension to masonry façades. To create these effects the surrounding brickwork bond is carried over the opening, maintaining a continuous brick soffit with no unsightly supporting steelwork left exposed.

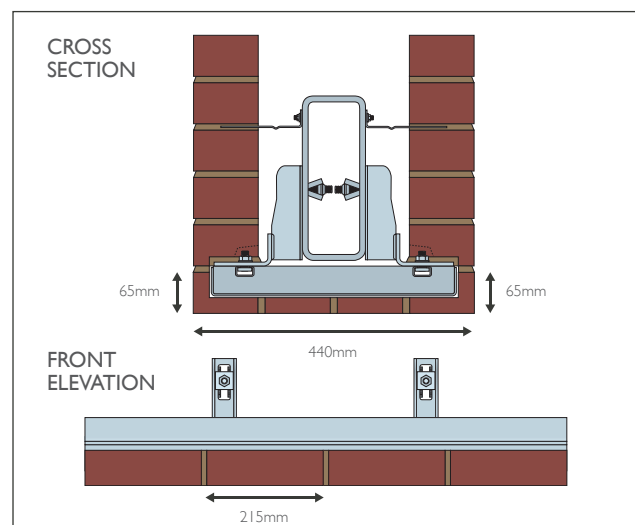
Ibstock Kevington, in partnership with Ancon, have developed a variety of effective solutions to realise this popular design feature on site. Typical solutions are shown below. Bespoke solutions including other brick arrangements can be designed to suit project requirements.



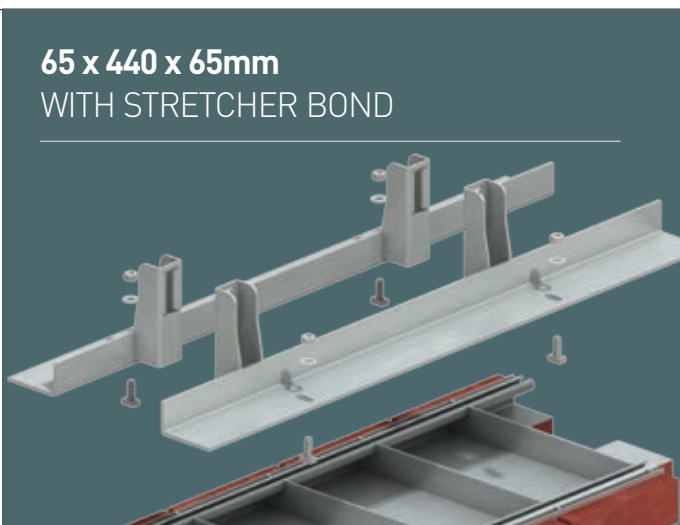
65 x 215mm WITH HEADER BOND



A simple, effective means of creating feature header details and reveals, with the header bond differentiating the soffit from the main façade. Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match.



