



# adf architects datafile

September 2016

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**Managing Editor**James Parker  
james@netmagmedia.eu**Advertisement Manager/****Joint Publisher**  
Anthony Parker**Production Assistants**Mikey Pooley  
Shelley Collyer  
Rob Duncan  
Kim Musson**Editorial Assistants**Roseanne Field  
Jack Wooler  
Teodora Lyubomirova**Editorial Coordinator**

Sue Benson

**Contributors**Norman Hayden  
Stephen Cousins  
Michael Willoughby**Sales Director**

Lesley Mayo

**Sales Executives**Suzanne Easter  
Ian Fletcher  
Kim Friend  
Steve Smith**Circulation/Reader****Enquiry Service**

Jane Spice

**Managing Director**

Simon Reed



netMAGmedia Ltd

Cointronic House  
Station Road, Heathfield  
East Sussex, TN21 8DF**Advertising &****Administration**

t 01435 863500

f 01435 863897

info@netmagmedia.eu

www.architectsdatafile.co.uk

**Press Releases**

editorial@netmagmedia.eu

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# From the Editor



The new RIBA president, Ben Derbyshire of HTA Design will take up his role next year at a daunting time for the industry.

With Brexit the topic on everyone's lips for the foreseeable future however, the danger of most debate around the issue and reports such as the RIBA's July Future Trends survey which showed a drop in 'confidence' is that it is not only based on sentiment, but also sentiment based on speculation of what is to come. We will not know what's on the cards for some time, however one physical casualty of the new climate is Irish-based architect O'Mahony Pike, as reported in ADF's news pages, which is pulling out of the UK amidst fears it will lose out in a tougher climate for firms.

It is this uncertainty, and potentially financially constricted climate that Derbyshire steps into, and he will have to use all of his skills to keep the profession upbeat in what are sure to be torrid months ahead, at least in terms of unbridled speculation.

He is said to be a strong advocate of collaboration and change, including at the Institute itself, but he faces challenges there too, including getting the body to increase engagement with its members. According to one RIBA councillor quoted recently, the turnout for his election was "excruciatingly low."

The RIBA president also has his work cut out defending architects and their designs from high-profile attacks. For example David Chipperfield has again been the target of high-profile criticism, although perhaps not perhaps as high as the King and Queen of Sweden. Conservationists at The Twentieth Century Society have laid into his practice, saying its designs to convert the Grade II listed former US Embassy into a hotel will damage its character.

The scheme which crystallises many current issues is arguably Thomas Heatherwick's Garden Bridge across the Thames, which is rapidly becoming a private venture following Sadiq Khan's suspension of public funding. Perhaps Derbyshire will be able to find a convincing way to sell how this scheme remains a public 'good,' while heading off the more prosaic worries about building the Thames Tideway Tunnel 'super sewer' at the same time.

One problem with architectural projects, not to mention the Brexit effects slowly working their way down the pipeline, is that the effects of short-term decisions take some time to appear. And Derbyshire is only in post for two years – who knows whether we will have a clearer picture of the future when it comes time for him to hand over the baton?

James Parker



## On the cover...

Detail of the facade of the UK's largest Passivhaus building yet seen – University of Leicester's new Centre of Medicine.

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For more information, go to page 33.



## LIBRARY OF THE YEAR

## SHL project named public library of the year



A Schmidt Hammer Lassen Architects-designed library in Denmark has been named Public Library of the Year by the International Federation of Library Associations and Institutions.

Dokk1, located in the harbour of the second biggest Danish city Aarhus, beat projects from USA and Australia. Completed in 2015, the 35,600m<sup>2</sup> facility is the largest public library in Scandinavia and houses a citizen service centre, offices, 1,000-car parking and quayside public squares.

Senior Partner Kim Holst Jensen, Schmidt Hammer Lassen Architects, commented: "Our goal has been to create a stimulating and dynamic environment at this unique location that fosters valuable and meaningful relationships between people; a cultural centre that everyone can see themselves in. The jury praised the project for regenerating the "practically deserted" harbour and

giving priority to accessibility through the creation of outdoor areas and staircases connecting all sides of the building.

The jurors added: "The jury also finds great architectural value in the simple and consistent choice of materials throughout the building, which adapts naturally to the harbour environment. Furthermore, the materials are of a high quality without being ostentatious, which makes the building stand out as a place of diversity with room for everybody."

Dokk1 has proved instantly popular and welcomed in excess of one million visitors seven months into its operation. Other nominees included the Chicago Chinatown library designed by Wight and Company, the Geelong Library and Heritage Centre by ARM Architecture and Success Public Library by Skidmore, Owings & Merrill LLP and Wight & Company.

## events

## CONFERENCES &amp; SEMINARS

**Historic Stonework**

13 September 2016, Oxford

[www.architecture.com/WhatsOn](http://www.architecture.com/WhatsOn)

**SoilsCon 2015**

05 October, Henley on Thames

[www.toha.co.uk](http://www.toha.co.uk)

**Breathing Buildings**

28 September 2016, Oxford

[www.architecture.com/whatson](http://www.architecture.com/whatson)

## FESTIVALS

**London Design Festival**

17 - 25 September 2015, London

[www.londondesignfestival.com](http://www.londondesignfestival.com)

## TOURS

**Open House London**

17 - 18 September, London

[www.openhouselondon.org.uk](http://www.openhouselondon.org.uk)

**We Live in the Office:****Curator's Tour**

04 October, London

[www.openhouselondon.org.uk](http://www.openhouselondon.org.uk)

## TRADE SHOWS

**100% Design**

21 - 24 September 2016, London

[www.100percentdesign.co.uk](http://www.100percentdesign.co.uk)

**Restaurant Design Show**

27 - 28 September 2016, London

[www.restaurantdesignshow.co.uk](http://www.restaurantdesignshow.co.uk)

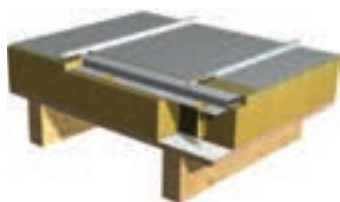
**Surface Design Show**

7 - 9 February 2017, London

[www surfacedesignshow.com](http://www surfacedesignshow.com)



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## EXTENSION

## Architects think outside the box with glass extension

A Brentwood-based architectural practice overcame a challenging brief to deliver a full refurbishment, loft conversion and extension of a local four-storey house.

Spatial Design Architects was commissioned by a private client to create a design which contrasted with the house's traditional brick facade and link the basement and ground floor with the garden.

The architects wanted to connect the areas via a staircase, but insufficient indoor space meant it had to be placed outside. To fit the staircase, Spatial Design created a bespoke glass box on the extension roof.

Project architect Brendon Robins explained, "In spite of many planning conditions placed on its approval and design, we feel that we found innovative ways to overcome all these while delivering the space required. 'Wow, it was definitely worth it!' is how our client summed up this project."



## Built environment sector evaluates Brexit

BSRIA and the Construction Industry Council (CIC) have teamed up to discuss the opportunities and challenges posed to the built environment sector by the UK's decision to leave the EU.

Council members will be subject to regular surveys to gather data and ensure a mutual understanding among the professions on key issues.

Meanwhile BSRIA members can voice their views on Brexit at workshops to be hosted by the organisation in September and October.

The organisation is seeking policy input and support to the working groups established by Sir John Armitt with

support from the ICE and to other initiatives being developed by the Royal Academy of Engineering, the ACE, RIBA and RICS.

Tim Page, Marketing Manager, BSRIA said: "There is a lot of heat and noise within the industry and anxiety on what Brexit specifically means to the industry. These events will indeed identify members' concerns. It is good to see all the professional industry bodies working collaboratively on this important topic."

A BSRIA workshop is taking place on 9 September in Old Bracknell Lane West, Bracknell, Berkshire RG12 7AH from 9.30 am.

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## NEW SUSTAINABLE HQ

# London HQ with rooftop beehives set to complete



A highly sustainable HQ is nearing completion in south London.

Designed by Capita ESA for energy infrastructure firm Subsea 7, the 14,00 m<sup>2</sup> office building has achieved a BREEAM 'Excellent' rating and will feature a range of green initiatives such as beehives and planting to help improve local biodiversity.

The new workplace in Brighton Road, Sutton will also include flexible offices, extensive breakout areas, presentation and training rooms and a restaurant for 700 staff.

Special zones across the building will be utilised, with 'shop front' areas showcasing the global firm's work and a 'town hall' holding collaborative staff activities.

Solar cells as well as extensive lighting and energy reduction measures are also specified.

Marek Sroka, director, Capita ESA, said: "The Subsea 7 building has been a fantastic project to be involved in thanks to the original brief we delivered alongside Subsea's enthusiasm for their new building at all stages. We believe that with its BREEAM rating this highly sustainable building will provide an inspiring workspace for both current and future staff and visitors."

The project's design team includes engineers Price + Myers, service engineers Hoare Lea and planning consultants Vail Williams. Subsea 7 is expected to move into the new premises later this year.

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**PILKINGTON**



## Architects transform 1960s London estate

A streamlined security compliance scheme that can cut time and costs for developers, builders, architects and specifiers has been launched by Secured by Design.

The National Building Approval (NBA) scheme is a one-off contract offering a simplified route to compliance with police security requirements.

Under the agreement, SBD will check if door, window and roof light suppliers working on new build and refurbishment projects comply with all aspects of Approved Document Q and the Scottish Building Standard 4.13 – Security.

The scheme, which cost £1 for a three-year term and covers all future

developments in the duration of the contract, is most often used on housing projects but can also be applied to schools, care homes, offices or any other public building under SBD's remit.

Members of the scheme receive a Secured by Design certificate accepted by Local Authority Building Control Officers and Approved Inspectors as a way of discharging the regulations. Membership also signifies police approval for building security and improves pre-Qualification Questionnaire (PQQ) scoring.

For further details of the scheme, a full guide can be downloaded at [www.securedbydesign.com](http://www.securedbydesign.com) or by emailing [sbdnba@police-cpi.co.uk](mailto:sbdnba@police-cpi.co.uk)



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## AWARDS

## Brick Awards 2016: Voting now open for Architect's Choice Award

Architects are invited to decide the winner of the Architect's Choice Award at this year's Brick Awards.

Professionals and students alike can pick their favourite projects across 14 categories covering brick excellence in public, educational and commercial buildings, as well as housing developments. The Best Worldwide Project category will be considered separately.

From over 200 entries, 77 made the shortlist including the Newport Street Gallery, the Peabody Scheme at St John's Hill, and Eastwood Health and Care Centre in Glasgow.

Now celebrating its 40th year, the Brick Awards annual ceremony hosted by the Brick Development Association is held at the Hilton Park Lane in London on 10 November. Votes can be cast at [www.brick.org.uk](http://www.brick.org.uk)



### news bytes

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## Irish architect pulls out of UK after Brexit

Award-winning Irish architectural practice O'Mahony Pike has decided to shut its London office in the wake of Britain's decision to leave the EU.

O'Mahony Pike's Clerkenwell office is expected to close at the end of August, resulting in five job losses.

According to managing director John O'Mahony the practice was considering leaving the capital before the referendum but the Brexit vote was the "final straw" for the firm.

"We're not shutting down the company but we decided a full-time presence was too risky," he said.

"Our strong view is it's going to get tougher and tougher. Being an Irish practice operating in London,

as things tighten up consideration will be given to local practices.

"Taking all that into account we decided we should withdraw. It wasn't a spur of the moment thing but Brexit was the straw that broke the camel's back."

They noticed the market was slowing at the end of 2015 while Glengall Quay, the OMP-designed mixed-use scheme on the Isle of Dogs, has stalled.

Meanwhile the practice has 60 jobs on its books in Ireland, according to O'Mahony.

"We are thriving here, with 9,500 units on the go at the moment," he said. "Things have really started moving again. We're extremely busy and we're hiring."





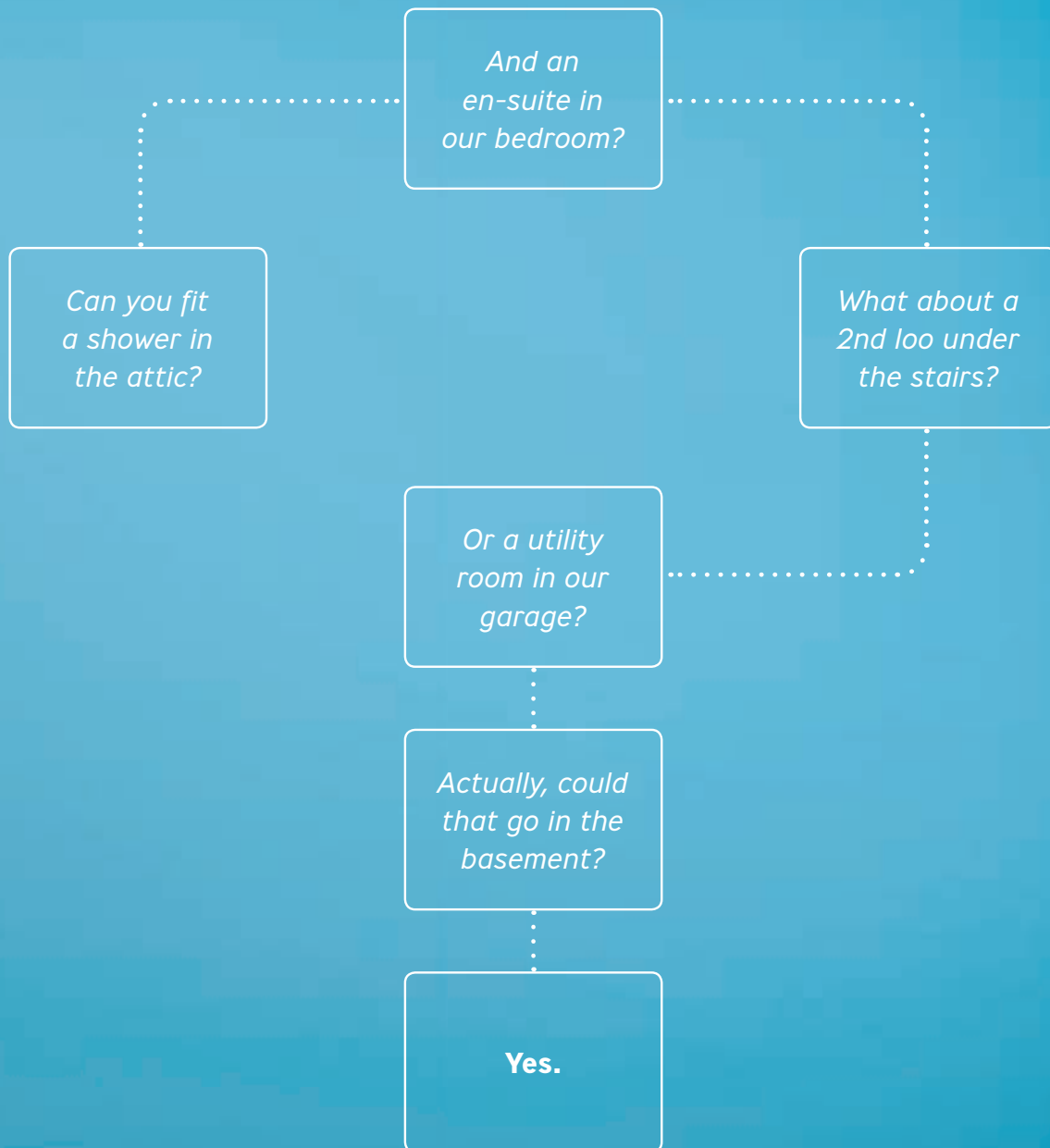
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# future watch

Just how rigorous are responsible sourcing schemes? In an exclusive interview James Parker spoke to architect and sustainability leader at BRE Global Alan Yates to find out why a review is underway that will help specifiers.

When it comes to specifying responsibly sourced construction materials and products, how much do you really know about the scope, rigour and consistency that lies behind the labels on products that more and more clients demand? What's more do you really know what the label means? With the focus on responsible sourcing expanding to include a broader emphasis on social conditions throughout the supply chain, such concerns are now increasingly key issues for architects globally.

Construction materials often have complex supply chains covering a diverse range of geographical, political and economic variations. These often include parts of the world with high levels of enforced labour and other forms of exploitative labour practice. Of the 35.5 million people worldwide who are thought to be living in slavery, 70 per cent are found in regions which include major suppliers of basic and processed construction materials to the UK. The Modern Slavery Act which came into force last October has increased the emphasis on ensuring that such practices are not part of your supply chain.

The international nature and fragmentation of many materials supply sectors has meant that there is some inevitable inertia preventing them from robustly understanding the impacts and addressing them. Responsible sourcing schemes range from the BRE's own generic BES6001 scheme to other sector-specific ones such as FSC, PEFC and others for timber, and CARES and EcoReinforcement for steel reinforcement products.

Each of these schemes have their own strengths and weaknesses partially resulting from the difficulties of the sectors that they deal with and partially a result of their relative immaturity. In carrying out its review for BREEAM, BRE is working with key responsible sourcing certification schemes (RSCs) to identify these strengths and weaknesses and then to work to increase their rigour over time, so stimulating a shift in industry perceptions from the sometimes-seen view of responsible sourcing as a 'nice thing to do' to engagement with a transparent, fully scrutinised process.

Architect and technical director at BRE Global's sustainability group Alan Yates comments: "It's about encouraging scheme operators and the sectors they serve to get on board and improve and innovate in a way that is appropriate to their sector."



*'The ultimate aim of the review is to ensure that the schemes recognised by BREEAM continue to be managed robustly'*

Over its 25 years, BREEAM has always included credits for responsible sourcing. As part of its continued support of the key schemes currently in operation, the ratings body has scrutinised how well they have maintained their processes and kept up to speed with best practice. The principal purpose of this work is to amend the scoring process for responsible sourcing to take account of the differences between schemes and enable BRE to recognise future enhancements in this area.

BRE is about to publish a revised version of its BREEAM Guidance Note (GN18) with amended points scores for each scheme and a summary review of the six key RSCs that it currently recognises in BREEAM – BES6001 for all materials and components, plus FSC, PEFC and SFI for timber and UK CARES SCS and EcoReinforcement for steel. The ultimate aim of the review is to ensure that the schemes recognised by BREEAM continue to be managed robustly and along the way offering specifiers greater transparency and confidence in the process.

This will also, it is hoped, enable specifiers to in future have a better understanding of what now-familiar labels mean, and what they do not. By bringing in a more sophisticated scoring process for responsible sourcing schemes within BREEAM comprising key criteria, BRE is aiming to underpin its credibility via a consistent, fair and balanced approach.

As detailed on the following page, this universal set of criteria will evaluate the schemes so that they can be better considered



within the whole-building focus of BREEAM.

Alan Yates explains why BRE Global undertook the review: “We looked at how best practice in standards setting has evolved and saw that BREEAM needed to enhance its approach to take account of the progress made in this important area. There was also the fact that many of these schemes have evolved over time and they want to be recognised and rewarded for their strengths.”

He admits concerns that specifiers “probably have a glossy view of what these responsible sourcing schemes actually mean and may read more assurance into them than the label can actually provide.” In a post-Modern Slavery Act context this is important for any UK business procuring construction materials. According to Yates, most FSC labelled construction timber on the market is likely to be covered by FSC’s ‘60 per cent certified’ label. This means that up to 40 per cent may simply be legally harvested, benefitting little from the scheme’s robust forest management requirements. As such this does not provide the guarantee that many think it does about the sourcing of timber on a building.

Yates says that this is why it’s essential that the label is not automatically seen as a comprehensive guarantee of responsible sourcing. Whilst FSC does operate a 100 per cent certified label, this is rare in construction materials. The same limitations occur for all other schemes reviewed although, asserts Yates, the reasons for this are clear.

### Sector-specific issues

Yates confirms that since the emergence of the FSC labelling scheme in the 1990s, there has been an increasing interest in this issue and a growth in responsible sourcing schemes in the market. He says this has been characterised by an understandably variable approach to standard setting which can lead to significant differences when one material is being compared to another. He adds that the relative immaturity of responsible sourcing and resultant ad hoc and sector-specific development of schemes has meant they are “at different stages along the journey” when it comes to their robustness.

Yates explains further: “Each of these schemes has set out its own objectives of how it is trying to help its customers whether it is the specifier or the person in the supply chain e.g. the steel mill. They all come at it in a slightly different angle and this influences their criteria for measuring success.

“Sector-specific schemes are fine when comparing apples with apples, but BREEAM has a need to look at responsible sourcing at a whole building,” says Yates. While most schemes are focused on the organisational level issues throughout the supply chain, he says that BREEAM’s focus is different, namely on whether “the material that arrives on site gets incorporated into the building, and delivers the impacts embedded within that material.”

He explains that the new process “isn’t intended to say that one scheme is better than another one, as each sector starts from a different place in terms of the risks and complexity of its supply chain. It’s simply that from the perspective of BREEAM in a building that scheme is more robust in ensuring that, for

*‘(The new process) isn’t intended to say that one scheme is better than another one, as each sector starts from a different place’*

example, people have been paid decent wages in the supply chain.”

### Key criteria in BREEAM

The BREEAM review which BRE has just carried out is the product of several months working with the respective scheme operators. Alan Yates is at pains to stress that its purpose is not to say what the level of responsible sourcing in each case or dictate universal standards, but whether the processes being used by the RSCSs in setting their standards and operating their schemes are adopting best practice.

The review of schemes includes the following criteria in judging their robustness for scoring within BREEAM:

- how the RSCS bodies have engaged with stakeholders;
- the way the standards process works, and whether internationally recognised best practice has been followed;
- scope of the scheme – how many issues are covered; is it fully holistic (using the British Standard BS 8902:2009 as the framework for what those issues should be);
- the openness and transparency of the scheme.

These have been used to carry out a detailed review of each scheme, and the findings will be used to determine the contribution that materials covered by each scheme can make to a BREEAM assessment of a building or infrastructure project. Yates explains the importance of the transparency aspect of the criteria: “If you’ve got an open and transparent system with representative stakeholders then people ask awkward questions, and you don’t get away with whitewashing anything.”

Yates says that this represents a “positive, constructive” endeavor in partnership with the scheme operators, and it has taken several iterations to get to the current review stage which will produce a new BREEAM Guidance Note used for all BREEAM assessments moving forward. While he says this is a “line in the sand,” schemes will continue to develop and new schemes will be launched for other materials sectors. They will in due course be able to update BRE on any changes to their schemes and further Guidance Note revisions will take account of these changes.

For specifiers, the review should be an important step to clarify how robust the schemes really are and make clearer whether claims of responsible sourcing between different material groups can be compared. As well as further highlighting the importance of responsible sourcing, it will raise the level of understanding of this increasingly important issue amongst specifiers and constructors, by taking account of the varying processes and standards that lie behind the familiar labels, as a part of the BREEAM assessment process.



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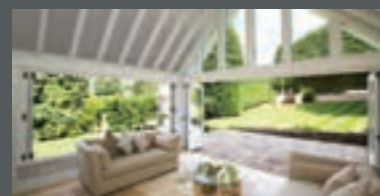
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# site lines

The UK is finally embracing the opportunities of the build to rent sector in a bid to ease the widespread housing crisis. Norman Hayden provides a progress report.



Geraghty Taylor Architects'  
Brendan Geraghty

With a rapidly-growing population and people living longer, the pressure on housing in Britain has become immense, with demand far outstripping supply.

Overall, the current market value of the rental market is £1.29tn – up 55 per cent over the past five years. But this country needs to build 250,000 homes a year to satisfy need, with London alone under former Mayor Boris Johnson setting a target of building

42,000 homes each year.

This is a very tall order – witnessed by the fact that two years ago the number of new units delivered stood at 112,370. To meet the housing shortfall, deepened by the ever-growing cost of buying a first home, our rented properties are seen to have a vital role to play with 21 per cent of households currently rented.

Acknowledging this, in 2012 the Government established the Build to Rent (BTR) Fund aimed at providing £200m to build a bigger and better private rented sector. Indeed, 5,000 BTR units a year have been targeted to meet London's needs. The scheme was launched as part of a series of government initiatives to increase the supply of high-quality homes available for market rent in the private sector.

The BTR Fund is a fully recoverable commercial investment. The investment enables the Government to share risk or to provide finance, enabling schemes to be delivered. The fund offers finance on a commercial basis, with returns to Government being realised upon refinancing or sale of a developer's interest to an institutional investor within one to two years of completing the scheme.

At the same time, it is hoped that by encouraging institutional investment into the sector, additional housing supply would be created to meet local need.

The BTR Fund is sometimes confused with the Private Rented Sector (PRS) Housing Guarantee. BTR assists with the development phase, while the PRS assists with the long-term holding of property once construction is completed. In PRS, the Government's investment comes in the form of a loan, and is available to cover up to 50 per cent of eligible development costs.

## How the scheme works

BTR is a model that is new to the UK, but it has been in the US for nearly 20 years and almost as long in Europe. In the UK version, which most closely resembles the US model, homes are designed and built specifically for renting – catering for the mainstream market. Some 51 per cent of private renters are under 35 years of age and 54 per cent have no dependents, and so are unlikely to get social housing.

BTR has features which distinguishes it from the rest of private renting. Traditionally, the rental market provides a 'for sale' product, whether it is a room, apartment or house. The building design and general arrangements are therefore geared to multiple ownership in a single location.

By contrast, the BTR model is for long-term income from rent. To start with, the buildings display a greater equality of design. For example, every bedroom has an ensuite bathroom (see the floorplan diagrams).

The general environment – such as maintenance of the common areas – is also key to the attractiveness of the social side of the building as statistics show that lease renewal is often based on friendships with other renters.

