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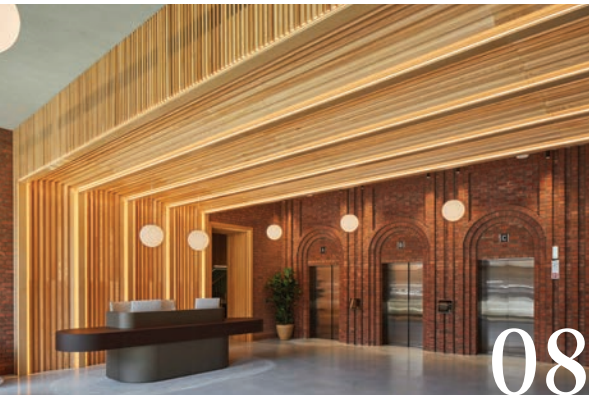
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# FROM THE EDITOR



This month's project report is, to echo the words of the founder of the practice behind the transformation of the defunct Edinburgh Royal Infirmary, Rab Bennetts, a "refreshing tale of the unexpected." Although one of the discoveries was a building riddled with dry rot, there were many positive discoveries around how the original 'Baronial' design from the 1870s would support the new function of education facility and workspace as the Edinburgh Futures Institute, including its spacious Nightingale wards.

One of the many important heritage buildings in Edinburgh, the former hospital with its turreted Gothic Revival clocktower had nonetheless been neglected since the NHS left at the beginning of the new millennium. Having become something of a liability in recent years due to its deteriorating condition, Bennetts asserts that the first design move was to "reassert the existing building's confidence" by reopening the central entrance under the clocktower. NHS priorities had meant that the A&E entrance to the east had been the de facto main entrance, meaning this grand entrance had been consigned to history, until now.

Another example of how heritage planning values have provided some fruitful cues for new architecture is how the new public square is perfectly central, with new ramps to allow access for all. It's also flat, despite the sloping site, which has been excavated to provide a large lower ground level auditorium space. Finally, it's surrounded by two glazed 'light-boxes' bringing light down but also signal that the building has a new sense of purpose, without being grandiose.

There are some new additions to the existing floor plan, such as inserted lecture theatres, but the overall look of the building is protected and enhanced. It is a great example of how heritage assets can be renewed, not to mention the upfront carbon benefits of reuse, which have been projected at an impressive 361 kgCO<sub>2</sub>e/m<sup>2</sup>.

Rather than being constrained by the existing building, the architects have been freed up by the generous dimensions of the Victorian design, to provide workspaces and education facilities with light, high quality environments. And the widened hospital 'street' connecting the wards works to encourage serendipitous interaction between the various stakeholders, including academics and students.

While the design aligns with the wider than normal, but "rational" stone pillar structure, the contrasts between new stairs and other construction, and the original grand finishes provides the liveliness that gives such heritage refurbishments a lasting merit as a combination of old and new. And whether possible, existing features have been retained, such as making the interior of one turret an additional fire escape stair. Read my report on page 22.

## James Parker, Editor

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### ON THE COVER...

Bennetts Associates nine year transformation of an Edinburgh landmark creates a new home for the University's Futures Institute.

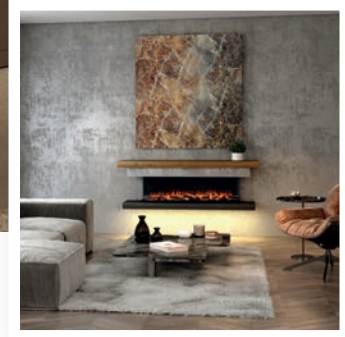
Cover image © Peter Cook  
For the full report on this project, go to page 22





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## AWARD

# Architect's adaptable south London home named RIBA House of the Year



Photos © Building Narratives

The Royal Institute of British Architects (RIBA) has named Six Columns by 31/44 Architects as the winner of RIBA House of the Year 2024, the annual award for the UK's best new home.

Designed by Will Burges, director of 31/44 Architects, as a family home for himself, his wife and two children, Six Columns cleverly occupies a tight urban plot in the leafy suburbs of Crystal Palace, south London. It's expected that further changes will be made to the building now they are living in it, as the family's needs change over time.

Named after the six columns that form the building's main structure, the two-storey, four-bedroom house echoes the proportions and materials of neighbouring terrace houses, while retaining its own individual character that references the designer's broad architectural influences, including the Barcelona Pavilion by Mies van der Rohe, and the Case Study houses in California.

RIBA commented: "The house is discrete and considers its neighbours but there are design flourishes that allow the project to carefully balance both conventional and contemporary features." Its brick facade and terracotta tile roof align with the

rest of the street, while concrete beams and a statement veined marble panel by the front door "add a touch of bespoke grandeur." Inside, the layout makes the most of the wedge-shaped site, creating a functional family home that can be easily adapted for future requirements.

The entrance hall serves as the central hub, connecting the home's various zones. To one side of the hall, a light and airy kitchen diner blends modern finishes – such as full height sliding windows and sleek white granite countertops – with a "distinct raw aesthetic," exemplified by oiled, unpainted pine cupboards and drawers.

To the right of the entrance, the layout swaps open-plan design for modular living, with smaller rooms that prioritise storage and privacy. The living room is characterised by thick exposed pine walls that double as shelving units and serve as a Wunderkammer (or 'cabinet of curiosities') to showcase the family's collections and memories. While designed to feel snug in winter, the room can be opened up via a sliding door to the kitchen during the summer months.

In addition to the self-contained bedroom suite on the ground floor, two further bedrooms can be found on the second floor,

and a fourth within the attic, nestled within a raised roof box.

The use of self-finished materials throughout "intentionally challenges the layering and 'covering-up' of contemporary construction." Exposed painted brickwork and readily-available spruce pine panels for fittings and joinery not only offer a natural warmth, but can be adjusted with ease in the future.

Outside, the house boasts three separate garden spaces, including a low-maintenance, west-facing rainwater garden that channels water from all the roofs that tumble out of a huge spout and into a steel tank to prevent overflow and promote reuse.

RIBA President Muyiwa Oki, commented on Burges' winning design: "Six Columns is a beautifully crafted family home that cleverly incorporates Brutalist references and creative flourishes while retaining a strong sense of suburban belonging."

He added: "It shows what can be achieved when working with even the tightest of suburban sites, and its flexible, unfinished aesthetic offers a solution to futureproofed design: this is a home that can evolve with its occupants' changing needs over time."



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## HERITAGE & HISTORIC

# Creative reuse of Victorian warehouse to workplace completes in Westminster

Creative reuse specialist London architecture studio SPPARC has completed Greycoat Stores, a “workspace-led restoration” of a Victorian-era warehouse in Westminster, London.

The 90,000 ft<sup>2</sup> mixed-use scheme at 10 Greycoat Place spans seven storeys, including two new floors of penthouse workspace overlooking the Palace of Westminster, as well as 5,000 ft<sup>2</sup> of leisure and retail at lower ground and ground level, and a 4,000 ft<sup>2</sup> restaurant.

First built in the 1890s, 10 Greycoat Place was one of several warehouses across Westminster commissioned in the late 19th century by the department store group Army & Navy, that began life as a co-operative society supplying goods to military officers and their families. Originally designed by architect Sir Reginald Blomfield, best known for his renovations of country houses including Chequers, the warehouse was primarily used for grocery storage and order fulfilment before it was converted into offices in the 1950s.

SPPARC has “revived the building’s Victorian charm and attention to detail that was lost to renovation works in 1959,” said the practice. This includes reintroducing a

distinctive red brick facade inspired by the 19th century original, with the building’s principal elevation hidden for over 60 years by a 1950s cement render. Inside, original steel beams and brickwork have been exposed to “nod to the site’s warehouse heritage,” and create an industrial feel.

Standout features include new double-height oval windows with finely detailed bronze frames that span the first to fourth storeys, allowing occupiers to benefit from abundant natural light. Circular windows on the fifth storey, meanwhile, demarcate a new zinc and glass roof extension housing the two penthouse workspaces across the sixth and seventh storeys. Stepped piers terminate as refurbished granite Doric columns at the ground level. Inside, curved timber sculptures “create a warm, welcoming entrance to the reception area, where the arched brickwork of the lift lobby continues the ornate pattern of the building’s exterior.”

As well as other Army & Navy premises, Greycoat Stores’ surrounding built landscape includes the Grade II\*-listed Westminster College and the Church of St Stephen. SPPARC’s sensitive restoration has “reinstated the building’s relationship to

this nearby heritage architecture, including through its use of fine brickwork detailing and craftsmanship,” said the practice.

The BREEAM Excellent and WiredScore Platinum scheme retained over 80% of the building’s heritage materials, including the original internal primary steel and brickwork structure in their entirety. This achieved an overall 50% carbon emissions reduction compared to a rebuild. The all-electric building’s windows maximise natural light, reducing energy consumption in operation.

Trevor Morriss, principal at SPPARC, said: “This former warehouse has sat as a shadow of its former self for over six decades with restoration works in the 1950s stripping it of its historic visual relationship to wider Westminster, including the distinctive style of Army & Navy premises. Drawing on extensive research of both the building’s own architectural history and the area’s rich surrounding heritage landscape, our sensitive, yet ambitious restoration will allow Greycoat Stores to stand as a focal point on this important Westminster junction once again, creating seven storeys of innovative workspace and publicly accessible retail and leisure space that is fit for the modern age.”



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Sharlene Young

## PRACTICE PROFILE

# Symbiotic Living Architecture + Design

*ADF's* Kim Neville speaks to US architect Sharlene Young, who founded her interior architecture and design practice in Chicago with a focus on biophilic design in projects in the city, and who has recently opened a studio in London.

Sharlene Young's architectural journey began at New York's Cornell University. At the prestigious School of Architecture, Art, and Planning, she discovered her passion for creating spaces that resonate deeply with those who use them. Early in her career, she excelled in large-scale workplace projects. Transitioning to residential design, Young says she cultivated a deeper understanding of "personalisation and the transformative role of human-centred spaces."

As interior practice lead at Wheeler Kearns Architects, Young sharpened her expertise, contributing to projects recognised in awards by the American Institute of Architects. This experience set the stage for the designer to found Symbiotic Living Architecture + Design in Chicago in 2016, grounded in biophilic and wellness design principles.

Recently, Symbiotic Living announced its expansion into the UK, displaying the firm's ambition. Now, splitting her time between the US and the UK, Young continues to oversee the practice's operations, bringing its wellness-focused design philosophy to an international audience.

Young says the practice aims to "transcend functional design to create spaces that promote health, harmony, and connection to the natural world," adding that this initially "intuitive" approach on her part continues to drive the firm's strategy. Over time however, her team integrated evidence-based biophilic design principles from the International Living Future Institute (ILFI), adding a robust framework to design for wellbeing.

Despite challenges from the pandemic, Symbiotic Living adapted by embracing local talent, materials, and artisans to help support communities as well as reduce projects' carbon footprint. These values, coupled with a scalable and flexible business model, have allowed the firm to work across projects of varying sizes and complexities.

Opening a UK office represents a significant milestone for the firm, which Young sees as a means to serve "increasing demand for wellbeing-focused, biophilic spaces in the UK." While awaiting



Studio V workplace conversion, Chicago © Steve Hall, Hedrich Blessing

ARB accreditation, the UK branch is operating as a “strategic interior design consultancy,” collaborating with local architects. Young herself has accreditation from the British Institute of Interior Design, and the ILFI (Foundations of Biophilic Design Certificate).

Learning from the differences between the architectural landscapes of Chicago and the UK has been “transformative,” says Young. Chicago’s famous design heritage, such as Louis Sullivan’s “form follows function” philosophy, is formative in her ideas, but in contrast, she says that UK influences ranging from “architectural traditions, respect for preservation, and deep connection to nature” offer “new opportunities to evolve the practice’s mission.”

### Nature, wellbeing & personalisation

While biophilic design remains a cornerstone of the practice’s ethos, Young sees it as part of a broader mission to “promote emotional and psychological wellbeing” in the spaces it designs.

This took on a personal dimension for Young when she was caring for her late husband, who had Parkinson’s disease. Experiencing first-hand how architecture impacts emotional and



UChicago Child Development Center © Steve Hall, Hedrich Blessing

physical health inspired her to deepen her focus on creating spaces that enrich lives. “That experience solidified my commitment to designing environments that truly support the people who inhabit them,” she reflects.

Drawing inspiration from mentors like Allison Ewing of HEDS Architects, Young embraces evidence-based approaches to biophilic design, to create “nurturing, functional spaces.” Young asserts that Symbiotic is “redefining the role of architecture and interiors in promoting wellbeing, combining a profound respect for nature with evidence-based research.”

Symbiotic Living approaches design holistically, treating spaces as part of ‘ecosystems,’ not isolated environments. Informed by fractal patterns in nature, their philosophy sees each part as contributing to a cohesive whole. “From orientation of buildings on a site to the careful connection of interiors and exteriors, every element is designed to foster a seamless relationship between people and their surroundings,” says Young.

She also draws inspiration from Colin Rowe’s teachings on Giambattista Nolli’s Map of Rome, which emphasises the continuity between interior and exterior spaces, to create environments that “foster belonging and align with the natural context.” Fundamental to their ethos is the integration of “prospect and refuge” – balancing openness and security to “promote a deeper connection to nature.”

The practice also puts a large focus on lighting spaces for wellness benefits: “Thoughtfully designed lighting not only influences mood and energy but also supports circadian rhythms, which regulate sleep and overall health.” They also orient furniture to maximise natural light and views, and “ensure that each space functions intuitively while feeling uplifting.”

Personalisation is at the heart of Symbiotic Living’s ethos. The firm recognises that “each individual’s connection to the natural world is unique, and shaped by sensory experiences



Lakeview Penthouse © Steve Hall, Hall + Merrick + McCaugherty





Lake Shore Drive Residence © Steve Hall, Hedrich Blessing

and personal needs.” Symbiotic Living’s approach to biophilic design has evolved as the firm has grown, “incorporating new research and collaborations while remaining grounded in its founding principles.”

### Biophilic design in practice

A standout example of Symbiotic Living’s ethos and approach is the firm’s collaboration with London-based Blast Studio. Inspired by ‘forest bathing,’ they sought to replicate the dappled light of a forest canopy; Blast Studio brought the vision to life with the award-winning Tree Shadow Screen, a design that combines privacy with the restorative power of natural light.

The Oceanfront Residence in Virginia Beach exemplifies “seamless” indoor-outdoor integration. This three-storey coastal home is conceived as an immersive retreat that celebrates its natural surroundings while prioritising the wellbeing of its occupants.

Young says that the firm’s most significant achievement to date is “establishing a thriving studio, with the support of [US design practice] Wheeler Kearns.” A measure of success is the numerous projects that have “transformed spaces into environments that are human-centred, but which also foreground biophilic principles, as well as sustainability.

### Future

Young is confronting several key challenges, entering the UK market with her practice as a relatively new player in a busy market. To increase visibility, the firm is throwing itself into industry events such as the London Design Festival, and focusing on building relationships with local professionals. The team is also pursuing UK-based projects to create case studies that showcase their expertise while enhancing marketing efforts in both the UK and the US to attract new clients and collaborators.

The firm remains dedicated to continuous improvement by

## Experiencing first-hand how architecture impacts emotional and physical health inspired Young to deepen her focus on creating spaces that enrich lives

staying informed about industry trends in both the UK and US and regularly seeking client feedback. This feedback is integral to refining their approach, helping them maintain a leading edge in the architecture and design industry.

Symbiotic Living stays at the forefront of biophilic design through ongoing research, education, and global engagement. The firm’s commitment to evidence-based design ensures that their work reflects the latest scientific insights. Participation in conferences, workshops, and educational initiatives allows the team to keep up with emerging trends and innovations.

Additionally, she says that travel and exposure to diverse cultures and environments enrich the firm’s perspective on biophilic design. Their strong connection to the natural world serves as a foundational source of inspiration, enabling the creation of spaces that promote wellbeing and harmony with the environment.

Young is focused on the goal of having the UK market comprise 50% of its overall business. They have targeted interior design in premium residential projects and “habitational hubs” as the key means to achieve this. In addition to its design services, the firm aims to grow its strategic consultancy practice alongside.

By leveraging expertise in wellbeing-focused design, Symbiotic Living seeks to collaborate with “visionary partners on projects with global impact.” Their big objective is to lead the “built for wellbeing” movement, setting new industry standards for innovative and sustainable design solutions for both residential projects and “habitational hubs.” ■



# VIEW POINT

Patrick Inglis, president of ACA, describes the new safety information regime post-Building Safety Act, and why architects are best placed to take on the Principal Designer role, while being mindful of the risks.



The Phase 2 report on the Grenfell tragedy was finally published in September 2024, more than seven years after the disaster. While the report brought the enquiry to a close, the fall out from the severe systematic failings revealed by the investigation will continue to impact the construction industry for many years to come.

In particular, the enactment of the Building Safety Act is having a major effect on construction. The Act is intended to force significant changes in the way that buildings are designed, constructed and maintained, and clarify who takes responsibility for them being safe to build

and use. The idea is centred on a “golden thread” throughout the lifetime of a building so that information on compliance is compiled, stored, and passed on.