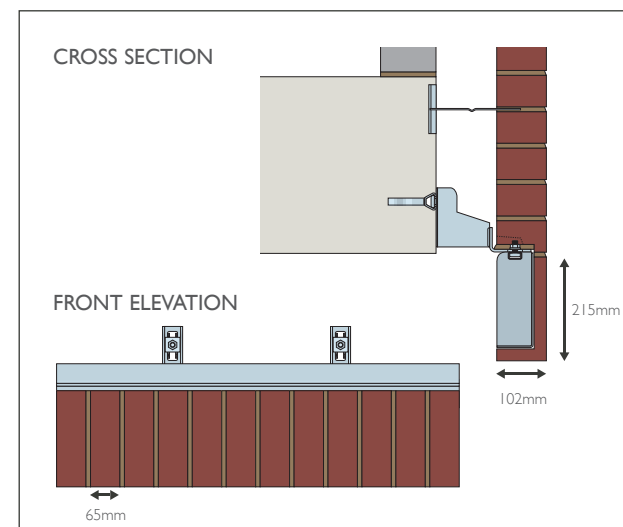
65 x 440 x 65mm WITH STRETCHER BOND



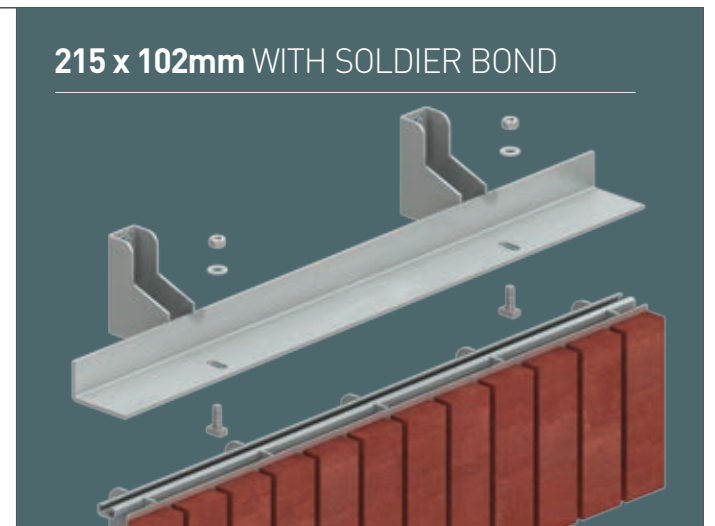
Used to create double-sided soffit details providing continuity to the main brickwork façade. Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.

SYSTEM BENEFITS

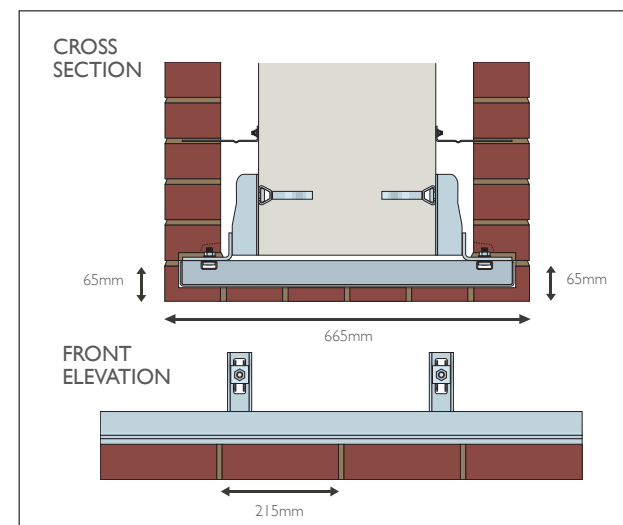
- ✓ Two-part system allows full adjustment for perfect alignment
- ✓ Quicker to install - no mechanical lifting
- ✓ Lighter and easier to handle than precast concrete systems
- ✓ Simply bolt into position
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated



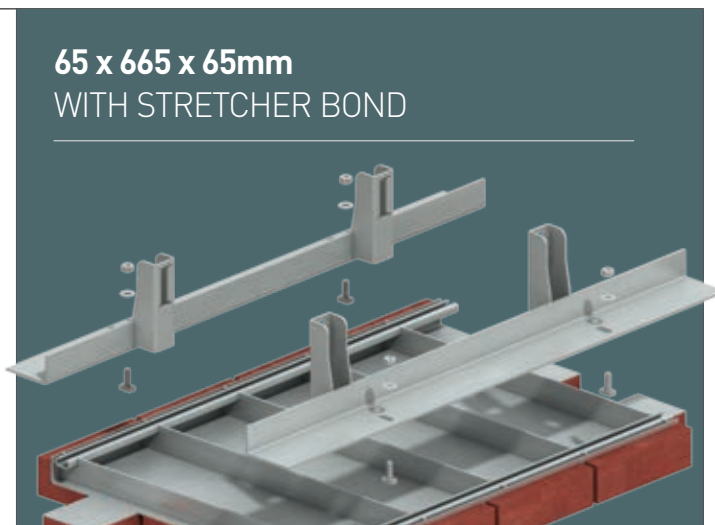
215 x 102mm WITH SOLDIER BOND



A simple, effective means of creating feature soldier course details above door and window openings. Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match for a flawless transition.



65 x 665 x 65mm WITH STRETCHER BOND



Used to create double-sided soffit details providing continuity to the main brickwork façade. Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.