So, investors seek to keep their buildings fully occupied with satisfied tenants. This can be done through offering longer tenancies and other flexibilities such as personalising the home, good onsite amenities and convenient transport links for easy commuting.



Layout comparison of typical for sale unit (left) and typical build to rent unit (right)  
© Geraghty Taylor Architects

## Integration

Blocks of flats in private ownership usually suffer from patchwork management arrangements. With BTR, everything is integrated, with one manager for the whole building.



Section from an infographic produced by Geraghty Taylor Architects showing how Build to Rent and Professional Rental Sector are now overshadowing Buy to Let



Management provides all services in generally looking after the overall asset. The building's staff comes from both the housing and the hospitality sector, in recognition that it is a service industry.

Brendan Geraghty, director of Geraghty Taylor Architects, has put together a BTR model. Among its key features is the idea of an integrated business model. This is made up of business objectives, customer service, operational management, design, facilities management and revenue targets. In turn, all these are aimed at building a brand.

In terms of revenue, BTR offers a rental model with income from rent and service. PRS, on the other hand, has a rental model sometimes including service revenue, and, crucially, with an option to sell. In addition, BTR has a bespoke design based on its business model, while the look of PRS buildings reflect the fact that they will ultimately be sold.

Finally, the occupier experience. Geraghty sees BTR catering for a 'demand' market, having a relationship culture and where the occupants are viewed as customers. In contrast, PRS has a 'supply' market bias, centred on transactions and where occupants are tenants.

***'As long-term investors, BTR providers' only interest is in creating places that thrive'***

### Who is investing?

Ultimately, many investors are seeking to invest at scale and offer consistent standards across different locations so that they can develop into brands that their customers trust and stick with. As long-term investors, BTR providers' only interest is in creating places that 'thrive'. Their investments will gain or lose

***'For architects, it's a huge opportunity to look at standardising the building'***

Brendan Geraghty

value depending on their wider environment.

What sort of start has BTR made? So far, 6,000 units have been built, with 12,000 under construction and 20,000 in the pipeline. Renters tend to make more use of public transport and BTR developments are often therefore delivered close to transport and other infrastructure, with a focus on brownfield development and supporting activity in town and city centres.

Last January, Legal & General Capital launched a BTR partnership with a Dutch pension fund manager to invest £600m in providing 3,000 homes for rent in the UK. The sector's investment is also bringing new constructors into UK housebuilding – for example Bouygues, one of France's largest companies. Meanwhile, several local authority pension schemes are investing in BTR, or are contemplating doing so, because it is delivering affordable homes for key workers and other important groups that are critical to their local economies.

Some of the biggest and best housing associations are also delivering and managing BTR, working with UK and overseas institutional investors. There are various motivations for them. For some, their market-rented homes are helping to cross-subsidise the delivery of more social housing.

### What is the future for BTR?

Demand for housing it seems will only grow with generations of people forced to rent. Some estimates see BTR being worth £50bn by 2020 and potentially accounting for 20 per cent of residential design.

It appears that demand for rental housing is not only being driven by an inability to buy, but also by the fact that Millennials are more attuned than previous generations to the idea of owning fewer things.

With BTR properties let faster than homes are usually sold, architects will have to design in larger phases allowing building to take place more quickly. Other design considerations include how to look after the envelope of the building, make the internal specification more robust, and put greater focus on the facilities provided, which can include business centres, concierge services and integrated cafes.

Overall, though, the attraction of BTR for architects is working for people who have a long-term view of residential design. Despite uncertainties in the UK economy and the challenges it presents, Brendan Geraghty remains optimistic about BTR. "It's early days in the UK and we are searching for our own version. We have some way to go before it reaches the maturity of the US market."

He continues, "For architects, it's a huge opportunity to look at standardising the building. For clients, it's a huge opportunity to save money and take control of the supply chain. For renters, the flexibility of BTR is one of its core strengths, which will appeal especially to Millennials."



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## NEW RESEARCH FACILITY

## Leading biomedical research facility completes

One of the largest research facilities in Europe has been completed in London.

The 980,000 ft<sup>2</sup> Francis Crick Institute will house 1,250 scientists who will be analysing the biology of human health and diseases in order to improve people's lives.

Designed by global giants HOK in partnership with PLP Architecture, the building is arranged as four 'laboratory neighbourhoods' and features overlapping floor plates and bridges to foster collaboration.

David King, director and senior vice president, HOK, commented: "In every sense possible, collaboration and teamwork have been essential to the long-term success and delivery of the Francis Crick Institute. Unlike traditional institutional approaches of closed doors and high walls, science is firmly on display, both inside and outside the building."

The institute has already achieved a BREEAM 'Excellent' rating for sustainability and is said to be the first laboratory subject to the latest (2010) UK energy regulations.



Around £650m was invested in the institute by its six founding members including the Medical Research Council (MRC), Cancer Research UK and University College London. The institute will have an operating budget of about £130m a year and employ 1,500 staff when fully operational.

## Architects transform 1960s London estate



Work to refresh and expand a South East London housing estate has started in August.

WG+P Architects' design will modernise a two-storey block in Lingfield Crescent, Bexley by adding two mansard levels, a glazed atrium, green spaces and parking.

The scheme will provide a total of 34 flats and two new terraced houses. The architects have specified timber framing for the mansard levels to cut construction costs.

WG+P Director, Phil Waind said: "By utilising timber frame construction we were able to meet the clients brief and deliver a cost effective housing scheme at £1,400 per m<sup>2</sup>. By current rates this figure is low and an approach that developers could aspire towards in developing fast,



efficient, practical housing models in dense areas on top of existing buildings."

The upper level design include anodised metal and a glass structure along with aluminium balconies dividing the separate units. The design also relocates a caretaker's flat to form two L-shaped blocks that semi enclose the south-facing amenity spaces. The glazed atrium allows more natural light into the communal areas and breaks down the overall mass of the front elevation.

The scheme received planning approval in early 2015 and will target first time buyers being located a 20-minute train ride from London Bridge Station.

The project is due to be completed next summer.

## Iconic building completes in South Tyneside

A new cultural landmark has been completed in South Shields.

The National Centre for the Written Word, simply known as The Word, will be a focal point of the £100m town centre redevelopment.

Targetting an Excellent accreditation from BREEAM, the terracotta panel clad building features three floors around a central atrium linked by a bespoke staircase and lifts.

The circular cultural centre designed by Newcastle-based FaulknerBrowns Architects overlooks the refurbished Market Place and incorporates a library and digital media space, boasting an impressive range of facilities including exhibition space, a computer gaming area, a FabLab with 3D printers and vinyl and laser cutters, digitised archives, meeting rooms, children's immersive storytelling area, an IT suite, café and a rooftop restaurant and terrace overlooking the river.

Martin Swales, chief executive of South Tyneside Council said, "The Word is a truly iconic building. Incorporating good design quality is at the forefront of our ambitious regeneration schemes, ensuring they are aesthetically pleasing, sustainable and easy to maintain, whilst complementing and enhancing the surrounding area."

Contractors Bowmer & Kirkland handed over the building to South Tyneside Council and partners Muse Developments in mid August, with internal fitting and the installation of the first exhibition are set to complete in time for the official public opening on Saturday, 22 October.



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# international focus

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**PARC CENTRAL, GUANGZHOU, HONG KONG**  
BENOY

Parc Central is a low-rise building, standing 24 m in height with two levels above ground and three levels underground. Being lower than the surrounding buildings, the design called for an eye-catching and powerful visual statement; one which would "add to the rhythm of the city's central axis." Drawing on the symbol for peace, harmony and fortune in the Chinese culture, the architecture references the 'Double fish' in the form of a steel monocoque roof structure. The two buildings curve around the central gardens and are joined by a pedestrian bridge at one end. The monocoque roof canopies are supported by tree-like columns beneath which sit a series of gardens.

Ref: 99278



**'ZUBABOX', COLOMBIA**  
SQUIRE AND PARTNERS

Squire and Partners have launched the first Dell Solar Learning Lab – nicknamed the 'Zubabox'. The Zubabox was formally handed over to local youth foundation Tiempo de Juego, which works to create positive change for young people in Cazuca, near Bogota – a community marginalised by poverty and violence. The project aims to provide a safe and sustainable environment where local children can develop social and digital skills, and a friendly and inclusive community as an alternative to the prevalent culture of gangs and crime. The unit is constructed from a recycled shipping container with solar panels on the roof, and utilises refurbished computers donated from the UK.

Ref: 28735

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**NEW REPLACEMENT HOSPITAL FOR UP HEALTH SYSTEM, MARQUETTE, MICHIGAN, USA**  
**SKANSKA**

Skanska has together with its joint venture partner Closner Construction signed a contract with Duke LifePoint Healthcare to build its new replacement hospital for UP Health System – Marquette in Michigan, USA. The total contract is worth \$206m. Skanska USA Building's share of the contract is worth \$175m. The new 50,000 m<sup>2</sup>, 243-bed replacement facility includes approximately 14,000 m<sup>2</sup> of diagnostic and therapeutic services and 17,000 m<sup>2</sup> of patient care services. Additionally, the project will include an adjoining medical office building and a parking structure. Construction began in May 2016 and is targeted for completion in October 2018.

Ref: 62945



**TOSYALI HOLDING COMPANY HEADQUARTERS, ALGERIA**  
**BAKIRKURE ARCHITECTS**

Iron and steel producer Tosal Holding Company's Headquarters building has a modern architectural identity without losing its harmony with the cultural context of its location. An "alive" identity has been enabled, say the architects, by creating an "inner world" with the help of an inner court, landscaping and water elements inside the building which is situated in a massive industrial site. Instead of clunky and garish materials, the mass integrity of the construction is generated by materials which will emphasise simplicity. The building is planned to be completed in spring 2017.

Ref: 89796



**600 COLLINS STREET, MELBOURNE, AUSTRALIA**  
**ZAHA HADID ARCHITECTS**

600 Collins Street is within an area of the city that is evolving into a new precinct in its own right. With 420 apartments, offices, retail and public spaces, the 54-storey (178 m) design has "evolved from the city's distinct urban fabric" say the architects. A colonnade of sculptural curved columns on the Collins Street facade "embodies the traditions inherent within the finest examples of historic architecture in Melbourne's CBD." Designed to use 50 per cent less energy than a conventional mixed-use tower; this facade contributes to a reduction in the direct solar gain of the building and emissions.

Ref: 64682

## APPOINTMENT

## IBI appointed special adviser to NHS' Healthy New Towns scheme

Canada-based design and technology firm, IBI Group which acquired leading UK specialist healthcare practice Nightingale Associates in 2010, has been appointed as specialist advisor to NHS England for its Healthy New Towns programme.

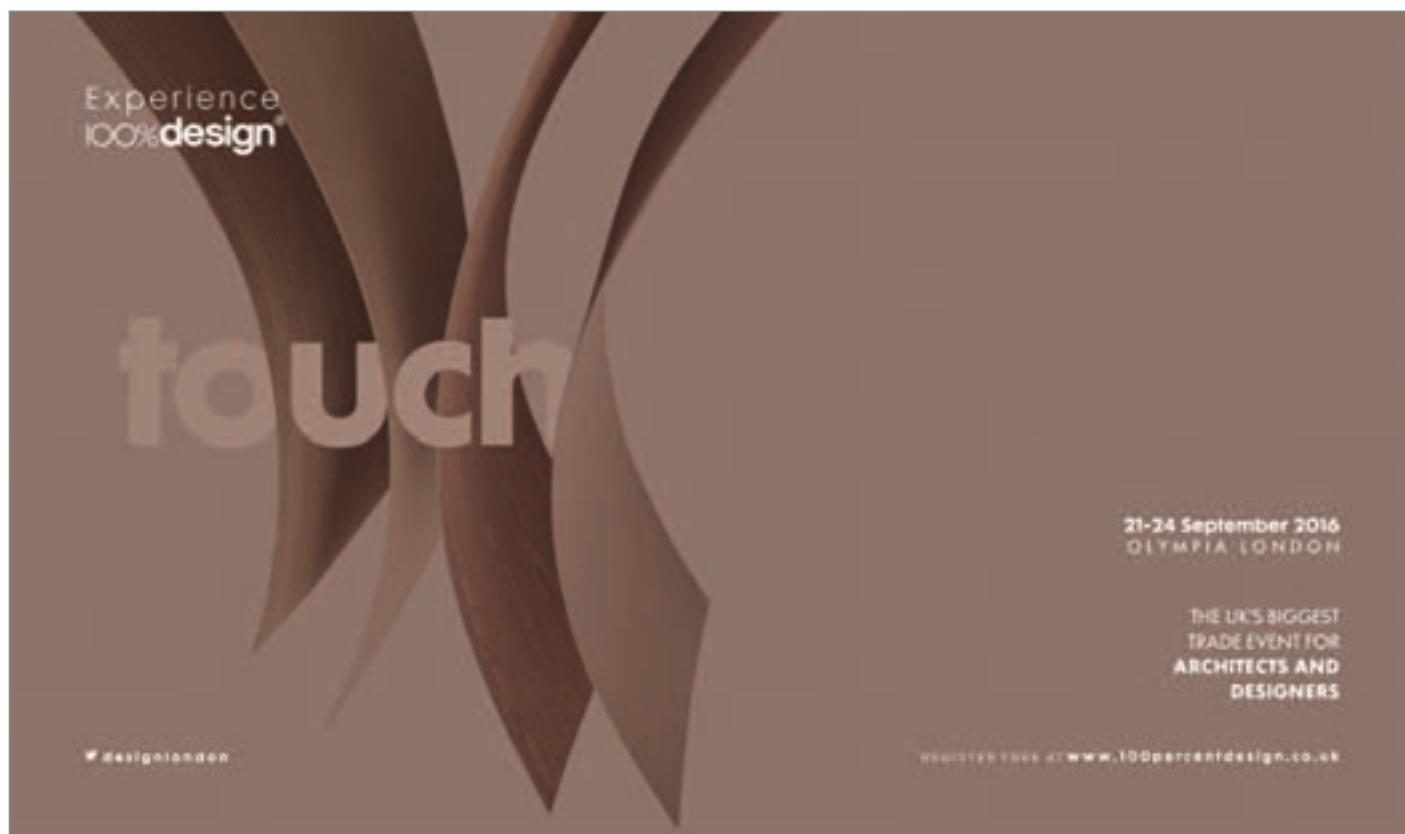
IBI will work with the University of the West of England (UWE)'s World Health Organisation Collaborating Centre as well as sustainability consultant Greengage, and wellness consultant Anni Hood on the project. The aim of the collaboration is to integrate evidence-based design (EBD) approaches into the proposals formulated by the teams selected as NHS Healthy New Towns, ultimately promoting community wellbeing. Launched in March 2016 in response to the NHS' Five Year Forward View, the programme sets out to "rethink how we live, how health and care services can be delivered, and takes an ambitious look at improving health through the built environment."

The NHS has identified 10 demonstrator cities as testbeds, potentially impacting 76,000 homes, over 200,000 people, and the supporting community infrastructure. IBI Group director Mario Bozzo commented: "It is fantastic that NHS England is working towards shaping the future wellbeing of our towns and

cities. We are very excited to be part of this process and share our inter-disciplinary cross-sector knowledge to proactively remediate the health and care challenges of tomorrow."

Expert support and advice provided by IBI Group will include health and public service strategy as well as travel and transport, digital smart cities, behavioural insights, and inclusive design and dementia. Following the launch of the project in July, IBI Group and its partners have commenced engagement with each of the Healthy New Towns to further develop their proposals before the end of the year.

The 10 Healthy New Towns demonstrator sites are Whitehill and Bordon, Hampshire (3,350 new homes), Cranbrook, Devon (8,000 new residential units), Darlington (2,500 residential units across three sites in the Eastern Growth Zone), Barking Riverside (10,800 residential units), Whyndyke Farm, Fylde, Lancashire (1,400 residential units), Halton Lea, Runcorn (800 residential units), Bicester, Oxon (393 houses in the 13,000 home Elmsbrook project), Northstowe, Cambridgeshire (10,000 homes) Ebbsfleet Garden City (up to 15,000 new homes), Barton Park, Oxford (885 residential units).





# cpd focus

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## INTRODUCTION TO THE LRWA



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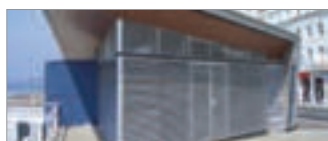
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## BREATHING LIFE INTO CITIES



**Scotscape's** living wall CPD 'Breathing Life into Cities' is now available via webinar. The webinar is led by our living wall expert Niall McEvoy and takes approximately 1 hour with a 15 minute period for Q&A. As specialists in the design, supply, installation and maintenance of Living Wall systems, we are delighted to be able to offer CPDs on this topical subject. The Webinar is presented in real time, making it interactive and easy to exchange and discuss information. Niall McEvoy will be on camera and will take viewers through a visual power point presentation on the design, installation and maintenance of Living Walls. There is a live chat at the bottom of the webinar session which allows you ask any questions you may have, and there is also a microphone Q&A session at the end of the presentation which also allows you to speak with Niall and your group. Attending our webinar is very simple and there is no need to download any software. Scotscape specialises in the design, installation and maintenance of living walls across the UK and Europe. Our long experience in the living wall market allows us to bring considered insight into best practice and straight forward installations to maximise the introduction of vertical greening into the built environment and create more sustainable urban environments. Along-with our proactive CPD programme for architects we also train other committed professional landscapers to use our system via interactive training days and full understanding of the construction of living walls can be shared. To find out more about Scotscape's installations and to register on a training day, please visit the website.

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# cpd focus

INTEGRATED SOLUTIONS FOR WETROOMS WITH TILE AND STONE COVERINGS



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### TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



In two RIBA assessed seminars, **Comar** outlines: **'Stand & Deliver: a Study of curtain Walling'** – the design of curtain walling, it's properties and how it is used by specifiers. This seminar aims to offer an understanding of the points of Hill in the NBS specification system, and how best to make use of it. **'Designing functions & reliability into entrances'** – the issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes.

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www.comar-alu.co.uk  
enq.124

### WETROOM DESIGN AND SPECIFICATION



**CCL Wetrooms** CPD guides Architects through the process of designing and specifying a watertight wetroom. The free, 45 minute technical presentation can be organised at a time to suit the practice and covers the key considerations of designing and specifying a wetroom. This includes wetroom design & layout, waterproofing, drainage, floor build up and installation. A section on how wetrooms can help meet the Lifetime Homes Standard is also covered.

0844 327 6002  
www.ccl-wetrooms.co.uk  
enq.125

### LEARN HOW AND WHY TO SPECIFY FLAT GLASS ROOFLIGHTS



Do you have a requirement for Flat Glass Rooflights on an upcoming project? Maybe you are keen to learn more about the benefits of specifying these products? Either way, **Roofglaze** can help you with extensive experience in the design, manufacture, supply and installation of high-end rooflights and skylights. Their newly-improved CPD seminar, 'Contemporary Rooflight Solutions: A Specifier's Guide to Flat Glass Rooflights', is fully RIBA-approved and available now for presentation at your offices.

01480 474 797  
www.roofglaze.co.uk/cpd  
enq.126

### SOLID SURFACES CPD SEMINAR



**CD (UK) Ltd**, the exclusive UK distributors of Corian® – Seminar structured as follows: Development of Solid Surface from 1960s to present day; Raw materials, adhesives and composition; Solid Surface characteristics and benefits; Manufacture: Sheet, Matrix sheet and shape product; Comparison of characteristics; From production to fabrication process; Properties of Solid Surface; Architectural and Design possibilities; Current applications; Environmental considerations; Support, warranty and service infrastructure.

0113 201 2240  
www.cdukltd.co.uk  
enq.127

## Steven Lees Joins GEZE UK's Sales Team



Supporting customers by giving technical advice and specification guidance will be the focus for a new addition to **GEZE UK's** sales team. Steven Lees, brings with him 18-years' experience, including working with customers at home and abroad. He has joined **GEZE UK** as Specification Manager and is responsible for the specification of

all **GEZE** products delivered in Scotland and the North of England. His role will involve working with architects and specifiers to identify requirements for new buildings and refurbishment projects, generating specification solutions that will meet aesthetic and functional requirements.

01543 443000 www.geze.co.uk

enq.128

## Marshall-Tufflex launches new catalogue



**Marshall-Tufflex's** new Cable Management catalogue is the must-have resource for specifiers and electrical contractors wanting the latest product and technical information at their finger tips. The 328-page catalogue details a raft of new product and system developments, together with in-depth information and images of its established range. The 2016/17

catalogue also includes detailed information on a number of key **Marshall-Tufflex** products, for example MT Supertube, Cable Protection Guard and GRP systems, information about colours and finishes available, advice on accessing the Specialised Solutions service and the Same Day Collection service.

01424 856655 www.marshall-tufflex.com

enq.129

## Panasonic Pro Awards now open for entries!



**Panasonic Heating and Cooling** is delighted to announce that the second **PRO Awards** are now open for entries. Panasonic is inviting entries from installers, specifiers and consultants, for a chance to win a prestigious **PRO Awards 2016 Trophy**. Additionally, successful applicants will gain recognition, PR exposure, plus an invitation to join

a VIP trip to visit **Panasonic's** HQ in Japan. The **Panasonic PRO Awards** celebrates industry excellence in the design, specification, installation and commissioning of **Panasonic** systems. **Panasonic** is looking for projects that demonstrate flair and innovation, efficiency, cost effectiveness, aesthetics and above all; showcase sustainability in design.

enq.130

## New Project Manager takes charge



**Stancold** welcomes James Cowmeadow to their team as Project Manager overseeing their Firewall Projects. James has 9 years' of experience in both Cold storage & Firewall construction involving large scale internal firewall & data centre projects from £500k to £7M in both the UK and Europe. James will be helping **Stancold** develop their existing firewall department by ensuring all projects meet client expectations in terms of budget, programme and quality. Also, he'll be helping to expand the services **Stancold** can offer, particularly in terms of fire protection works which will enable them to provide the complete firewall package. For help with specification and value engineering, contact the team with confidence.

enq.131





## Latham's new product showroom opens

Featuring an extensive selection of **James Latham's** exclusive and semi-exclusive panel and timber products, the company's new product specification showroom is now open at Suite 301 of the Business Design Centre in London.

James Latham's impressive product portfolio includes some of the most recognised decorative panel and timber brands in the world and the new facility is the perfect platform to showcase the sheer breadth of its offering, all under one roof.

The fit-out has been cleverly designed to incorporate a number of James Latham's focus products and as well as a showroom, the space will also be utilised for networking events, presentations, demonstrations, meetings, training and CPD seminars. Why not drop in for a look around.

Visit the company website for updates and events. You can also follow Lathams on Twitter and Facebook.

enq.132

## Signbox delivers in British Academy project



**Signbox** has just completed a major wayfinding and display signage project at Carlton House Terrace in Central London. Signbox's opportunity to pitch came thanks to a personal recommendation made to the British Academy by the nearby Institute

of Directors. Signbox had to ensure it delivered a signage network that could be removed in its entirety when required for filming purposes. This was achieved using simple and stylish polished brass button fixings. The installed signage featured 8mm thick toughened optiwhite glass, supported by polished brass project fixings and graphics printed on a Durst P10-160 to a reverse applied optically clear polyester.

01784 438 688 [www.signbox.co.uk](http://www.signbox.co.uk)

enq.135

## Laidlaw ready for business



**Laidlaw** – one of the country's leading names in architectural ironmongery, balustrades and security systems – is celebrating success, just six months after it was relaunched as an independent business. Chairman Steve Lee said since taking over the business in January, it is now fully re-established and is providing a range of exceptional architectural

ironmongery products through a number of partners. Laidlaw has eight regional centres across the UK, with 130 highly skilled staff who are trained to offer technical expertise for even the most complex architectural ironmongery, balustrades and security system needs across all sectors.

01902 600400 [www.laidlaw.net](http://www.laidlaw.net)

enq.133

## UK prestige projects feature in glossy book



Three prestige UK building projects feature in a glossy coffee table book of dozens of striking building schemes involving **Hunter Douglas** innovations. *New Impressions* contains images of 81 incredible schemes stretching from Abu Dhabi to Sweden and North America to Russia, including three prestige projects in the UK. The first is the bespoke African Ayous wood and Unigrid ceiling at the award-winning Library

of Birmingham. The book also includes The Haven Point leisure complex in South Shields, which uses 21,600 individually prepared terracotta elements. The Pavillion – a residential property in Coldingham Bay, Scotland – demonstrates Hunter Douglas's ability to create smaller, but equally impressive spaces.

01604 766251 [www.hunterdouglas.co.uk](http://www.hunterdouglas.co.uk)

enq.134

## Air quality gold for Kingspan pipe insulation



**Kingspan Industrial Insulation** has once again displayed its commitment to manufacturing excellence as products in its Kingspan Kooltherm FM Pipe Insulation range were awarded a best-in-class Eurofins Indoor Air Comfort Gold certificate. The certification recognises Kingspan Kooltherm FM Pipe Insulation as an outstanding material according to the VOC Indoor Air

Quality emissions regulations, achieving an A+ under the French VOC Regulations, a pass under AgBB, and compliance for both BREEAM and LEEDv4 on European projects including the UK. The programme requires manufacturers to engage in a process of continuous testing and auditing.