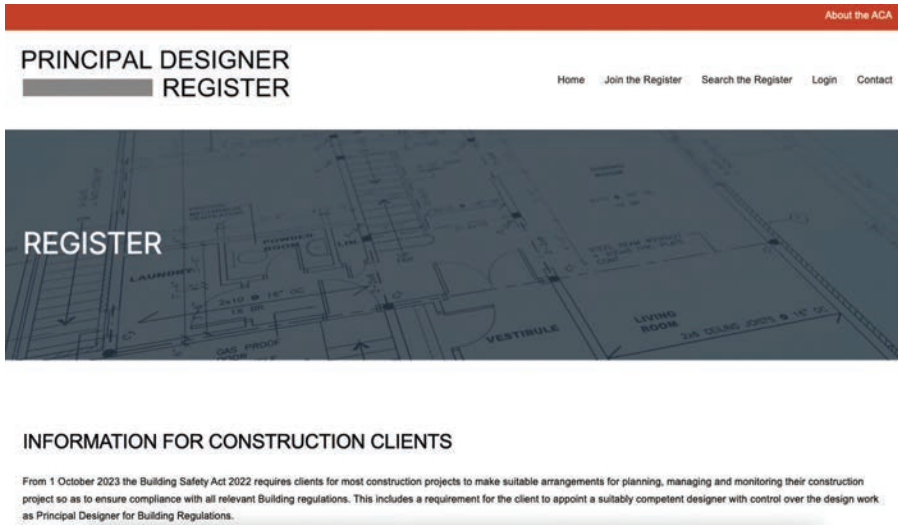
One of the most significant changes for architects is the new Principal Designer role, which is intended to ensure that the designs for buildings comply with the Building Regulations. A new regime for higher risk buildings (HRBs) also came into effect. The legislation also creates additional roles for Principal Contractors and clients, and imposes new duties on designers in general. Almost all construction projects involving an architect will now require a ‘Building Regulations Principal Designer’ or ‘BR PD’.

This role provides a unique opportunity for architects to take more control over the design of projects and to charge additional fees. However, it also will increase risk, and potentially have far reaching consequences for procurement routes like Design & Build.

## The Principal Designer role

Under the new regulations, the client for any construction project requiring Building Regulations approval must appoint a BR PD. The duties of the Principal Designer are to plan, manage and oversee design work during the design stage and to co-ordinate design work to ensure that the designs, if built, would comply with the Building





## The role does increase architects' potential liability, and this should be reflected in fees

to demonstrate that a process has been followed to reasonably ensure that the overall design is compliant.

The upside of having to sign a declaration before a final Regs certificate will be issued is that this should give architects more say over design decisions during construction, and the power to resist changes that impact on compliance.

The role does increase architects' potential liability – and this increased risk should be reflected in their commensurate fee agreements. Architects should therefore be careful to make sure it's clear who is Principal Designer on a project, and if it is them that they are properly appointed directly by the client.

In the event that an architect only provides partial services or stops work part way through a project, it is essential to make sure that your appointment is correctly terminated. Architects should be particularly wary of accidentally assuming the role as HSE advice states that "If a domestic client does not appoint either a Principal Designer or Principal Contractor, then the designer in control of the design phase of the project is the Principal Designer."

### The Principal Designer Register

The ACA is encouraging members to take on the new role where appropriate and indeed in most instances there may be little choice since the role can only be performed by someone who is a "designer in control of the design phase" of the project – which in many cases will be the architect.

In order to support architects in promoting their ability to act as Principal Designer, the ACA has launched a Principal Designer Register ([www.principaldesigner.uk](http://www.principaldesigner.uk)), where ACA members can register as a BR PD. The register allows architects to showcase their skills to their existing clients and advertise to new ones – and helps reinforce the message that architects should be the Principal Designer.

*Patrick Inglis is president of the Association of Consultant Architects*

Regulations. There are also duties in regards to co-ordination and communication with the client and Principal Contractor.

The legislation mandates that Principal Designers be appointed at the application stage for Building Regulations approval at the very latest, although appointing one at the earliest opportunity is highly advisable to ensure compliance and it would be wise to advise clients to appoint a Principal Designer at the outset of any project.

The regulations state that the role should be carried out by the designer in control of the design phase of the project. HSE guidance also says that the Principal Designer should not be a third party with no control over the design. The role is therefore naturally suited for architects alongside their role as lead designers.

The role, defined in Government legislation published in August 2023, requires all architects to review both the legislation and the accompanying guidance to fully understand their responsibilities.

The HSE has named the role in line with the existing CDM Principal Designer, suggesting that it should ideally be carried out by the same person or company. The ACA believes this approach makes sense and encourages architects to consider taking on both roles where appropriate.

### Competency test

The role includes a competency test that limits it to suitably qualified people or businesses, meaning that generally only regulated professionals such as architects, engineers or surveyors can take it on.

This sets a high competency standard

that could create challenges in several areas. For example, Design & Build contractors will either need to employ suitably qualified staff, or find alternative ways to comply. It is also unclear how things will work in practice in the domestic market, where builders have traditionally worked without involving an architect or other professionals. For extensions and loft conversions, the situation is even less clear. Builders must now either appoint a qualified Principal Designer or take on the role themselves, but many of these companies may not meet the necessary qualifications.

### Why should architects take up the Principal Designer role?

The overall intent of the new regulations is to improve the quality of construction and to do this by making key stakeholders in the process more accountable. This should be welcomed by the profession and in the ACA's view, the role of Principal Designer presents an opportunity for architects to earn additional fees and regain more control over construction projects.

Many architects will already be performing many of these functions in the course of their existing roles as architect and lead designer and therefore the new role is a natural fit. However, the added requirements of the role will potentially need new systems and processes to demonstrate compliance. Principal Designers will also be required to sign a Principal Designer's Declaration of Compliance before a Registered Building Control Approver can issue their final documentation, so it is essential to be able

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## INDUSTRY VIEWFINDER

# Current Thinking & Approaches to Biophilic Design

**B**iophilic design is the principle of bringing natural elements such as plants and nature-inspired design elements into urban environments and workplaces. It's an established, science-based approach that aims to enhance the built environment for users, and it's being increasingly pursued by architects and clients, via a variety of design measures, products and materials, with the end goal of increasing users' wellbeing and productivity.

There is evidence for the mental and physical benefits – oxygen from plants, lowered cortisol levels, and the increased production of certain enzymes for increased cognitive function. As well as effectiveness of staff in workplaces, there are also less tangible benefits such as generally increasing the users' enjoyment of the spaces, which can contribute to client companies' ESG goals.

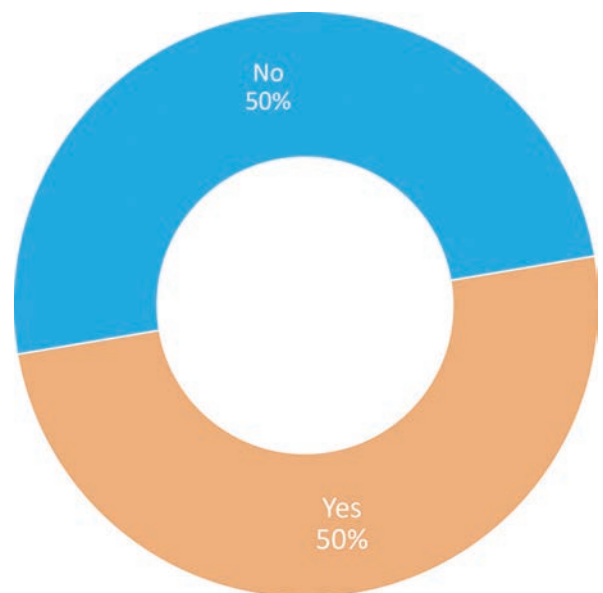
Our survey of architects aimed to discover which design measures architects are utilising, what client understanding and demand is like, and what challenges and constraints designers are facing. The survey explored which sectors lend themselves to biophilic approaches versus those which are less appropriate, and how well biophilic features integrate with overall design and architecture.

There are a host of challenges associated with realising the approach's benefits in practice, which goes some way to explaining why half of respondents to our survey of architects said they aren't currently employing biophilic design into their projects. Our survey also shows a general lack of understanding among clients about the benefits of biophilic design, reflected in a lag in client-side uptake, despite studies having shown there's a financial return for every pound spent on improving employee wellbeing.

Research has also shown a link between exposure to nature and increased productivity and creativity. It has also been associated with a reduction in stress and an overall increase to wellbeing

and mental health. RIBA says people spend an average of 90% of their time indoors, so there are obvious benefits to using natural resources in design, to harness the innate benefits of creating a stronger connection with the natural world.

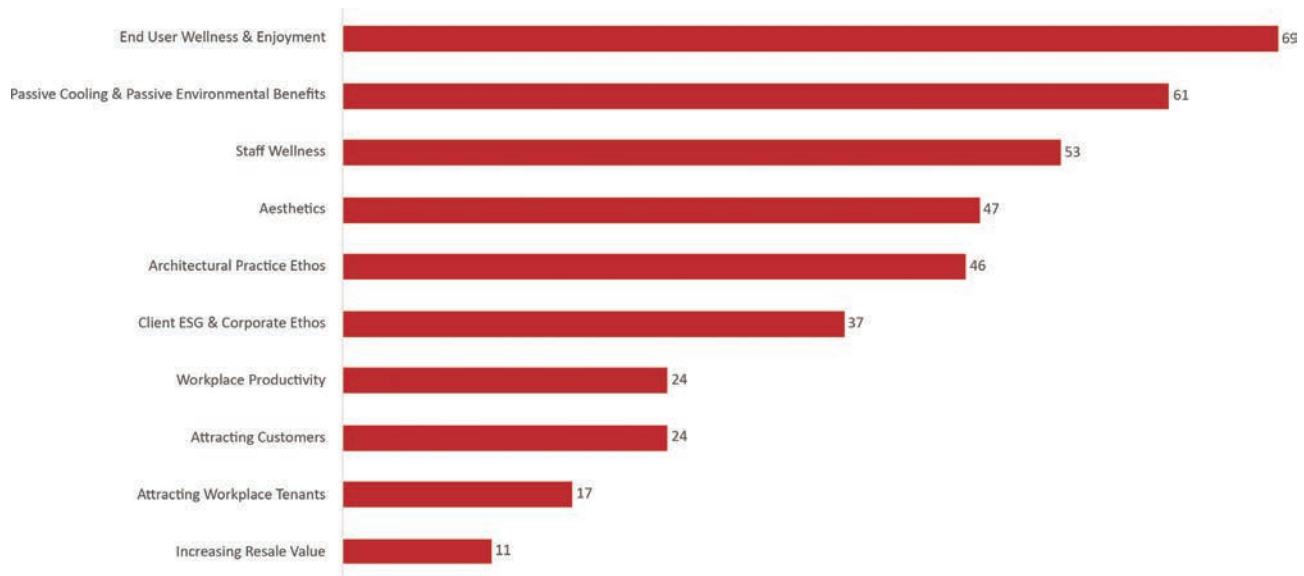
As well as the benefits it brings in regards to employee wellbeing, biophilic design also undoubtedly has environmental benefits, encouraging the use of more sustainable materials and promoting biodiversity. It also positively influences the behaviours of a



Are you 'explicitly' employing biophilic design in your projects?



# Interface®



*What are your reasons for pursuing biophilic design?*

building's users, encouraging them to consider their environmental impact more generally.

Despite these benefits, there are evidently still barriers holding architects back from fully exploring the possibilities biophilic design presents. Our survey delved deeper into these to find out exactly what is holding architects and their clients back, as well as looking at the many positives of this growing trend.

## Challenges

Despite the benefits biophilic design can bring, when we asked our cohort of architects whether they are 'explicitly' employing biophilic design in their projects, the answers were split down the middle, with 50% saying they were not.

There are clearly several major challenges preventing some architects from fully exploring what biophilic design can offer. In particular, it would appear the associated cost presents a hurdle, which also links to the other key obstacle – the attitude and awareness of clients, whether that be clients not having the budget to implement biophilia, or not having the desire to, potentially due to a general lack of knowledge.

### Clients & lack of understanding

When we asked if our respondents think their clients fully understand the overall concept and benefits of biophilic design, 65% said they didn't. This demonstrates there is clearly work to be done in ensuring clients are brought up to speed on what exactly biophilic design means and why they should be considering it. We also asked what they see as the biggest challenges for implementing biophilic design, asking respondents to select their top five answers and rank each of them in order of importance, from 1 to 5. Each was then given a total points score, with the answer coming in the third spot overall with a score of 123 points being 'lack of client understanding', emphasising that there's a real gap in the knowledge of clients and that it's presenting as a significant barrier.

Of the 50% of our cohort who said they don't currently employ biophilic design in projects, a significant number cited clients – in

various ways – as their reason why. These responses varied in nature from clients not being interested or not having the budget/funding, to lacking awareness of the benefits.

Despite the clear resistance from clients as well as local authorities shown in our survey, our respondents generally thought there wasn't cynicism from suppliers or users on biophilia (86% and 84% respectively). There was more cynicism coming from contractors – 44% of our sample said they were suspicious of biophilia's benefits, as compared with 36% of clients, showing the latter were relatively less cynical.

### Cost & return on investment

Aside from a probable lack of understanding, the other most significant barrier appears to be cost, with many referencing it when asked why they don't currently employ biophilic design. Furthermore, when we asked what the biggest challenges for implementing biophilic design are, the highest scoring answer was 'cost of maintenance' (154 points) followed closely by 'cost of installation' (152 points).

We also asked our cohort if they have managed to measure return on investment in biophilia for their commercial clients, and the majority said they had not. This will undoubtedly be a huge obstacle as clients will want some sort of guarantee that there is some return on investment before being willing to take the leap, particularly if it's an area they are not familiar with.

### Sector appropriateness

Another barrier for architects is the perception that biophilic design is not appropriate for all sectors they work in. When asked what sectors they are employing biophilic design approaches in, (selecting all that applied to them), healthcare sat at the bottom end of the scale with only 17% selecting it. 20% said they employed it in high-rise residential buildings, 25% said they currently used it for education buildings, and 26% for heritage buildings. In fact, all but two of the other options were selected by less than half of respondents: hotels & bars (28%), retail (28%), and public &



cultural buildings (34%). Evidently architects are currently being very selective about which types of projects they currently consider biophilic design for, and it was not being chosen by a majority of respondents in any sector.

Taking this a step further, we then asked our cohort if there are any sectors they believe biophilia isn't appropriate for. While around half of respondents said they didn't believe it was inappropriate in any sector, those that did generally cited one or more of three sectors – healthcare, education, and industrial. Verbatim comments include “laboratories and surgery rooms,” “in hospitals,” and “industrial factories.” One respondent said both “healthcare and education because of adverse effects it may cause on patients, students, teachers.” Another pointed out the conflicting factors in healthcare that meant that “ironically,” the wellness benefits of biophilia couldn't be explored: “We proposed a biophilic design for a health & education hub, but this was refused due to concerns over sterile conditions.”

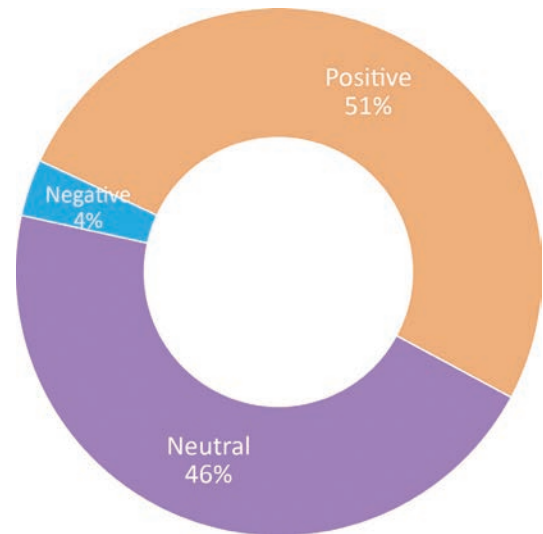
Most other comments referred to more industrial settings being unlikely to see biophilia used, such as factories, and “sectors with hazardous waste or byproducts would be difficult to employ biophilia into e.g. waste treatment plants.” This respondent did then caveat that comment by also pointing out that “low risk sectors like education and housing should employ biophilia regularly.” Despite the overall health and wellness benefits biophilia can provide, there is clearly also an argument that it can actually bring risks to health as well and that it doesn't easily slot in to certain settings.

## Products & materials

When it comes to materials and other product and design features, while some are being highly utilised, others are being specified very infrequently, if at all. We asked what bio-based materials respondents are specifying, and of all the options we provided, once again all but two were selected by less than 50% of respondents. Some are arguably niche and highly specific such as pressed seaweed, which nobody selected. Other options included flaxboard (2%), reed fibres (5%) and mycelium (5%), again all seeing a very low uptake.

There was a marginally higher percentage selecting some of the other options, such as bio-laminate flooring (12%) and cork (15%). Hemp-based products are only being specified by 20% despite having received some having received a reasonable marketing push in recent years, and bamboo by only 32%. Overall it's clear many of the bio-based options available aren't being highly utilised, though this could be because of the drawbacks involved with some of them. For example, while an effective insulator, hemp can be expensive and is thought to require twice the thickness of other insulators such as PIR.

There are also ways of emulating natural effects and atmospheres, and generally these had a higher uptake than bio-based materials. Some options, however, were still selected by only a few respondents: ‘circadian rhythms using shadows and fractal shapes’ were only chosen by 6%, and ‘tunable lighting’ designed to support user wellness by only 11%. Plant-like patterns in furnishing, walls & artwork were also only selected by a relatively low number of respondents (28%). While it could be the case again that these are quite niche or specific, and also not necessarily appropriate or applicable for some settings, there is also an argument to say there are product options and design features out there that aren't being used to their full potential yet.