CASE STUDY

MUIRFIELD COMMUNITY CENTRE, SCOTLAND

KEY PROJECT FACTS

- ✓ Modern, purpose-built hub for the town's community and enterprise facilities
- ✓ 235 Nexus brick faced soffit units and lintels installed in window heads and ground level colonnades

THE CHALLENGE

The challenge for Collective Architecture was to maintain the simplicity of the structure by continuing the brick facing of the façades to more than two hundred window head and colonnade soffits, without adding unnecessarily to the loading on the main steelwork frame or over-complicating the build.

THE SOLUTION

Working closely with the architects we were able to develop a complete solution utilising Nexus lightweight brick faced soffit systems and lintels. Colonnade soffits to the two lower levels were constructed using the two-part Nexus brick faced support system. 70% lighter than traditional precast concrete alternatives, the Nexus units provided the lightweight modular solution needed for the high profile soffit areas. Nexus lintels, comprising Ancon SC20H channel lintels lined to the lower edge with Ibstock brick slips, were used at all window heads.

Installed during construction of the structural steel frame, Nexus brick faced soffit units were bolted directly to Ancon MDC brickwork support systems, which were pre-fixed to the steel beams.

Simple vertical and horizontal adjustment, inherent in the Nexus design, allowed the units to be adjusted to achieve perfect alignment with the main brickwork when completed.

Being lightweight, the Nexus soffit and lintel units could be lifted into position and fixed by hand, without the need for specialist lifting equipment, minimising both cost and disruption to the other trades on site. With brick slips manufactured by Ibstock from the same batch as the main brickwork and mortar added on site, the system provided a perfect colour and texture match, ensuring a flawless transition with the rest of the façade.

A total of 235 Nexus units were custom designed and prefabricated to meet requirements at all window and colonnade heads throughout the project.



“

The Nexus system enabled us to meet our ambition for clean building lines and deep window reveals. The lightweight nature of the system meant that the recesses and soffits could be installed at the steelwork stage. We are delighted with the final outcome and enjoyed working with the Ibstock/Ancon team.

”

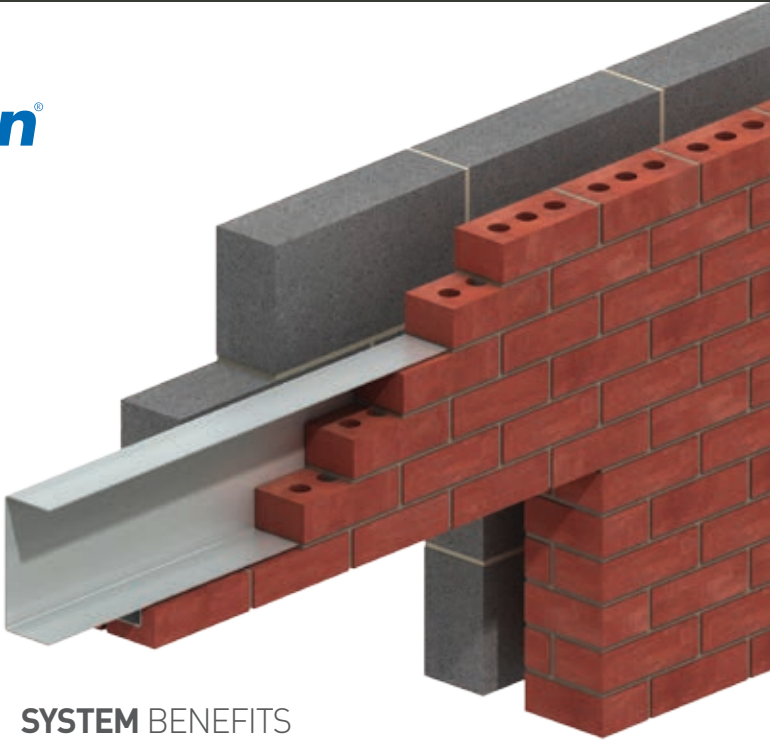
JUDE BARBER

ARCHITECT-DIRECTOR
Collective Architecture

NEXUS® LINTELS -TYPICAL SOLUTIONS

Nexus brick faced lintels are designed to carry a single leaf of a cavity wall.