01544 388 601 [www.kingspanindustrialinsulation.com](http://www.kingspanindustrialinsulation.com)

enq.136

## Business success means expansion for Reynaers



Aluminium systems company **Reynaers** has outgrown its existing office and warehouse facilities in Birmingham, thanks to significant growth over recent years. The new headquarters is a major investment of £6 million for Reynaers, and proves the ongoing commitment the company has to the UK market. Justin Hunter, managing director at Reynaers, said: "We are all really looking forward to moving to our new premises in Longbridge this winter. We have purchased an existing building which has undergone a complete redesign. Work is well underway on an extension and complete refurbishment and refit of the interiors, providing us with more than double the space we currently have. This will give us a modern, purpose-built facility that can really showcase our aluminium windows, doors and curtain walling products. The building envelope will feature the new Hi-Finity corner solution, Structurally Clamped curtain wall, and parallel opening windows." The new premises will have more than twice as much warehouse space to allow greater stock holding and shorter lead times. To allow for future expansion, more than double the amount of office space will be provided to accommodate more staff. A new canteen, breakout areas, a state-of-the-art gym and other recreational areas will be available, as well as a spacious communal outside space.

0121 421 1999 [www.reynaers.co.uk](http://www.reynaers.co.uk)

enq.137



# Healthcare Estates

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### HOT TOPICS

**'The £22bn challenge; the view from Department of Health'** *David Williams, Director General of Finance, Department of Health* will give the view from the top; of the £22bn challenge, the role of the NHS Estates and Facilities Community, and achieving £1bn in efficiency savings.

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## Krazy for golf with Knauf and Domus



Dozens of Britain's leading architects assembled in July for an evening of Krazy golf and friendly competition in Clerkenwell, organised by **Knauf** and **Domus**. The 120 architects competed for a number of excellent prizes which were up for grabs at the end of the evening. Completing the

six holes in 13 strokes or less placed players into a grand prize raffle for two hospitality tickets to the 2016 British Masters Championship, which takes place in October. Knauf and Domus have enjoyed a long-term relationship together, sharing technical expertise and producing a large range of products which complement each other excellently on all kinds of building projects.

01795 424499 [www.knauf.co.uk](http://www.knauf.co.uk)

enq.138

## GLASSOLUTIONS invests in restructure



The contracting division of **GLASSOLUTIONS**, part of Saint-Gobain UK, has invested £5 million and restructured its operating model to enhance its national UK business with a clear aim to become a market leader. The company, part of the Saint-Gobain group which operates in 67 countries and has over 180,000 employees, has

consolidated all its functions under one business unit, and invested in 20 new team members plus additional new fabrication facilities. The restructure will see **GLASSOLUTIONS'** contracting division move from a regional structure into one centralised national business with local project delivery teams.

0247 654 7400 [www.glassolutions.co.uk](http://www.glassolutions.co.uk)

enq.139

## Bath University rely on LCN door closers



New buildings at Bath University have relied on a large number of LCN door closers distributed in the UK by **Relcross Ltd** and supplied to the contractors by **IRM of Yate**.

150 LCN 1261 door closers were installed to doors giving access to corridors, seminar rooms, study rooms and toilets. In fact anywhere that reliable, effective closers were needed. The LCN 1261 is a versatile and economical cast iron closer with dual mounting capability. It is non-handed for right and left swinging doors and features adjustable hydraulic backcheck to cushion the opening swing prior to 90 degrees.

The durability of the LCN range of closers is based on the forged steel arms and cast iron bodies used. There is no better material for a door closer than cast iron. The manufacturing process may be difficult (which is why just about every other closer manufacturer has turned to aluminium) but the end product lasts for decades. Since internal wear and tear is negligible, even after extreme usage, regular re-adjustment of control valves and spring power is not necessary.

For more information on LCN door closers, visit the website or contact the company directly.

01380 729600 [www.relcross.co.uk](http://www.relcross.co.uk)

enq.140

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enq.141

## Lauren joins The VEKA UK Group



The **VEKA UK Group** is delighted to welcome Lauren Wilcox to the team as Commercial Development Manager, for the North and Midlands. Lauren joins the Commercial Department, from a previous position as Grosvenor Windows' Contracts Manager. "I've worked with The VEKA UK Group for a number of years as a customer and I've always admired the way the company operates" Lauren explains. "I've been in the window and

wider construction industry for ten years and I felt ready to progress with my career, building on this experience. Where better to develop my professional strengths than with the world's biggest and best PVC-U extrusion company?"

01282 716 611 [www.vekauk.com](http://www.vekauk.com)

enq.142

## Portakabin helps demand for school places



The **Portakabin Group** has completed its sixth project for the London Borough of Barking and Dagenham Council (LBBD) – a £5.3 million school building constructed using a Yorkon off-site solution. The Portakabin

Group's design and build contract included a full turn-key service, comprising design, planning, off-site building manufacture, ground works, fitting out, and provision of a multi-use games area, football pitch, and additional play areas. A multi-purpose hall was also constructed as part of the package and links the new building to the first phase. A pre-installed Yorkon concrete floor minimised work on site and is providing enhanced acoustics and a high quality, robust finish for a demanding school environment.

0845 2000 123 [www.yorkon.co.uk](http://www.yorkon.co.uk)

enq.143





# A lesson in large-scale Passivhaus

Over a kilometre of 'earth tubes,' offsite manufacture, and air tests using an aircraft engine were all required to make the UK's largest Passivhaus building a reality. Stephen Cousins reports.

Passivhaus is the fastest-growing energy performance standard in the world, but in the UK its use has been limited to domestic projects or smaller scale non-residential buildings.

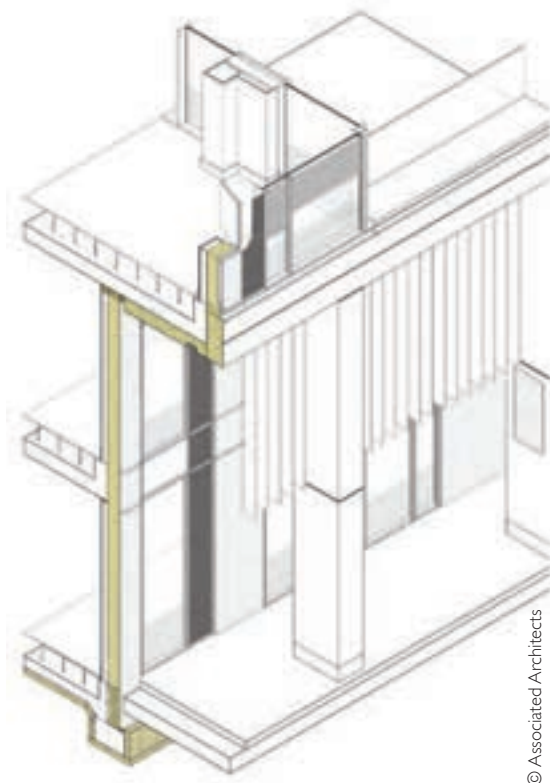
That situation changed in December when the University of Leicester completed the £42m Centre for Medicine. With a gross internal floor area of just under 13,000 m<sup>2</sup>, it is the largest building designed to Passivhaus standard in Britain and around four times larger than the previous record holder, The Enterprise Centre at the University of East Anglia, which was opened in 2015.

The cutting edge facility, located on the main city centre campus, employs a 'fabric first' approach to construction, with high levels of insulation and low levels of air permeability and thermal bridging across the whole building envelope. That

enables a major reduction in heating and cooling loads and should help the centre slash its annual energy bills by 80 per cent.

The stringent requirements of Passivhaus, including ultra low U-values for the building envelope and less than 15 kWh/m<sup>2</sup> of energy for space heating, tested the design and construction team, many of whom were unfamiliar with the technologies and standards involved.

Scaling up Passivhaus principles for a large scale project added further challenges, explains Jonathan Chadwick, senior associate at Associated Architects: "The idea of doing Passivhaus at this scale was a very new thing when we came to the project in 2010, and trying to find contractors, subcontractors, and products that could deliver the chosen aesthetic was difficult."



Use of BIM software was vital to ensure all aspects of the design were coordinated, without clashes



*‘A mock up of one section of the curtain wall was blasted with air and water using an old aircraft engine’*

He added: “The standard essentially added an extra step to the design development process and instead of drawing a detail then sending it to the subcontractors to work up, it had to go through an extra layer of checking for thermal bridging and airtightness and ensuring everyone understood what was required.”

The Centre of Medicine brings together the Schools of Medicine, Health Sciences and Psychology under one roof for the first time, with facilities for more than 2,350 staff and students.

It comprises three towers of three, four and five storeys, linked by an atrium. The ground and first floors are devoted to communal student and public areas, including lecture theatres, teaching spaces, open access study areas and a cafe. The upper storeys house academic offices and research labs.

The centre is characterised externally by its chunky white-rendered colonnade, green wall, and curtain walls with narrow slotted windows and red brick slips. The design draws inspiration from other notable buildings on the campus, including the world-famous Engineering Building, completed in 1963 and designed by Sir James Stirling and James Gowan,

and the brutalist concrete Charles Wilson Building designed by Sir Denys Lasdun.

### Estate of change

The client’s brief called for best in class energy performance from the outset as part of an overarching strategy to reduce carbon emissions on the estate by 60 per cent by 2020.

Chadwick told ADF: “All of their estate was going in the wrong direction, so they wanted to make a mark and an exemplar demonstrating their future environmental ambitions.”

The original aspiration was for a carbon neutral building more reliant on renewable energy sources, but as the brief developed and the project expanded in size without a corresponding hike in budget, a focus on Passivhaus principles was identified by building services consultant Couch Perry Wilkes as a more cost effective option.

By reducing energy requirements, Passivhaus enables potentially smaller and cheaper quantities of renewable technologies to be specified.

Passivhaus standards are technically onerous, air tightness had to be kept down to  $1.0\text{m}^2/(\text{hr.m}^3)$ , no mean feat in a building of such size and complexity. The roof, walls and ground floor slab had to be highly insulated, with U-values of  $0.13\text{ W/m}^2/\text{k}$ .

“With Passivhaus you need to know exactly what you are going to build before going to site because you could rapidly





\*Calculations are based on the size of an IAAF 110m hurdles track with 8 lanes.

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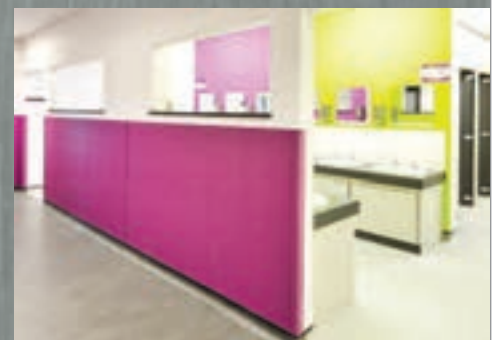
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enq. 145



Air tightness had to be kept down to  $1.0 \text{ m}^2/\text{hrm}^3$  – no mean feat in a building of such size and complexity



*‘You need to know exactly what you are going to build because if you repeat an inaccurate detail you could miss out on Passivhaus certification’*

Jonathan Chadwick

repeat an inaccurate detail that would cause you to miss out on Passivhaus certification,” says Chadwick.

He adds that the use of BIM software was “vital” to ensure that all aspects of the design were coordinated without clashes and achieve a level of accuracy that would have been “very difficult using just 2D drawings.”

The curtain walling for the three towers was prefabricated off-site to increase quality and precision. There are approximately 500 brick slip panels in total, each one is storey height and incorporates windows and a concealed blind.

An £80,000 large scale mock up of one section of the curtain wall, was tested to its limits by blasting it with air and water using an old aircraft engine to identify any issues.

It was considered important to understand how all the elements would integrate, including the electrical and data feeds through the airtight layer, and how insulation would integrate with all the airtight seals.

The walls for the ground and first floors were constructed

using traditional masonry brick and block cavity walls, filled with 300 mm of cavity insulation. This approach was more time-consuming and placed greater reliance on the quality of individual workmanship, using wet plaster and tape to achieve airtightness.

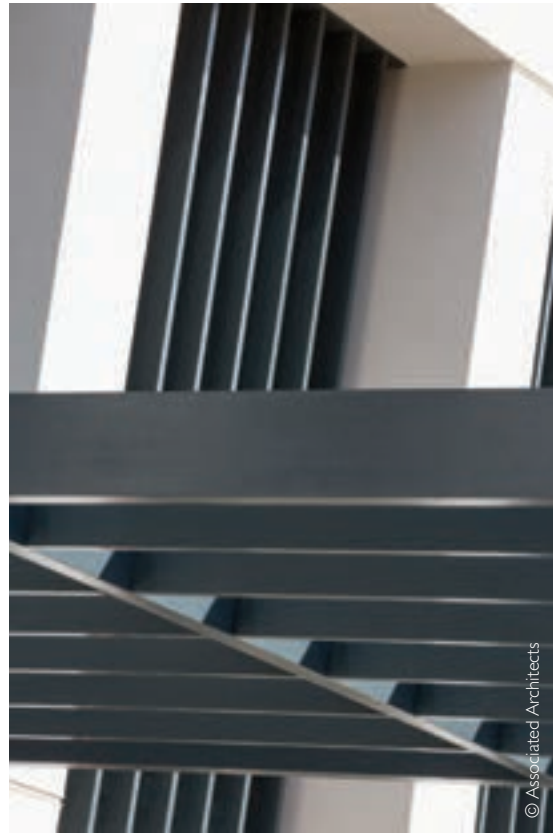
Chadwick adds that getting the details right on site was key: “Main contractor Willmott Dixon, had to keep on top of what everyone was doing on site to ensure the correct detailing, installation and workmanship was up to scratch.”

Sectional air permeability tests of discrete areas of the building were carried out to check progress. An earlier plan to air-test an entire block, or entire wings of the building, was ditched when the team realised the complexity required to coordinate over 200 people on site to temporarily seal up the structure.

### Innovating passive design

The Passivhaus approach requires, counter-intuitively, that a building’s heating requirements are met by ‘actively’ pre-heating fresh incoming air. The Centre of Medicine utilises a state-of-the-art heating, cooling and ventilation system, and 30 per cent of the air entering the building passes through Rehau ‘earth tubes,’ also known as ground air heat exchangers.

The earth tubes pre-cool incoming air, in the summer, and pre-heat it in the winter, to enable a consistent comfortable



The building overturns some preconceptions associated with Passivhaus design, such as having uneven distribution of windows

indoor temperature.

A total of 1.6 km of earth tubes snake through the ground directly beneath the building, at depths of three to six metres, requiring a small feat of civil engineering to coordinate and install them around piles, and other below ground services, such as drainage, cabling and ductwork. The tubes rise up from the ground through non-structural columns in the white colonnade to feed air into the building.

Extra cooling is provided in the ground and first floor spaces, with higher occupancy, using a form of thermally activated building structure. Chilled water is passed through pipework embedded 50 mm into the exposed concrete ceiling soffits to enable cooling across the entire slab and so reduce peak temperature loads. In addition, the exposed concrete frame provides thermal mass to help regulate peaks and troughs in temperature.

The building overturns some preconceptions associated with Passivhaus design. The orthodox drive to orientate windows to face south, with fewer or smaller openings facing north, east and west, to avoid excessive solar gain and energy loss, was rejected in favour of a more evenly distributed openings.

“The client did not want to have one professor with great views and a large window and another with a small window and a dingy outlook,” says Chadwick. “It is easier, on a larger project, to compensate with improved performance

### *‘The design is inspired by other buildings on the campus, such as the world famous Engineering Building’*

elsewhere, for example, via better performing insulation. On a smaller project every individual element can make a more significant impact on the overall end result – it is all to do with the proportion of the change relative to the overall scheme.”

Another commonly held belief, that Passivhaus buildings should not include openable windows, due to the impact on airtightness and thermal efficiency, was rejected. The Centre features 100 per cent fixed glazing, but every office has an openable window vent, located behind an external louvre panel, designed to allow in fresh air in a more controlled fashion.

### **Best in class**

The Centre for Medicine’s Passivhaus assessment was carried out by Plymouth-based energy consultants WARM, who suggested alternative solutions during design, then independently verified the design and carried out regular independent on-site inspections.

Certification helped the project achieve a ‘19’ energy

*'The idea of doing Passivhaus at this scale was a very new thing when we came to the project'*

Jonathan Chadwick

The centre is characterised externally by its chunky white-rendered colonnade, green wall and curtain walls with narrow slotted windows and red brick slips



performance asset rating, placing it in the EPC 'A' category. "On a standard build we would have needed a rooftop photovoltaic array about twice as large as the 150 m<sup>2</sup> array we have on the building to reach the same EPC rating. Passivhaus meant we were starting from a very low energy base point," says Chadwick.

Unusually for a building of its type, the Centre is targeting a Display Energy Certificate 'A' rating, to demonstrate that it performs to the same high level of energy efficiency in operation as it does in design.

"It is not unusual for an EPC 'A'-rated building to perform to an 'F' or 'G' standard in operation. We are trying to make a commitment to say, it was designed to achieve this standard and if it doesn't we need to get to the bottom of why," says Chadwick.

A three-year 'Soft Landings' period will see the main contractor, design team and university stakeholders monitor energy usage in operation and implement measures designed to drive it down.

Indications so far are encouraging. According to Willmott Dixon, predicted energy consumption at the new building is less than a fifth that of the existing school of medicine, located across the road, at 80k Wh/m<sup>2</sup> compared to 550 kWh/m<sup>2</sup>. The project is a lesson in energy performance that is relevant to educational institutions the world over.

## Project Details

**Start on site:** October 2013

**Completion:** January 2016

**Total project cost:** £42m

**Architect:** Associated Architects

**Main contractor:** Willmott Dixon

**Project manager:** Bidwells

**Cost consultant:** Gleeds

**M&E consultant:** Couch Perry Wilkes Partnership

**Structural engineer:** Ramboll

**Civil engineer:** Ramboll

**Landscape designer:** Gillespie

**Acoustician:** Cole Jarman

**Fire engineer:** Ramboll

**Passivhaus certifier:** WARM

**CDM coordinator:** Ridge

**Approved inspector:** Approved Design

**Planning consultant:** RPS

**BREEAM assessor:** HRS

**M&E subcontractor:** NG Bailey

**Green wall:** ANS

**Curtain walling:** Advanced Glass Facades

**Composite cladding:** Skygreen



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## Our Lady & St Josephs Catholic School



**Comar Architectural Aluminium Systems**; with their approved fabricator **Veranti Systems** completed a new build two form entry Catholic Primary School in Poplar, East London. Formed out of a merger of two schools the bright and eye catching design uses brick to match the surrounding area and is wrapped with shards of colour in the form of Brise Soleil.

The overhanging roof ensures extra shading; with the roof line being reminiscent of Poplar's ship building past and the skyline of London's Canary Wharf featuring as the backdrop. Achieving a BREEAM rating of excellent the school has been shortlisted for a 2015 'Construction Award'.

0208 685 9685 [www.comar-alu.co.uk](http://www.comar-alu.co.uk)

enq.146

## Fermacell set to debut at Education Estates



Partitioning systems from **Fermacell** will showcase at this year's Education Estates show. Fermacell will debut its schools offer for new-build and refurbishment projects at this year's Education Estates event (October 18-19, Manchester Central). Its stand (E17) will demonstrate the many ways in which German-

engineered Fermacell partitions are especially ideal for the education environment, being particularly robust and damage resistant. Even if they are damaged, they are exceptionally easy to repair. They specified 153 of Fermacell's 1200mm x 2400mm x 12.5mm boards for their first such project.

0870 609 0306 [www.fermacell.co.uk](http://www.fermacell.co.uk)

enq.148

## Metal Technology rises to the challenge



Sitting on the grounds of Bruntsfield House, a Grade A-listed building, sympathetic design, which respected the past but looked to the future was an essential part of the design of the 1,150-pupil James Gillespie High School in Edinburgh. To achieve that in the design and construction of the series of inspirational buildings, JM Architects specified a suite of systems from leading

architectural aluminium manufacturer, **Metal Technology**. The scheme incorporates System 17 curtain walling in both standard cap and T-shaped cap variants, used in conjunction with THERMAL range Systems 25 Hi+ lift-and-slide sliding doors and 5-35 Hi+ tilt-and-turn windows to create an overall aesthetic.

028 9448 7777 [www.metaltechnology.com](http://www.metaltechnology.com)

enq.150

## Kooltherm installed on Model School



**Kingspan Kooltherm K15 Rainscreen Board** has been used to insulate an ambitious open-plan school in Liverpool, designed to provide engaging architecture on a limited budget. The school's outer shell is clad in a pearlescent metal facade and, to maximise building fabric performance, Sheppard Robson specified over 3000m<sup>2</sup> of Kingspan Kooltherm K15 Rainscreen Board. The premium performance product features a fibre-free core and can achieve thermal conductivities as low as

0.020 W/m.K. It has also been assigned a highest possible Green Guide Summary Rating of A+ by the BRE.

01544 387 384 [www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

enq.152

## Polyflor flooring creates eye-catching design



Flooring from **Polyflor**, was recently used to create a unique, geometric floor design for a new STEM learning centre at Havering College of Further and Higher Education in Hornchurch, Greater London. High performance vinyl flooring from Polyflor's Classic Mystique PUR range was installed by local flooring contractor Neil Handley

in the Havering Innovation in Science, Engineering and Technology Hub. Three complementary grey shades from this homogeneous vinyl flooring collection – Smokestone, Nocturne and Quartz – were selected to produce this striking design which was paired with bright furniture from Rapid Office Systems.

0161 767 1111 [www.polyflor.com](http://www.polyflor.com)

enq.147

## Quantum Matting makes a grand entrance!



**Quantum Flooring Solutions** has developed a brand new Matting solution that's set to totally transform the busy entrances of public buildings and commercial properties. The highly functional and durable range, is perfect for any high footfall locations, providing a

potent barrier to the ingress of any shoe-borne dirt and moisture. With both open or closed high-performance matting options to choose from, Quantum's innovative designs cleverly brush, scrape and absorb wetness and grime from soles and wheels, ensuring surfaces beyond the matted area remain pristine at all times. However, that is only one of the key benefits. It has user safety as its primary aim, offering maximum grip and traction to vastly reduce the risk of slips, trips or falls.

0161 627 4222 [www.quantumprofilesystems.com](http://www.quantumprofilesystems.com)

enq.149

## Knauf AMF makes easy work of sound control



Calthorpe Park is a popular secondary school in Fleet. To accommodate increasing numbers, Hampshire Local Authority commissioned an ambitious building programme to expand the school's capacity. This contemporary development includes a new 14 class-

room block, library, reception area, technology and art rooms, dining area and a multi-use hall. **Knauf AMF** ceiling and wall solutions were chosen to provide outstanding acoustic control and enable the school to reduce its energy consumption. Acoustic Thermatex Alpha wall panels were installed to provide additional sound absorption. Combined with the ceiling baffles, the wall panels provide excellent room to room sound insulation. This results in a quieter learning environment.

020 8892 3216 [www.knaufamf.co.uk](http://www.knaufamf.co.uk)

enq.151

## GLASSOLUTIONS chosen for lendlease



High performance glass and an excellent value engineering approach from **GLASSOLUTIONS** has played a major part in the delivery of the St John Bosco College and Wandsworth Residential Surrey Lane scheme, a sustainable college and Code level four and five housing development in the

London Borough of Wandsworth. Having already established a good working relationship with GLASSOLUTIONS on the Ministry of Justice Framework, Lendlease appointed the UK based glass supplier in competitive tender on the basis of their value for money and technical support in a project which required tight fiscal control and delivering within tight timescales.

0247 654 7400 [www.glassolutions.co.uk](http://www.glassolutions.co.uk)

enq.153

# Mapei provides high performance products for Latymer Upper School

A high performance, comprehensive Mapei surface system has been installed at Latymer Upper School in Hammersmith, London. Jerram Faulkus and Tiletect Group were appointed as main contractor to deliver wall and floor tiling in the new two-story building.

Throughout the extensive project, Mapei systems were specified from the substrate to the finishing materials, in order to provide a warrantable system build-up. The total application included 2,500m<sup>2</sup> of Mapei products from screed binders, render substrates and a range of floor and wall adhesives.

The new two-storey building consists of a six lane competition swimming pool and wet changing facilities on the ground floor. The second floor comprises of a fitness suite with the project including a re-fit of existing sports hall and dry



changing areas. Mapei's high performance flexible rapid-set adhesive Granirapid was specified for the floor tiling, which is best suited for areas with high foot traffic due to its high compressive strength. Mapelastix, a two-component, flexible, cementitious mortar for waterproofing swimming pools was applied throughout.

Approximately 425m<sup>2</sup> of Mapei's Planitop Fast 330 was specified in the pool tank floor and walls



with Keraflex to bond the tiles to the walls to the wet/dry changing area. Mapei's Ultraplan Renovation Screed was applied to level an area of 70m<sup>2</sup> in the spectators seating area.

Visit the Mapei website to view the full product range, or call to speak to a member of the technical team.

0121 508 6970 [www.mapei.co.uk](http://www.mapei.co.uk)

enq.154

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# Preserving the heritage of historic buildings with Roofshield



**T**he incredible value of preserving our heritage is fundamental to the core of our society, in understanding the past, embracing the present, and securing the future for generations to come.

The cornerstone of this heritage is revealed in the very fabric and architecture of many of the buildings that surround our cities, towns, villages and countryside. The process of listing identifies and celebrates buildings, which are of special architectural and historic interest, highlighting them within the planning system, and protecting them for the future benefit of all.

Historic England estimates that there are around 500,000 listed buildings on the National Heritage List for England alone. In England and Wales, listed buildings are classified in three grades: Grade I, Grade II\* and Grade II, whilst in Scotland, with its hugely rich historic landscape, buildings are put into one of three listing categories according to their relative importance, category A, B or C. In Northern Ireland a similar system of grading divides listed buildings into three grades A, B+ and B.

The listing process is not intended to prevent further development, but rather highlight special considerations to be taken into account during the planning process. In addition, local authorities may issue building preservation notices on behalf of unlisted buildings, which have been deemed of special architectural and historic interest.