*What is your overall experience in employing 'biophilic design' in your projects?*

## Solutions

Although there are quite clearly some barriers preventing architects from fully exploring the potential of biophilic design, our survey also had some more positive findings as well. In general, architects understand the benefits of biophilic design and many would evidently like to see it become more commonplace where appropriate. Exactly half of our respondents say they are already ‘explicitly’ employing biophilic design in their projects, which is an encouraging sign.

We then asked those 50% what their reasons are for pursuing it, giving them a selection of answers and asking them to rate their top five, with their first being given five points, second choice four points and so on. Many of the choices scored relatively highly, demonstrating there are a good number of reasons architects are choosing to explore biophilia.

The top factor chosen as a reason why biophilia is chosen, with a score of 69 points, was ‘end user wellness & enjoyment’, followed by ‘passive cooling & passive environmental benefits’ (61 points) and ‘staff wellness’ (53 points). This shows that not only do architects recognise the benefits in terms of the wellbeing of both building staff and users, but also the positive impact biophilic design can have on environmental performance.

‘Aesthetics’ was the next most popular choice (47 points), which correlates with our question on rating the biggest challenges. The risks of ‘compromising clean-looking aesthetic with cluttered jungle’ and ‘compromising function of spaces’ were among the lowest scoring options, meaning they are generally not viewed as key challenges.

## Benefits: wellness & environmental impact

When we asked our cohort if they have encountered significant cynicism about the tangible benefits from various stakeholders, the majority said ‘no’ for each option. 64% said they haven't received cynicism from clients, 56% from contractors, 84% from end users and 86% from suppliers. This is hugely encouraging, demonstrating the benefits are clearly being understood in the majority of cases, though would also indicate that there is perhaps

something else holding architects/clients back from fully embracing biophilic design.

We also asked respondents whether their experience of working with biophilic design had been positive or negative, and reasons why. 51% said it had been positive, with many of the verbatim comments relating to the wellness and environmental benefits. One said: “It is a return to natural things rather than exploitation of resources,” and another commented that it provides a “better final product and better environment for the building.” A third comment referred to the fact it meant “the building is more sustainable.”

One respondent said their positive experience was down to both the environmental benefit and client feedback, saying they “feel like they are making a difference, and users like it.”

Another benefit of biophilic design is the positive impact it can have on reducing indoor pollutants. Plants, living walls and natural materials can all absorb pollutants in the air and improve air quality. We asked respondents whether they would be interested in using biophilia explicitly to tackle indoor pollutants, and half said they would; one commented that it would help them achieve BREEAM or WELL Certification.

### Clients & end users

While clients do appear to have at least a partial understanding of the benefits, with only 36% of clients demonstrating some cynicism, what they are perhaps lacking is an understanding of the economic benefits biophilic design can offer, given that so many seemingly cite cost or budget as a reason for not employing it. We asked our respondents what more needs to be done to spread the word that it is an economic as well as wellness benefit for clients, selecting all answers that apply. The most selected was ‘scientific studies in UK workplaces’ (58%), which would imply that ultimately clients want statistics and data as evidence that it’s worth investing in.

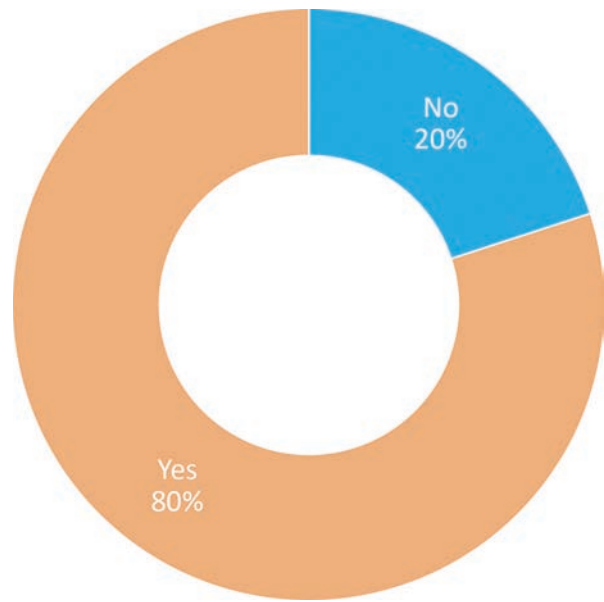
The next two most selected answers were ‘architects advocating for biophilic design’ (44%) and ‘clients advocating for biophilic design’ (40%), which shows that simply having more people talking about it and its benefits could prove to be a big encouragement.

With many of the benefits of biophilic design cited relating to boosting productivity and mental wellbeing, it’s no surprise that the most popular sector in which architects are currently employing it is workplaces (60%). The second most selected answer was ‘houses’ with 51% choosing this, suggesting that perhaps architects are currently seeing it specified more by private clients, rather than those working on commercial projects. This could be down to the simple fact that individuals working on their own home are generally more willing to spend money without the same concern regarding return on investment.

The uptake in other sectors was much lower, such as public & cultural buildings (34%), retail (28%), hotels & bars (28%), heritage buildings (26%), and education buildings (25%). This would again suggest that more could and should be done to educate stakeholders on the benefits of biophilic design to encourage uptake across a broader range of sectors.

### Measuring ROI

Arguably one of the biggest obstacles when persuading clients to consider biophilic design is the cost involved, and whether they are likely to see a return on investment. Given the nature of biophilia this is never going to be easy to quantify, but despite this 10% of our cohort said they have managed to measure return on



*What bio-based materials are you specifying?*

investment for their commercial clients.

Of those, 60% said the return was 10-20%, and 40% said it was a substantial ROI of 30-40%. With the many benefits on offer for staff, one possible reason for the scoring could be savings from by better staff retention (with associated reduced recruitment costs) as well as overall increased productivity. If these figures are accurate, and more return on investment calculated for projects moving forward, this could be a huge selling point for biophilic design and a big step towards convincing clients it’s worth investing in.

### Conclusion

From our survey it seems that attitudes and thoughts towards biophilic design are somewhat mixed. While many understand the benefits on offer, there is clearly still some cynicism towards it, with some describing it as merely a “buzzword” with a perception that it possibly lacks credibility and can be a somewhat ‘fluffy’ concept.

Many architects seem to be experiencing a lack of backing from clients to pursue biophilic design, largely due to a lack of understanding of what it actually comprises and also uncertainty about whether it’s worth the initial investment. However where architects have successfully implemented it, feedback from clients has been positive, and the health and wellness benefits recognised. In the few cases where return on investment has been measured it has also proved incredibly successful, and if more projects can be measured in the same manner this could go a huge way towards helping make the case for biophilic design elements.

Successfully including biophilic design across more sectors and projects means putting a compelling case to clients to convince them of its benefits. Part of this will mean from both wellbeing and environmental perspectives, more scientific studies need to be undertaken in workplaces in particular to show the tangible benefits; one of several clear findings from our survey.

*For the full version of the Industry Viewfinder white paper report, visit [insights.netmagmedia.co.uk](https://insights.netmagmedia.co.uk)*



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EDINBURGH FUTURES INSTITUTE  
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# Fit for a healthier future

The transformation of Edinburgh's long-empty Royal Infirmary creates a sustainable new home for the University's new Futures Institute, a flexible workspace and education facility designed by Bennetts Associates. James Parker reports.

According to the University of Edinburgh, the core mission of its new 'Futures Institute,' located within the city's formerly derelict, now refurbished Royal Infirmary, is to "support collaboration on social challenges," as well as provide workspaces for key business sectors for the city. It is a space that brings public, private, and third sector practitioners together with researchers, students, and civic society to "tackle complex problems," including via "clusters of co-located research" with industry, supported by a large amount of IT including audio/visual resources.

The project to restore this famous but neglected building could be described both as a complex problem and a "social challenge," with it having deteriorated into an eyesore over the years, becoming a major blemish on the face of the city ever since the NHS exited its doors in 2003.

The key challenge for architect Bennetts Associates was therefore to retain and restore a much loved Edinburgh asset, but add to it with carefully crafted extensions to make it fit for a digitally led, hybrid set of functions, bridging the public and private sector. This was a task the practice, with its strong experience in reuse of heritage buildings in various sectors, relished as it entered the design competition for the building's refurbishment. Another key attraction was the fact the building would also be largely opened to the public in its new guise, donating a key asset back to the city.

## Background & Brief

The complex refurbishment of the Category A listed former Royal Infirmary began in 2015, and the building finally completed in 2024. The architects say it "revives the key qualities of the existing building and transforms it through new uses, interventions and extensions." The original 'Scotch Baronial' building designed by David Bryce was completed in 1879, including an interconnecting shallow plan of long corridors connecting a series of spacious Nightingale wards, designed to minimise cross-infection risk. The quality of these spaces and the overall functional plan have been exploited to the full in the new use as the Futures Institute, including in the diverse array of companies occupying co-working spaces located in the former wards.

A product of the Data Driven Innovation programme running across Edinburgh University, the Edinburgh Futures Institute supports four sectors that are critical to the local and regional economy: financial services and fintech, public services, creative industries, and tourism, festivals and travel. It forms a key part of the Quartermile development in the Lauriston area of the city.

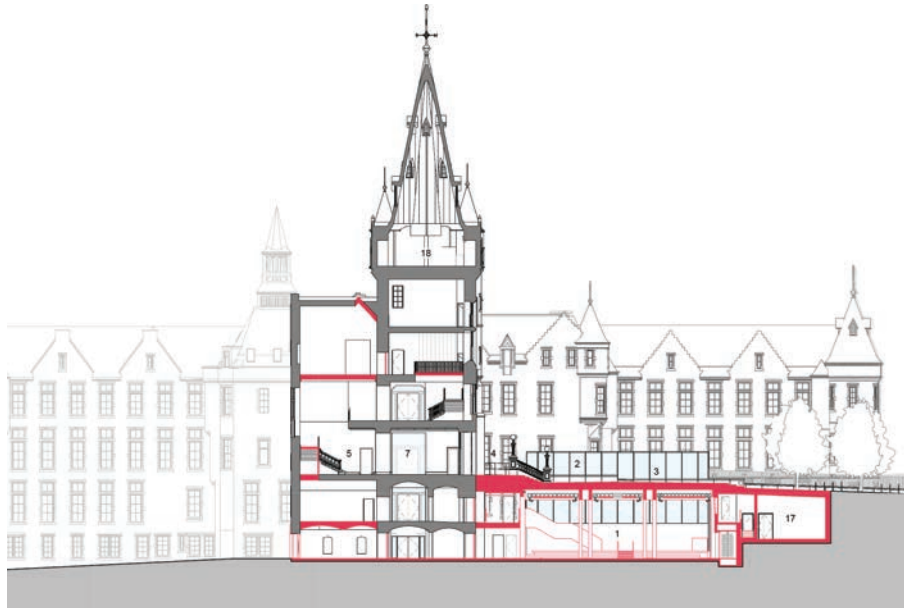
Despite the somewhat flamboyant, castle-like exterior, the building was "remarkably functional and inventive," say the architects. Typical of many of the 'Nightingale design' healthcare buildings of the era, its high windows provide excellent levels of daylight, and it had a wind-driven ventilation system, as well as connections

**The project to restore this famous but neglected building could be described both as a complex problem and a "social challenge," with it having deteriorated into an eyesore over the years**



#### TALES OF THE UNEXPECTED

The project revealed many benefits of David Bryce's original 1879 'Scotch Baronial' design, as well as unexpected levels of deterioration



to adjacent buildings across multiple levels. However, when the NHS vacated the building finally in 2003, it left in poor condition, with numerous unsympathetic extensions, asbestos, dry rot and areas of active structural failure.

Iain Tinsdale, senior associate at Bennetts Associates, comments: "The history of the site is interesting, Quatermile Ventures bought the whole hospital site in 2003 when the NHS decanted. Their appraisals never stacked up on the surgical hospital building, and it stood derelict for 12 years." The then director of estates for the university "saw this as a strategic opportunity to purchase it for the university to start spreading east and west through the city, and consolidate the central campus."

This expansion to serve a growing demand meant that more floor space was a priority, and this "speculative purchase" for the university was also pragmatic, including on sustainability grounds by retaining as much built fabric as possible. Tinsdale explains that the acquisition and subsequent design competition was actually fully informed by the client "knowing they were going to need to use it for tech enabled teaching and office space," even though he adds the architects wouldn't actually have an end user group until they were in the main contract works phase.

#### Client requirements – a 'container'

Tinsdale pays tribute to the university's estates department, who are a "very professional client used to delivering capital

projects," despite this scheme being a "challenge for them" due to its scope. He says that in terms of the brief, they were "very, very clear about the intention to have both teaching, research and commercial tenanted space, and that it had to be very tech enabled; it had to have a lot of connectivity through all of the spaces."

He says that Bennetts Associates approached the combination of restored historic building and additions with a somewhat agnostic sensibility to their final function: "Very much like we knew it was going to be a 'container' that the client were going to put contents in; that was a term used quite heavily through the design development process." He says that in addition to the practice's experience in tackling often complex historic refurbishments for education and other functions such as theatres, Bennetts Associates also brought its input to the scheme from its previous integration of "commercial knowledge into academic situations; that relationship between the academic and industry."

The approach to teaching, and integrating the teaching spaces with the external coworking spaces for the benefit of both, was fundamental to the design response. This was chiefly done using a range of 'breakout' spaces facilitating further discussion and networking between students, and with their staff. Professor Kev Dhaliwal, interim director at the Edinburgh Futures Institute, explains the central teaching ethos behind





the spaces in the building – and how they were interwoven with IT provision to help students get the best out of lessons and connect with external institutions across the world.

Dhaliwal comments: “The programmes of study are underpinned by an interdisciplinary, data-rich and challenge-led approach which blend online and on-campus engagement and connect global cohorts of students in new ways.” The teaching spaces and digital learning environments were designed to enable “shared on-campus and online teaching and learning activity.” This means that individual classes, lectures and contributions are recorded and livestreamed so that they can be shared – “so students can build a learning community – across modes and time-zones.” Students studying online have a presence in on-campus classrooms via video, audio and text, and conversely, students studying on-campus can work with teams located across the globe.

Many courses feature ‘fusion learning’ consisting of a mix of presentations, discussions and group work. Most of the teaching spaces were designed to facilitate this type of learning with specially equipped room cameras and ceiling microphones to foster inclusive discussions and learning between online and on-campus participants. In addition, hybrid team and group work is facilitated by tables equipped with dual monitors, microphones and speakers, and a camera.

The Futures Institute, which opened in summer 2024, already has more than 250 external partners and organisations co-located in the co-working ‘cluster spaces.’ These include Fintech Scotland and Natwest Group, Architecture & Design Scotland, Innovation Unit, Nesta, Police Scotland, and Public Health Scotland. Creative sector partners include Activity Stream, Brightside Studios, Create Future, TakeNote, and Ray Interactive, and there are a further range of partners in the data services sector.

The building also hosts 13 different research groups from across the university’s three colleges, totalling over 150 researchers. Disciplines studied include ethical AI, including the Bridging Responsible AI Divides (BRAID) project and a new Doctoral Training Centre which is training the next generation of researchers and innovators in designing “responsible and trustworthy natural language processing,” with more set to arrive in 2025.

### Site & existing condition

The building was in “a really poor state,” says Tinsdale, with the NHS having stopped its maintenance regime before it was decanted, around 14 years before the start of this project. “They had lost floors, there was water ingress through the solum spaces and in the roof,” he explains. Bennetts Associates ended up working on the project for a constant 10 year period, almost as custodians of this important asset.

**The university wanted to create a “much more collaborative type of teaching space,” and have a fruitful mix of tenanted spaces**



**Students studying online have a presence in on-campus classrooms via video, audio and text, and conversely, students studying on-campus can work with teams located across the globe**

“We were doing stabilisation work, surveys, asbestos strip and intrusive investigations, to try and de-risk it as much as we could.” He adds: “It became apparent very quickly that there were an awful lot of issues.” The result was a significant enabling works contract, which was extended from 12 to 18 months “to strip out a huge amount of the asbestos, and tackle a lot of the dry rot.” He said that as per usual in such contracts on major buildings, after “pulling that thread,” more and more issues were revealed with the structure.

So, before new constructions could be added, a comprehensive programme of repair and reconstruction was implemented for the building, including substantial floors replacement as well as asbestos removal, and strengthening of walls and roofs. Also, all external surfaces would be insulated, and natural ventilation reinstated.

There were also a range of interventions that had been made over the years to the building which were not conducive to its future intended use, and were concealing the building’s original beauty, so these had to be removed.

### **Design response**

In order to turn a historic but dilapidated former surgical hospital into a state of the art education and coworking facility, several key moves were needed. First and foremost, as well as the asbestos, the structure was stripped of its later accretions, so that the external and internal forms could once again be seen at their most impressive. This ranged from removal of extensions and mezzanine levels to removing suspended ceilings and services.

The original plan of Nightingale-style pavilion wards, remains, with four to the north and two to the south, organised around the central clock tower and the 4 metre wide spine corridor running the 125 metre length of the building. Due to the driver to prevent infection, the wards are very separate from each other, making them ideal for locating individual co-working areas distinct from the teaching facilities.

After many years of the building being accessed from the rear, via A&E, the “neglected” main entrance has been “reopened and rejuvenated, making the clocktower the focal point once again.”









The adjacent new pedestrian square makes a major contribution to the city's public realm and connects the building to the wider environment.

Iain explains the considerable benefits of the initial structure for the new function, despite being designed for healthcare: "The thinner parts, the wards themselves, are only about eight metres wide, and about five metres floor to floor at their tallest, so you've got huge amount of daylight and easy, natural ventilation in all those spaces."