Prefabricated from stainless steel for maximum corrosion protection, they offer a quick and simple way of creating deep soffits above window and door openings. They are ideal where speed is important - the permanently bonded brick slip facings, applied off-site, are manufactured from the same batch as the main brickwork providing a seamless blend meaning no compromise on quality or appearance. The lightweight design means the lintels can be simply lifted into place by hand, with no mechanical lifting equipment required, saving time on site.



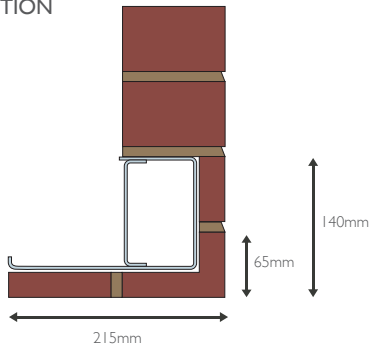
SYSTEM BENEFITS

- ✓ Manufactured off-site
- ✓ Lightweight design
- ✓ Saves time on site
- ✓ Manufactured from stainless steel
- ✓ Designed to suit a variety of spans and loads
- ✓ Variable face and soffit depths available

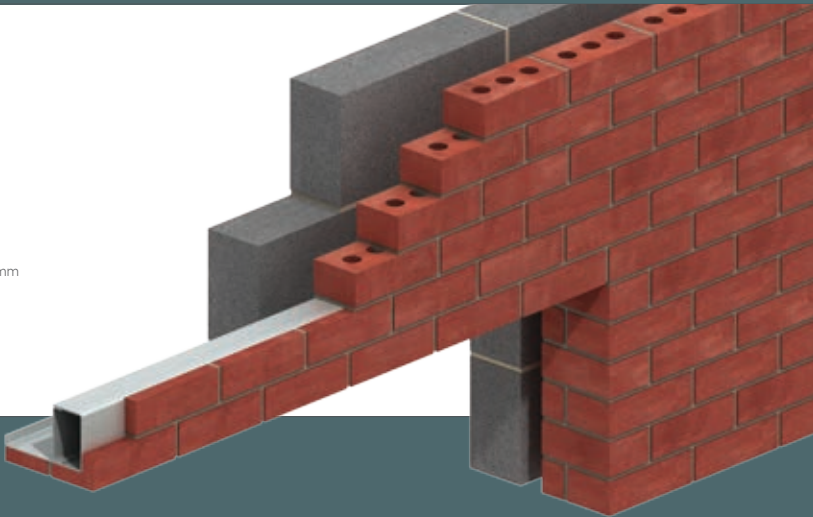
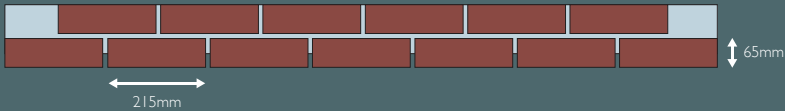
140 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.

CROSS SECTION



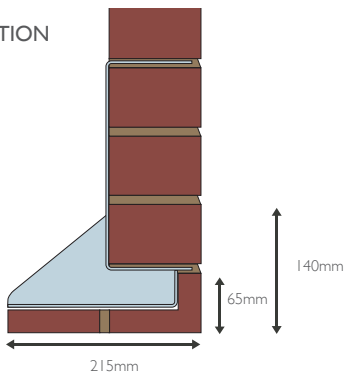
FRONT ELEVATION



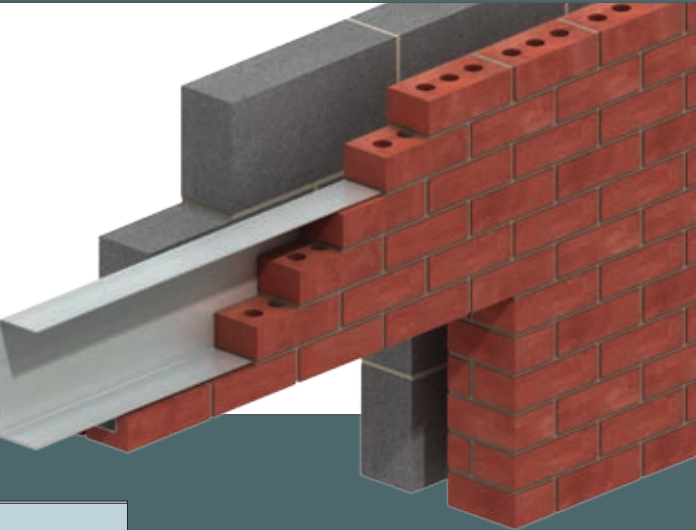
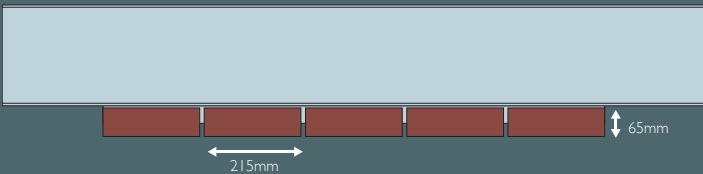
65 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.