## Protection of listed and historic buildings: high performance protection for roofs

The A. Proctor Group developed Roofshield 20 years ago in response to problems caused by the requirements of the UK's demand for cold-pitched roof construction, and the drive towards ever increasing thermal performance requirements. Today, trusted by architects, developers and contractors, the Roofshield brand is synonymous with the highest quality, providing a pitched roof underlay, which is both air and vapour permeable.

The majority of vapour and air permeable underlays use an airtight VP film layer to achieve their performance, whilst Roofshield's patented SMS (Spunbond Meltblown Spunbond) structure allows high levels of airflow, in addition to the

transport of moisture vapour, making the formation of condensation in the roof space virtually impossible.

The high performance of Roofshield, backed by two BBA Certificates, means it is a key element in preserving and protecting the fabric of historic and listed buildings. The very low vapour resistance, combined with high air permeability reduces the risk of interstitial condensation, and there is no requirement for a separate vapour control layer.

Roofshield has successfully been used in a wide range of refurbishment programmes resulting in the restoration and preservation of a number of significantly important heritage buildings covering applications such as local authority, education, recreation, housing, and worship including; Belfast City Hall, Derry Guildhall, Hamilton Hall – St. Andrews, Lynn Library Queens University Belfast.

## Case study: Roofshield eliminates condensation at UN World Heritage site

Located on the former site of the Royal Infirmary of Edinburgh in the heart of the city, Quartermile is a mixed-use development comprising Grade A office buildings, retail and leisure space and luxury apartments. Alongside the new build apartment blocks lie the Lofts, two Grade B listed former hospital buildings, which were refurbished and converted into additional apartments.

Originally built in the 19th century, by noted architect Sidney Mitchell, and redesigned by Edinburgh based Comprehensive Design



Architects, the impressive roof structures of these unique buildings required careful consideration of moisture management and condensation control. The scale and complexity of the turreted roofs, along with its historic appearance within a UN World Heritage Site made adding traditional ventilation to the roof highly undesirable, but also required a high performance and robust solution.

The architects specified Roofshield, the air and vapour permeable underlay supplied by the A. Proctor Group. By combining the highest available vapour permeability with an air open structure, which permits greater airflow than conventional ventilation, Roofshield ensures condensation problems are reduced or eliminated in even the most complex roof geometry.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

enq.156





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# Regeneration sets out historic market's stall for the future

Greenwich Market has adapted over the centuries, but has its latest regeneration, realised in the wake of a high-profile failure, future-proofed it? Amy Dron finds out.

First assigned to the commissioners of Greenwich Hospital in 1700, historic Greenwich Market moved to its current location in 1831 and has continued to adapt over past decades. The successful completion of its Barr Gazetas-designed regeneration in April of this year has started the next chapter for this former fruit and vegetable market turned artisan and antiques hub. As well as providing additional retail space, flexible public realm and improved facilities including a new roof offering more daylight, it preserves and revitalises the market's community and heritage.

Having been appointed head of property for this unique Crown Charity's estate department in 2012, Gillie Bexson was inspired with a passionate vision for the site's regeneration as

she ate market food and surveyed the rubbish-compactors and storage areas of Durnford Street.

Bexson had come in after the previous Hopkins Architects scheme for the market was cancelled following objections in the local press – even after it got planning. It involved plonking a 100-room hotel on the site.

This was at the front of her mind, as was Barr Gazetas. The team was already involved with Greenwich Hospital and Bexson commissioned them to begin working on new plans for the market in 2013.

From his airy office just off Regent Street, Barr Gazetas' project architect, David McIlroy diplomatically puts the trashed scheme into its historical context. But despite his gen-



*‘Greenwich Market moved to its current location in 1831 and has continued to adapt over the centuries’*

One of the key metalworks on the project created by sub-contractor McNealy Brown is the stainless steel pavilion in Fry's Court



tle manner and sympathetic approach there is nothing to suggest he approved of it.

“The Hopkins scheme was a project of its time, it was the product of a boom,” McIlroy explains. “We asked, where do we go from here? It’s a World Heritage Site, a conservation area; sensitive culturally, socially and in a community sense.” He describes the overall design approach as: “Starting again from scratch, the place became the client: the market traders, residents, shops and businesses above.”

### Consultation

The extensive period of consultation included numerous local visits by the design team, ensuring people knew this was not the massive change previously proposed. Demonstrating what maintaining the heritage fabric yet revising it for today’s aspirations meant in practice was not easy. A model of the entire island site was made and displayed at two public exhibitions.

A total of three exhibitions were staged, to which councillors, stakeholders, residents and traders were invited. Feedback was then compiled and responded to, informing the



next stages and leading through to the planning process.

“Greenwich Hospital is a significant landowner in the area,” says McIlroy, “able to make masterplanning statements to improve the look of the whole town centre in one scheme. At the same time, the local authority is the Royal Borough of Greenwich so we had to listen to them, keep avenues of communication open and understand where their conservation and planning officers were coming from.”





© Philip Vile

*'The completed scheme was officially opened by Prince Andrew to overwhelmingly positive reactions'*

Fry's Court now offers 4,700 ft<sup>2</sup> of flexible public space

World Heritage has a body overlooking developments within the area so was involved, through planning, with the planners consulting with them. "We went for two pre-applications so there would be no surprises. The main heritage points were the existing steel frame for the market roof, the heritage cobbles and a building known locally as the banana warehouse, formerly used for ripening bananas. There was a lot of emotional connection to those three things."

### A sensitive approach to the site

Phase one began with heritage experts Fairhurst Ward Abbots (FWA) appointed as main contractor. It was essential for the market to remain operational throughout the construction process so the 18-month regeneration occurred in four phases. Initially, all the supporting spaces, the yards, storage space and ancillary buildings, were overhauled and gutted to create space to temporarily relocate half the market. Museum of London Architecture (MOLA) had a watching brief so if anything was discovered they were called in to oversee and investigate. Some interesting glassware and

unexpected basements and remains of houses along Durnford Street were found, but, luckily, there were no major discoveries which would greatly impact on the scheme.

During phase two, the southern half of the existing market roof was stripped back and the cobbles lifted. Maylem, responsible for all the ground works, discovered an old, defunct tidal drainage system that ran down the centre of the market, but this was removed.

Health and safety aspects and escape routes had to be considered alongside continued access to the shops within the perimeter of the market. Strong communication was maintained between the contractors and the permanent onsite market management team, who smoothly facilitated the moves between phases and resolved issues relating to storage on site.

With the roof removed, traders were pleasantly surprised by the level of light that was suddenly pouring in: "There were concerns it would become dark again," reveals McIlroy, "so when the covering was replaced we increased the amount of transparent area and used glass to replace opaque corrugated acrylic dating from after the Second World War."

*‘The permeability of the site as well as how pedestrians pass through the town centre have also been improved, along with the chance to sit and mingle’*

The new glass roofcovering replaces opaque WWII-era acrylic and increases the amount of daylighting



The roof was also raised in order to improve airflow and increase cooling during the summer with McNealy Brown responsible for all the metalworks, including the new stainless steel pavilion destined for Fry's Court.

The cobbles were re-laid in square fields, using old plans for the market as a guide. They were retained as part of the heritage fabric but with new granite paving inserted for wheelchairs and pushchairs. Stalls now sit in rows along the granite with the trip hazard of exposed cables removed as all supplies of power and water were put into the ground in floor boxes.

### Managing an unforeseen crisis

As phase two completed, FWA went into receivership. The experienced Bexson propelled the project through this unanticipated event. "This had never happened to me before, but I just knew that Greenwich Hospital's commitment and duty to its traders, retailers and, ultimately, its beneficiaries meant no delays could be tolerated. As soon as I heard the sad news, I met FWA on the following Monday then the subcontractors on Wednesday to find out their positions. An arrangement was agreed regarding payment as none of the final settlement had been received by the subcontractors."

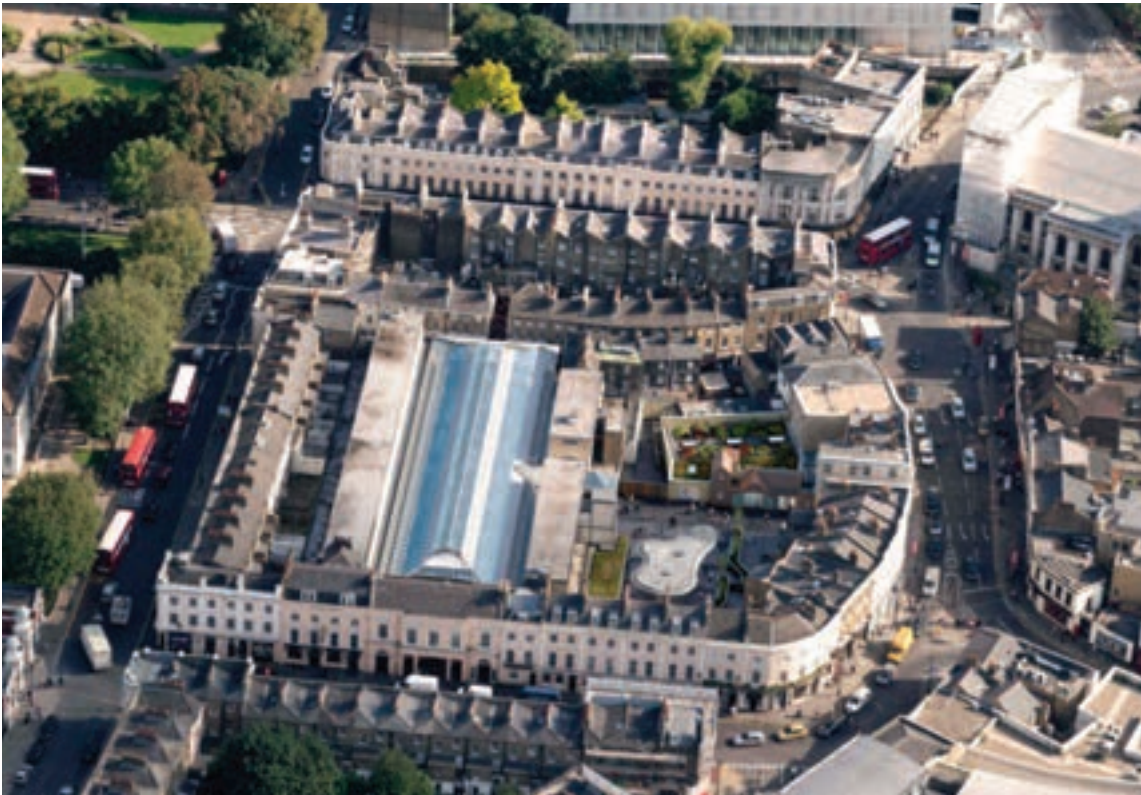
Some of the main subcontractors who had been working for FWA were retained onsite under contract management, now directly employed by Greenwich Hospital. "Cost and project management was taken over by FWA director Dave Brown,



who set up as Red Reef, with FWA contract manager Simon Wheeler and freelance project manager Tom Jordan," recalls McIlroy. Less than two weeks were lost on the programme.

Phase three saw all traders moved from the north to the south, and work begun on the northern half of the market. McIlroy explains: "There is still a lot of high-level power and all of the lighting is contained within an innovative perimeter trunking system which is designed to appear as part of the structure." He continues: "Lighting is time and season controlled for power saving and there is provision for audio visual





The inclusion of planters, soft vegetation and the curved stainless pavilion are all key parts of the regeneration

systems for stage use in two locations within the market, and also out in Fry's Court for events including stage shows."

### Conspicuous regeneration

It was during phase four that the regeneration of Durnford Street and Fry's Court really became obvious. Three new retail units were wrapped around the refurbished banana warehouse creating 2,900 ft<sup>2</sup> of new retail space.

"We knocked around 4,300 ft<sup>2</sup> of storage space within a disused 1960s office block," expands McIlroy, "allowing us to create 4,700 ft<sup>2</sup> of flexible public realm within Fry's Court and accommodate market overspill on the busy weekend period. As planters were built, soft vegetation went in and the curved stainless steel pavilion went up it became clear just how much the market had expanded."

The completed scheme was officially opened by Prince Andrew to overwhelmingly positive reactions. The main market area is neater and tidier with a strong visual link to the mast of the nearby Cutty Sark and listed buildings set around the perimeter. Tenants are extremely pleased with the outcome, particularly the increased roof transparency and CCTV security.

The permeability of the site as well as how pedestrians pass through Greenwich town centre have also been improved, along with the chance to sit and mingle. As the site was continually operational, traders were not lost, new ones

have been attracted and tenant retailers located inside and on the perimeter of the site have seen increased footfall.

"We're really proud to call it a success for Greenwich Hospital in terms of adapting old buildings," sums up Gillie Bexson. "It is important, and a responsibility, to look to the future, and hopefully this will future-proof the market for years to come."

### Project details

**Client:** Greenwich Hospital

**Architect:** Barr Gazetas

**Property manager:** BNP Paribas

**Structural engineer:** Evolve

**Services engineer:** Hoare Lea

**Quantity surveyor:** Quantem

**Planning consultant:** Deloitte Real Estate

**Heritage consultant:** Heritage Collective

**Project manager:** TFT

**Contractors:** McNealy Brown, Maylim, Boon, Henny

**Contract management:** Redreef

**Started onsite:** 1 September 2014

**Royal opening:** 20 April 2016



# Polypipe makes the air flow at London's Tate Modern

**P**olypipe has reinforced its position as the UK's leading manufacturer of plastic sustainable drainage, water management and ventilation products after its products were specified in one of London's most prestigious museums – Tate Modern.

Over 350 metres of Polypipe's Ridgistorm-XL large diameter piping system was specified in 750mm and 950mm diameters for use as an air ventilation system under a new building being added to the south of the existing gallery. The system delivers air to distribution plenums at set locations within the gallery.

Polypipe assisted with structural calculations in order to engineer the pipe to an exact stiffness classification of 1.0kN/m<sup>2</sup>, ensuring that the pipe was neither over, nor under specified.

The project called for the Ridgistorm-XL pipe to be manufactured in varying lengths, from 1.5m to 6m. Polypipe's dedicated in-house fabrications



team also pre-fabricated more than 60 unique bends and fittings, which ranged from five degree to 90 degree bends, to 'T' junctions and specialist 'S'-shaped bends in varying angles.

Polypipe's unique electro-fusion jointing of the Ridgistorm-XL system was also an integral factor in the specification of the site's ventilation system, ensuring regulatory compliance due to its ability to provide greater air tightness and insulation than other forms of jointing.

Emma Nicholls, Marketing Manager at Polypipe comments: "The project was particularly challenging, partly due to the fact that the ventilation system had to be designed to connect to fixed points within the new building, whilst avoiding the structure of the building itself.

"However, our ability to engineer solutions and manufacture the system off-site in our in-house fabrications facility meant that we were able to deliver a system which met the exact needs of the client and contractor." For more information on the new Tate Modern go to their website.

01709 770000 [www.polypipe.com/wms](http://www.polypipe.com/wms)

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## Museum protected by Advanced Systems

The world-famous Natural History Museum in London, and its more than five million annual visitors are being protected by intelligent fire panels from Advanced. At the heart of the active fire protection for the Museum is a network of 24 MxPro 5, intelligent, multiprotocol panels from Advanced, plus remote control terminals, BMS interface and a bespoke PC based graphical user interface. The network was designed, configured and commissioned by Pacific Security Systems, a long-time partner of Advanced. MxPro offers the market more choice and flexibility than any other system. It includes two panel ranges, the EN54 2,4 & 13 approved MxPro 5 and EN54-2&4 approved MxPro 4. It offers four protocols (Apollo, Argus, Hochiki and Nittan) and a completely open installer network, backed up by free training and technical support. MxPro 5 panels are backward compatible with existing MxPro 4 networks and include a host of features including TouchControl touchscreen remote control terminals with Active Maps and AlarmCalm false alarm management.

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# Proven high quality low-carbon ventilation selected for Arboretum

**M**onodraught were selected as a natural ventilation solution for the expansion of the National Memorial Arboretum in Staffordshire.

The National Memorial Arboretum is the UK's year-round centre of Remembrance; a spiritually uplifting place which honours the fallen, recognises service and sacrifice, and fosters pride in our country.

With 30,000 maturing trees and over 300 memorials, it is a beautiful and lasting tribute to those who serve their country, die in conflict or have a special reason for being remembered.

It seems fitting that a site that uses nature as a way to remember the fallen has also chosen a solution for ventilation which harnesses the environment for building ventilation. Monodraught have a long-term track record and have been utilising natural ventilation in their solutions for over 40 years.

The Windcatcher encompasses the benefits of both top-down and passive stack ventilation. The system consists of an external louvre protected internally by Trilayer Weather Protection and is internally divided. The simple but effective design of the system provides fresh air during the daytime as well as night-time cooling.

When coupled with Monodraught's iNVent 2 BMS controls, the system is capable of providing temperature and CO<sub>2</sub> demand controlled ventilation. The system requires little maintenance



which is ideal for the Arboretum as it relies heavily on regular visitor numbers to maintain voluntary donation contributions so needs to remain available to the public as much as possible.

The £15.7m development will be completed by late 2016 and will allow the arboretum to host up to 500,000 visitors a year. The improvements will include a new Remembrance Centre with dedicated education facilities that will enable the Arboretum to expand its engagement from 10,000 schoolchildren a year to 25,000. Improvements will also be made to the reception area, restaurant, cafe and shop.



The natural ventilation system will allow the Arboretum to have a minimal impact on its environment in terms of carbon footprint and by circulating fresh air within the building, it will allow staff and visitors to benefit from fresh air to remain alert and able to enjoy their day at the centre.

To find out which of our solutions are applicable for your building development please look at other projects we have worked on or contact our friendly sales team.

01494 897 700 [www.monodraught.com](http://www.monodraught.com)



## Project details

**National Memorial Arboretum:**  
WINDCATCHER Classic and iNVent2 Control Panel

**Architect:** Glen Howells Architects

**Building Contractor:** Stepnell

**M&E Contractor:** Daly Engineering Services Ltd

**Location:** Alrewas, Staffordshire

**Products installed (2016):**

5 No. Windcatcher® Classic 185 natural ventilation systems c/w 24V Boost fan

3 No. Windcatcher® Classic rectangular 2000 x 1000 natural ventilation systems c/w 24V Boost fan

1 No. Monodraught iNVent2 Control Panel c/w PV Optimiser

enq.162



## Charcon supplies the magic



Charcon, has successfully completed the supply of StoneMaster block and flag paving to Hampton Court Palace's new Magic Garden. The project has been hailed as one of the most ambitious playgrounds at any historic property in Britain. Set within King Henry VIII's former Tiltyard, it is designed as a unique way for families to explore the palace's past. The interactive play garden features

mythical beasts, with battlements to storm, towers to besiege and a secret grotto. StoneMaster offers the inherent beauty of natural stone and is available in three shades of grey, replicating natural granite and Yorkstone. It has a pencil chamfer for enhanced aesthetics and protection against laying damage.

01335 372222 [www.charcon.com](http://www.charcon.com)

enq.163

## VMZINC answers lead theft on war memorial



Traditional VMZINC batten cap roofing has provided the perfect finish for Basingstoke's War Memorial bandstand. At least ten council-owned buildings had been the subject of repeated lead theft over the past five years, with the bandstand having been targeted within a day of restoration. To eradicate further cost of replacement and address

the issue of increased insurance premiums suggested refurbishment options had included single ply, tiles and slates. However, specification of zinc ultimately enabled the structure's design integrity and appearance to be maintained at far lower cost than lead and with no threat of theft.

01992 822288 [www.vmozinc.co.uk](http://www.vmozinc.co.uk)

enq.165

## CMS wins Aberdeen Art Gallery contract



Window, door and curtain walling designer, fabricator and installer, CMS Window Systems has been appointed to work on a £30 million project to redevelop the prestigious Aberdeen Art Gallery. Working for main contractor

McLaughlin & Harvey, CMS is tasked with providing curtain walling as part of the two year project which will transform the city's Art Gallery. The curtain walling features 32mm insulating glass units (IGUs) which incorporate a 6mm SECURIT glass outer skin, a 6mm PLANITHERM low e glass inner pane and a 20mm cavity with warm edge spacer bar, silicon sealed with toggle glazing insert.

01324 841398 [www.cmswindows.com](http://www.cmswindows.com)

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## Institute of Historic Building Conservation

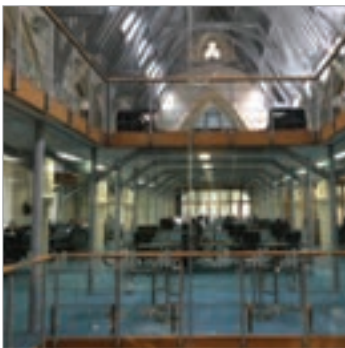


The Institute of Historic Building Conservation (IHBC) is the UK's lead professional body for built and historic environment practitioners working for the conservation, care, regeneration and future of our places. The IHBC supports and regulates standards, promotes effective protection and enhancement, and encourages

heritage-led regeneration and access for all. Membership of the IHBC is widely recognised as a unique mark of conservation competence in historic and built environment conservation practice. Our membership criteria are based on international, national and sector standards and models, from global conservation bodies to the World Bank.

enq.166

## Glorious St Mark's Church



Due to outstanding growth and success, Technology Management have recently moved to new premises, St Mark's Church in Wolverhampton. Luceco was delighted to have been given the opportunity to light the extensive office spaces of Technology Management's new premises: an elegant church with stunning architectural features, now reborn into a modern yet sympathetically remodelled building. Luceco supplied cost effective, energy saving surface mounted LED luminaires to light the tiered office spaces. Edgelit framed LuxPanels are designed to replace traditional fluorescent modular fittings, bringing all the benefits of the LuxPanel range with a simple to install extruded aluminium frame. LuxPanel offers up to 50,000 hours working life with no maintenance or re-lamping requirements which benefits the environment in terms of energy efficiency and lamp disposal. Platinum Downlights were also installed, offering running cost savings of up to 80 per cent when compared with compact fluorescent luminaires. Technology Management have a wealth of experience implementing IT solutions and the technical infrastructure to support them and believe their clients want the "facts, not the froth". One fact worth considering is the huge advantages of LED energy efficient luminaires compared to traditional light sourced fittings.

01952 238100 [www.luceco.uk](http://www.luceco.uk)

enq.167

## Heating systems are pain-free with Sentinel Commercial



Breakdowns, inefficiency, poor performance, and premature parts replacements in heating and hot water systems are just some of the costly and disruptive side effects of poor water treatment. Thankfully, healthcare facilities can prevent these problems easily and cost-effectively with Sentinel Commercial's boiler-manufacturer endorsed water treatment solutions, which are designed to inhibit corrosion and limescale in heating and hot water systems, and can deliver lifetime protection of system components, warranties, and energy efficiency ratings. For effective, low maintenance limescale prevention in hot water systems, Sentinel Commercial's scientifically proven limescale control system, KalGUARD®, is an ideal solution. Using Part L recommended electrolytic technology, KalGUARD is able to treat an entire system without wasting water. Additionally, the system can be linked to a site's BMS for easy monitoring and water usage data. Heating systems can benefit from lifetime protection from corrosion and limescale when treated with Sentinel Commercial's high quality water treatment chemicals in accordance with Sentinel's best practice approach of 'clean, protect, maintain'. The results can include maximum system uptime, longevity, performance and energy efficiency, to name but a few.

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# Healthy engagement: Healthcare Estates 2016 programme revealed

This year's Healthcare Estates event will bring the UK healthcare sector together and enable visitors to discover the latest industry changes, network with peers, hear a myriad of speakers and see leading brands in the healthcare sector.



**H**ealthcare Estates organisers Step Exhibitions have announced the conference programme for this year's event. The event, taking place from 4-5 October at Manchester Central, promises to be "the healthcare sector's largest gathering".

The conference theme, Transforming the Estate Through Collaboration, will target maximising NHS estates and facilities budgets through efficiencies in design, build, management and maintenance.

Three streams will be featured in the event's programme: Strategy, Engineering & Facilities Management, and Design & Construction.

The conference opens with a panel session chaired by Simon Corben of Capita and all pre-registered delegates will have the opportunity to pose a question to the panel via the new event app – available via Google Play or the App Store.

A new session for delegates looking at Governance and Assurance will incorporate sessions on CQC preparedness with Robert Nettleton, Strategic Estates Adviser for the Care Quality Commission and Strategic Operational Estates, followed by a presentation from Jacqui Grimwood of West Suffolk NHS Foundation Trust on the Premises Assurance Model (PAM) – as applied at an acute trust.

## A myriad of speakers, hundreds of exhibitors

Supporting the conference is the Healthcare Estates exhibition, featuring more than 200 exhibitors showcasing the latest products and services, along with nearly 40 free presentations in five theatres on the exhibition floor.

David Williams, director general of finance at the Department of Health will give the 'view from the top' with a presentation entitled 'The View of the Estate and the Contribution of the Estates and Facilities Community'. His presentation will look at the role of the NHS Estates and Facilities community and achieving £1bn in efficiency savings.

Following David's presentation in the Strategy Stream, Julian Amey, Chief Executive of IHEEM will provide an update on the Carter Project after on-going work conducted with HefmA while Cliff Price, director at CPA Solutions, will look at what has changed in estate management in the past 35 years.

In the Design & Construction Stream, David Duthu,

Executive Vice President at WSP and ccrd will be one of five speakers in this important stream for architects in the sector. He will speak about the UCLH Proton Therapy Centre – a new integrated proton beam therapy (PBT) and specialist cancer and surgical treatment facility in London. The NHS currently has to send children and adults needing this therapy abroad to the United States and Switzerland, but from 2018, two centres, The Christie in Manchester and UCLH will offer the first proton treatments on the NHS.