The university wanted to create a "much more collaborative type of teaching space," and have a fruitful mix of tenanted spaces, including innovative start ups, with the teaching, which itself features an array of interesting AI ethics subject matter for example. There are also 'maker spaces' for tenants and teaching, and a range of crossover interests and subjects shared between the two.

Iain pinpoints the way the design "flips" the original hospital design of separation, to provide more connectivity between these generous spaces. He explains how the extensions along the north flank of the corridor are teaching spaces, but also "provide another line of connectivity between the 'wards.'" He adds: "It was all driven by the idea that the teaching spaces in the former wards can have one type of teaching, and then without changing any rooms, they can all break out into the seminar space to hold a small lecture, and then go back out into their teaching spaces."

Iain explains that the final piece of the puzzle is the extension along the south edge of the main corridors, "always envisaged as a sort of dwell space for the university," and "essentially break out space." Its purpose is to "try and promote the same discussion that many higher education projects talk about – mixer space outside the teaching areas. But it does





more than that in this building, because the university had the aspiration to open the building up to the city, and be a new front door for the institution.”

For example, all of the corridor seating areas, and the large dwell spaces with their comfortable seating, desks, meeting booths and power sources, can be freely used by the public, in addition to the large and welcoming cafe and restaurant spaces.

However, the most significant design move, and which really “unlocked the whole scheme,” says Tinsdale, was “managing to persuade Historic Environment Scotland to let us demolish the gatehouse, which was actually Grade B listed.” Previously, there was no level access to the main entrance, and the gatehouse plus its railings and the gates were a “real blocker for anybody coming in; it didn’t feel welcoming at all, and for the longest period of time, nobody used the entrance.”

### **New additions & facades**

The other main addition was a 500-seat events space at lower ground level beneath the public square, which “wouldn’t fit anywhere else in the plan.” Making this space accessible, as part of “opening the building and reinstating its civic presence to the city” was a very important part of the brief for the client. This was also a major challenge, but the building has DDA compliant ramping all the way up and around the sides of the refurbished and reinstated steps. The public square is enhanced by the double-height light boxes at grade which bound one edge of the new space and “signify something new has happened to the city,” says Tinsdale.

Accommodation was added on either side of the main corridor, including four-storey extensions to the north providing flexible teaching and events spaces, as well as surrounding ‘touch-down areas’ needed by the Futures Institute. The wards

### **LIGHT BOXES**

Two double-height light boxes bring light down into the new below-ground events space  
© Peter Cook



### CONTRAST

The corridors are a mix of colour and stone floor slabs, exposed brick vaulting and stone walls  
Photos © Peter Cook

housing the co-working areas were faithful to the elegant Nightingale proportions, and finished as “simple, white volumes to contrast the corridors,” which are a mix of colour and stone floor slabs, exposed brick vaulting and stone walls.

Iain asserts that a significant amount of floor space has been added, somewhat deceptively given the building initially appears largely unaltered. The extensions “wrap over the roof, so there is a new roof top to the pavilions on top of the extensions, as well as a link corridor at level four which never really existed before.” He says this is an example of how the design “consolidates the circulation, so that it’s much more interconnected.”

He says the level four spaces are “much more quirky,” being in the roof space, with rafters exposed. “One of the great things about the scheme is the variety of types of space, the wards, the smaller rooms within the wards, the breakout and dwell spaces along the south, and the new seminar teaching spaces up in level four.”

There have been limited additions of new facades: “We tried to use the existing building as much as possible and then also really show it off,” says Tinsdale. “So as much as we’ve created a new four storey element in between those two wards, we’ve only got one line of new external facade. Further space efficiencies have been achieved by “pulling the core [ancillary, mechanically ventilated] spaces” such as toilets, the IT hub, escape stairs and support spaces together into clusters. “This maximises the natural ventilation that we can achieve around the outer perimeter for the actual teaching spaces,” says Tinsdale.

In terms of acoustics, Iain admits the architects were “quite worried about the dwell spaces in the corridors,” but that in the event, “because it’s rubble stone, it’s quite multifaceted, and it automatically breaks a lot of the reverb up.” However, in the teaching spaces, there were stricter demands, and there was “a lot of work done to stop sound transmission between spaces and the new linings, new ceilings, new finishes; we’ve got absorption



anywhere that we could get in the ceiling rafts.” He adds: “The timber panelling on the teaching walls and the ward spaces were the most challenging, because there’s more window than wall.”

### Whole life carbon

A Whole Life Carbon Assessment was carried out on the scheme by Cundall, according to BS EN15978:2011, as well as the RICS ‘Whole life carbon assessment for the built environment 2017’.

The project aimed at 2020 LETI benchmarks for emissions for educational new build, including an “upfront carbon target” of 500 kgCO<sub>2</sub>e/m<sup>2</sup> (“without sequestration for substructure, superstructure, MEP, facade, and internal finishes”). With sequestration included, the project’s whole life carbon target was 675 kgCO<sub>2</sub>e/m<sup>2</sup>.

Cundall projected the emissions over 60 years from the construction as a whole, and their results showed an Upfront Embodied Carbon score of 361 kgCO<sub>2</sub>e/m<sup>2</sup>, improving on the LETI target by some distance, and an overall Whole Life Embodied Carbon of 603 kgCO<sub>2</sub>e/m<sup>2</sup>, also under the LETI target.

### Conclusion

The project’s architect says that one of the most satisfying aspects of the restoration is how it has opened up what was formerly a ‘closed’ healthcare facility, then a derelict local eyesore, so it’s not only a rejuvenated asset, but one which can be used by the community.

Founder of Bennetts Associates Rab Bennetts sums up what the Futures Institute project means for him as an Edinburgh native, as well as for his practice: “This has been an immensely rewarding project to work on and hugely important not only for the practice but also for the university and my home city. While it was important that the building no longer feels like a hospital, we have carefully honoured its history and the memories of those who used it. The design has changed how people experience the spaces, interconnecting the building with the city as its new identity evolves.”

As well as the many ‘partner’ firms listed earlier who are occupying the building already since completion, the Institute will be welcoming further occupants in 2025, as the ‘hub’ for Tourism, Festivals and Travel innovation launches with partners joining the cluster spaces in one former hospital ward.



The architects assert that “the range of spatial experiences are unlike anything that could be achieved with an equivalent new build, and that the design not only demonstrates that listed buildings can be changed without detriment to the original, but also that low carbon-re-use of an existing building can be stimulating and responsible.”

Professor Dhaliwal of the Futures Institute says that the building becoming an ‘open’ resource for the city is the lasting outcome of this highly successful project – “it is very much ‘patet omnibus’ – open to all, as it says on the door. We’re so proud to have been part of making this a reality for the whole university and for the city – opening the doors again to this historic public institution and welcoming Edinburgh residents, visitors and university staff to the reimagined spaces.” He concludes: “Every element of the design project considered this and works to encourage people to use the space, echoing our vision of interdisciplinary education, research and collaboration.” ■

**“We’re so proud to have been part of making this a reality for the whole university and for the city”**

Professor Kev Dhaliwal, Edinburgh Futures Institute

# Educating for Change: Reuse & Refill to Reduce Plastic Waste

Plastic is a problem! On average, a single person in the UK uses three plastic water bottles a week – that's more than 7.7 billion plastic water bottles in the UK per year. Once a convenient and cheap solution, single-use plastic bottles end their short lives in landfill, oceans and rivers, causing significant worldwide pollution. In the UK, the problem of single-use plastic has, mostly, been addressed. Thanks to high-profile awareness campaigns, in 2023, the UK government banned single-use items i.e. those that are not designed or intended for reuse, and consumer habits are definitely changing for the better. Recycling, the obvious alternative solution is steadily increasing with almost two thirds of packaging waste in the UK now being recycled. But is it really the ideal solution?

According to the City to Sea website, only 9% of all plastic ever produced has been recycled, and the UK's current plastic recycling rate stands at 45%. So, in real terms, this means that only a fraction of recyclable plastic water bottles ends up being recycled. And, when we take into account the fact that manufacturing plastic consumes significant amounts of energy and raw materials, the only real sustainable solution is re-use.

## Refill campaign, changing habits

In 2015, only 20% of people in the UK used refillable water bottles, but, thanks to the Refill campaign from City to Sea, by 2023 this reached 60% of the population.

"If just 1 in 10 Brits Refilled just once a week, we'd save around 340 million plastic bottles a year."

Launched in 2015, Refill is a campaign helping people find places to eat, drink and shop with less plastic. A free app identifies locations such as cafes, restaurants, museums and shops throughout the UK that provide free tap water to refill water bottles. The Refill campaign is making significant advances in encouraging consumers to adapt their behaviour. And where better to raise awareness and change behaviour than schools where young people can adopt good habits that they will carry through to later life?

As a rule of thumb, young people aged between nine and 13 should drink between 1.3 – 1.7 litres of water per day,



DELABIE's water fountains are available in different heights for different age cohorts



Encouraging young people to refill promotes well-being and sustainable practices in later life © DELABIE

according to the European Food Safety Authority. Even mild dehydration can lead to a lack of concentration, fatigue, headaches and tiredness, all of which have a significant impact on performance. Providing ready access to refill stations in schools and education facilities will have a positive impact on young people's health and will also contribute to reducing our reliance on plastic.

## Sustainable, durable, hygienic

Refill stations in schools do, however, need to be robust. They are subject to intensive use, and will need to withstand voluntary and involuntary vandalism from heavy-handed users. DELABIE offers a wide range of drinking fountains designed specifically for high-footfall environments. Made from 304 stainless steel, a recyclable material that contributes to sustainable development, they are designed to withstand impacts and abrasion. The surface has no additional treatments, and will not rust even if scratched. The valve mechanism is made from solid brass which has been tested and proven to be reliable for over 500,000 operations. Product reliability is reinforced by a 30-year warranty and DELABIE guarantee that replacement spare parts will be available for up to 50 years.

Well-established in professional kitchens and healthcare settings, stainless steel also has hygienic benefits, thanks to its bacteriostatic nature. DELABIE's drinking fountains have a polished satin finish, which provides a uniform, non-porous surface with minimal seams to avoid dirt deposits and niches where bacteria can develop. The smooth surfaces and rounded edges of these water fountains mean there are fewer niches where bacteria can develop, making them easier to clean. The bowls feature a perforated flat-grid waste with no screws which also improves cleaning as well as reducing vandalism. To avoid unnecessary water wastage, the tap mechanism shuts off instantly when the push-button is released and the flow rate can be adjusted on installation to adapt to the system pressure and reduce splashing.

Stainless steel water fountains are the perfect, sustainable solution for public spaces. Specifically designed for high footfall buildings, they will withstand the daily wear and tear experienced in school environments. As we reduce our reliance on plastic, changing young people's habits by encouraging refill and re-use will benefit their well-being as well reducing their environmental impact.

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



# Passivent plays its part in new Passivhaus school

Natural and hybrid ventilation solutions manufacturer Passivent has supplied its patented SoundScoop® acoustic cross-talk attenuators for use in a new purpose-built primary school in Wales that has been designed and constructed to meet Passivhaus standards and also achieve a BREEAM Excellent rating.

With a focus on sustainability and wellbeing, Ysgol Pen-bre (Pembrey School) near Llanelli was designed by Carmarthenshire County Council as part of its multi-million pound Modernising Education Programme in collaboration with the Welsh Government's Sustainable Communities for Learning Programme. The school's ventilation strategy has been enhanced through the use of Passivent's versatile SoundScoop units, which have been installed within the classroom areas to contribute to the creation of a comfortable interior learning environment, both in terms of air quality and noise reduction.

At just 320 mm high, the discrete design of Passivent's SoundScoop allowed it to be easily accommodated within the bulkheads that supply the rooms with fresh air, which can also be heated or cooled, via a centralised air-handling plant. The SoundScoop units then passively exhaust air back out into the central circulation space for it to be extracted, tempered and redistributed back into the classrooms by the main air-handling plant.

As the SoundScoop system is passive in operation, it requires no mains power supply or maintenance, making it a cost-effective solution for a busy school environment. It combines exceptional acoustic attenuation with very low airflow resistance enabling cross-flow ventilation between internal



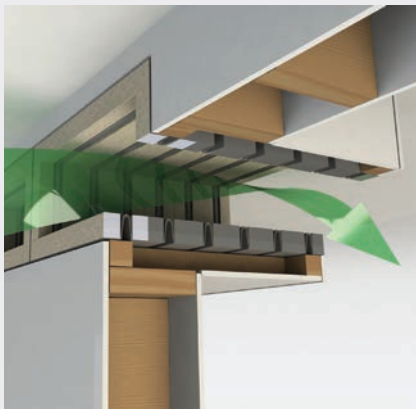
spaces of a building and, in the case of schools, compliance with both Building Bulletin 93 (acoustic design of schools) and Building Bulletin 101 (ventilation, thermal comfort and indoor air quality in schools). SoundScoops can also be fitted with a fire damper (by others) in fire walls to satisfy fire regulations.

Providing technical support both at the design and installation stages, the Passivent team worked closely with project partners Bullock Consulting Ltd (Mechanical and Electrical Consultants), specialist contractor Narbeths Mechanical Services Ltd, and local contractor TRJ (Betws) Ltd.

Sian James from Bullock Consulting commented: "The unique design of the SoundScoop cross-talk attenuator made it the perfect choice for attenuating noise between the classrooms and circulation spaces. As the SoundScoop is passive in operation and requires no energy to operate, this contributed greatly to the sustainability goals for the school."

To find out more, visit the website, call or email [projects@passivent.com](mailto:projects@passivent.com). Follow Passivent on LinkedIn to be kept up to date with the latest news.

01732 850 770 [www.passivent.com](http://www.passivent.com)



# All dance students deserve to dance on a Harlequin floor

Dancers can spend hours in the dance studio; it is their place of work and should provide a safe environment that is fit for purpose. Regardless of where a student chooses to study dance, it is essential to ensure that the learning environment is equipped to professional standards. The floor is a dancer's most important tool; not only is it the canvas for their creativity, but it also provides protection against slips, falls, and long-term stress injuries.

Experts in biomechanics have established a clear link between the quality of a floor and the likelihood of injury, demonstrating that a sprung floor with a consistent responsiveness and the correct degree of traction is essential.

Experienced dancers can instinctively judge whether a floor feels right. When it does, they can focus entirely on their artistic performance free from concerns about their safety. This confidence stems from the assurance that they will not slip or fall, that lifts can be performed safely, and that the floor will consistently provide the right level of energy absorption on landing from jumps.

Anyone specifying floors for dance should remember that, while dancers may not be the commissioning clients, they are the end users. Major dance companies, schools and universities understand this, which is why it is common practice to have their dancers "test" floors before making a final decision.

It is a common misconception that a well-designed sports floor can meet the needs of dancers. However, there are critical differences between the requirements of dance and those of sports. Many sports demand a firm floor that enables predictable ball bounce, whereas dancers require greater shock absorption to protect their bodies, particularly when landing from jumps.



A high-quality floor specifically developed for dance provides the confidence dancers need to fully express their creativity, secure in the knowledge that the floor will consistently respond to their movements and support their performance safely.

There may be a temptation to choose floors based on aesthetics or budget. However, there have been cases where floors had to be replaced after construction was completed, as dancers experienced issues when performing on the unsuitable surface. Dancers should generally refuse to perform on inadequate floors and demand the right to use a touring floor with the same absorbent characteristics as the one installed in their rehearsal studio.

A dance floor should be neither too rigid nor too soft. A hard floor can cause serious return shock waves, potentially leading to injuries or premature cartilage wear. Conversely, a floor that is too soft forces muscles and tendons to work harder, increasing the risk of strain. Additionally, excessively soft floors can pose a hazard for dancers due to the element of unpredictability.

Harlequin is widely recognised as the world's leading authority on dance floors. As an enlightened manufacturer Harlequin has always worked closely with the dance community to develop floors that dancers want to dance on. Flooring products in the Harlequin portfolio were typically evolved to meet the specific needs of a particular dance style and have been developed in conjunction with dancers themselves.

Leading dance companies from around the world trust Harlequin to keep their dancers

safe in their rehearsal studios, on stage and whilst dancing from home.

But this assurance of quality is not only applicable to elite dancers. It is equally important to provide amateur dancers in performing arts colleges, universities and schools with the same quality flooring. Aspiring dancers need protection if they are to avoid cutting short their potential dance careers.

For venues where a dedicated space for dance is not available, Harlequin has developed four Portable Dance Flooring for Education Packs suitable for teaching various types of dance from the youngest age group upward, enabling all those in education to have safe floors that have been specifically designed for dance.

There is no doubt, the choice of flooring is critical. For over 45 years Harlequin has been the performance floor of choice for the world's most prestigious dance and performing arts companies, theatres, venues, schools and universities.

Harlequin's experience and reputation are founded on the design, manufacture and supply of a range of high quality portable and permanent sprung and vinyl performance floors chosen by the world's leading venues – from the Royal Opera House to the Queensland Ballet.

Harlequin offers free advice to ensure dance companies and education facilities install dance floors best suited to their particular use.

01892 514 888 [www.harlequinfloors.com](http://www.harlequinfloors.com)



# World leaders in floors for the **performing arts**

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The Fonteyn RAD

With over 45 years of experience, Harlequin has an enviable reputation for working with prestigious dance schools, architects, and contractors within the education industry.

Harlequin offers an extensive range of sprung floors, vinyl floors, dance mirrors, ballet bars and dance studio equipment, providing a turnkey solution for performance spaces.