CROSS SECTION



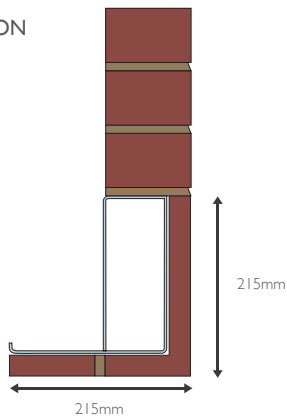
FRONT ELEVATION



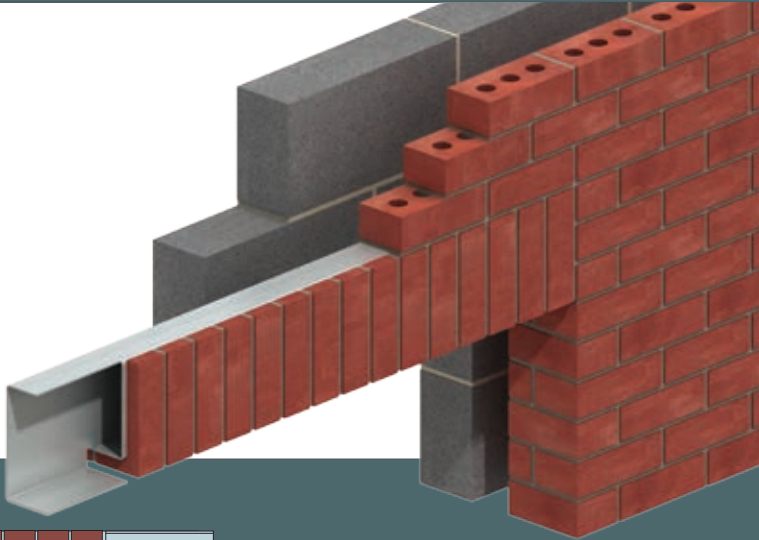
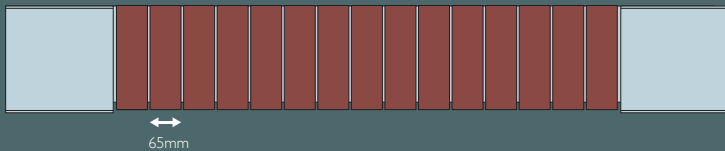
215 x 215mm WITH SOLDIER BOND

Used to create soldier course header details providing a simple, effective brickwork feature. This brick arrangement can be applied to any lintel in the Ancon SC or SL range. See Ancon's Lintel brochure for more information and details of loadings and available lengths.

CROSS SECTION



FRONT ELEVATION



CASE STUDY

SILCHESTER ESTATE, KENSINGTON, LONDON

KEY PROJECT FACTS

- ✓ Major regeneration project at the edge of the 1969 Silchester estate
- ✓ 112 homes, community hub and retail units
- ✓ Brick façade building ranging from four to nine storeys

THE CHALLENGE

Whilst Ibstock Kevington supplied in excess of 270 precast concrete brick faced lintels to the project, there were key areas of the build where this solution was inappropriate, due to the location and complexity of the soffit or the span and depth of the opening. A lightweight steel alternative was required that offered installation benefits and greater design flexibility.