Other speakers in the session include Jane Willis (director at Willis Newson) and Velimira Drummer (Interior Design Group leader at Stantec) looking at Problem-Solving through Art, and The role of Interior Design in Shaping the Emotional State of the User.

## "So much content"

Victoria Emerton, conference director, comments: "We have a great mix of case studies at this year's conference with some fantastic speakers working directly within the NHS innovating and improving the health service.

Emerton added: "With so much content and two days of invaluable networking, the conference offers real value for money for those working hard to improve their trust's performance. With the added benefit of five theatres on the exhibition floor offering free content, the event is a wonderful opportunity to catch up with the latest developments and speak to colleagues in the industry about the solutions available".

## Key exhibitors

Designer and manufacturer of healthcare standard thermostatic controls Horne Engineering is back as an exhibitor after a two-year hiatus. Bouygues UK are exhibiting for the first time, primarily on the back of their involvement with the UCLH Proton Therapy Centre. Global plumbing and indoor climate solutions provider Uponor will offer a broad variety of underfloor heating and cooling solutions, providing maximum comfort for the user, high energy efficiency and best possibilities for taking advantage of environmentally sound renewable energies. Heatrae Sadia are also returning as an exhibitor after a two year break, as are Havelock Europa who design, manufacture and supply robust healthcare furniture to various healthcare environments including

## Speakers include...

**David Kershaw:**  
P21+ programme  
Director – Balfour  
Beatty Construction  
Services UK  
**Cliff Jones:** Head  
of Construction  
Procurement Team,  
Procure 22  
**Pat Pemberton:**  
Senior Health  
Consultant,  
Interserve  
Consulting  
**Rosemary Jenssen:**  
Director Jenssen  
Architecture

## Look out for...



**Aid Call (stand C29)**  
has over 35 years' experience in the design, manufacture and installation of nurse call systems with a proven track record of over 3,000 installations nationwide. The company offers a wide range of products and bespoke solutions designed specifically to meet the needs of care homes, care groups and hospitals.

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dementia care, mental health, dentistry, hospital, medical centre, and laboratory interiors.

### Exhibition theatre programme and zones

The Energy & Efficiency Zone focuses on the ongoing work carried out in the NHS to reduce the carbon footprint of the largest single estate in the UK. A full programme over two days is presented by the Carbon and Energy Fund and BRE.

The mental health and dementia theatre offers a split programme. Day one focuses on the built environment in mental health facilities, with Day two dedicated to designing the environments for those living with dementia. The theme over the two days is 'creating safe and therapeutic environments in healthcare facilities'.

The specification and BIM theatre and zone features case studies, leading specifiers, and innovative exhibitor technologies, and the programme is run in conjunction with Architects for Health and BIM4Health.

The water and infection control theatre and zone features a dedicated programme of accomplished speakers covering specialist topics, such as Rapid Microbiology, Facilities Management, Existing and Emerging Water Pathogens and the Challenges of Infection Control and Engineering.

New for 2016, the hospital engineering theatre will offer a new programme by key NHS trusts on recently completed innovative engineering projects. The area is supported by

IHEEM, EFM2, and NAHFO, and features graphic examples of engineering excellence, case studies and best practice.

Full details of the programme can be found on the event web site at [www.healthcare-estates.com](http://www.healthcare-estates.com)

### More products, more choice

By experiencing the range of products on offer, you can be sure to make the right decision. The Healthcare Estates exhibition provides you with every opportunity to see products demonstrated.

With the whole industry together in one place, Healthcare Estates is also the perfect place to network. Customers and suppliers rub shoulders with their peers, competitors, future suppliers and employers at the exhibition, conference, dinner and awards.

The event is attended by management from the department of health, NHS estates, facilities, sustainability and procurement professionals, managers and buyers for private hospitals, nursing, and care homes. You will also be mixing with visitors and exhibitors from NHS Trusts, Primary care, Ambulance trusts, mental health trusts, care trusts, foundation hospitals, architects, consultants, main contractors, developers, and government bodies and agencies.

Entrance to the exhibition is free and registration is available online at [www.healthcare-estates.com](http://www.healthcare-estates.com). Alternatively, visitors can register on the day.

For more information contact Sarah Worwood on 01892 518877 or email [healthcare@stepex.com](mailto:healthcare@stepex.com)

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uk construction week stand no E2/714

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# Nine shows under one roof

UK Construction Week returns to the NEC in October, hosting more than 24,000 trade visitors and 650 exhibitors to provide the one-stop shop for the industry.



**U**K Construction Week is back, following its successful launch in 2015. Bringing together nine shows under one roof to form what the organisers say is “the most comprehensive industry event seen for decades,” the event will return to the Birmingham NEC from 18-20 October 2016.

In one fell swoop visitors can attend the Timber Expo, the Build Show, Civils Expo, the Surface and Materials Show, Energy 2016, Plant & Machinery Live, HVAC 2016, Smart Buildings 2016 and Grand Designs Live.

With some of the industry’s biggest names already signed up, the show is being billed as a ‘must attend.’ In 2015, UK Construction Week attracted more than 24,000 trade visitors and 650 exhibitors and this year’s show is set to build upon the solid platform of the inaugural event.

The show will provide visitors with the chance to benefit from exclusive deals from leading brands and also gives them an important opportunity to network with fellow professionals, learn more about latest legislation and the future of the construction industry, see the latest innovations first hand and progress their careers through learning new skills. This year the show will be hosted by some of the biggest names in broadcasting and beyond including Victoria Fritz, George Clarke and Steph McGovern. A full seminar schedule can be found at [www.ukconstructionweek.com](http://www.ukconstructionweek.com)

For exhibitors, the event provides a unique opportunity to interact with decision makers and purchasers from across the industry as 70 per cent of the UK’s top housebuilding firms, 60 per cent of the UK’s top architectural firms and all of the UK’s top construction companies attended the show last year. This unique mix of visitors is why so many exhibitors have rebooked from last year’s event and is the key to UK Construction Week’s success as it brings the whole industry together.

## Seminars

UK Construction Week will benefit from the most comprehensive seminar schedule of any UK trade event. The Main

Stage will tackle top-level challenges and opportunities faced by the construction industry, while the individual shows will delve into sector-specific issues.

These sector-specific seminar areas include: the Home Building Theatre and the BIM Prospects Theatre (the Build Show); the Timber Focus Theatre (Timber Expo); the Infrastructure Hub (Civils Expo); the HVAC Hub (HVAC 2016); the Surface & Materials Hub (Surface and Materials Show); the Energy Hub and the REA Seminar Theatre (Energy 2016) and lastly the Smart Buildings Hub (Smart Buildings 2016).

## Who’s exhibiting?

With the show just around the corner, more and more industry leaders are signing up to exhibit for UK Construction Week. Civils Expo will see one of the world’s top civil engineering companies Cemex exhibit. In the UK, Cemex generates around £775m in annual sales and the company has more than 40,000 employees worldwide.

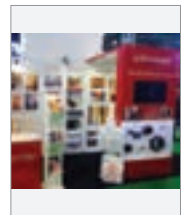
Tideway Tunnels and Instant Upright will also be present this year, and another major international company taking part in UK Construction Week is timber provider Vandecasteele, exhibiting at this year’s Timber Expo. Other companies attending the show include W. Howard Group, Arch Timber Protection and Rothoblaas. Exhibiting at HVAC 2016 will be UK’s leading insulation manufacturer Knauf Insulation as well as Airflow Developments Ltd and Hitachi.

One of the most reputable construction industry names exhibiting this year is JCB, showcasing its products at the Build Show. Joining JCB at the show will be the UK’s largest multi-channel supplier of trade tools Screwfix plus Caterpillar Inc, Festool, Milwaukee and Manthorpe Building Products.

Ranking amongst the top six power companies in the country, Scottish Power will be exhibiting at Energy 2016 alongside British Gas and Pavegen. At Plant & Machinery Live, global provider of construction machinery Case Construction



Look out for...



For this year’s prestigious Timber Expo, the **Envirograf® (stand T3/115)** team is proud to showcase our HW system of paints and coatings, designed to penetrate the timber substrates and allowing them to be used in the open without drywall cover, opening an array of aesthetic choices for the architects and builders alike.

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Equipment will be showing its latest innovations as well as GT Lifting Solutions Ltd.

Filling the roster at Smart Buildings 2016, Finnish acoustics specialist Framery will showcase its products alongside Theben, Savant and Voltimum. This year's Surface & Materials Show sees established brands such as Johnson Tiles and FunderMax returning to the show alongside French newcomers Panaget.

UK Construction Week will host a number of Innovation Hubs. Construction is an innovative industry and there are exciting products and services in the pipeline that will revolutionise how we build. These hubs will showcase the latest products and prototypes, many of them seen for the first time.

### What else is there to do at UK Construction Week 2016?

Following the success of last year's event, UK Construction Week will once again offer much more than just access to hundreds of industry leading exhibitors and associated products and services. As well as several new industry awards celebrating excellence in the sector, the entertainment programme will also see the return of its popular beer and ale festival.

Free to enter for all UK Construction Week visitors and exhibitors, the beer and ale festival will provide a vibrant and fun way to unwind at the show with more than 30 craft ales to try and live music. Entry is completely free as part of visitors' trade registration to UK Construction Week and there will be a selection of gourmet food options from various stalls around the venue.

For those who enjoy a spot of gambling, The Genting International Casino at Resorts World Birmingham will be hosting a dedicated UK Construction Week casino night on the second evening of the show (19 October). Just a five-minute walk from the doors of UK Construction Week and conveniently located to nearby hotels, the night offers a chance for visitors and exhibitors alike to relax, network and perhaps chance their luck in one of the many games on offer.

Visitors to Birmingham NEC from 18-20 October will be able to attend a range of shows, and much more.

### Testimonials for UK Construction Week

**Dr David Hancock, head of construction, Infrastructure and Projects Authority:** "Having participated in the first UKCW and been part of the steering group, it was very apparent to me that this event has the potential to change the image of construction. It can act as a catalyst for all of the construction supply chain, from products and manufacturers to end users, to meet and do business and be a place for us all to tackle the challenges we face head on. This is an incredibly exciting time for construction in this country and UKCW can make sure we all benefit."

**Alan Siggins, managing director at Airflow Developments:** "UK Construction Week has enabled us to reach key specifiers, contractors and installers in the field. Everybody at UKCW was extremely professional and helpful, and we've thoroughly enjoyed meeting so many customers face to face at the event."

**Nicola Bagworth, general manager at JCB Industry:** "We are looking forward to exhibiting at the Build Show and highlighting the unique benefits of our products. The event is an important platform for us to show visitors the benefits for contractors that our innovative products can offer the industry."

**Amit Ravat, managing director of Retrotouch and Lithe Audio:** "Exhibiting at UK Construction Week is a key event in our sales and marketing calendar, being centrally based in the UK and housing several shows in one event enables our company to maximise exposure of our product range at great value in a short space of time."

**Nathan Garnett, event director for UK Construction Week:** "As the largest event dedicated to knowledge sharing, championing good practice and problem solving, UK Construction Week is the environment for the whole industry to look, talk, plan, learn and do business; providing answers for what, when, where and how we build our future. Research proves that the biggest attraction for visitors is the vast number of products and diverse range of services on offer. There is no other construction event that can compete at this level."

*Registering to attend UK Construction Week is quick, easy and free – visit the website:*  
[www.ukconstructionweek.com](http://www.ukconstructionweek.com)



# New industry show returns to Build on its success

Following last year's success, the UK's construction community will reconvene to network, learn and do deals at the second Build Show this October, which forms part of UK Construction Week at the NEC in Birmingham.

**B**uilding on the success of its inaugural event in 2015 which attracted visitors with a combined purchasing power of £36bn, the Build Show will return with many of the industry's biggest names in attendance. The show provides the industry with a space to network, develop and grow – bringing together the right people, in the right place, at the right time. This year's event promises to be the most comprehensive exhibition in decades with hundreds of exhibitors and several unique feature areas.

As well as forging new business opportunities and sourcing new products, the Build Show plays an important role in cultivating debates and solutions to issues holding the industry back. The discussion will be further amplified through the support of leading trade associations such as the Royal Institute of British Architects (RIBA), TRADA, the Builders Merchants Federation (BMF), the Construction Products Association (CPA) and the Chartered Institute of Builders (CIOB) who will all be in attendance.

## What's on at the show?

From SMEs to national housebuilders, the Build Show promises to have something for everyone. Already signed up to exhibit are some of the biggest names in construction, with leading sector organisations entering into exciting new partnerships to further facilitate business as well as learning at the show.

One such partnership can be seen with the announcement of the Builders Merchant Federation (BMF) Pavilion. Designed to offer a specific platform for merchants and suppliers to meet and do business, the BMF Pavilion is not to be missed by those wanting to make the most commercially from the show.

Equally, the National Federation of Roofing Contractors (NFRC) has pledged its support to a dedicated roofing section of the show. James Talman, NFRC chief executive, said: "The exhibition provides our sector with a great platform for our members and ourselves to engage with stakeholders across the whole spectrum of the industry. We look forward to fully contributing with advice and in debates during the week."

As a result of the strong support of the show by leading associations, its comprehensive seminar programme is full of high quality content that will make visiting well worthwhile. The Home Building Theatre will provide the perfect opportunity to get a heads up on the latest developments in the industry and has added importance as the first major event in the industry following the EU referendum.



*Registering to attend the Build Show is quick, easy and free and can be completed by visiting [www.buildshow.co.uk](http://www.buildshow.co.uk)*

## Testimonials for the Build Show

**Stephen Henagulph, business to business manager at Screwfix:** "We were really impressed with the great response our stand received over the three days of last year's show. As a result of that success, we decided we would take a much larger stand and play a far bigger role in the Build Show this year!"

**Jamie Govier, managing director at Easytrim Roofing & Construction Products:** "We've been really impressed with UK Construction Week in general, there was a lot of activity and a real interesting mix of visitors."

**Chris Lynch managing director at APC Solutions:** "As one of the largest and most exciting construction and build events in the UK exhibitions calendar we felt it essential that APC was present and exhibiting in 2016. As a company we feel it will be the perfect event to showcase new products and reach new clients within the sector."

**James Fairclough, UK marketing manager at Cemex:** "The show has given us a great opportunity to showcase our innovative products and the value they can add for customers and end users. We're pleased to have been a part of the first UKCW and feel that it's been a great success."



**Look out for...**



**Kedell Limited (stand B3/603), 2015 Winners** 'Best Recycled Plastic Product' at the National Recycling Awards, will be showing their versatile Plastic Wood, together with cladding, heavy duty fencing, decking and building accessories, such as gallows brackets, finials, porch pediments and outdoor furniture, to satisfy the growing thirst for long life, maintenance-free, low carbon solutions.

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the build show stand no B3/523



## Manufacture speeds up school extension



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with programme benefits of 16 weeks. Working with Module-AR, IKO Polymeric won the SPRA Innovation Award for the project in June this year. IKO Polymeric is exhibiting its range of high-performance waterproofing solutions on Stand B34/306 at this year's Build Show in the roofing pavilion.

01257 488000 [www.ikopolymeric.com](http://www.ikopolymeric.com)

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the build show stand no B4/1005

## Innovative Brett Landscaping leads industry



**Brett Landscaping** has announced its range of high quality commercial hard landscaping products and has now been listed on the National BIM Library, making the company one of the industry's earliest adopters of BIM (Building Information Modelling) technology. These BIM objects can be sourced for free through the National BIM Library, an online

resource of thousands of building products that have been BIM registered – and this library now includes many of Brett Landscaping's most popular commercial products. The information held within the National BIM Library is invaluable to everyone involved in a building project.

0845 60 80 577 [www.brettpaving.co.uk](http://www.brettpaving.co.uk)

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## NFRC Roofing Pavilion coming to UK Construction Week 2016



The **National Federation of Roofing Contractors (NFRC)** in partnership with the Build Show, will be hosting a dedicated roofing pavilion at the show this coming October as part of UK Construction Week.

The NFRC Pavilion will be hosting some of the biggest names in the roofing industry including Fixfast, IKO Polymeric, Kingspan Insulated Panels, Quinn Building Products, Proctor Group Ltd and Topseal Systems Ltd. NFRC will also be involved in a number of panels during the three-day show, discussing the collaborative approach to the construction supply chain to Health, Safety and Wellbeing.

James Talman, NFRC Chief Executive, commented: "We are pleased to support the Build Show and to showcase standards and excellence within our sector. The show provides our sector with a great platform for our members, and ourselves to engage with stakeholders across the whole spectrum of the industry. We look forward to contributing throughout the week with advice and debates."

For all the latest news on the NFRC Pavilion and book your free tickets – head to the UK Construction Week website.

020 7638 7663 [www.nfrc.co.uk](http://www.nfrc.co.uk)

the build show stand no B4/1012

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the build show stand no B4/613

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# Flat roof manufacturer Bauder extends BIM Library

Following the arrival of the UK government's BIM mandate back in April, which requires all centrally procured public sector building projects to be BIM Level 2 compliant, flat roof manufacturer Bauder has extended its BIM offering with the creation of 19 new waterproofing system objects that are available now for free download on its website.

The launch of Bauder's new generic BIM models means its comprehensive library now includes objects for its bituminous, single ply, cold liquid applied, hot melt and green roof system options, which can easily be dropped into 3D models and plans. This allows architects, designers, specifiers and contractors to easily access and share all of the object information needed at the concept and design stage of a project. All of these BIM objects are available in Revit format, which

according to NBS' 2016 National BIM Report is by far the most popular tool used for producing drawings. In order to ensure that your BIM object meets the exact requirements of your building you



will need to register your project with Bauder, who can in turn provide you with all the necessary technical support and resources.

Bauder's Technical Director Nigel Blacklock commented: "A lot of the ideals that BIM is based upon, such as promoting the use of quality, long-lasting materials that deliver life-time value and getting things done properly first time on a project, align with our own principals as a market-leading manufacturer of flat roofing products. As a result, we will continue to invest our time and resources into BIM in order to extend our offering, as we see it as an integral part of the future of the built environment both in the public and private sector."

For more information on BIM and to download your free objects now visit the company website.

01473 257671 [www.bauder.co.uk](http://www.bauder.co.uk)

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## Ancon Teplo reaches new heights



Following recent fire tests at BRE Global, Ancon is pleased to confirm that its innovative basalt-fibre, low thermal conductivity wall ties, Teplo-BF and Teplo-L, offer 120 minute fire resistance, making them suitable for buildings of any height (subject to structural performance), in line with Building Regulations, Approved

Document B. This extended fire testing brings to an end the previous 18 metre building height restriction on these Teplo ties. Teplo-BF and Teplo-L ties are now fully comparable with the fire resistance of stainless steel wall ties which, being non-combustible, are also suitable for buildings of any height.

0144 275 5224 [www.ancon.co.uk](http://www.ancon.co.uk)

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## Seeking JJI-Joists for Passivhaus standards



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choose a specification that meets the specific design requirement to suit the building and location. The JJI-Joist system is designed to make your job easier, whether you are an architect, engineer or builder; choosing JJI-Joists means you are guaranteed total peace of mind. Find out more about JJI-Joists on the James Jones & Sons website.

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## More is more from Simpson Strong-Tie

The 2016/17 edition of Simpson Strong-Tie's flagship catalogue is here. Alongside the UK's largest range of connectors for timber and masonry construction, sit over a dozen new products and several range extensions, including: post bases; I-Joist hangers; angle brackets; structural screws and masonry ties. The catalogue is also brimming with installation advice, performance characteristics and safe working loads. Sales Director, Jon Head explains: "It's been a busy year for Simpson Strong-Tie, with all new ranges for Light Gauge Steel and CLT construction, as well as our significantly expanded nails and screws ranges. We've really pushed the boat out to increase our core range though, which, coupled with our rapid made-to-order service, we really can say that if we don't have it – you don't need it". The latest version 'Connectors for Timber and Masonry Construction' is available from the website.

01827 155600 [www.strongtie.co.uk](http://www.strongtie.co.uk)

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**C**lients and facilities managers required to meet the updated Construction Design and Management Regulations (CDM 2015) when embarking on a roof refurbishment need look no further than Sarnafil Plus, Sika Sarnafil's flagship refurbishment offer.

The Sarnafil Plus service is designed to actively support the client and the principal designer, from survey and specification through to installation and guarantee, helping to ensure the refurbishment is carried out correctly.

The principal designer takes on many of the duties, such as planning, monitoring and coordinating health and safety in the pre-construction phase of a project. The Sarnafil Plus team is made up of technical experts and dedicated surveyors to help the client through this process. Sarnafil Plus includes a detailed initial survey, as well as recommendations on complex design elements, resulting in a bespoke specification that the client can trust.



In addition, the system will be installed by a Sarnafil Plus Contractor, a refurb specialist trained and verified by Sika Sarnafil. These contractors are qualified to install Sika Sarnafil membranes in complete compliance with the most up-to-date health and safety regulations.

The Sarnafil Plus team also lends support to the principal contractor with frequent site visits and advice. A guarantee is awarded at the satisfactory completion of the refurbishment, ensuring that the

client is protected against unlikely problems with the roofing system.

Martin Bidewell, technical services manager for Single Ply Roofing at Sika, said, "At Sika we want to support clients in meeting these regulations. More than ever, clients need to trust in the expertise of the team they hire to carry out refurbishment work, so they don't get caught out. With Sarnafil Plus we offer an unrivalled roof refurbishment service that gives the client peace of mind and reassurance at every stage."

To top it off, Sarnafil Plus includes a thorough final inspection, carried out by Sika's nationwide team of highly experienced Field Technicians. Upon satisfactory evaluation using a 34 point checklist, the project is awarded a Sarnafil Plus guarantee that provides extensive cover for both the Sarnafil system and installation.

0800 112 3863 [www.sarnafilplus.co.uk](http://www.sarnafilplus.co.uk)

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*'Every building or structure needs waterproofing – which in the long term is the most cost effective way to maintain its value'*

Papworth Hospital used a dual system – SikaProof and Watertight Concrete

## The benefits of a layered approach

The right choice of waterproofing for below ground structures can help avoid the financial implications of water ingress. Alex Burman of Sika looks at the options for architects and specifiers.

**W**ith the primary cause of building failure being water ingress, the importance of developing a robust waterproofing strategy is vital to the longevity of any building.

Faced with the consequences of failure from business disruption to operational delays, loss of rent to disputes costs, the best defence is to get the specification right first time with an appropriate and robust waterproofing solution. But are specifiers best advised to take a single system approach or is an integrated, dual system the way to reduce risk and ensure a dry internal environment?

When designing a below ground waterproofing specification, it is important to first understand the terms of internal use and external effects on the structure. External effects vary from one structure to the next, from the type of soil to water table level and the type of water table. With this information, it is crucial that the below ground structure is fit for the future and prepared for water – whether it's present or not.

The recommendations given in BS 8102:2009 provide the

specifier with an outline of the three different waterproofing methods and include Type A – external or internal “tanking” typically using a membrane or cementitious render system; Type B – integral protection using an appropriate concrete mix design and admixtures providing a watertight barrier; and Type C – an internal drainage membrane (or water management) that collects and disposes of water that enters the structure.

The complexity of so many construction projects, or when the assessed risks are high, has led to specifiers adopting a more integrated approach, one where different solutions are combined and used to their strengths, to create a highly robust waterproofing strategy.

### The right combination

The British Standard suggests consideration be given to the use of dual systems in projects where the assessed risks or the consequences of failure are too high. This approach to, say, a multi-million pound inner city development could see the



The Riverside retail scheme in Chelmsford benefits from a dual system from Sika

application of tanking and watertight concrete to provide an impenetrable structure.

The most widely used waterproofing system in the UK and many other countries are external waterproofing membranes. Often they perform a dual purpose – waterproofing as well as offering an additional protection measure (APM) for the concrete where aggressive ground conditions prevail.

In the case of projects which combine both refurbishment and new build, different systems could be specified for different applications – for example, render systems for retro installation as part of the refurbishment and watertight concrete and/or membranes for the new build element.

Membrane strength, durability and performance are key considerations in the specification process of waterproofing in heavy civil engineering applications or aggressive ground conditions. For example, a flexible Polyofin (FPO) membrane can reasonably be expected to have a service life of more than 75 years, whereas a bitumen membrane of a similar thickness is expected to last approximately 25 years in service. Flexible materials such as PVC-P and FPO have superior crack bridging ability and stress crack resistance, when compared to HDPE.

### Integral waterproofing

Offering buildability, repairability and reduced cost, integral waterproofing systems have gained in popularity. When relying on the concrete to provide a watertight barrier, the

detailing of joints and penetrations, as well as achieving a “crack free” concrete are important. Design and execution should also consider a limited crack width, correct mix design, an effective curing regime and pour sequencing in order to avoid shrinkage or cracking.

It's important for specifiers to be aware that an integral waterproofing system is not suitable for an application such as a podium deck, where thermal movement and shrinkage may lead to cracking beyond the normally accepted levels. Additional measures are necessary where, for example, Radon is an issue. Even ‘crack free’ concrete will contain micro-cracks which are a potential path for Radon and Methane to enter the building.

The Sika Watertight Concrete System is an example of a guaranteed system which complies with Type B construction, using advanced admixtures added to the concrete to prevent water penetration. Carefully selected waterstops for construction and movement joints complete the system, producing a waterproof structure.

### Water management system

Where it isn't possible to keep water out completely, water management is an effective solution. Cavity drainage membranes work on the principle of allowing water to continue to penetrate the structure, and then managing the water and diverting it into a suitable drainage point.

These Type C systems effectively allow water ingress, so the potential effect on the durability of the structure must be considered. Ongoing maintenance costs for sumps and pumps must also be taken into account, as well as any effect these extra design details have on the building's design and useable space.