For more information, contact the technical team.

[architects@harlequinfloors.com](mailto:architects@harlequinfloors.com) +44 (0) 1892 514 888



**HARLEQUIN**  
www.harlequinfloors.com



04-06 February  
Business Design Centre, London

# Ethical routes to a perfect skin



From 04-06 February, London's Business Design Centre will host the Surface Design Show (SDS), the UK's largest show dedicated to surface material innovation. With over 180 exhibitors, it is the event of choice for architects and designers to see, source and specify the latest and most inspiring internal and external surface materials.

'Creative Conscience' has been revealed as the 2025 theme and will highlight the future of materials for the built environment, focusing on sustainability, technological advancement and the human experience. The theme embodies a drive and commitment to sustainable, ethical and innovative design. This forward-thinking attitude explores the harmonious fusion of colour, sustainability and ingenuity in surface design for architecture and interiors.

The plethora of exhibitors range from hand crafted ceramic tiles to stunning marble walls, bespoke wood veneers and everything in between.

For example, Ketley Brick will be showcasing its innovative approach to creating inspirational brickwork facades through its Vision Bricks. Using the latest digital technologies, relief patterns can be created on the surface of clay bricks, as well as brick slips, pavers and quarry tiles, enabling the creation of bold and adventurous wall and floor designs as well as bespoke landscaping features.

Exhibitors include Alpi, an Italian manufacturer of decorative surfaces made of reconstituted wood, the first to industrialise this process. ALPillignum veneer is made of real wood, produced by taking apart and putting back together



a tree trunk. This creates a natural unprinted material that lends itself to design possibilities offering limitless aesthetic results.

For Everyday Life (FE.L) will be presenting their award-winning design; 'Housing Salinas.' One of the winners of 'The Initiative 99,' a global architecture competition for affordable housing, 'Housing Salinas' is more than just architecture. Designed in response to community displacement in Puerto Rico as a result of Hurricane Maria, it is the creation of a long-term solution that strives towards a future where residents can live, work, and flourish in an environment that embodies the highest standards of social and environmental responsibility.

Located right in the heart of the show will be Surface Spotlight in partnership with CDUK, which features groundbreaking materials for visitors to touch and feel, giving a truly 'hands-on' experience. Curated by trend expert Sally Angharad, Surface Spotlight presents a selection of surfaces, finishes and materials that celebrate the power of creative thinking, demonstrating how ethical innovation is providing positive design solutions.

New for 2025 is the inclusion of Green Grads, a platform promoting recent graduates of UK universities who are confronting the world's most pressing eco issues. They include engineers, product and furniture designers, material scientists, ceramicists, textile and graphic designers, craftspeople, artists and film makers.

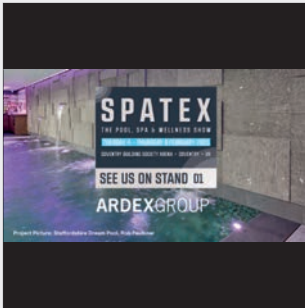
SDS will host over 50 speakers throughout the three day event, providing a variety of discussions, panels and insights into the most recent design advancements. Returning for 2025 is the opening night debate titled 'A True Companion: The Power of AI in AD' which will be looking at artificial intelligence's role within the design community.

Join over 6,000 architects, designers and specifiers to discover the best innovative materials for the built environment while also enjoying a stellar line up of guest speakers and thought-provoking installations. Scan the QR Code to find out more!

*Article submitted by  
Surface Design Show*



## ARDEX returns to SPATEX 2025 pool and wet leisure exhibition



The ARDEX Group are returning to SPATEX 2025 – the UK's only water leisure exhibition – to showcase their latest rendering, waterproofing and tiling technologies for pools and wet leisure areas. SPATEX 2025 is being held from the 4th to the 6th February 2025, and is once again taking place at the Coventry Building Society Arena in Coventry, West Midlands. Running for 29 years, SPATEX is the first international European water leisure show in the calendar and will feature more than 100 exhibitors is backed by a number of prestigious associations including ISPE, SPATA and BISHTA. ARDEX is one of the UK's leading providers of pool and wet leisure systems from screeding and rendering, to waterproofing, sealing, tiling and grouting and will be showcasing their latest technologies on Stand D1. Join the ARDEX team of technicians and specification experts to find out why ARDEX are the experts in swimming pool and wet leisure installations – with systems specified on a many prestigious projects including the London Aquatics Centre for the 2012 Olympic Games, the Toll Cross International Swimming Centre for the 2014 Commonwealth Games and many, many more!

01264 358 558 [SPATEX.co.uk](http://SPATEX.co.uk)

## A. Proctor Group wins big at awards



A triumphant night saw the A. Proctor Group win in both categories it was nominated for at the 2024 Construction Marketing Awards (CMAs). Judges named the company as winner in the Best Product Launch and Best Advertising

Campaign categories. The prestigious awards were presented during a gala dinner and ceremony, held at the Hilton London Bankside. Best Product Launch was awarded for the Proctor Air® campaign – the most significant launch in the A. Proctor Group's recent history. The judges noted how the "attention grabbing, innovative campaign" communicated Proctor Air's benefits.

01250 872 261 [proctorgroup.com/products/proctor-air](http://proctorgroup.com/products/proctor-air)

## Breathing Buildings' NVHRe wins



Breathing Buildings has scooped the Commercial Ventilation Product of the Year Award at this year's prestigious Energy Saving Awards. The company won the award for its new NVHRe, Natural Ventilation with Heat Recycling and Heat Recovery (NVHRe), which is its latest addition to its award-winning range of Natural Ventilation with Heat Recycling (NVHR®) systems. This is the second award Breathing Buildings has won for this innovative product, it also won 'Commercial/ Industrial Ventilation Product of the Year' category at the HVR Awards 2024 in September.

01223 450 060 [www.breathingbuildings.com](http://www.breathingbuildings.com)

04-06 March  
ExCeL, London

**futurebuild**  
04 - 06 March 2025 | Excel, London

# Celebrating 20 years of impactful innovation



Celebrating its 20th year, Futurebuild 2025 continues to lead the charge for innovation, sustainability and collaboration in the built environment, and this year's theme is 'making an impact.'

Visitors will have the chance to explore a diverse range of exhibitors and innovations that are transforming the built environment. In the main exhibition, you can discover a wide array of products and services designed to tackle today's sustainability, energy efficiency and innovation challenges.

The Innovation Trail connects with leading exhibitors such as Heidelberg Materials UK and LKAB Minerals, as a 'curated experience' that enables professionals to discover pioneering solutions, products and materials to meet sustainability and project goals.

Attendees can also explore the Futurebuild Arena stage, the co-located National Retrofit Conference & Expo, and five 'impact' stages offering expert sessions tailored to specific sectors and interests – all are CPD accredited.

- The Buildings Impact Stage sponsored by HG Matthews: Diving deep into designing net-zero, climate-resilient, and aesthetically impactful structures, this stage features partners such as Passivhaus Trust, BRE, and UKGBC and topics such as modular construction innovations, and the Future Homes Standard.
- The Materials Impact Stage sponsored by Aggregate Industries: Insights into traceable supply chains, waste minimisation, and sustainable material use. 'Impact partners' such as The Concrete Centre, 540 World and Built By Nature will explore how to choose materials that enhance projects' sustainability for a greener future.

- The Placemaking Impact Stage sponsored by Hahn Plastics Ltd: Going beyond homes to explore how built environment professionals can design and build vibrant, connected communities that align with sustainability goals. Curated in collaboration with partners such as Urban Design Group and Landscape Institute, it will provide knowledge and practical insights on how to enhance placemaking in projects.
- The Energy Impact Stage sponsored by Kensa: With decarbonisation a priority, the focus is on integrating renewable energy sources into building designs, and how to navigate upcoming regulations. Panel discussions from partners such as Energy Saving Trust, CIBSE, and the Sustainable Energy Association, addressing the role of heat pumps, solar technologies, and thermal storage in creating low-energy homes.
- The FutureX Digital Disruptors Impact Stage sponsored by One Click LCA: Explore how construction technology can be used intentionally to benefit both society and the environment.

## The Futurebuild Arena

The Futurebuild Arena will focus on sessions that explore how built and natural environment professionals can make an impact and help us achieve the transition towards reaching our climate targets. The focus will be on creating a vibrant economy that works within planetary boundaries, promotes social justice, and ensures fair resource use. The three overarching themes for 2025 are 'Putting Circularity and Reuse at the Heart of Living and Working,' 'Sustainability, Social Justice and Transition,' and 'Making it Happen'.



Each session will be dissected to examine where we need to be in 12 months, five years, and 10 years time.

### The National Retrofit Conference & Expo

The National Retrofit Conference, co-located with Futurebuild, is a must-visit for anyone interested in retrofit. Sponsored by Sustainable Building Services, it is designed for professionals focused on achieving net-zero goals through retrofitting. It spans the three days (04-06 March), with content curated from Retrofit Academy CIC on the first two days and the National Retrofit Hub on the third. The programme will focus on “scaling the ambition, delivering the promise of retrofitting, and regenerating our cities and regions at their core.”

The National Retrofit Expo, new for 2025, will expand on the conference and feature dedicated exhibitions of innovative products, solutions, and technologies that tackle retrofit challenges, with leading exhibitors including Parity Projects, E.ON, Corksol, Trustmark, q-bot and many more.

Also, don't miss the Big Retrofit Challenge, where this year six shortlisted innovators will present groundbreaking

ideas with the potential to solve pressing retrofit challenges.

### Impact 20x20

New for the 2025 event, Impact 20x20 has been launched with a Call for Papers inviting visionaries to present bold ideas for a sustainable future through fast-paced Pecha Kucha-style sessions. It will spotlight innovative research and solutions that are inspiring action in the built environment.

### The Big Innovation Pitch

Returning for another year, The Big Innovation Pitch will see three shortlisted finalists presenting their innovations live to a panel of judges including Dr Oliver Jones, who is associate director for sustainability and innovation at Cundall.

Futurebuild 2025 is a unique opportunity to contribute to the future of sustainable architecture. Join the movement and make your impact! Register today by scanning the QR Code.

*Article supplied by Futurebuild*



### Vent-Axia Wins H&V News Award



British ventilation manufacturer Vent-Axia is celebrating winning the 'Low Carbon Impact Award: Commercial or Industrial' at the prestigious H&V News Awards. Committed to providing healthy indoor air while driving a low-carbon future, Vent-Axia received the accolade for paving the way in the ventilation sector when it comes to its decarbonisation with its ground-breaking manufacturing transformation, transitioning from virgin to recycled plastic. The company's latest innovation involves the testing of recycled plastics to create its pioneering materials database which leads the sector, making it a worthy winner.

0344 856 0590 [www.vent-axia.com/sustainable](http://www.vent-axia.com/sustainable)

### A. Proctor's new National Sales Manager



The A. Proctor Group is delighted to promote Margaret Airth to the position of national sales manager, effective immediately. In her new role, reporting to sales director John Johnston, Margaret will oversee the team of regional sales managers, providing them with further support and direction. “Over the last 13 years, Margaret has taken on a large and varied role within the Group, supporting the delivery of our sales strategy,” said John Johnston. “Alongside managing national distribution accounts and our internal sales team, she already works closely with our RSMs.

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

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# Big ideas, small solutions: Why getting print right still matters in the AEC industry

The Architecture, Engineering and Construction (AEC) industry relies on print. From sharing schedules, to keeping reports, to showcasing the newest concept sketches – print is the backbone that keeps the industry running smoothly.

For many organisations, the importance of producing physical, business-quality collateral to share with their customers can even be a differentiating factor to set them apart from competitors within an increasingly crowded market. And modern printers have evolved to respond to new needs. Now, they aren't solely used for their primary purpose, but also to scan and securely save sensitive documents, or share them between devices with ease.

Choosing the right printing solution can therefore have a huge impact on an organisation – where, no matter how big or small the business itself, the quality and efficiency of a solution can have a huge impact on both productivity and reputation.

## Delivering maximum impact, in small spaces

In space-strapped offices, there's often no room for industrial-sized printers. But that doesn't mean that architects, engineers and other AEC professionals don't require the same high-quality results on a smaller scale.

Marrying the need for business quality with the challenge of preserving workspace can mean some businesses struggle to source printing solutions that can 'do it all' – either settling for lower quality prints, or larger machines which limit their ability to maximise space within the office environment.

As a longtime partner of AEC businesses, Canon understands the industry's priorities. The MAXIFY GX6050 solution, for example, offers a compact footprint (only 399 x 410 x 254 mm) without compromising on print quality. For AEC businesses that require high-resolution scans and speedy deliverables, high-performance devices such as this can offer scans of 1,200 x 1,200 dots per inch (dpi) and can print pages in as little as seven seconds. Compact, undeniably cost-effective and providing business-critical quality, modern devices are now being designed with AEC professionals in mind.



## Performing reliably, and cost-effectively

It's no secret that the AEC industry has weathered some tough times in recent years. From the supply chain disruption surrounding the Covid-19 pandemic, to the labour shortages predicted to increasingly affect a large number of firms in the coming years.

It's no surprise, then, that cost-conscious solutions are rising to the front of the pack, as AEC organisations seek to protect their bottom lines from further disruption.

This was a key factor behind the development of Canon's MAXIFY GX6050 device, which delivers a 90% average savings on the total cost of ownership when compared to the top 10 laser and inkjet printers. Providing print, copy, scan and cloud link functions, multi-function devices allow businesses to scan and share across multiple devices securely. Plus, refillable ink helps AEC offices print all the contracts and documents they need in the most cost-effective and efficient way.

## Understanding the industry

The fluctuating nature of both the print and AEC industries means that new solutions, and new needs, surface regularly. Choosing the correct solution can therefore feel tricky, as organisations are left to sift through a huge number of options in search of their

'perfect fit'. That's why most organisations opt for a trusted name. Print solution companies with a reputation for producing high quality, durable machines, which require little maintenance to continually operate at a high level and save the business money in the long term. And a trusted name is exactly what Canon provides.

Canon is proud to have fostered strong partnerships within the AEC industry. With a reputation for producing high-quality and trustworthy solutions that match all needs, Canon has partnered alongside the likes of RIBA and The Architect's Journal – showcasing our commitment to delivering for industry professionals.

## Getting print right

Misconceptions around the AEC industry – such as that organisations no longer rely on print, that they have experienced a boom of liquid cash flow, or that they're all occupying huge offices – still abound. It's one reason why it's so vital to find partnerships built on equal understanding. Only then can you find a solution that truly meets your office needs.

It's time for the AEC industry to embrace the benefits of better print and improve experience and output for professionals and customers alike.

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



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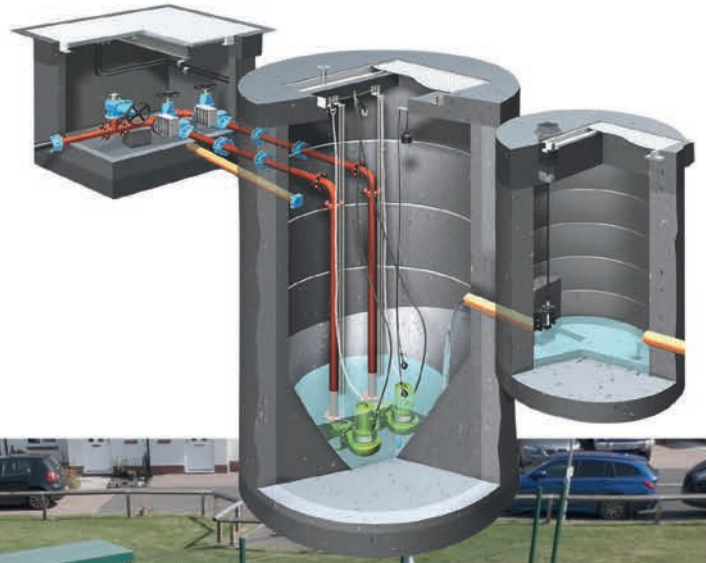
# **T-T ADOPTABLE PUMPING STATIONS**

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- ✓ Structural and septicity analysis (optional)
- ✓ Off-loading and crange on-site during the first fix
- ✓ Commissioning by T-T technicians
- ✓ Full NICEIC certification
- ✓ Comprehensive operation and maintenance manuals



# Modern performance from traditional methods

Developed by a Midlands housing association, a recent project in Handsworth, Birmingham shows a forward-thinking approach to sustainable housing, anticipating the Future Homes Standard. MPA Masonry explores how combining innovative materials with traditional construction methods can create efficient, low-carbon homes.



© Midland Heart

**“Blockwork, whether concrete or aircrete, has very impressive whole-life carbon qualities which are often overlooked”**

Tony Hopkin, head of construction & quality at Midland Heart

The brainchild of forward-thinking housing association Midland Heart, the design and construction of Project 80: Eco Drive in Handsworth, Birmingham, completed in 2022, pre-empted the Future Homes Standard (FHS), which is set to be introduced in 2025.

From the outset, Midland Heart was keen to meet all the requirements of the forthcoming regulations, which will see all new homes expected to produce a 75-80% reduction in carbon emissions compared to currently accepted levels.

The Future Homes Standard covers a wide range of criteria and the developer had to carefully plan every aspect of the build to ensure the lowest whole-life carbon performance. This ranged from the materials chosen and systems specified, through to the machinery used onsite and the fixtures, fittings and finishes in the property.

A low-carbon home also needs to be structurally safe, built to last and comfortable for the occupier. This meant balancing achieving the Future Homes Standards requirements without compromising the essential elements which comprise a quality home.