THE SOLUTION

Working closely with the architect and main contractor, bespoke soffit and lintel solutions were designed and manufactured for these areas using the innovative Nexus system. A large suspended brick soffit at the main entrance, too heavy and complex for a traditional precast concrete solution, was achieved using Nexus soffit units – a two-part solution that combines a high integrity stainless steel MDC brickwork support system from brick support specialist, Ancon, fixed directly to the structural frame with Ibstock Kevington's brick faced soffit units, to produce a lightweight solution.

A further bespoke deep corner soffit was supplied for the community hub along with two 8-metre long Nexus stretcher bond lintels, which, with an available height of just 75mm, also could not be achieved in precast concrete.

The Nexus units were prefabricated off-site to precise specifications and faced with Ibstock brick slips from the same batch as the main brickwork, ensuring a flawless texture and colour match to the main façade brickwork.

Being 70% lighter than a precast concrete alternative, the Nexus units had the added benefit that contractor, RI Works, could simply lift the units into position without the use of mechanical lifting equipment and, using simple built-in vertical and horizontal adjustment, could perfectly align the units with the coursing of the main brickwork.

The result is a unique and striking building, carefully designed and constructed to sit alongside the established blocks, that will serve as a benchmark for the ongoing regeneration of North Kensington's residential social housing area.



“The lightweight Nexus panels were quick to install with minimum handling - especially helpful on the community hub corner panel where we installed 53 different pieces without any issues.”

ADRIAN LLESHI
PROJECT MANAGER,
RI Works Ltd


INSTALLATION ADVICE

Nexus soffit units are designed to be simply lifted and bolted to pre-installed Ancon MDC brick support angles. Each soffit unit comprises a stainless steel carrier with integrated Ancon channel to simplify installation to the brick support angle.

SIMPLE INSTALLATION


STEP 1

Fix Nexus brick faced units to pre-installed masonry support system by finger-tightening bolts.




STEP 2

Adjust vertical and horizontal alignment. Fully tighten bolts to correct torque.



STEP 3

Point to match main brickwork.





NEXUS SOFFIT SYSTEM
INSTALLATION VIDEO



This video highlights the benefits of the system and demonstrates how quick and easy it is to install. Scan the QR code to watch the video.



Alternatively visit
www.ancon.co.uk/Nexus

SPECIFYING AND ORDERING

PRODUCT SPECIFICATIONS

- STEELWORK:** High grade stainless steel, manufactured in Ancon's BS EN 1090-1 approved factory and CE marked.
- BRICK SLIPS:** 25mm thick and manufactured in accordance with BS 4729 and BS EN 771-1 and CE marked.
- ADHESIVE:** BBA-approved Metolux Metofix 3-1 epoxy adhesive.

Nexus has been tested for long term durability by Lucideon, the independent global expert in materials testing, analysis and consultancy.



DESIGN ADVICE

An integral part of Ibstock Kevington's service is a full 3D CAD design and structural engineering service. This ensures that we can turn your design concepts into quality, cost effective, easy to build structural elements. Contact us with your requirements.

ORDERING

For sales enquiries please contact Ibstock Kevington on 0844 736 0350.

SPECIFICATION CLAUSES

ANCON MDC NEXUS® BRACKET ANGLE SUPPORT SYSTEM

Ancon MDC Systems are tailored to suit each project, and are based on the cavity size at the support and the unfactored masonry load to be carried. Ancon will design an economical configuration of channel, bracket and angle.

Specify MDC NEXUS / cavity / unfactored masonry load
e.g. MDC NEXUS / 75 / 5.6. Ancon will design a standard system to suit a 75mm cavity and carry 5.6 kN/metre run of masonry (unfactored).

NEXUS® SOFFIT UNIT

Brick or masonry slips permanently bonded direct to a grade 304 stainless steel unit using high strength adhesive. The size of the unit and bond pattern of the slips to suit project requirements.

Specify face and soffit dimensions and bond pattern required.

NEXUS® LINTEL

Nexus Lintels are designed to carry a single leaf of a cavity wall. Tailored to suit each project, specification is based on the span of the opening and load to be supported. Brick or masonry slips are permanently bonded direct to the grade 304 stainless steel lintel using high strength adhesive.

Specify opening size, face and soffit dimensions and load to be supported.

FOR NEXUS® DESIGN AND
SALES ENQUIRIES CONTACT:

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