These systems are well suited to refurbishment projects but perhaps should be used as a backup in combination with a tanking or integral system for new build projects.

### Go with the flow

To ensure buildings remain impenetrable to water, whilst meeting the building standards of today and the future, a measured and evaluative approach to the product selection needs to be taken.

The NHBC, along with other insurers, has also upped the ante having raised standards of waterproofing most notably in terms of habitable below ground accommodation, insisting that a combined approach to waterproofing should be used for Grade 3 environments.

Careful consideration must be given to the selection of the product, or products, as a single solution may not be right for the project. With below ground waterproofing, it is certainly not a case of ‘one size fits all’. In the light of this, an all-round solutions provider has the ability to consider the entire waterproofing process to benefit clients.

*Alex Burman is product manager at Sika Waterproofing*

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As well as the increased strength, the Topseal HD system can come with a coated aggregate or anti-slip finish. The anti-slip finish is ideal for foot traffic applications, as it provides a much safer surface to walk on. If you are expecting a high level of use don't worry, as the system is designed to be durable and long lasting.

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# Triton extends liquid applied waterproofing range

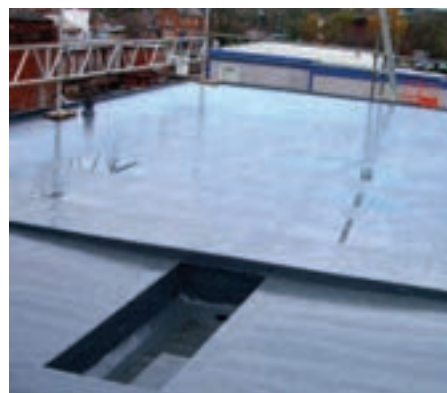
**T**riton has extended its range of liquid applied waterproofing products to offer a wider choice of systems primarily for the reliable waterproofing of roofs and podium decks. Each of the three new systems provides Type A barrier protection waterproofing as defined in BS 8102 (2009). They are quick and easy to apply, very fast curing and suitable for application in cooler temperatures – therefore extending the season for application and reducing the downtime of areas treated.

TWS-Poly H produces a totally seamless waterproof surface on prepared concrete and can be applied by squeegee, brush, trowel or roller. The 2-component polyurea formulation is ideal for waterproofing pitched or flat roofs, decks and balconies and other areas where a degree of flexibility is required. The trafficable, cured surface also makes it suitable for waterproofing concrete

floors in car parks etc. TWS-Poly H can also be applied to internal and external walls.

TWS-Poly S is another fast curing, 2-component polyurea formulation but designed for application by a twin nozzle, heated spray unit. Offering excellent bonding strength and crack bridging capability, TWS-Poly S can be combined with geotextiles to obtain on-site applied, seamless liners or coatings in tunnels or canals or used to waterproof pitched or flat roofs. The cured surface allows for building movement and is trafficable and highly resistant to abrasion.

Single component TWS Fastcoat cures as an elastic and seamless layer that offers excellent weather resistance and can withstand permanent water contact. A key feature is its ability to deliver a combination of root barrier and waterproofing layer, therefore reducing the number of layers required in green roof construction. Applied by

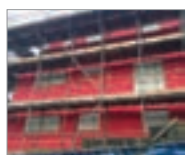


brush, spreader or airless equipment, its cured surface can be lightly trafficked making it suitable for low pitch or flat roofs and balconies.

Liquid applied waterproofing systems can deal with complex shapes and contours where joints or folds in other waterproofing materials might cause a weakness. Technical support on the specification and installation of all Triton's waterproofing systems is available from Triton's technical team. Installation guidelines and data sheets are also available for download on the website.

01322 318830 [www.tritonsystems.co.uk](http://www.tritonsystems.co.uk) enq.194

## Wraptite-SA conquers airtightness at 1066

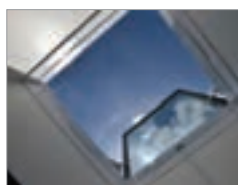


Wraptite-SA airtight membrane from **A. Proctor Group** has been specified to achieve a highly efficient building fabric as part of a concept to create a terrace of Zero Carbon homes in a site close to the historic Hastings Castle. The design has transformed a derelict site into a modern development combining high quality

with highly efficient homes, during the year, which coincides with the 950th anniversary of the famous 1066 battle. The homes are built from pre-fabricated heavy weight timber frame panels self-adhering vapour permeable air barrier being applied on site. The use of Wraptite-SA makes a significant contribution to a building's thermal performance by preventing lateral air movement.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com) enq.195

## Em-Glaze creates a light learning environment



In educational environments, natural light improves mood and concentration as well as increasing general wellbeing. **Whitesales'** Em-Glaze modular rooflights significantly increase light ingress, have outstanding thermal and sound insulation and will compliment any building with their minimalistic and sleek design. Allowing for up to 78 per cent light transmission, Whitesales

have cleverly designed these flat, sealed double-glazed glass units to incorporate a fully welded aluminium frame and an argon filled cavity to create thermal insulation values of up to 1.24W/m<sup>2</sup>K. For further details and case studies within the education sector visit the company website. enq.196

## Ten years with Halo and a new website



Patios South West Ltd is celebrating ten years of working with Halo, an industry-leading PVC-U profile brand of national market leaders, **The VEKA UK Group**. The family-run company started in 2003 to produce, on average, 120 patio door systems per week, from a 4,500 sq. ft. factory in Paignton, Devon. It will relocate into an 8,000

sq. ft. factory at the end of July, to meet growing demand. Patios South West is now looking to bolster its reputation for impeccable customer service with a brand new website, complete with an online quote facility – ideal for installers wishing to 'price up' jobs for their homeowner customers.

01282 716611 [www.veka.com](http://www.veka.com) enq.197

## Senior puts in a pitch perfect performance



A winning team of products from **Senior Architectural Systems**, have been installed by Anders Glass as part of the ambitious redevelopment of the training ground at Fleetwood Town Football Club in Lancashire. A key requirement was compliance with the building's sustainable design and low U-value

targets. Senior's PURE® window system, which features the use of an innovative thermal barrier manufactured from expanded polyurethane foam (PUR), provided the ideal solution for use in the main academy building and changing rooms. The thermal efficiency of the PURE® window system has been further enhanced through the use of Guardian SN70/37 solar control glass which was supplied by Senior's dedicated glazing division Senior Glass Systems. enq.198



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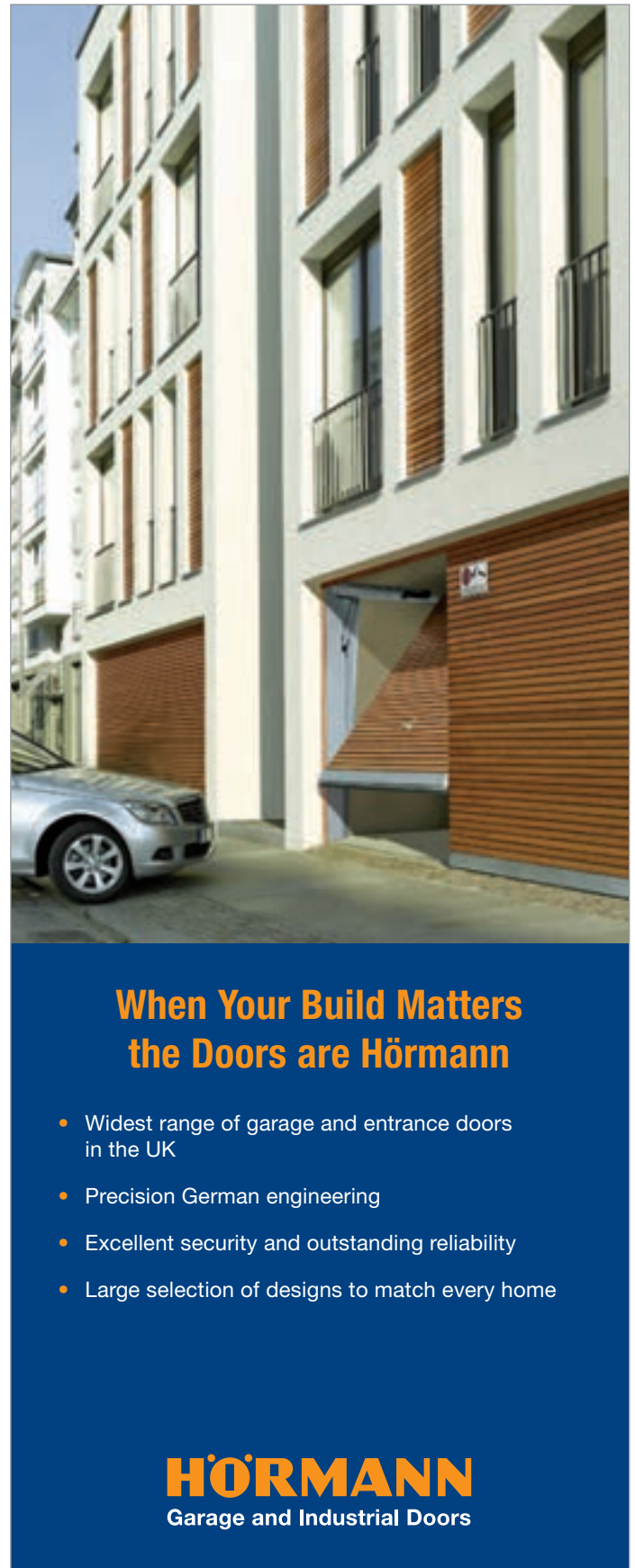
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## Perfect Prescription for Hospital



GEZE UK has provided the perfect prescription for a stunning world class hospital in Glasgow. The Queen Elizabeth University Hospital received the GEZE 'treatment' as part of a £842 million development which incorporated its automatic swing doors and sliding doors into its ultra-modern design. A total of 17 automatic doors, which included Slimdrive SL NT sliding operators and Slimdrive EMD-F and TSA 160 NT swing doors, were installed into the new state-of-the-art complex

which incorporates the Royal Hospital for Children (RHC), a teaching and learning centre and a number of specialist clinics.

01543 443000 [www.geze.co.uk](http://www.geze.co.uk)

enq.201

## Levolux gets the all clear in Cardiff



The new £44 million Cardiff University Brain Research Imaging Centre (CUBRIC) building at Cardiff University's Innovation Campus, which is equipped with an attractive Timber Fin Screening Solution from Levolux, is specially designed to facilitate brain research. Levolux's Contour and High Performance Ventilation Louvres were

utilised to provide an attractive, yet highly weather-resistant facade. Extruded aluminium louvres feature an effective 'S' shaped profile. This delivers the optimum performance, both in terms of airflow, resistance to wind and rain and their aesthetic quality. Levolux supplied and installed a single bank of Acoustic Louvres at roof level in two areas around plant and equipment.

enq.202

## Scandinavian timber windows feature in RIBA award winning design for Hill Partnerships



The Avenue development at Saffron Walden, has just won a RIBA National Award in 2016. Designed for developers Hill, Pollard Thomas Edwards Architects have managed to extract the maximum from the location lush with mature lime trees, dating back to 1879 when a Quaker Friends School was established on the site. The team set out to retain as many of the trees as possible and in doing so they have created a striking avenue at the heart of the scheme which now forms a well-used public route through the development. Nice touch that the choice of Norwegian Designed timber windows from NorDan complements timber shingle cladding to some of the external walls. The scheme responds sensitively to its mature landscaped context, within a Conservation Area and adjacent to a listed water tower. The heart of the scheme is a retained avenue of mature lime trees, The Avenue. The homes here are arranged around courtyards behind a new garden wall, or are set back beyond grassed and planted verges. The new landscaping includes relocated native hedgerows, planted fruit trees from existing rootstock on the site, and retention of most of the mature trees. NorDan supplied top swing aluminium clad timber windows from their N'Tech 1.2 range. With a grey or white fully finished factory painted frames.

01452 883131 [www.nordan.co.uk](http://www.nordan.co.uk)

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# Fixscreen Mono AK: wind tight with extra thermal and acoustic comfort

A lot of energy can be saved by maximizing the use of daylight in buildings. That is why we can observe an increase in the glass surface of modern buildings. However, increased glass areas combined with tighter airtightness leads to higher inner temperatures along with the issues of glare and possible disturbing light reflections.

The most efficient sun protection system stops the sunrays before they pass through the glass and enter the house and therefore minimizes overheating. Wind-tight screens, aluminium blades, sliding panels... these are just a few solutions that can prevent a building from overheating. In fact, the sun protection screens mentioned can be used in almost every single configuration, thanks to a broad range of installation methods.

With the Fixscreen Mono AK, Renson offers



an aesthetical and comfortable solution which combines windproof sun protection and insect resistance. It allows an easy and smooth overframe installation for window depths between 50 and

215mm. Thanks to the patented Connect&Go®- and Click&Safe®-technology, an easy (dis)mounting of the screen tube can be guaranteed. The box as well as the screen itself meet the needs of a high stability and consistency. On the one hand official tests (according to the STS52.0-norm) guarantee a minimal distortion of the box at high windloads at the window, and on the other hand the Fixscreen®-technology provides a tight and windproof screen up to 130km/h. Then there is the Smooth technology, which provides the zipper guides of a patented wear-resistant layer and makes the screen go up and down smoothly and silently.

As these external roller blinds stop the sun's rays from contacting the glass without a loss of natural light entering the building, they also still allow the occupants to see outside.

01622 754123 [www.rensonuk.net](http://www.rensonuk.net)

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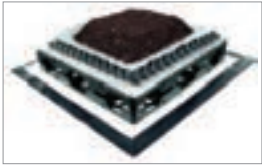
Hambleside Danelaw have been manufacturing rooflight solutions in the UK for 40 years. We are market leaders in developing environmentally conscious solutions to improve building energy performance and reduce the carbon footprint through the efficient and effective use of natural daylight.

[www.hambleside-danelaw.co.uk](http://www.hambleside-danelaw.co.uk)





## New ZinCo Stormwater Management Roof



Due to changing weather conditions (i.e. more extreme local rain events) there is an increasing demand for stormwater retention. This is where the new ZinCo Stormwater Management Roof comes into play. This green roof build-up can effectively reduce the risk of flooding as the retention capacity of this roof

build-up is increased by a multiple compared to a standard green roof. The build-up includes one or more layers of special grid spacers able to temporarily retain a great amount of rainwater. The water is released to the public sewerage system only after a predefined time. For more information, visit the website or contact the company directly.

enq.209

## Balconies and balustrade bridge styles



neaco has created a bespoke balconies and balustrade specification for a new purpose-built UK headquarters in Leeds designed by Bowman Riley for leading healthcare IT business, TPP (The Phoenix Partnership). neaco supplied railed balconies to the front, terrace balustrade to the rear and internal balustrade to stairwells and the main

reception area's double-height atrium. The balconies and external balustrade feature traditional-style railed infill combined with a contemporary twist in the form of tapered flat-bar stanchions with laser-cut holes.

enq.210

## Icopal supports BREEAM excellent project



Icopal's technically advanced, green biodiverse roofing and living walls have been installed to support the BREEAM Excellent rating and create a pleasant outdoor space for occupants at 20 Bentnick Street, a premium mixed use development in a conservation area in the heart

of London. Icopal's innovative range of high performance green roofing systems offered flexibility of design with guaranteed quality and long-term durability. Installed to the first and fourth floor roof deck areas, the Icopal green roof system comprises a series of components including Icopal's Sureplan FPO single ply roofing membrane bonded on Thermazone insulation.

0161 865 4444 [www.icopal.co.uk](http://www.icopal.co.uk)

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## 20 years of Kitemark certification



The VEKA UK Group is continuing a series of notable anniversaries in 2016 as it celebrates 20 years of its products bearing the BSI Kitemark™; one of the UK's most widely recognised and respected symbols of safety and quality. The Group, which also marks 30 years of UK manufacturing in 2016, is consistently at the forefront of PVC-U

system development. In 2005, for example, VEKA profile was used to fabricate the UK's first BRFC 'A'-rated window. And in 2007 the company opened a dedicated UK recycling plant, processing the old PVC-U frames that ultimately go into VEKA's pioneering Infinity profile.

01282 716611 [www.vekauk.com](http://www.vekauk.com)

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# Presenting a sophisticated front

With more sophisticated facade solutions come even greater expectations. Paul Hughes from FunderMax explains how the market is continuing to innovate to meet clients' increasingly esoteric demands.

**I**n today's construction market, competition is no longer simply about the best price. There has been a clear upsurge in the demand for more expressive and creative materials, as well as complete cladding solutions which save time and expedite builds.

It's a growing trend we noted last year, particularly with respect to individual decor panels and the demand for bold designs and large format re-created photography. Now we're seeing requests for more industrial, raw, textured finishes and surfaces which emulate concrete and stone. The market wants something different and over the past year, the UK's facade producers have responded.

## Look and feel

The yearning for something different has also extended to 'the feel' of facades too. Texture now carries equal importance; no

longer is it solely about 'the look', and the industry is stepping up to the plate here and helping to enable impressive, 'standout' architectural design. Natural, unrefined panels inspired by the urban landscape are being elevated to another level with a powerful and diverse colour palette.

It's an exciting time for the industry as facade manufacturers continue to raise the bar and develop more creative, striking cladding solutions.

## More versatility and choice

Something else we've noticed is strong demand for 'integrated' cladding products, systems that expedite the entire build process. As a result the industry has responded with products which are essentially 'two in one' framing and cladding solutions. The introduction of such innovative new fixing systems makes installation effortless and speedy.



*“Achieving creativity need not be done at the expense of sustainability or cost effectiveness, which are equally vital”*

Modern, robust, easy to mount and available with wooden or aluminium substructures – there is now more versatility and choice than ever before. It’s a really exciting time, as there seems to be a concerted effort to innovate while keeping that cost effective edge.

The future trend for the housing sector specifically will continue to be led by prefabricated solutions with the industry continuing to push the boundaries.

### Finding a balance

Creativity does not need to be at the expense of sustainability or cost effectiveness, which are considered equally vital. It’s merely that the focus has shifted, and things seem to be much more in balance.

For example, rainscreen is, on the whole, an attractive option from a pricing perspective, but now it’s also just as attractive visually. It is a versatile, sustainable and impactful solution, and there are seemingly less and less limits when it comes to the potential of today’s rainscreen cladding.

*Paul Hughes is director of sales, UK at Fundermax*

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# Overcoming the challenges of sourcing reclaimed bricks

The problems associated with reclaimed bricks are endemic and the theft of reclaimed bricks from building sites as well as properties damaged purely to steal bricks has been widely reported, with “London stock” yellow bricks being a favourite among brick thieves due to their high value and scarcity.

## Quality, consistency and hidden costs

As the first defence against the elements, bricks need to be able to stand up to the harshest conditions and quality is often an issue with reclaimed bricks. No testing of reclaimed bricks will have been carried out which means no guarantees can be offered to their durability.

Reclaimed bricks of a particular size or colour blend are often limited in supply, with high wastage which is not always apparent until the bricks are on site. This means the cost of a reclaimed brick is typically 20 per cent higher than



Cambridge Buff bricks by Imperial Bricks provided the perfect alternative to reclaims for this Victorian villa extension in an Oxford conservation area. Architect: BLA Architects

its initial purchase price due to the additional wastage incurred and inconsistency in supplies.

## Imperial bricks in modern construction

While being a key requirement for renovation or extension work, imperial-sized bricks are increasingly specified for new build projects, especially within conservation areas or where the client or

developer requires a traditional finish with a characterful appearance.

## Sustainable solutions

As one the UK's leading suppliers of traditional handmade bricks, Imperial Bricks offers the ideal alternative to reclaims, with bricks manufactured to traditional imperial sizes and developed to suit specific areas of the UK for colour, size and texture.

The range of new, high quality bricks are fully frost-resistant and most are available with a reclamation finish to mirror the aesthetics of genuine reclaims, making them perfect for the restoration or extension of period properties, as well as new builds. In addition, brick match experts can offer advice and guidance on any project, with the capacity to offer bespoke weathering and blending to suit.

01952 750816 [www.imperialbricks.co.uk](http://www.imperialbricks.co.uk)

enq.218

## LSC Group facade solutions



LSC Group provides customers across the UK with a unique and seamless combination of certainty, confidence and control when sourcing complete facade solutions for construction projects across all sectors.

A propensity for the innovation and delivery of new ideas has been part of the company's blood since it began when it was one of the first companies to identify opportunities for rainscreen cladding finishes in the UK market.

Ever since, by bringing on board highly skilled personnel, industry-leading expertise and an ever-developing understanding of diverse material capabilities, LSC Group has steadily grown to become a leading figure in the UK facade industry.

enq.219

## Origin launches residential door



Origin has unveiled its latest product launch – the Origin Residential Door – where security and aesthetics are innovatively combined. Available in the UK to trade from 1 September, or consumers from 1 October, the Origin Residential Door can either be used as a front or garage door for an integrated front of house look. Manufactured

with a high-grade aluminium, there are 35 panel choices on offer, available in over 150 different RAL shades; the Residential Door has been designed with heightened security and thermal efficiency in mind, with no compromise on kerb-appeal. The Origin Residential Door will of course be supported by the usual great service that installers have come to know and expect from the company.

0808 168 5816 [www.origin-global.com](http://www.origin-global.com)

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enq.221

## Sun Control system enhances development



A cafe built as part of a canalside residential development in East London has been fitted with a bespoke **Hunter Douglas** motorised Sun Control system. The international leader in architectural building products was commissioned by Jestico + Whiles to provide a 147m<sup>2</sup> Sun Control System.

Set in a 40mm x 60mm frame and constructed using extruded aluminium profiles, the individual shutters are connected to each other to create either V or W folding elements. The advanced motorised mechanism allows the shutters to fold completely flat when they are closed. The shutter was also supplied with an infill of laser-cut aluminium sheet, providing the necessary stability and strength.

01604 766251 [www.hunterdouglas.co.uk](http://www.hunterdouglas.co.uk)

enq.222

## The purist approach



The **Rooflight Company** claims that specifying a roof window is a one-time decision for the envelope of a building. When working on heritage or listed buildings, the original Conservation Rooflight® has the most authentic design. The Nicholas Dean Practice specified twenty bespoke Conservation Rooflights® for Week Farm in Devon in sizes measuring up to one meter wide by four metres in

length. For more information on Conservation Rooflights®, contact the company directly or visit the website. #GOLARGEdiscreetly

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## Royal Military Academy given luxury finish



The former Royal Military Academy overlooking Woolwich Common finds a new place in history with its stunning restoration, featuring **Kingspan OPTIM-R Flooring System**. The Grade II\* listed building is being lovingly renovated by Durkan to create prestigious, high specification houses and

apartments. Durkan commented: "We chose the Kingspan OPTIM-R Flooring System to allow us to make the most of the available space. The original beam and block flooring limited our ability to dig down. Installing the Kingspan OPTIM-R Flooring System in a 30mm thickness allowed us to maintain existing threshold levels whilst also achieving excellent thermal performance."

01544 387 384 [www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

enq.223

## New system offers the perfect partnership



The **A. Proctor Group**, has developed a system, which provides architects, developers and contractors with exceptional levels of performance in cavity wall solutions. The key drivers in both regulation, and targets on energy efficiency in buildings, have brought the design of airtight buildings to the

forefront of the agenda. The use of Wraptite tape installed in conjunction with insulation boards offers the perfect partnership in cavity wall systems, and stops unnecessary air leakage. Wraptite Tape is not only an effective airtight barrier, but its high vapour permeability allows any water vapour to escape the wall construction efficiently thereby avoiding any interstitial condensation problems.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

enq.225

## Colourful facade brings glamour to the screen



This year marks the 120th anniversary of the Lumière brothers' first moving picture screening in the UK. In its design for the new Cineworld multiplex in Whiteley, Corstorphine + Wright Architects has articulated these emotions with a technicolour facade utilising **ROCKPANEL**® products. The front and rear elevations are

primarily clad with ROCKPANEL Rockclad in Dark and Light Bronze, Fawn and Grey White and were supplied by Taylor Maxwell. Inset ROCKPANEL Chameleon were intermixed within the facades and the iridescent boards were also installed on the eastern end of the cinema which faces the town.

01656 863210 [www.rockpanel.com](http://www.rockpanel.com)

enq.227

## New Panel Bonding System is BBA Certified



**Dow Corning**® PanelFix is a complete system of fixation for elastic bonding of ventilated facade panels. Comprising Dow Corning® 896 PanelFix Silicone Adhesive, Dow Corning® PanelFix Tape and Dow Corning Primers and Cleaners, it is currently the only

silicone-based adhesive system assessed and awarded technical approval by the British Board of Agrément for bonding rainscreen cladding panels both in factory and on-site. Applicators will appreciate its time saving features including easy surface preparation and extrusion of the adhesive, fast handling, excellent compression resistance and instant green strength. This newly certified system also provides interesting advantages by expanding building cladding possibilities.