## Fabric-first design

The FHS is set to usher in a new age of energy-efficient, low-emissions housing. Midland Heart was keen to ensure it met the stipulated low U-values on its upcoming developments, leading to the initial concept of Project 80 and the objective of delivering a fully ‘fabric first’ development.

As Tony Hopkin, head of construction and quality at Midland Heart revealed: “Our residents are at the heart of everything we do, yet we’re also conscious

of our environmental responsibility, so we wanted to build homes which not only protect people, but the planet too. So, Project 80’s overarching aim became the elimination of any unintended consequences which would cause the properties to fail to comply with the FHS, as this would have massive negative implications for potential occupiers, and the housing association.

“In particular, we wanted to show that, with the right materials and systems, achieving ultra-low U-values was entirely possible. By trialling different solutions, particularly the latest concrete and aircrete blocks, we were able to achieve U-values of 0.13, putting our properties comfortably within the standard’s requirements.”

The West Midlands has a wealth of local block manufacturers and a rich heritage of block production. For this project, concrete blocks were manufactured by Shropshire-based Besblock, and its aircrete blocks were manufactured by H+H.

This blended approach not only achieved the required thermal efficiency, but the use of high-performance aircrete blocks, which are lightweight and easy to install, supported the air-tight structures and reduced the chance of thermal bridging. It also significantly accelerated the construction process.

## A material success

To meet its aims of achieving Part L compliance, Midland Heart needed to specify materials that could deliver maximum efficiency, yet also deliver safe, secure, comfortable and affordable dwellings.

Furthermore, they were keen to work with local businesses, ensuring a small





supply chain with the minimum amount of energy and fuel consumption possible.

As the project began to take shape, in the form of a group of 12 new homes built using fabric first principles, Midland Heart, which is an advocate of traditional construction methods, embraced tried and tested cavity wall construction. Being a traditional method, they understood that this system would deliver the desired thermal efficiency, but without reinventing the wheel.

### **Cementing concrete's low carbon credentials**

Project 80 is providing definitive proof that concrete can play a crucial role in contemporary, sustainable housebuilding. It's also proving there's more to meeting sustainability requirements than 'upfront' embodied carbon.

That's not all, the manufacturing process of the blocks used (Besblock's Universal Star Performer in this case), helped Midland Heart achieve homes that met the design brief's 80% carbon reduction target, providing significant embodied carbon savings. Cured by energy from a nearby waste wood facility, using biomass boilers, the products used had

significantly lower embodied carbon values than equivalent products.

The use of SustainaCem cement, a pre-blended sustainable binder, and blocks cured using energy from a nearby waste wood facility, also kept embodied emissions low, further reinforced by a local supply chain.

Tony Hopkin concluded: "Project 80's vision has been to deliver high-performing but low-impact homes that are tailored closely to resident needs. Technology and sustainability have been at the heart of this development to improve efficiency, but the fabric of the building was the starting point that needed to be addressed.

"Blockwork, whether concrete or aircrete, has very impressive whole-life carbon qualities which are often overlooked, but they are truly circular products that embody the core principles of reduce, reuse, and recycle. In partnering with Besblock and H+H, we discovered sustainable products that could adapt and flex according to the other low-carbon components selected, with the result that we were able to achieve homes fit for the Future Homes Standard."

*Article submitted by MPA Masonry*

## Yorkshire's Premier Reclamation Yard



Reclaimed Brick Company specialise in reclaiming and supplying authentic reclaimed imperial bricks and natural stone from across the UK, each piece showcasing the unique charm of traditional building materials. The company's knowledge of building materials and strong ties with the demolition industry ensures

they can carefully salvage old materials and reclaim them for reuse. All their products come with their own history!

[reclaimedbrickcompany.co.uk](http://reclaimedbrickcompany.co.uk) [info@reclaimedbrickcompany.co.uk](mailto:info@reclaimedbrickcompany.co.uk)

## Wernick Buildings Limited



Wernick specialise in the design and build of permanent modular buildings. We provide sophisticated and sustainable offsite building solutions which inspire creative architectural individuality with accelerated project delivery.

Continuously responding to the ever-changing dynamics within the construction industry, our building systems embrace the principles of design for manufacture and assembly (DfMA), for ultimate build efficiency. Our unique approach harnesses all the properties of traditional build performance but with the added benefits of market leading offsite manufacture techniques and technologies.

[buildings@wernick.co.uk](mailto:buildings@wernick.co.uk) [www.wernick.co.uk](http://www.wernick.co.uk)

## Swish Building Products unveils NatureClad, the next generation in wood effect cladding



Swish Building Products has unveiled the latest addition to its already extensive cladding range, NatureClad, a high-definition, wood effect PVC external cladding system. This new collection is available in Double Shiplap and Double Feather Edge profiles in board lengths of 5 or 6 metres. NatureClad is extremely versatile and can be used in numerous ways, from new build homes and RMI (repairs, maintenance, and improvement) projects to garden rooms, caravans, lodges, and holiday homes. NatureClad's authentic high-definition woodgrain texture has been achieved using premium wood effect foils which guarantee consistency in finish, negating the need for batch matching. The super-matt surface is available in five contemporary wood tones. The range also features matching trims and joints, resulting in a seamless, cohesive finish. NatureClad has been specially designed to combine both style and substance. The PVDF layer and low surface tension provide greater resistance against dirt and chemicals, resulting in a durable, long lasting cladding system. In addition, NatureClad is lightweight, quick to install, and extremely low-maintenance, making it the ideal for installers and property owners alike.

01827 317200 [www.swishbp.co.uk/natureclad](http://www.swishbp.co.uk/natureclad)

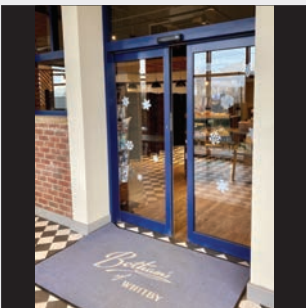
## VEKA Launches Softline 82 - Passivhaus: Redefining Energy-Efficient Window Technology



VEKA plc is pleased to introduce the Softline 82 – Passivhaus window system, a newly developed product at the forefront of eco-conscious window technology, meeting Passivhaus standards for superior energy performance, sustainability, and design. This tilt-and-turn window system seamlessly integrates modern aesthetics with unparalleled functionality. It meets the growing demand for eco-conscious building solutions from architects, specifiers and installers, without compromising on the quality, style, comfort and energy saving requirements of homeowners. Softline 82 – Passivhaus has been developed in line with Passivhaus, the internationally recognised energy-efficient building standard, designed to reduce heating and cooling energy consumption by up to 90% compared to conventional construction. Passivhaus designs prioritise insulation, airtight construction and passive solar gain to create buildings that maintain a stable indoor temperature year-round, requiring minimal heating or cooling. By reducing energy consumption, Passivhaus helps to lower energy bills, decrease carbon emissions and support sustainable building practices.

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

## Easy access to Whitby Lemon Buns!



TORMAX, a global leader in advanced door automation systems, was recently contracted to install two sets of bi-parting sliding doors at a new Botham's of Whitby bakery shop and tearoom in North Yorkshire. The first door is a main entrance into the shop, and the second leads from the Tea Rooms to a patio area with outdoor seating. Both entrances are powered by TORMAX 2201 sliding door drives, each of which are housed in a compact casing that requires an installation height of just 100 mm, delivering unobtrusive yet highly functional automation. With the capacity to handle high levels of footfall, the entrance doors are robust enough to meet the demands of Botham's daily customer traffic while maintaining low maintenance costs and superior reliability. A simple programmable control allows bakery staff to change the opening and closing speeds, hold-open times and opening widths to match foot traffic and weather conditions, minimising heat loss whilst ensuring a smooth through-flow of customers. TORMAX door systems comply with all major safety and performance standards, including TÜV certification (EN 16005), CE marking, and RoHS directives.

[sales@tormax.co.uk](mailto:sales@tormax.co.uk)



## New year, new name, new look, same values



Specialist weatherproofing contractor, Jones and Woolman UK Ltd (J&W) has rebranded as Jones Weatherproofing to better reflect the type of projects they work on and cement their position as a leader in the commercial weatherproofing space. Over the past 45 years, JonesWeatherproofing has built itself a reputation as a company that's trustworthy, friendly, approachable, professional and committed to providing excellence in standards of workmanship and the level of customer service.

01922 712111 [www.jones-weatherproofing.com](http://www.jones-weatherproofing.com)

## Informative & entertaining round table events



Always looking for new ways to engage with our audience, ADF now hosts round table events. With constant updates to building regulations, round tables are an ideal way to gauge industry concerns/problems, to future-proof your

marketing strategy. Hosted by our Editor, James Parker, we ask a diverse selection of our readers to attend, providing us with insights across the full spectrum of our audience. Sponsoring a round table enables you to position your brand/company as a voice of authority within the industry. [insights.netmagmedia.co.uk/round-tables](http://insights.netmagmedia.co.uk/round-tables)



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# Why should windows breathe?

The provision of a weather and airtight seal around the perimeter of windows and doors in a facade is typically achieved by correctly specifying and installing a suitable membrane before the final cladding is attached. There has been considerable focus on the specification and use of these membranes on construction sites since the recent updates to Approved Document B (ADB). Approved Document B requires that any membrane used in an external wall construction has a minimum reaction to fire Class B-s3, d0 in accordance with EN 13501-1. As well as achieving the requisite fire performance, it is critical that the appropriate level of weather protection is also provided, as this is the most common cause of warranty claims within the construction industry.

Perimeter sealing membranes should always be assessed for both water resistance and weathertightness. Both properties sound very similar but are measured in different ways. The water resistance of sealing membranes is tested in accordance with EN 1928 where the membrane is subject to a static head of water at a pressure of 2 kPa over an extended 24 hour period. The requirement is that no water penetrates the membrane over this test duration in order to achieve a Class W1+ performance. Weathertightness is determined in accordance with EN 1027, which although originally intended as a means of testing assembled windows and doorsets, is now commonly used to test the performance of perimeter seals. Using this method, the perimeter seal is applied around a window before being subjected to water sprayed under a pulsating pressure to simulate wind driven rain, where a minimum performance of 600 Pa is required.

In addition to the fire and water/weather resistance performance of the sealing membrane, there is a further critical factor which should not be overlooked, relating to vapour and moisture control through the external wall and joint.

With a UK climate, the transmission of warm, moist air will be prominently from the inside to the outside of a building and therefore window and door interfaces should be designed to allow the escape of unwanted moisture or condensation to the external environment. The basic principle of the inside of the joint being 'tighter' than the outside should always be considered and appropriate membranes specified to satisfy this approach. When two membranes are used in the wall or around the window, the internal



membrane must be more vapour tight than the external one. The recommended ratio is that the external membrane should be at least ten times more vapour open than the internal one. This will create a positive pressure gradient which in turn ensures that moisture movement is always from the inside to the outside of the wall construction. If this orientation is reversed or the ratio not observed, for example by installing a vapour tight membrane as the external seal, interstitial condensation could occur within the joint, causing mould growth and potential structural damage. This principle applies to the whole facade design and is not just specific to the window interfaces, as the potential for damage is relevant to both and the principle is based on basic building physics and endorsed by CWCT in their technical publications, it is also the most recognised approach followed widely throughout Europe.

Traditionally, EPDM membrane has been specified for this type of sealing application, but with a surge in the availability of fire classified membranes to the market, specifiers, main contractors and warranty providers are now favouring these new membrane products especially for use on 'relevant' or Higher Risk Buildings (HRB's).

EPDM continues to be used as a generic term for any window sealing membrane, which unfortunately often leads to confusion and poorly specified solutions. A membrane which has a fire performance of Class B or better is not by definition an 'EPDM' because true EPDM is actually a particular grade of rubber which has a fire performance of Class E and has a relatively high vapour resistance. Therefore EPDM or so-called EPDM alternatives do not typically comply with the 'inside tighter than outside' principle as outlined above nor reaction to fire and therefore can compromise the performance of the window interface.

In conducting 'due diligence' when considering the specification of window sealing membranes, the following criteria should provide the focus:

- Be subject of recognised third party accreditation.
- For 'relevant' or 'HRB's' be a minimum Class B-s3, d0 or better to EN 13501-1.
- Be tested as a system, including when tested to EN 13501-1, with the relevant specified adhesive if required.
- Should be as vapour tight as necessary but as breathable as possible.
- Follow the 10:1 inside to out rule for vapour transmission.
- Water resistance to Class W1+ when tested for 24 hours.
- Weathertight to minimum 600 Pa.
- Permanently UV resistant when used in open rainscreen cladding applications.
- Airtight where the air control layer is required on the external side of a building.
- Compatibility confirmed with all relevant substrate types and associated facade membranes.

Tremco CPG UK have been supplying a wide range of facade and window sealing membranes and associated products for over 75 years. Our philosophy for best practice in specifying and applying window membranes is in line with the above guidance and our illbruck FR Window & Door Sealing Membrane (Black) – ME010 meets all the listed criteria. The product's performance is proven by its success since its introduction to the market, with current sales to-date of over 3 million linear metres! This has now been complemented by ME007 FR Window & Door Sealing Membrane HD, which provides enhanced strength.

Approved Document B has created a huge demand for appropriately fire classified facade and window membranes and whilst the basic performance characteristics for the former are well defined, the same basic principles can be applied to window sealing membranes, such as reaction to fire, weathertightness/water resistance and vapour transmission. illbruck FR Window & Door Sealing Membrane (Black) – ME010 and FR Window & Door Sealing HD – ME007 Membranes are the products of choice to satisfy all of these requirements.

hello@cpg-europe.com  
www.tremco-europe.com/en-gb



# Hörmann industrial doors installed at British Army Vehicle storage depot

Hörmann are working with Skanska UK on a £259 million Ministry of Defence contract to deliver the Vehicle Storage Support Programme (VSSP) at Ashchurch in Tewkesbury, which will provide modern, sustainable and effective storage and maintenance for the British Army's land equipment fleet.

The overall project consists of the construction, mechanical and electrical engineering for a complex programme that will see the demolition of 58 buildings, the construction of 12 new buildings and refurbishment of one existing facility, plus renewal of the site's wide infrastructure. On completion it will provide a centralised facility which will ensure the operational readiness of the Army's vehicles by minimising the need for maintenance.

The updated facilities will provide Controlled Humidity Environment (CHE) storage, aimed at reducing maintenance costs and any unnecessary deterioration caused



by extreme drops or rises in temperature, ensuring that the vehicles are operationally ready at all times. As part of this key requirement Hörmann UK are supplying a total of 226 of their SPU F42 fully automated Industrial Sectional Doors which are split between the 12 new warehouse units and represents one of the largest 'door only' projects that the company has undertaken.

Hörmann SPU F42 double-skinned industrial sectional doors are well known

within the marketplace, recognised for their good thermal efficiency and air tightness properties – key factors in this major project. The doors specified can achieve an impressive U-value of 1.2 W/m<sup>2</sup>k for doors including vision panels and a value of 0.9 W/m<sup>2</sup>k for solid doors. All of the doors supplied provide Class 3 air permeability. This has been achieved with enhanced sealing of the door, with an improved bottom seal, corner seals which improve the tightness between the door frame and lintel, together with infill seals between the ribbing in each section.

All doors are finished in RAL 7016 Anthracite grey externally and Hörmann's standard RAL 9002 Grey white internally and provide a minimum clear opening of 5,000 mm x 5,000 mm.

Installation of the first doors began in October 2023, with the project expected to be completed by June 2026.

01530 516868 [www.hormann.co.uk](http://www.hormann.co.uk)



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**CPD Seminar: Sustainability from Natural Daylight in the Built Environment**



## Architect uses 'signature' Catnic Urban roofing and cladding for coastal house extension



A mid-1960s detached house that sits on the scenic Gower coastline has undergone a major renovation. The transformation features the architect's signature style with Catnic Urban steel standing seam roofing and cladding on the cantilevered two-storey extension, bringing the property up-to-date and enhancing its modern curb appeal. Purposefully contrasting, the now two-storey structure combines Catnic Urban standing seam metal roofing and cladding with Cotswold Limestone stone, Marziale brick and Western Red Cedar timber cladding. Architects Dan and Helen Belton explain: "We didn't consider any other standing seam option. We use Catnic Urban on almost every project. It's such a versatile material and has always worked out as a straightforward solution. Often, we find contractors are reticent to deviate from their preferred material which, around here, tends to be slate or concrete tiles. However, once they are fully trained by Catnic and try it, they are converted and happy with the outcome." Catnic Urban is a light-weight, versatile standing seam roof and wall cladding system. Made in the UK from pre-finished steel, it is rated A+ under BRE certification, meaning it has the lowest overall environmental impact.

catnic.urban@tatasteelurope.com [www.catnic.com](http://www.catnic.com)

## Marlon Clickfix brightens Farnborough Airport's new Domus III Hanger



Brett Martin's Marlon Clickfix polycarbonate panel glazing system has provided a key architectural feature for Farnborough Airport's new state of the art hanger – Domus III. Incorporated as part of the hanger's extensive door system, the Clickfix panels allow daylight to flood the hanger and reduce the need for artificial lighting in the highly sustainable facility. Farnborough Airport was keen to set a new benchmark in terms of aviation design with the hanger and ensure sustainability was at its heart. As such, aviation specialist architectural practice Gebler Tooth designed the facility – known as Domus III – to incorporate the latest state of the art technology and drive environmental performance. This included the use of translucent automated doors along the entire length of the building, to optimise the level of natural light inside. Alongside an intelligent artificial lighting system that dims when the daylight is sufficient, this would ensure that the facility is highly energy efficient. The doors would also ease aircraft manoeuvrability and help to mitigate unnecessary emissions from aircraft handling.