+32 64 888 000 [www.dowcorning.com](http://www.dowcorning.com)

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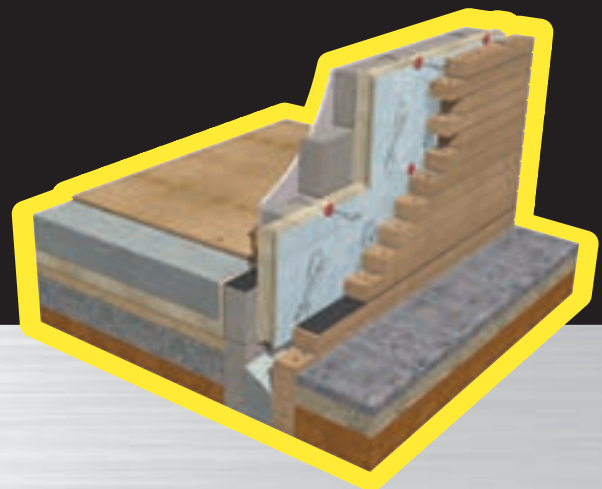
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## New acoustic solution to direct bonding



A new acoustic system launched by **Sto** provides a reliable and highly absorbent solution for applications where the acoustic treatment must be applied directly onto walls and ceilings. The new StoSilent Direct system joins the other acoustic solutions in the Sto range, which are the product of over 25 years of research. The

new StoSilent Direct system can be used to create both seamless and visible joint acoustic surfaces. It features sandwich construction panels made of stone wool and expanded glass granulate. These need no supporting sub-construction and can be bonded directly to a wide range of substrates.

0141 892 8000 [www.sto.co.uk](http://www.sto.co.uk)

enq.231

## Lower lambda products hit the market



**Kingspan Insulation** has revolutionised rigid insulation technology with the launch of four new low lambda products for floor, wall and soffit applications; delivering premium thermal performance with a minimal construction thickness. Products in the Kingspan Kooltherm lower lambda range have a thermal conductivity of just 0.018 W/m.K across all available board thicknesses, the lowest for any rigid phenolic insulation

board. The expanded range now includes Kingspan Kooltherm K103 Floorboard, K110 and K110 PLUS Soffit Board, and K118 Insulated Plasterboard; along with K106 and K108 Cavity Wall Board launched earlier this year.

01544 387 384 [www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

enq.233

## Making a Passivhaus a home



A stylish Passivhaus home in South Manchester has achieved exceptional levels of airtightness through a combination of careful detailing and a high performance structure, provided by the **Kingspan TEK Building System**. Steve and Mel Howarth hired certified Passivhaus designers, PHI Architects, to create their dream home. After considerable research,

PHI selected the Kingspan TEK Building System to form the walls and roof of the structure. The firm worked closely with highly experienced Kingspan TEK Delivery Partners, Point1 Building Systems, to achieve an extraordinarily energy efficient design.

01544 387384 [www.kingspantek.co.uk](http://www.kingspantek.co.uk)

enq.232

## New NICEIC ventilation training course



**Johnson & Starley** is the first UK manufacturer to offer a new NICEIC Certification Training and Assessment Course for installers of ventilation systems. The course assesses installers against set criteria which have been formed from the relevant National Occupational Standards (NOS) and

approved by SummitSkills – the Sector Skills Council for the building services engineering sector. The qualification lasts for five years. Running for two days, the course looks at the different methods used to ventilate domestic buildings. A series of presentations define what ventilation is, the terminology involved and an exploration of the different types of ventilation system.

01604 762 881 [www.johnsonandstarley.co.uk](http://www.johnsonandstarley.co.uk)

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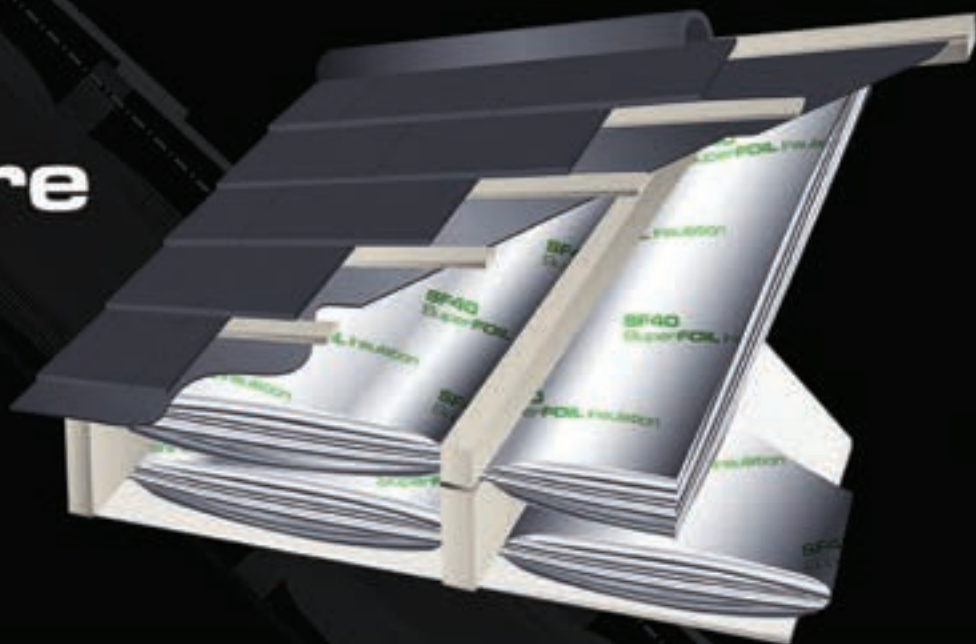
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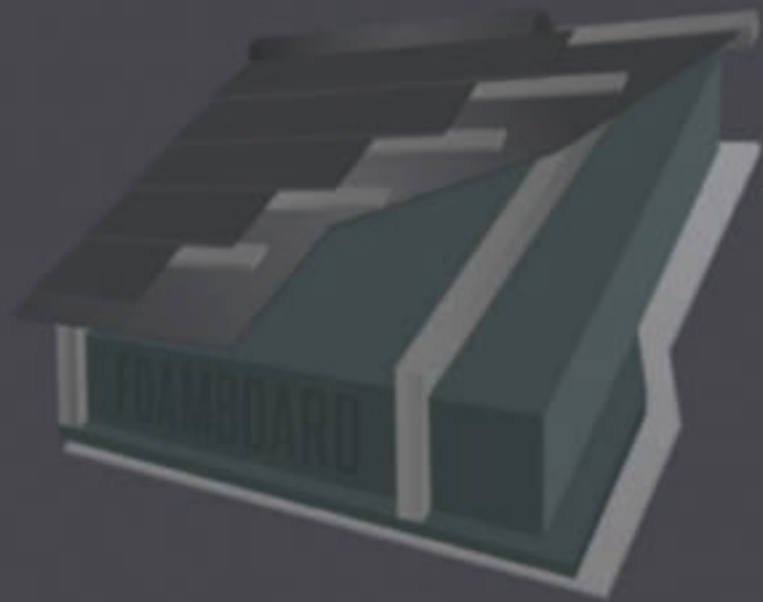


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## Take control of your indoor environment



AET Flexible Space systems offer fully functional indoor environmental control; with integrated controllers for all units and full connectivity with house BMS using the latest flexvisor monitoring software. Recent product developments include the FlexTouch remote controller and soon to be available FlexApp offering additional user friendly methods of adjusting the fan-tile integrated controllers remotely.

AET Flexible Space equipment features simple yet sophisticated controls for users and facilities managers offering superior operational management of indoor environments compared with traditional air conditioning systems.

01342 310400 [www.flexiblespace.com](http://www.flexiblespace.com)

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## Raychem HWAT – the safe cost effective tool



Pentair's Raychem HWAT systems are the intelligent and safe way to supply instant hot water at the tap. Its single pipe direct hot water service, incorporating smart self-regulating heating cable technology. It eliminates the need to recirculate and eradicates dead legs. Pipes are traced to the pipe end delivering the

correct temperature hot water at every draw-off point. The inherent safety benefit is obvious; with no dead legs, there are no untraced pipes where water temperatures can drop to near 37°C – legionella's 'ideal temperature'. The combination of Raychem's HWAT-R heating cable with the HWAT-ECO controller offers the benefit of selecting a desired temperature and increasing the temperature over a time for legionella prevention.

enq.239

## World class ComfoAir Q heat recovery unit



Zehnder Group UK is proud to announce that its new ComfoAir Q range of MVHR units – the most efficient heat recovery system on the market – has been awarded Passivhaus certification. This new generation of heat recovery units offers outstanding energy and noise performance as well as smart technology that helps improve the installation process and accuracy on-site.

The range provides up to 96 per cent heat recovery efficiency, making it the most energy-efficient unit on the market and providing the greatest energy savings to homeowners and energy bills. The high-quality filters ensure healthy, dust-free air and protect against excessive humidity.

[www.zehndercomfoairq.co.uk](http://www.zehndercomfoairq.co.uk)

enq.238

## CRX1 wireless controller for RX Heaters



Consort Claudgen's new CRX1 wireless controller features a large easy-to-read backlit LCD display and offers up to six temperature settings a day, seven days a week. It has four different operating modes and features a 15-minutes Boost with temperature control to provide the maximum comfort quickly. The CRX1 works with all Consort RX heaters and can operate different products at

the same time allowing total heating systems to be effectively controlled. This modern design controller is supplied with a security wall bracket and a table top stand. For more details, contact Consort Claudgen directly.

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### Introducing... Ignis Protect

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# A hot favourite for heating sustainable buildings

Rising fuel prices and the need to cut carbon emissions has put greater focus on green building and renewable energy. Schiedel Chimney Systems' Stephen Dodds explains why wood burning stoves are the smart as well as safe way to heat modern eco homes.

**D**evelopments in heating systems, insulation and use of appliances have made a substantial contribution to reducing the UK's carbon dioxide emissions in recent years. Despite this, UK housing stock is still some of the worst in Europe in terms of energy efficiency, accounting for a quarter of our annual carbon emissions – as revealed in the Government's own Housing Energy Fact File.

Failed attempts to improve housing, such as the Green Deal, have called into question the Government's commitment to carbon reduction, but if its target of an 80 per cent reduction in carbon emissions by 2050 is to be met, it's essential that we upgrade the energy efficiency of our homes.

## Eco-conscious construction

The recent push for housing schemes and funding towards affordable homes has contributed to the increase for timber framed homes over the last few years, which bring about obvious cost saving, construction and sustainability benefits.

Green building is a wise choice for architects with customers who wish to future proof against rising energy costs and fuel poverty. New schemes designed to encourage self-builds are emerging, such as the Government's Right to Build, will hopefully see an increase in eco homes and passive houses being constructed for years to come.

## Low impact living

Responsibly sourced timber can provide both an environmentally friendly building material and a renewable heat source. The popularity of timber frame building has now spread to commercial builds as well as being a mainstream method for private housing companies and self-builders.

Wood is considered a renewable fuel as carbon dioxide is absorbed as the wood grows and later released during the burning process. Some carbon emissions are produced during the production and transport phases, but wood is still one of the most climate-friendly fuels we have.

It's not just biomass boilers that can offer renewable heat. New generations of wood burning stoves deliver hot water and central heating and are highly effective at spreading warmth through the well-insulated, open plan spaces commonly found



in new builds. More than a million UK homes are already heating their homes with wood fuel according to the Stove Industry Alliance, which estimates that based on current sales of 175,000 wood burning stoves per year continuing, they could offer an annual 10 per cent reduction in UK carbon emissions – over two million tonnes.

## Satisfying Part L and safety needs

New builds must comply with Part L of the Building Regulations, which focuses on energy efficiency, including lowering carbon emissions. Modern stove models generally achieve upwards of 80 per cent efficiency – some even top 90 per cent. The carbon savings made by using wood heating can help compliance with Document L, as well as satisfying Standard Assessment Procedure (SAP) calculations – the method used by Government to assess and compare the energy and environmental performance of a dwelling.

Sustainable homes undoubtedly present additional challenges when installing a wood burning stove. New builds



**'Green building is a wise choice for those who wish to future proof against rising energy costs and fuel poverty'**

are becoming increasingly well insulated, for example, so any chimney products used should be designed to meet the 'blower door test' so as not to compromise the building's airtightness. But, with the development of new products specifically made for this type of building, there is no reason why wood heating shouldn't be a safe and efficient heating method.

There is a risk of chimney fire in any building using a wood burning stove, so in light of this, lining chimneys properly is highly advisable. Single wall flue penetrations through a timber frame are a particular concern, so special care must be taken. Schiedel's Ignis Protect, for example, can be used to pass through both interior and exterior timber-frame walls up to the temperature class T600.

In order to ensure maximum safety, a standard gap of 40 mm must be kept between the outer surface of the chimney and the structural timbers, with flexible timber frame ties used to attach the chimney to the wall. Stove installation should always be carried out by a HETAS-qualified engineer who will be trained to spot all the potential safety issues with a specific type of building and give advice on what type of chimney and stove is suitable.

#### Bottom line

Wood is good for our buildings and how they are heated. As more of us strive for more natural and environmentally friendly ways to live, wood burning stoves will continue to

grow in popularity, with the new breed of flues, chimneys and pass through systems, designed specifically to facilitate this relationship.

*Stephen Dodds is key account manager for Schiedel Chimney Systems*



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## Introducing SFL Flues & Chimneys



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enq.247

## Now we're cooking on gas!



ESSE's iconic Ironheart has now been unveiled as a gas model, for additional control and convenience. The wood-burning Ironheart is firm favourite at river Cottage and combines the finest features of ESSE's stoves and range cookers. It can be used to cook a full roast dinner in the oven or simply to boil the kettle. Users can prove dough around the Ironheart's warm edges before baking fresh, crusty loaves. However it's used, the ESSE Ironheart has plenty of cooking and heating potential. The wood-burning Ironheart retails from £3910 and is also available with a domestic hot water boiler. The gas model has all the style and substance of the woodburner, with the additional benefit of instant control. It retails from £4133.

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**ESSE 500 Vista** - timeless style, modern performance.

This fuel-efficient model, with wide, clear view of the flames, is also available as a gas version - with or without a flue.

ESSE's 500 Vista is available with a log store; keeping dry, seasoned logs close at hand.

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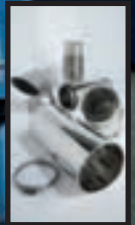
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## Sustainable solutions for commercial washrooms



Controlling water consumption in commercial environments is essential, especially in washroom facilities facing intensive use. Specifying Tempomatic four electronic taps can contribute to water and energy savings and, since they are easy to install and maintain, they also contribute to hygiene in public washrooms. DELABIE's Tempomatic four activates when users are detected and shuts off when they depart, avoiding unnecessary waste. An integral flow rate regulator set at three lpm ensures a constant flow rate that automatically adjust to pressure variations, maintaining user comfort. Using infrared active pulse technology, the Tempomatic four consumes less energy. An intermittent infrared beam reduces power consumption, while a sensor on the spout ensures effective detection. Depending on usage levels, the Lithium battery operates for ~350,000 cycles (three – six years). The electronic unit and battery are integrated in the body of the tap and are accessible without isolating the water supply. No electrical connection is required, only hydraulic, making them easy to install and ideal for refurbishment projects. Tempomatic 4 features an automatic duty flush for 60 seconds every 24 hours, preventing stagnation and reducing the risk of Legionella. Also, the transfer of germs is minimised since there is no manual contact before, during or after washing.

01491 824449 [www.delabie.co.uk](http://www.delabie.co.uk)

enq.251

## Pressalit Care aligns with new ISO Standard



Pressalit Care has announced the company's alignment with the recently issued worldwide disability standard ISO 17966. The new standard addresses requirements and test methods for assistive personal hygiene products that support users with disabilities.

Pressalit Care also participated in development of the standard as a member of the Assistive Products Technical Committee. Pressalit Care is one of Europe's leading manufacturers of flexible bathroom and kitchen solutions for installation in hospitals, nursing homes, rehab facilities and private homes. Among the Pressalit Care products covered by ISO 17966 are shower seats, changing tables, raised toilet seats and handrails/grab bars.

0844 8806950 [www.pressalit.com](http://www.pressalit.com)

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## Pre-fabricated solutions from Taplanes



Leading shower cubicle and bathroom pod manufacturer, Taplanes Ltd, provide pre-fabricated solutions to a variety of end users throughout the UK. With a strong client base including Universities, Schools, Housing Associations and Hotels, Taplanes pre-formed shower enclosures overcome the inherent problems associated with conventional bathroom areas. The pre-fabricated structure provides many advantages over traditional building methods delivering significant long-term benefits. Durability and speed of installation, together

with a guaranteed 'leak proof' construction ensures Taplanes are the preferred choice within the accommodation sector.

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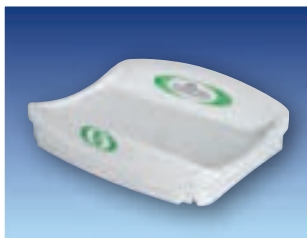
- ✓ New, contoured contemporary design
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**MH42** Horizontal Baby Changing Unit



**MV64** Vertical Baby Changing Unit



**MT80** Countertop Baby Changing Unit



**MC75** Stainless Steel Baby Changing Unit

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**MH42** Horizontal  
Baby Changing Unit



## ...with the arrival of the **MT80** Countertop Baby Changing Unit

- ✓ Durable, solid moulding
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- ✓ Hygienic finish with easy maintenance
- ✓ Extra deep barriers eliminate any need for straps reducing maintenance and inspection costs
- ✓ Easy-fit system for fast installation



**MT80** Countertop  
Baby Changing Unit



reader  
enquiry  
**255**



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## Door closers maintain Kipling's spirit



Samuel Heath's Powermatic controlled, concealed door closers have been used by the Rocco Forte group to retain the high-end aesthetics of rooms and suites at Brown's Hotel, one of London's most elegant boutique residences. A total of 75 rooms have been fitted with the door closers. Amongst them is an impressive new suite named in honour of Rudyard Kipling, who is believed to have written *The Jungle Book* whilst staying there. Retaining the aesthetics and ambience of the new suite, and other rooms throughout Brown's Hotel, is vital to assuring the comfort and enjoyment of guests. David Rozmetov, the hotel's chief engineer, states, "We did not want to use surface-mounted door closers because they would spoil the appearance of our exquisite interiors. We also needed something that would be easy to install, reliable and require minimal maintenance. Powermatic was selected as the best option after considering a number of alternatives." Powermatic concealed door closers have long been admired by designers and managers of hotels for the fact that they are invisible when the door is closed. In addition to impressive fire and accessibility credentials and maintenance-free service, enhanced aesthetics play a large part in the door closers' appeal.

0121 766 4200 [www.concealeddoorclosers.com](http://www.concealeddoorclosers.com)

enq.256

## EQuality Showering from Horne



Horne Engineering's commercial shower range includes pre-plumbed shower panels specialised for healthcare, elderly, extra and dementia care as well as for disability access and Changing Places facilities. A high performance, healthcare rated, thermostatic shower valve is included and robust fittings are specifically designed for improved contrast/visibility and for easy operation of the riser mechanism and lever controls – even for users with limited hand mobility. For some users, the riser rail can double as a supportive grab-bar. A bimodal option, available with lever or ligature resistant controls, adds versatility; catering for users with varying assistance or supervision needs. A wall-mounted riser rail can also be specified to mount adjacent to the shower panel. A pipe cover, as shown in the image, is available as an accessory to hide the water supply pipes between the shower panel and the ceiling. This not only looks more aesthetically pleasing, but also removes the potential burn or ligature risk presented by exposed supply pipework. Horne pre-plumbed surface mounted shower panels are quick and easy to install and straight-forward to maintain, ensuring a cost-effective, extended lifetime solution. For more information, visit the website or contact Horne Engineering directly.

01505 321455 [www.horne.co.uk](http://www.horne.co.uk)

enq.257

# DX 30 3-D

## A new three-way adjustable concealed hinge

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Door closed



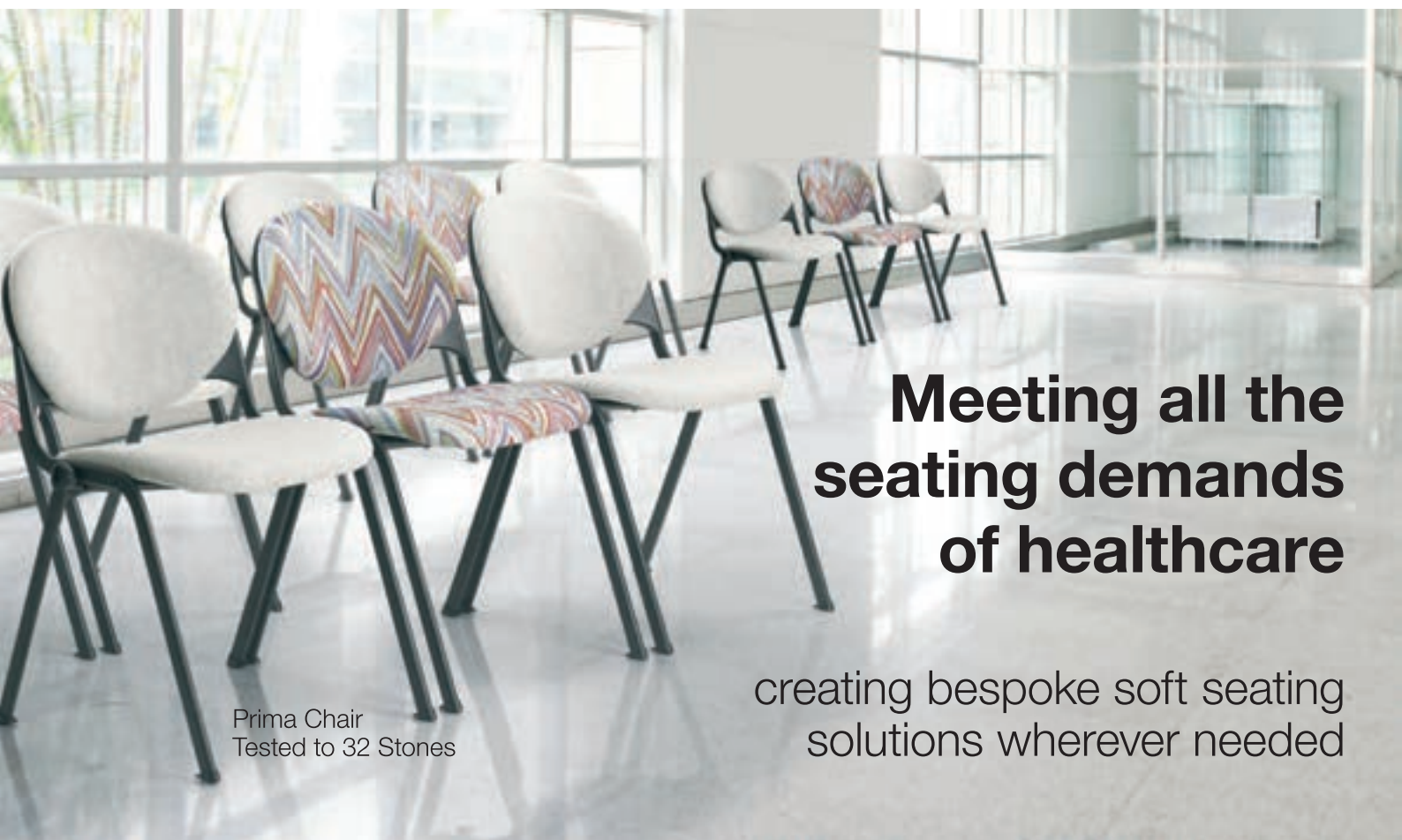
Door open 90°



Door open 180°

enq.258





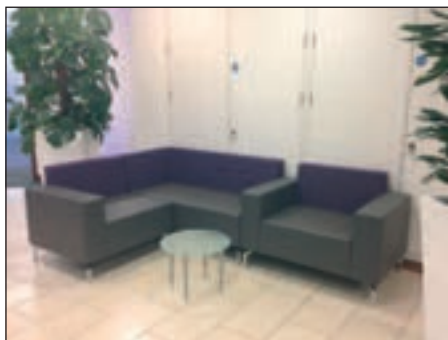
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# Home is where the SMART is

Change is the only constant. This statement might be a cliché, but there's a change which is going to transform people's lives at home and that is home automation. Increasing pressure and a tiring lifestyle is crippling everybody. Out of the 168 hours in a week, an average person spends 40 hours in the office and over 90 hours at home. When you're in the office, you've most likely got the perfect ambiance, lighting, air conditioning and automation. Don't you wish you had a similar level of control at home? Schneider Electric's KNX intelligent building control system can give you that.

Reductions in the cost of technology and the ubiquity of internet connectivity has made home automation an affordable reality for consumers. This is also coupled with a dramatic change in customers' expectations. People expect to be in control of their energy use, by managing the lighting, heating and all other electrical devices in their home.

## A connected home is a comfortable home

Home automation systems such as Schneider Electric's KNX Multitouch Pro and KNX Pushbutton Pro are two new user interfaces that ensure intuitive and flexible room control for lighting, heating, and blinds, via an easy-to-use interface. KNX can be integrated into a variety of residential and commercial environments.

KNX Multitouch Pro features a contact-sensitive touch screen to enable control of general room functions such as temperature, blinds and lighting. It can be installed in every room, and managed from a central point. It combines the



functional versatility of a thermostat and multi-function push-button with the intuitive operating philosophy of a smartphone or tablet. Scrolling between functions is done by 'swiping' to enable simple and intuitive switching between and selecting of main functions – of which as many as eight are possible.

There is a choice of two interface display designs, vertical or round display arrangement – or a combination of both. This means that the interface display is always optimised, depending on user requirements and can be reconfigured at any time. In round display, up to eight main functions can be featured, and in vertical display up to 15. In terms of innovation, KNX Multitouch Pro excels in its ability to activate the most-used functions with a simple hand movement. The display sensor recognises whether the direction of movement is vertical or horizontal.

## Ease of installation

We are looking to drive a change in what homes can do for their occupants. Together with architects, engineers, electricians and other partners, we are bringing connectivity to homes through solutions like KNX. A major advance in this new solution, especially appealing to installers, is that the planning and commissioning of the new KNX user interface is extremely flexible and simple to carry out. Only two references are required for a simple KNX installation of all rooms, based on the number of required functions. The allocation of desired functions can be implemented at the time of the commissioning process. Furthermore, an 'express' commissioning feature enables rapid programming of the KNX Pushbutton Pro. This feature enables frequently-used functions to be predefined in the

EIB Tool Software application. The allocation of desired functions can be modified at any time without any risk of losing group addresses. No additional power supply is required for the KNX Multitouch Pro or for the KNX Pushbutton Pro.