028 9084 9999 [www.brettmartin.com/plastic-sheets/our-products/product/marlon-clickfix](http://www.brettmartin.com/plastic-sheets/our-products/product/marlon-clickfix)

## Optigrun joins NBS Source



Optigrun is the latest manufacturer to join NBS and list its products on NBS Source, the highly successful manufacturer product platform. Optigrun is a manufacturer of specialist green roof systems, and with specifiers a key audience and increasingly requiring information digitally, have decided to add Source to its specifier marketing mix. NBS Source has given Optigrun the ability to build and maintain relationships with specifiers throughout the whole construction journey, resulting in a much smoother and more collaborative process. A proposition that can help save valuable time and resources to time-strapped specifiers and increase the likelihood of a product being selected.

Optigrun's marketing coordinator, Emma Love-Donoghue says: "We understand how important it is for specifiers to be able to locate our products at critical points in the building process, and being a part of NBS Source offers us the assurance that we will be there for them when it counts most." View Optigrun's NBS Source listing at [source.thenbs.com](http://source.thenbs.com)

[marketing@optigreen.co.uk](mailto:marketing@optigreen.co.uk) [www.optigruen.com](http://www.optigruen.com)

## ROCKWOOL releases Technical Bulletin on the durability of its stone wool insulation



Recognising the importance of insulation's long-term thermal performance in the energy efficiency of buildings, insulation manufacturer ROCKWOOL® has released a Technical Bulletin on the durability of its stone wool insulation. Summarising the results of several studies and real-world testing, the Technical Bulletin concludes that ROCKWOOL stone wool insulation can retain its insulating properties for more than 65 years in external wall systems. The Technical Bulletin outlines the definition of durability when it comes to the as-built performance of insulation and how ROCKWOOL products were assessed. Evidence includes the findings of an independent study conducted by the European Mineral Wool Manufacturers' Association (Eurima) on mineral wool insulation, including real-world testing for ROCKWOOL stone wool insulation specifically. With the latter, the Bulletin summarises a study by the Danish Technological Institute (DTI) on ROCKWOOL stone wool insulation materials recovered from a hangar building at Copenhagen Airport (CPH) originally constructed in 1958.

01656 868 490 [rockwool.link/durability-bulletin](http://rockwool.link/durability-bulletin)



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Email: [sales@macmetalcraft.co.uk](mailto:sales@macmetalcraft.co.uk)



## An exciting new natural flexible insulation



Ecological Building Systems has launched an exciting new flexible insulation product for roofs, walls, ceilings and floors, called IndiBreathe Flex, as part of an exclusive partnership with IndiNature. IndiBreathe

Flex is a breathable, natural high performance thermal and acoustic insulation that helps to regulate humidity within a building structure for better indoor air quality. The innovative insulation material has also received BBA Approval Inspection Testing Certification (24/7266) for Timber frame, pitched roof constructions and suspended timber intermediate floors and ground floors.

info@ecologicalbuildingsystems.com ecologicalbuildingsystems.com

## Celebrating over 35 years trading



Established in 1987, M.A.C. Metalcraft began by supplying solid fuel spare parts and has since grown into a leading fireplace and stove supplier in Yorkshire. The company manufactures bespoke hearths, back panels, and fireplaces, while also distributing top-quality products from the

UK and abroad including: Extraflame Pellet Stoves and Cookers, Lanordica Wood Burning Stoves and Cookers: Wanders Gas Fires and Wood Burning Stoves. A large range of which are on display at our exclusive trade showroom in Mexborough South Yorkshire.

01709 570563 www.macmetalcraft.co.uk

## Gilberts helps “The Best Spa Hotel in UK” expansion



The Crow Wood Hotel & Spa Resort is taking its visitor experiences to the next level, with contribution from Gilberts Blackpool. The globally renowned venue has invested £16m in a new thermal experience – the Woodland Spa – set within the facility’s 100-acre grounds in the heart of Lancashire. The three-storey building includes a gymnasium, bar, restaurant, treatment rooms, relaxation rooms, indoor swimming pool plus jacuzzi, salt steam room and serenity pool. To confidently create the perfect atmosphere in each area, addressing the specific ambient conditions required, building services consultants Petit Singleton Associates utilised the expertise of Gilberts Blackpool to supply the air movement supply and extract. For ventilation within the internal spaces, Gilberts worked closely with PSA to develop a scheme that predominantly uses a combination of Gilberts’ contemporary-styled louvre faced ceiling diffusers (DGA, four-way blow configuration), linear slot diffusers (GSLs) and high-capacity slot diffusers (HSLs), with separate units for supply and extract. To compliment the clean, modern decor, all were finished in either pure white with a 20% gloss finish or matt traffic white.

01253 766911 info@gilbertsblackpool.com

## Milk manufacturer turns to Panasonic



ReRooted, a manufacturer of organic and ethically sourced plant based dairy-alternative milk, sought to lower its carbon footprint for its new cold room with a more sustainable and energy efficient system that could meet the increased production demand. A Panasonic CR

Series 4HP cold chain solution that utilises the natural refrigerant R744 (CO<sub>2</sub>) with a GWP of 1, was specified and installed by experienced cooling specialists, Keep It Cool Refrigeration. The technology has been specifically developed for small to medium capacity applications within the retail and food service sectors.

www.aircon.panasonic.eu www.keepitcoolsouthwest.co.uk

## Embodied Carbon Calculations completed

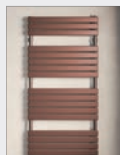


Heating and cooling equipment specialist Diffusion has announced that it has successfully completed its Embodied Carbon Calculations on its product portfolio, in accordance with the latest CIBSE ‘TM65 Embodied Carbon in Building Services:

A Calculation Methodology (2021)’ digital tool requirements. This allows Diffusion to provide Mid-Level report figures for all of its fan coil units, including its CIBSE award-winning New Highline 235 Modular Fan Coil Range. Diffusion is now working towards the completion of more comprehensive and independently verified Environmental Product Declarations (EPDs) for all its fan coil units.

020 8783 0033 www.diffusion-group.com

## The heated towel rail with all the choices



Going beyond the usual height, width, and colour options, The Radiator Company, one of the largest suppliers of designer radiators in the UK and Ireland, has launched the new Piano heated towel rail. Its dual-fuel capability and the opportunity to specify a double layer for added warmth in tight spaces makes the Piano a highly customisable heating solution.

For bathroom, kitchen and cloakroom projects including those that are short on space, the Piano towel rail features a flat 50mm x 10mm steel tube design to create a sleek look. Style, however, is only one of the benefits this versatile product offers designers.

01342 302250 www.theradiatorcompany.co.uk

## Saniflo Sanicom helps launch iconic bar



A Saniflo Sanicom 1 single-pump unit and a Saniflo Sanicom 2 twin-pump unit have helped transform a seemingly insurmountable design challenge into the Oasis Bar & Terrace – a venue redefining Canary Wharf’s

hospitality landscape. In the downstairs bar – the longest in Canary Wharf at 17 m – a powerful Sanicom 2 has twin pumps which can handle the large volume of water but also ensures continuity of service in the event of a failure. A Sanicom 1 – with a single pump – is installed in the upstairs bar, with the waste falling and ultimately being plumbed into the same pipework as the larger unit.

020 8842 0033 www.saniflo.co.uk





# Green heat network providers

Neal Herbert of GTC discusses how heat networks are revolutionising heat and hot water delivery in new homes, playing a key role in the UK's ongoing shift to sustainable, low-carbon developments.

**T**he integration of renewable energy into developments is becoming a crucial consideration as the UK continues its journey to reduce reliance on fossil fuels.

Heat networks are poised to play a significant role in the nation's path to net zero by 2050. To meet this ambitious target, those shaping current and future housing and commercial developments must have a clear understanding of the technology, design parameters, sizing, installation, and ongoing operation of these systems, which are increasingly replacing gas networks.

A clear understanding of how heat networks function both technically and in relation to end users will be key to successful implementation. It's also important to note that various types of heat networks are available, offering flexibility based on a site's specific requirements.

## How heat networks work

Heat networks use a central plant to generate heat, which is then distributed through a network of highly insulated pipes to multiple buildings or units. The design of these pipes should consider the layout of the development, heat losses from the pipes, while ensuring the network can handle the required flow rates and temperatures for efficient heating and hot water delivery.

## Design parameters

When integrating a heat network, the building layout and zoning are crucial. Buildings should be designed to allow for easy connection to the central heating plant, ensuring even and efficient heat distribution and proper routing of piping. Thoughtful zoning of heating requirements can help to reduce the load on the system.

If a central heat hub is specified, adequate

**Heat networks are poised to play a significant role in the UK's path to net zero by the 2050 deadline**



## The building envelope and occupant comfort must always be prioritised to ensure the system operates optimally and meets both environmental and user needs

space must be allocated for the plant and distribution system. The location of the heat generation plant should be carefully considered early in the planning process to ensure unobtrusiveness and effectiveness.

Each building or home must also have space for a heat interface unit, which controls the heat and hot water delivery. These units are typically installed in utility or plant rooms.

The internal heating systems should be compatible with the heat network, including considerations for radiators, underfloor heating, and other methods of heat delivery. The location of systems' controls, such as smart thermostats, is also important to ensure users can manage their heating effectively.

For precise specification, it's important to understand the temperature and pressure requirements of the heat network to ensure building systems – especially distribution piping and radiators – can accommodate these levels. As heat networks generally operate at lower temperatures than traditional gas heating, this may affect the selection of internal heating solutions. Prioritising high-efficiency design is key, ensuring that the heat network's temperature aligns with the building's specific heating needs.

### Sizing the heat network

Sizing is essential to ensure the development has adequate heating capacity. Collaboration with engineers is necessary to estimate the heat demand for the entire site, factoring in building size, insulation standards, occupancy levels, and external temperature variations.

Engineers typically perform heat-load calculations to determine the capacity of the central plant, as well as the required size of pipes and heat exchangers.

### Energy efficiency & sustainability

Heat networks offer an excellent opportunity to integrate renewable energy

into a development. Considerations should include how renewable heat sources can be incorporated into the system to reduce reliance on fossil fuels, and ensuring the buildings are well-insulated and airtight to improve network efficiency.

Smart controls, including heat meters and interfaces for monitoring, should also be factored into the design.

### Regulatory & planning considerations

Heat networks must comply with national and local building regulations, particularly those related to energy efficiency, carbon reduction, and safety. In the UK, this includes compliance with Part L (Conservation of Fuel and Power) and Part G (Sanitation and Hot Water), which govern heating system design as well as system installation.

Some local authorities may also have specific heat network requirements, so close coordination with planning authorities is essential to align with local energy strategies.

### Maintenance & operational considerations

Heat network designs should facilitate easy access for maintenance and inspections, including the provision of dedicated plant rooms, service ducts, and clear pathways for equipment access.

In conclusion, when integrating heat networks into new developments, careful consideration of space planning, energy efficiency, regulatory compliance, and future scalability is critical. Working with engineers and other specialists ensures the design is efficient, sustainable, and future-proof. The building envelope and occupant comfort must always be prioritised to ensure the system operates optimally and meets both environmental and user needs.

*Neal Herbert is managing director at GTC*



## Electric radiator series sparks huge interest



The electric radiator series launched by leading radiator manufacturer **Stelrad**, has sparked significant interest in the heating sector. The range is currently made up of 13 steel and aluminium radiators and towel radiators, which provide unbeatable quality and design to suit any room or decor. As well as offering effective and

functional heating in the home, as you would expect from Stelrad, the radiators in the Electric Series are aesthetically appealing and provide attractive options for the decor in the home.

0800 876 6813 [www.stelrad.com](http://www.stelrad.com)

## Panasonic HX demonstration facility



Panasonic has officially opened Europe's first Panasonic HX demonstration facility in Cardiff, UK. The 50-year-old manufacturing plant now uses hydrogen fuel cells powered by green hydrogen, solar PV, and battery storage, all managed by Panasonic's Energy Management System (EMS). This installation will power the factory's microwave oven assembly with 100% renewable energy. Also, the factory has replaced its gas boiler with a renewable energy source, combining a heat exchanger and Panasonic's heat pump technology with natural refrigerant R290, significantly reducing its carbon footprint.

[www.panasonic.com/uk/corporate/sustainability/pgi](http://www.panasonic.com/uk/corporate/sustainability/pgi)

## Saniflo enables effective conversion



**Saniflo** has played a crucial role in converting the historic Sula Lightship into a unique, high-standard accommodation facility. This project demonstrates Saniflo's effectiveness in supporting non-traditional properties where reliable waste management solutions are essential. Saniflo supplied a range of macerators and pumps to manage on-board black and grey water waste, including a Sanimarin WC and a long-standing

Sanishower unit to discharge grey water waste into former freshwater tanks repurposed as storage. These systems provided the necessary capacity and durability for high-usage scenarios on the vessel.

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## Architects' Datafile website



[architectsdatafile.co.uk](http://architectsdatafile.co.uk) is designed for architects – Content is added daily to the site, enabling visitors to keep up to date with the latest news, legislation development, CPD programs, case studies and much much more. It's no wonder that there's an increasing number of architectural professionals engaging with the site each and every day. With thousands of unique visitors each month the website provides the perfect companion to other elements of the ADF brand. Display advertising opportunities are available on the home page and across the site. These opportunities can bolster brand awareness and ensure a valuable competitive edge.

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

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Ideal for busy corridors, stairwells, waiting rooms, back-of-house areas, and customer-facing spaces, their solutions reduce maintenance costs, extend the lifespan of interiors, and improve safety and efficiency for staff, guests, and customers. Yeoman Shield also specializes in Fire Door Services, offering installation, maintenance, inspections, and door protection that meet strict safety standards, ensuring compliance and structural integrity.

Yeoman Shield provides both expert installation and supply-only options. Their installation service ensures everything is fitted to the highest standards with minimal disruption, including flexible out-of-hours installation. For those who prefer to install themselves, their supply-only option delivers premium products directly to you.

With tailored solutions to meet specific needs, Yeoman Shield guarantees quality protection without compromising on aesthetics. Explore the full range of products and services on their website, or email them for a consultation.

[info@yeomanshield.com](mailto:info@yeomanshield.com) [yeomanshield.com](http://yeomanshield.com)

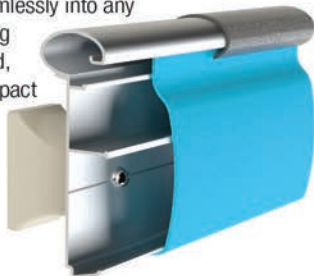


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# New ways of working

Workplace fit-outs are no longer just about pure function; the focus has shifted to enhancing human experience and staff wellbeing. Ruth Evans of CPMG Architects explores the growing link between design and behaviour.

Historic trends have showcased a ‘job for life’ mentality in the UK’s workforce, but as the employment landscape continually adapts and changes, it’s more common to see younger generations job-hopping, with a focus on fulfilment over pure practicality. This feeling of being valued can be the deciding factor for many in the working world on whether to stick or twist with a company, with the past few years alone showcasing how the workforce isn’t focused on ‘living to work’ but ‘working to live.’

Space can influence culture. It may seem surprising that four walls can command such collaboration, but it is what is created within the four walls that really drives the environment. Through human-centric design elements, the space can foster an environment that is both personal but also personified for the best of the business and its staff.

## Where has the shift come from?

We all know that hybrid working has unveiled a new working world, with businesses understanding the need to adapt and offer the comfortability, freedom and productivity staff have found in the comfort of their own homes. Across the UK, flexible working requests have increased, with office occupation at 35-40% compared to pre-2020 levels of 60-80%. Coupled with the rise of businesses reviewing office locations and leases, the office landscape is at a beneficial point for reviewing how it is best to work in this new age.

Workplace analysis is vital to creating longevity through an office environment and supporting the ‘solidification of presence.’ Success comes from understanding employees and what they would like to see, this incorporates all manner of focuses, relating to how they operate through to their own personal growth objectives, which can be supported with a change to the environment.



Flexibility comes to fruition in both what employees and employers can achieve through an optimal working environment – and the idea that not one size fits all is prevalent in both aspects.

Workplace analysis lays the foundations to create a business and its culture that is completely achievable and gives scope to venture further than the simplistic office designs of the past.

## Human-centric design elements

Utilising an open plan layout can encourage cross-team interaction, further enhanced by hotdesking and removing barriers like cellular offices. This works to make the act of speaking and working with others very easy, thereby fostering a team dynamic with the ethos of one for all, as opposed to all for one.

Multiple office levels are almost standard, especially in growing city centres and towns where multi-storey buildings are the norm. The question that is created when an office

**Biophilic design has come into its stride, with businesses pushing for this relationship with the external, living world**



**Around one third of employees in the UK report experiencing musculo-skeletal issues and many operating in more traditional workplace settings remain at their desk for breaks and lunch**

splits across more than one level is how to draw people together through this space. Architectural interventions like mezzanine floors and centralised connecting staircases can encourage interaction and engagement throughout.