## Energy savings across the board

By integrating energy management with other home control functions, the KNX range goes beyond automation. It turns homes into smarter living spaces. It lets us monitor and manage our homes to maximise energy efficiency and lower energy bills, either locally or remotely. This also ensures the integration of any future comfort, security, and energy saving functions.

From an energy saving perspective, home automation has some key benefits, especially programmable thermostats. Turning down a thermostat by just one degree can reduce heating bills by up to ten per cent, and most UK smart/programmable thermostats promise a reduction in heating bills of up to 20 per cent.

There's both a growing need and desire for people to be more energy efficient than ever before. People looking at installing a smart home system also want an element of style and flexibility. Energy efficiency is all about controlling your habits more readily and looking for ways to lower your carbon footprint, but there doesn't have to be a compromise with style and aesthetics. There's a very clear drive towards this when so much of our lives are already integrated with technology – and people are looking for this to be extended into their homes.

0870 608 8608 [www.schneider-electric.co.uk](http://www.schneider-electric.co.uk)

enq.260





## FILA range tackles all surface cleaning needs

Fila's surface care range includes cleaning solutions, designed to care for all types of tile and natural surfaces. Suitable for post-installation cleans and on-going maintenance, the range spans high performance pH-neutral detergents, to epoxy grout and grease removers. All production is supported by Fila's ISO 14001:2014 certification and the range is recommended by over 220 leading flooring brands. Best selling 'core' cleaning products include Fila Deterdek, FILACR10, Fila Cleaner and FILAPS87. Fila Deterdek is a concentrated acid detergent, with a fume-free buffered formulation for safe application. It's ideal for the removal of building site dirt, including cement and adhesive residues, from acid-resistant surfaces. FILACR10 is also ideal for post-installation cleaning, safely removing epoxy grout residues from non-porous materials, including porcelain, glazed ceramics and glass mosaics.

01584 877286 [www.filasolutions.com](http://www.filasolutions.com)

enq.261



## Wall to wall inspiration with MATCH panels

Rarely can we say that a new product, changes the face of interior design for professionals in the commercial world. However with MATCH, that statement is entirely true. This new designer panel range from Vicaima removes the limitations experienced with more commonly used decorative finishes and allows limitless design possibilities with multiple applications ranging from wall panels to furniture. MATCH is a revolutionary decorative panel that uses innovative H2P technology and advanced production processes to create tailor-made graphic or pictorial solutions directly onto veneered and other base layers. In this way a collection of décor elements can be brought together to create synergy to a theme or chosen style. The combination between the composition of the product and the advanced manufacturing technology used with the surface materials, allows Vicaima to achieve unparalleled results.

01793 532333 [www.vicaimamatch.com](http://www.vicaimamatch.com)

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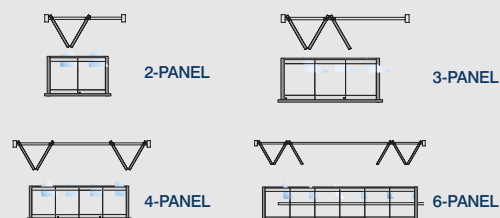
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enq.263

# Pure class in sheer glass

Customers to a luxury car dealership in Birmingham will be able to reflect on the best of its brands with the installation of a glazed manual sliding wall defining the Bentley and Lamborghini areas of its showroom.

The eight panel arrangement, using GEZE's Manual Sliding Wall (MSW) with SmartGuide system and Pureline cover profile, is a seamless space divider with no metal surrounds, which separates the two sales areas while maintaining an open feel.

The MSW was the ideal choice for Glassedge, which was commissioned to install the feature at Bentley Sytner, in the city centre.

Fitted with 12mm clear, low iron toughened glass which minimises sun reflection and so allows as much light in to the showroom as possible, the installation also features GEZE's Pureline, a silver anodised profile with a modern angled design. Each panel discretely locks into the next one via a floor locking device, which is completely hidden from view. Above, the recessed roller track further enhances the sleek appearance whilst the



SmartGuide system enhances its functionality.

The manual sliding wall (MSW) also incorporates a swing door with a polished stainless steel handle – making the two areas of the showroom accessible to customers and staff – without interrupting the fluidity of the glazing. In total, the wall spans 7m in width and 3m in height.

The MSW system is easy to handle – when the wall is not needed, the panels can be pulled back, into a parking space where they sit at a 90° angle – a real space saver which minimizes impact upon

the room, or as at Bentley Sytner they are completely hidden away inside a wall cupboard.

The overall effect is a contemporary stylish finish which benefits from the light and airy feel needed for a showroom in which the cars themselves can take centre stage.

Kaz Spiewakowski, managing director of GEZE UK said: "Our MSW system presents a fantastic solution for retailers who want to use their space creatively. They can be used to open out or separate areas in shops, cafes, offices and hotels as well as prestigious car showrooms. We are delighted that Glassedge chose the MSW with Pureline profile in delivering its requirements for the Sytner showroom where the quality of Bentley and Lamborghini vehicles can be seen in all their glory and benefit from the flow of natural light."

For more information about GEZE UK's comprehensive range of automatic operators, manual door closers and window technology products please contact the company or visit the website.

01543 443000 [www.geze.co.uk](http://www.geze.co.uk)

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enq.265



## Affinity255 delights diners at Enfields Kitchen



Hard wearing luxury vinyl tiles from **Polyflor's** Affinity255 PUR collection of high-design wood effect flooring were recently chosen for the refurbishment of Enfields Kitchen, a student run restaurant at Gateshead College. Affinity255 PUR luxury vinyl tiles in the popular Huckleberry Oak design were installed by local flooring contractor

Floorstyles-Direct in the restaurant's dining area. Ideal for use in heavy commercial environments such as busy restaurants. The range's cross linked and UV cured polyurethane reinforcement (PUR) also protects the floor and allows for a simple, polish-free cleaning regime in hygiene critical areas.

0161 767 1111 [www.polyflor.com](http://www.polyflor.com)

enq.266

## Stunning new range of LVT products



There's no doubt that 2016 has seen a Luxury Vinyl Tile and Plank (LVT) resurgence leading to a much higher demand for this most ubiquitous of flooring products. For **Gerflor** it's been a journey of discovery, passion and innovation leading to a zealous encounter with the creativity of old and new materials. All vinyl seems to be trending this year and it

now appears to be the 'big dog on the block'. Original, well thought-out vinyl designs are on a march, becoming one of the most popular and sought-after floors on the market, and this is in large part due to the newest luxury vinyl designs. It's a situation perfectly suited to Gerflor's spectacular new Creation 55 range.

01926 622600 [www.gerflor.co.uk](http://www.gerflor.co.uk)

enq.267

## Safetytread - pioneers of anti-slip stairnosings

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# Wellness in the workplace

Mark Bauer at Forbo Flooring Systems explores how improving workplace design with a holistic focus on all interior elements has the ability to enhance employee productivity and satisfaction.

**W**orkers spend between 80 and 90 per cent of their time in offices. According to workplace safety resource Safe Workers, over two and a half million people are made ill every year by their job, with 28 million working days lost to sickness caused or worsened by work. By making certain informed changes to an office design, we can actively work towards reducing these statistics.

## Space and light

When it comes to designing an office space, nowadays the workplace no longer has just one purpose. Instead, layouts feature a variety of 'activity settings' or purpose built areas for specific actions.

These areas may include impromptu meeting areas, formal meeting spaces, project rooms or break out areas. Global architectural firm HOK recently said that activity-based work settings are increasing in popularity because the working day is becoming more complex and unpredictable.

The day-to-day activities of employees in an office can be very visually demanding – particularly if, as is common, they involve working at a computer all day. According to BREEAM, lighting should be considered at the design stage to ensure best practice visual performance and comfort for building occupants.

Artificial light sources cause glare or flicker on computer screens, which is linked to many eye-related complaints such as eyestrain, blurred vision, dry eyes and headaches. However, health issues caused by inadequate lighting are not restricted to the eye. Such conditions can also contribute to spinal complaints and other musculoskeletal injuries, which occur when people adopt awkward postures while straining to read something under poor lighting conditions.

In light of these dangers, it is important that as much natural daylight as possible is accessible to employees in order to help battle illness, including problems of depression. If this





*'When it comes to designing an office space, nowadays the workplace no longer has just one purpose. Instead, layouts feature a variety of 'activity settings' or purpose built areas for specific actions'*



is not possible, then fluorescent and white lights should be installed instead of yellow-tinted lights.

To maximise any form of lighting within a building, whether that is natural or artificial lighting, employers should look to install floor coverings that have a high Light Reflectance Value (LRV) rating. Such floor coverings will allow additional light to reflect off the floor and brighten the space efficiently.

### Abolish allergens

Allergens within the workplace also contribute to the health of employees, with the World Health Organisation stating that exposure to fumes, dust and gases are responsible for 11 per cent of asthma cases worldwide. There are a number of steps that can be taken to minimise risks and reduce allergens.

Good ventilation should be maintained to ensure clean air

supply across the area. Regularly serviced heating, ventilation and air conditioning units is therefore key to reducing health risks. Installing Allergy UK-approved floorcoverings which don't harbor dust mites is also key to maintaining a healthy environment in spaces where people are likely to spend a prolonged period of time.

### Turn the volume down


Reducing noise is another essential factor in promoting workplace wellbeing and comfort. To diffuse excess noise in an office environment, whether it is from people talking, printers, telephones or even brainstorming sessions, an acoustic floor covering should be considered to bring the sound down to an acceptable level. Floor coverings can help.

Impact sound reduction is the measurement of the contribution that the floor covering makes to reducing sound transmitted through the floor from one room to another below. Carpet tiles and flocked floor covering offer impact sound reduction of up to 20 dB or greater – perfect for meeting rooms or open plan workstations. Where resilient floor is needed, acoustic sheet vinyl ranges offer 15 to 19 dB impact sound reduction.

Taking all of the above factors into consideration, office employees will be able to benefit from a healthier, hygienic and comfortable working environment. When it comes to refurbishing or designing a new office, specifiers should liaise with a reputable flooring manufacturer in order to maximise the health and wellbeing of the individuals who use the space by optimising the design of flooring.

*Mark Bauer is environment specialist at Forbo Flooring Systems*





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## Expona flooring makes a big splash



Expona Commercial PUR luxury vinyl tiles from **Polyflor**, were recently installed inside the visitor centre at the world's first inland surfing lagoon, Surf Snowdonia Adventure Parc. Approximately 700m<sup>2</sup> of Expona Commercial luxury vinyl tile flooring in the Weathered Country Plank design was installed by

Manchester based contractors JDP Flooring in the Surf Side Café and shop inside the centre's HUB Building. This rustic design features highlighted knots and emphasised grain detailing for an authentic timber effect. The on trend collection of Expona Commercial luxury vinyl tiles includes 55 wood, stone and effects designs which are ideal for heavy commercial environments in the leisure sector.

0161 767 1111 [www.polyflor.com](http://www.polyflor.com)

enq.274

## Industrial inspired tile range



**Solus Ceramics** has launched a unique 'metal look' tile range, inspired by the rustic beauty of weathered steel sheets. The Ingenious range merges the concept of metal with the reliable durability of porcelain, offering architects and designers a diverse design solution to both internal and external projects. Bringing together ideas of modern architecture and aged industrial landscapes, the range provides intriguing contrasting tones and coarse

textures with a contemporary and minimalist feel. Each tile boasts charming imperfections displaying an array of unique marks, stains and swirls, adding a captivating aura to transform any space.

0121 753 0777 [www.solusceramics.com](http://www.solusceramics.com)

enq.276

## ECONOMIX refresh Mental Health facilities



Supportive and welcoming environments can have a positive effect on those that visit clinics and hospitals. With the Government's commitment to improving mental health facilities there is pressure to improve services and care for an increasing number of vulnerable people. **Danfloor's** ECONOMIX Nylon range is suitable

for many commercial interiors but is ideally suited to the Mental Health Sector due its heavy wear classification 33 and outstanding performance characteristics. In addition to this its impressive BRE credentials makes it an ideal flooring solution for anyone looking for an Excellent BRE rating.

enq.278

## High flying floor paint



**Bradite's** 2K Floor and Wall EW99 specialist coating was recently specified as part of the rebuild of the Gatwick Aviation Museum. When it came to the floor treatment, the application of a high performance non-slip coating was imperative: this would allow visitors to get up close to the aircraft safely and ensure the floor itself could withstand

heavy traffic during the museum's busiest times. To meet these requirements, Bradite's 2K Floor and Wall EW99 was specified. This two-pack water-thinned, epoxy coating and finish paint is designed for application to floors, walls, structural steel and machinery. EW99 is easy to clean and decontaminate.

01248 600315 [www.bradite.com](http://www.bradite.com)

enq.275

## Hunter Douglas showcases expertise



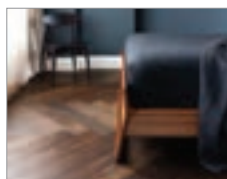
The showpiece £16 million leisure and community centre at Ashington in Northumberland includes two stunning ceiling systems, manufactured by **Hunter Douglas**. The first – a visually striking 640m<sup>2</sup> wood linear open ceiling – stretches across the entire entrance and main atrium. Finished in American red oak, it was made to 111mm module, with each plank measuring 92mm x 15mm. Hunter Douglas' special demountable clips, which allow up to 50 per cent demountability, were used,

while the 19mm gaps between the linear wood panels are visually closed by an acoustic fleece to improve interior sound absorption.

01604 766251 [www.hunterdouglas.co.uk](http://www.hunterdouglas.co.uk)

enq.277

## The Parquet revival!



**Reeve Wood** is always on the look-out for inspiration and has collected several ideas on its Pinterest boards.

With over 20 years of experience, Reeve Wood's team of skilled craftsmen can make any type of floor, door or stair from any samples you possess.

Reeve Wood invites any challenges.

To order a sample box with mixed colours and species, or for more information, visit the website or contact the company directly.

01553 776 835 [www.reevewood.com](http://www.reevewood.com)

enq.279

## Kährs extends Classic Nouveau Collection with four new colours



**Kährs** has introduced four new colours to its Classic Nouveau Collection. The new wood floors – in white, grey and earthy tones – join six best-selling designs within rustic-contemporary range. All of the floors feature a variety of individual colour and texture finishes, which lift the graining and enhance the natural look.

The four new designs include pearly white Nouveau Blonde, smoky tinged Nouveau Gray, chestnut coloured Nouveau Rich and chocolate toned Nouveau Tawny. They complete Kährs' natural spectrum, which spans snowy white to ebony tones. Tactile surface treatments include brushing, staining and smoking, and all of the designs have a durable matt prefinish, which gives the surface a distinct lustre. All Classic Nouveau floors are made from sustainable oak and have a multi-layered construction for optimum stability. Individual boards measure 2200/2420x187/200x15mm and feature Kährs glueless Woodloc® joint for a fast, gap-free installation.

For more information and stockist details, please contact Kährs (UK) Ltd. To create a virtual furnished room, combining tones from Earthborn's Claypaint range, please visit the website.

023 9245 3045 [www.kahrs.com](http://www.kahrs.com)

enq.280



# Bona ensures slip resistance in busy food service area

A combination of a primer and non-slip, waterborne lacquer from Bona has been used to renovate the oak plank floor in a busy food service area at the Thorpe Park Hotel & Spa, Leeds. The Bona technical team wrote the specification to meet the performance criteria required by the hotel and the treatment was carried out by John Garner, a Bona certified contractor. The Bona finishes used were supplied by Taylored Flooring of Cheadle, Cheshire.

Bona Intense primer delivers a subtle grain enriching effect on medium to dark species and was chosen to replicate the look of the original floor. Slip resistance, especially when the surface is wet, was an important requirement as the floor is installed in the hotel's busy conference café where food and drink is served throughout the day. Bona Traffic HD Anti Slip was therefore the



obvious choice of finish with its combination of high durability and low level slip potential. The slip resistance of this new formulation lacquer surpasses the HSE's low level slip classification of 36+ when tested using the Pendulum (CoF) test.

Prior to the primer and lacquer treatment, John Garner used high performance Bona Ceramic

adhesives to sand the pre-finished surface back to bare wood then finished the sanding process using Bona Zirconium mix anti-static abrasives.

Floors finished with all versions of Bona Traffic HD can be put back into full use after just 12 hours – making these lacquers the perfect choice for commercial areas where avoiding downtime is a key requirement.

Gordon Jackson, General Manager at the hotel said, "Our conference café is an incredibly busy area where guests from our 21 meeting rooms congregate to enjoy our fabulous all-day offering. It's important that it looks fresh and inviting throughout the day and we're delighted with the lift that this treatment has given the area."

For more information, contact Bona directly or visit the company website.

01908 525 150 [www.bona.com](http://www.bona.com)

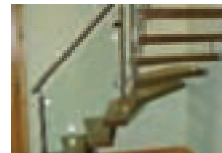
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# Inaugural installation of Mapei's Comfort Floor system

The international architects BDP have recently refurbished the floors within their Bristol office with Mapei's new Mapecomfort Floor System. The floors in the meeting, library and toilet areas have been covered using Mapecomfort Floor System AR/X in grey – the first completed project worldwide using the system. Originally established in 1961, BDP have offices worldwide combining local knowledge with vision, value and infrastructure of an award winning practice. The project was undertaken by Coatech Ltd. who specialise in all types of resin flooring nationwide.

Initially, carpet and multiple layers of vinyl tiles were removed exposing the sub base. A cove was installed to all toilet walls ensuring that the floor area is remained easy to clean and maintain. Mapecomfort was then laid to the floor and sealed with Mapefloor Pore Filler. Once this had cured, Coatech applied a coat of Mapei Mapefloor



PU 460, a 2-3mm flexible, self-smoothing polyurethane. To finish, two coats of Mapei Mapefloor Finish 58 W, a matt finish polyurethane coating was applied.

Due to its elastic properties the Mapei Comfort Floor System proves advantageous when a good level of comfort is required underfoot. This is provided from the matting at the base of the



system which also has excellent soundproofing capabilities, reducing the impact of noise transmission into areas below. The flooring system also has a high resistance to wear and abrasion from constant foot traffic and moveable office furniture such as castor chairs.

0121 508 6970 [www.mapei.co.uk](http://www.mapei.co.uk)

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## Architects Datafile website



The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

[www.architectsdatafile.co.uk](http://www.architectsdatafile.co.uk)

## Get wired for safety with Keeline



Kee Safety, a leading fall protection specialist, has redesigned its KeeLine® Horizontal Lifeline system to allow easier installation on bitumen membrane roofs and provide an enhanced weathering solution. KeeLine® is a wire-based horizontal lifeline system that has been designed

to provide continuous fall protection. Fit for use in areas where guardrails are not suitable, the system allows roofers and contractors to safely work on the roof and provides a virtually invisible solution to carry out repairs, maintenance or inspection work. Installed as a permanent lifeline system, it offers uninterrupted access for up to three users across the whole roof, allowing them to freely move around the surface.

enq.289

## Arden Dies secure with Securikey



Physical security supplier, Securikey, has been a trusted partner to many UK companies for over 40 years and has recently teamed up with City Lock & Safe Ltd to supply their high quality products and expertise to Stockport based manufacturer Arden Dies & Tooling Ltd. In partnership with City Lock & Safe Ltd, Securikey

supplied two 48 Capacity Key Vaults, two 100 Capacity Key Vaults and Two Size 2 Mini Vaults to Arden's purpose-built 3000m² facility. Built from a heavy duty steel with a double walled construction, the Mini Vault Gold FR is durable and fire resistant and ideal for storing vital documents and, the key vaults, also made from steel, feature locking by security deadlock.

enq.288

## Halestem – Steel edging for hard landscaping



EverEdge Halestem is a galvanised, high tensile, steel angle edging, perfect for landscape contractors who need a robust 90° edging system for use with tarmac, resin-bonded and paving surfaces. Designed specifically for use in all hard landscaping projects, the Halestem range offers a versatile solution for straight lines, or curves, where an

L-shape edge is required. Available in two versions, it allows contractors and architects to choose either the rigid option for straight lines or a flexible alternative to work with curved borders. Separate corner sections are also supplied to ensure a neat and clean finish.

01630 657629 [www.everedge.co.uk](http://www.everedge.co.uk)

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## Osmo meets the demands for decking



Osmo UK, the eco-friendly wood and finishes expert, offers a range of decking oils to protect and maintain the beauty and quality of exterior decking. The product range provides resistance against water and dirt, while also offering an appealing satin oil-based protective finish. Made from natural plant oils, organic pigments and water-repellent additives, the micro-porous finish allows the wood to breathe, a factor that is essential for exterior wood. The eco-friendly ingredients help to regulate the wood's moisture content, reducing swelling or shrinking, whilst enhancing the natural characteristics of the wood. The finish also prevents the wood from cracking, flaking, peeling or blistering. Available in range of 10 different shades and one clear Teak-Oil, there is a Decking Oil to complement and protect a number of wood species.

enq.292

## Felmoor Park receives premium protection



The Scandinavian log cabins and lodges at the picturesque Felmoor Park in Northumberland have been given a striking new finish thanks to Remmers wood coatings. Remmers HK Stain was selected to provide not only effective weather protection but protection against blue stain, rot and insects. HK Stain is a "2 in 1" product which eliminates the need for an additional wood preservative primer and is perfect for both soft and hardwoods. The product penetrates deeply into the wood whilst leaving it fully breathable and as it doesn't flake or peel. Available in a wide range of traditional colours or the alternative HK Stain 'Grey Protect' range of natural grey shades, for a more modern look.

01293 594010 [www.remmers.co.uk](http://www.remmers.co.uk)

enq.293

## Plaswood Group launches Earth Brown to lumber range



Plaswood Group has launched a new brown blend of its eco-friendly Plaswood lumber and extended the range of sizes and shapes of all Plaswood lumber available to builders' merchants, civil engineering and construction contractors and local authority specifiers. Plaswood high performance lumber is made from 100 per cent recycled plastic and offers a no maintenance solution: unlike conventional wooden decking or lumber (aka timber), Plaswood doesn't require annual maintenance, staining or painting. It is a sustainable and cost-effective alternative to using traditional materials such as hardwood, concrete and steel. The new brown blend of lumber, named Earth Brown, complements the popular Jet Black and six other colour options and provides long-lasting solutions for boardwalks, jetties, marinas, wetlands, flood barriers, fencing, furniture and structures located in wet, harsh or damp environments. The Plaswood range also includes signage, street name plates, signage posts, way-marker signage plus other street and garden furniture such as planters, litter bins, picnic tables, benches, bollards and gates. The key benefits of using Plaswood are: it does not degrade or rot with age; it does not require any painting or chemical treatment; it is tough, durable and strong; it is more resistant to vandalism and it is versatile.

0333 202 6800 [www.plaswoodgroup.com](http://www.plaswoodgroup.com)

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# Hauraton RECYFIX® PRO channel runs installed at Scarles Yard Car Park, Norwich

Scarles Yard comprises a purpose built multi storey car park of concrete frame construction with ancillary integrated warehouse/workshop units located along its frontage.

With three levels, the car park provides 823 spaces for Aviva employees during the working week and is open for public use on Saturdays and Bank Holidays for a flat daily charge, being particularly popular when Norwich City FC play at home.

The top level of the car park is drained with 453 metres of Hauraton RECYFIX® PRO 100 – Type 75 channels in various run lengths. The channels are fitted with FIBRETEC® HEELSAFE 9mm slot gratings with a loading Class of C250. Made from PA-GF, the FIBRETEC® grating will not rust and has a slot configuration specifically designed by Hauraton R & D engineers to enhance the flow

of water into the channel. The slots are super smooth, elliptical openings with the moulded bars having slightly raised triangular bosses along their outside edges. As well as providing an elegant appearance, the feature ensures surface water is directed into the slots. This configuration also helps eliminate any cross-flow over the grating and important consideration for this project.

The RECYFIX® channel component is made from 100 per cent recycled polypropylene (PP) and has an intake cross section of 372cm<sup>2</sup>. The FIBRETEC® grating are factory fitted on all channels. PRO accessories include a trash box, foul air trap, mud bucket, closed and DN 70/100 end caps.

Ken Burgess, Hauraton's Project Manager comments; "As each one metre unit only weighed 3.4kg, the contractor, ATPS of Clacton on Sea, found the RECYFIX® PRO channels with their



FIBRETEC® gratings easy to install in the concreted top level of the car park".

For related Case Studies please visit the company website.

01582 501 380 [www.hauraton.co.uk](http://www.hauraton.co.uk)

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## WINDOW CONTROLS



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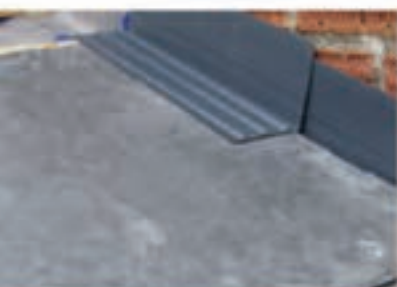
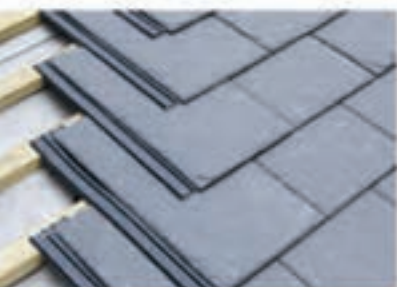
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