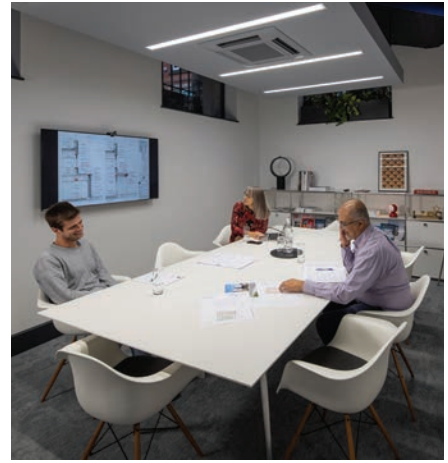
So-called 'collision spaces' support a coherent point of human nature – that we are social animals. The creation of seating areas for example, at connection points between floors or open office touch-down spaces, will see the natural gravitation of employees away from desks into more central spaces for socialisation. In fact, there is a clear demand being seen for leased office spaces which include these spaces for spontaneous interaction.

This links to the notion of creating a space that works for everyone – making sure that the same freedom of movement is there through appropriate accessibility measures, allowing all staff and visitors to access spaces easily and equally.

### Biophilic design

When asking employees to prioritise their needs for a new office environment, we find that natural light, good heating and controllable ventilation feature at the top of the list. And so, window seats are at a premium and of course, people favour a connection to the outside world. Too many office environments are devoid of good natural light and connection with nature, favouring a much blanker canvas that can in turn result in raised cortisol levels.

Biophilic design has come into its stride with businesses pushing for this relationship with the external, living world. Increased natural light and utilisation of live plants in office spaces come hand in hand, with plants offering a connection



with the living world that can make us feel calmer.

This subconscious internal drive to be linked with nature comes from our inherent makeup as humans, with our deep-rooted earthly origins, and the natural universe being part of our humanity. It's commonly known that house plants make people happier, so utilising this element within the office space will have the same effect.

### Physical & mental wellbeing

Around one third of employees in the UK report experiencing musculo-skeletal issues and many, operating in more traditional workplace settings, choose to remain at their desk for breaks and lunch, and to email colleagues rather than going to see them. Offices are not about being chained to your desk, especially as the positive impact on both health and productivity is well documented. So, spaces that prioritise movement rather than staying in one place, should always be the optimal route forward.

An area that can be trickier to navigate is making spaces work for a range of working styles or neurodivergences, where factors and impacts are very individual. Some find it difficult to work within noisier environments, while others thrive. So, different types of space within the overall makeup should strive to support all needs, providing safe havens alongside the bigger collaborative spaces – and whether that's to support neurodiverse needs or simply quiet space to concentrate on harder tasks, productivity flourishes in a varied, flexible environment.

*Ruth Evans is an associate and workplace analysis consultant at CPMG*



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# The key to control

Safe and seamless movement in our built environment ‘hinges’ on accurately specified and installed door hardware, as Russell Marks of Boss Door Controls explains.



## Door hardware plays an integral role in the safety, security and accessibility of our buildings

With millions of doors used every day, it's important to recognise the details behind effective access and egress. Whether it's the regular composite doors found in our homes, the electromechanical access points located in public settings, or the emergency exit fire doors that keep us safe in our work and leisure spaces; door hardware plays an integral role in the safety, security and accessibility of our buildings.

Doorsets are assembled in a variety of configurations, sizes and styles, yet their operation is always reliant on door control components such as hinges, locks, latches and door closers. Take fire doors for example, which are designed to stop the spread of smoke and fire when closed and provide an effective means of escape when open. When operating as intended, a fire door will work in tandem with each of its hardware components, but should one area fail, its fire resistant capabilities become compromised, leaving a building and its

occupants at risk. With that in mind, just how significant is accurate specification and installation?

### Suitable specification

Incorrect hardware specification is a common problem associated with building safety. Door controls will directly influence the functionality, accessibility and durability of doors, and as such it's essential to understand a building and its users' needs when choosing between hardware options.

Considering factors such as fire safety and inclusive design, specifiers and decision makers are urged to review the door application itself, confirming the chosen hardware meets the required performance ratings, fire ratings and the latest building standards. Where many buildings require escape routes for example, it is necessary for all doors located on those routes to have suitable exit hardware installed – which is determined by a number of factors including the building's size





and whether it is public facing or not. Equally, it is also a legal requirement for all exit devices to comply with the latest revisions of EN 1125 or EN 179 and to possess UKCA and CE markings.

With occupant safety and legal compliance on the line, it's clear that specification should never be undervalued. In fact, by focusing on a project's requirements as opposed to quick, cost-saving wins, decision makers can preserve the functionality and safety of buildings whilst adding real value for occupants.

### Fixing improper installation

In many cases, an appropriately specified and perfectly operational door control device can be found ineffective solely as a result of poor installation. Door hardware installation remains a pain point for the fire safety industry specifically, with evidence suggesting that incorrect installation is one of the leading causes of fire door failure.

Hardware products are often unique to the manufacturer, with distinctive components, fittings and fixing points, and as a result, they should never be approached as like for like installation projects. Instead, during installation, installers must look to follow manufacturer guidelines and fitting instructions. With door closers for example, a fire door's integrity can quickly become compromised as a result of alignment issues and improper installation methods. Consequently, a fire door may not be able to latch or close fully from its standing position, leaving gaps large enough for smoke and fire to pass through in an emergency situation.

Where there is currently no legal framework to assess the competency of installers, it's important for teams to plan ahead, appreciating that door hardware installation is a specialised task. To further raise safety standards and improve installation accuracy, conscious manufacturers share a wealth of information and detailed walkthroughs in the form of installation templates, product datasheets and video guides. Additional guidance can usually be found online, with the product packaging, or can be requested directly from the manufacturer. These materials can also be useful post-installation, where teams are required to perform regular maintenance periods as part of their obligations.

*Russell Marks is managing director of Boss Door Controls*

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## Bjelin assists in the creation of modern workspace

In the picturesque Cheshire countryside, Park View Business Centre is a meticulously converted hub of modern offices and retail spaces, blending contemporary design with historic charm.

Rather than allow the previous agricultural buildings to fall into disrepair, the owner, Peter Beckett, saw an opportunity to keep working professionals in the countryside. "We went from milking parlours and cow sheds to high-tech offices with character," he says.

A key element of the transformation was the flooring, selected to withstand the rigours of daily office life while maintaining the aesthetic appeal of the historic estate. In total, 154 m<sup>2</sup> of flooring was installed, with 143 m<sup>2</sup> being Bjelin's hardened wood flooring Woodura® Planks, known for their robustness and timeless appeal.

Bjelin's UK offices are located within the centre, and feature sqm of the Contrast Collection in the colour Vapor. This perfectly complements the solid oak stairs, creating a seamless and clean aesthetic. The main public areas, including the entrance



hall and kitchen feature wide XXL oak planks with a natural wood feel, which was a fitting choice for a building that, despite its modern function, remains deeply rooted in its agricultural past. For the more practical areas, like the bathrooms, Rigid Core Planks in a light and natural shade were selected, as they are waterproof and easy to maintain.

Peter Beckett is impressed with the choice

of Bjelin flooring throughout the business centre. "When we bring visitors to the offices, they always say it looks nice and modern and clean," he says. "It feels like a new office. Our builders liked working with the product, and we've even installed it in our new aesthetics clinic."

[richard.banham@valinge.co.uk](mailto:richard.banham@valinge.co.uk)  
[www.bjelin.co.uk](http://www.bjelin.co.uk)

### Bona Resilient Visualizer



The Bona Resilient Visualizer is an innovative tool that lets you snap a photo of your space to explore various Bona Resilient colour and chip combinations effortlessly. This feature simplifies the colour selection process, making it easier to decide on the best floor

option for your needs. Bona Resilient floors are sturdy, durable, and slip-resistant, enhancing a space's design without compromising utility. With Bona Resilient Solutions, renewing your floors becomes a fast and straightforward way to update or transform a space entirely without the need for investing in a brand-new floor.

[bona.com](http://bona.com) [resilientgermany.floori.io](http://resilientgermany.floori.io)

### F. Ball delivers knockout installation in gym



Products from F. Ball and Co. Ltd., including Stycobond F3 and Stycobond F44 adhesives, have delivered a robust flooring installation that will stand up to the rigours of a Thai boxing gym in Leeds. Commenting on the work, Luke Callaghan, director at Crown Carpets and Flooring,

said: "We've been using F. Ball products for years, and they are 100% reliable. Stycobond F3 and Stycobond F44 are our go-to choices for carpet and vinyl sheet respectively, and Stopgap Micro Rapid ensured that the finished installation was perfectly smooth."

01538 361 633 [www.f-ball.co.uk](http://www.f-ball.co.uk)

### Make more of project floors with Moduleo Moods



Moduleo Moods brings freedom to create a unique floor for your project. In retail, hospitality, housing and offices, Moduleo Moods lets you explore the creative potential of flooring and bring a unique dynamic to your project's interior. Designers have used the shapes and designs of the Moods collection to create extraordinary flooring in receptions and lobbies, bars, meeting spaces, store fronts and more. Updated with more original patterns and natural wood and stone effects, Moduleo Moods is now ready to bring a whole new range of dynamic looks to commercial spaces. In the new Moods collection, Moduleo's in-house designers have created 15 patterns for a total of more than 70 different standard floor designs to choose from. All of these options use Moduleo's high performance 0.55 mm luxury vinyl specification with enhanced scratch and stain protection to ensure they can withstand commercial environments. What's more, Moduleo Moods is easy to clean, so it stays looking good under heavy use, making it suitable for receptions and public areas where its unique designs can really be shown off.

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# The sensory power of floors

Catherine Helliker of Danfloor discusses harnessing the power of soft floorcoverings for creating inclusive education environments which support neurodivergence.

In designing inclusive spaces which support all users' needs, such as in education facilities, the need to focus on the importance of flooring for neurodivergent individuals is key. Prominent among the various design elements that contribute to a harmonious environment, carpets can take their own in this area, offering unique advantages for users on the autistic spectrum, or who have other neurodivergent conditions.

For individuals who are on the spectrum, sensory experiences play a pivotal role in their daily lives. Carpets, with their soft and comforting texture, can even provide a sensory haven. The tactile feedback provided by carpets can be especially soothing, offering a sense of 'grounding' that promotes relaxation and wellbeing.

## Safe spaces

The proprioceptive system, which is situated in our muscles and joints, plays a crucial role in fostering body awareness while detecting and managing force and pressure. In individuals with autism, challenges related to proprioceptive function manifest in various ways, including clumsiness, a propensity to fall, a limited awareness of body positioning in space, unconventional body postures, and difficulty handling small objects.

Both children and adults with autism may exhibit what are termed 'self-stimulating' behaviours; which can include jerking their bodies as a way of finding meaning in a constantly changing sensory environment. Such behaviour can cause them to harm themselves on harder floors.

Addressing proprioceptive dysfunction and its associated behaviours therefore calls for an environment that supports sensory needs. A flooring solution with a soft finish, such as carpet, becomes crucial in mitigating the risk of physical pain and injuries. By incorporating a sensory-friendly flooring option – like carpet – one can create a safer and more accommodating



space for individuals with proprioceptive challenges, promoting their wellbeing and minimising potential harm.

## Visual stability & predictability

Neurodivergent building users often benefit from 'visual stability' as well as predictability in their surroundings. Carpets can contribute to this by providing a consistent visual anchor. Opting for solid colours or gentle patterns in carpet design helps create a stable visual environment, reducing potential sensory overload and promoting a sense of security.

## Acoustic harmony & noise reduction

When addressing acoustics within educational settings, a collaborative study conducted by Institute of Education and South Bank Universities, involving 2,000

**Opting for solid colours in carpet design helps create a stable visual environment, reducing sensory overload & giving a sense of security**



## The integration of carpets in education design in particular holds immense potential for neurodivergent building users

school children aged seven to 10, revealed significant insights. The findings underscore the pivotal role of noise levels in influencing children's academic performance, with potential adverse effects on national test results. Somewhat astonishingly, exam outcomes were found to be diminished by up to a third when students were taught in noisy classrooms.

This evidence underscores a crucial correlation between the transmission and perception of sound and its direct impact on academic achievement. It emphasises that background noise, whether originating from within the classroom or external sources, can detrimentally affect the

learning process. This impact is particularly pronounced for neurodivergent students who rely on optimal conditions for hearing and comprehension. Therefore, creating an environment conducive to reduced background noise becomes paramount in fostering an atmosphere conducive to learning, especially for those with particular neurodivergent needs.

Carpets serve as natural sound absorbers, minimising echoes and dampening noise levels. This acoustic harmony creates a more tranquil atmosphere, facilitating concentration and reducing stress for neurodivergent individuals who may be sensitive to auditory stimuli.

### Adding independence & sensory exploration

Creating spaces that promote independence within a secure environment requires thoughtful and logical design. Establishing a logical order not only supports routine and predictability but also emphasises the importance of incorporating areas for rest to alleviate overstimulation. Consider designing a secluded, partitioned space in a quiet section where noise and echoes are minimised. Introducing soft carpeting to this area transforms it into a calm and relaxing zone, offering individuals an escape from overstimulation before seamlessly transitioning to other spaces.

The use of carpet colours becomes instrumental in facilitating easy recognition of rooms and distinct areas. By strategically incorporating colour-coded carpets, the flow from one space to another becomes effortlessly identifiable, contributing to a cohesive and navigable environment that enhances the overall experience for its occupants.

Carpets also offer a designated space for sensory exploration and self-regulation. The soft surface allows for activities such as stretching, rolling, or simply enjoying the tactile experience, providing individuals on the spectrum with a controlled and safe outlet for sensory expression.

The integration of carpets in education design in particular holds immense potential for neurodivergent users. By understanding and embracing the unique sensory needs of this population, designers can transform spaces into sensory sanctuaries that prioritise comfort, stability, and inclusivity.

*Catherine Helliker is marketing manager at Danfloor*





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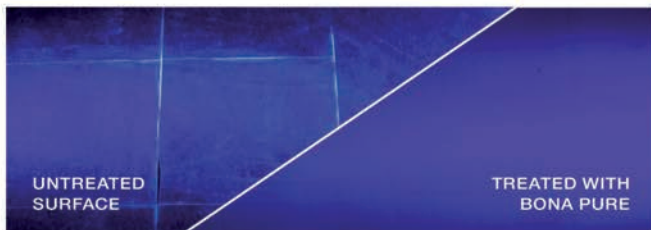
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# Innovative wood profiles: Elevating design and function with Havwoods

Profile finishes are a versatile and practical way to enhance the appearance and functionality of staircases and flooring alike. Available as part of Havwoods' offering, the profiles provide a polished and professional aesthetic by framing edges, creating clean, smooth transitions between different floor surfaces and in doorways, accommodating the necessary expansion gaps and concealing imperfections such as uneven cuts or gaps.

A wide range of profiles are on offer, including Bullnose, Flush Nosing and DDA Nosing, among others, allowing customers countless options to customise and complement their projects. Customers can also opt for a budget-friendly unfinished profile or can choose between a natural light oak matt lacquered finish or coloured to complement on a majority of Havwoods' floor finishes. Alternative and Bespoke nosing options are available so please call Havwoods for more information.

The rounded edge of the Bullnose profile eliminates sharp corners, making it a safer option for residential homes with children or elderly relatives. The Flush Nosing profile provides a very contemporary style, whilst also improving the safety on staircases. This option is joined to the flooring surface and the tread and riser part of the step, creating a smooth finish, with no overhang to trip on. The softer edges are also less likely to chip or sustain damage, making these profiles a popular choice for any busy environment.

DDA Nosings and Inserts are also available, which have been designed to improve the safety of the visually impaired. Customers can choose between contrasting brass, silver aluminium, stainless steel or black powder coated metal strips, as well as a range of Black Rubber Inserts that sit within the nosing and aim to minimise accidents.

The range of profiles from Havwoods has been designed to protect wood edges from wear and tear, chipping and damage,



and therefore extend the lifespan of the materials used. They can also help to improve the overall functionality and aesthetics of flooring, walls and staircases by strengthening joints, softening sharp corners for safety and ensuring easy cleaning.

Now also included in Havwoods' profile range are finishing profiles for use with vertical products and surfaces, including edge profiles and capping profiles for half height wall cladding.

01524 737000 [www.havwoods.com/uk](http://www.havwoods.com/uk)

## Falkirk Cala Homes specifies Style for space flexibility



At the Falkirk offices of Cala, purveyor of premium homes, Style worked with architect, Graven, and contractor, GM Projects, to create flexible space in the ground floor meeting room. A Dorma Huppe Variflex moveable wall was deemed the best option, with semi-automatic operation and an impressive 52dB acoustic rating. To complement the clean, modern interior of the room the moveable wall panels were finished in cement grey and, thanks to the ease and lightweight manoeuvrability of this market leading moveable wall, the room can be quickly divided to cater for different requirements every day. "Ensuring the correct pressure is applied to maximise acoustic performance, the robust rubbers seals expand automatically as the panels are moved into position, explains Angela McGowan, sales director for Style Scotland. "Adding functionality, a pass door between the divided areas allows the moveable wall to remain in place for extended periods of time." The Dorma Variflex moveable wall effectively divides the room into two, enabling various types of meetings to occur while retaining the flexibility to open up the space into a larger, open-plan layout.

[sales@style-partitions.co.uk](mailto:sales@style-partitions.co.uk)

## Enfield Speciality Doors now on NBS Source



Enfield Speciality Doors is the latest manufacturer to join NBS and list its products on NBS Source, the construction product library and specification platform. Based just outside of London, Enfield Speciality Doors manufactures timber flush fire and acoustic doors for commercial and public sector projects. The doors are custom-made to exact specifications, and can combine fire resistance with acoustic performance and/or PAS 24 security. "We decided to use NBS Source to target specifiers looking for best-in-class product and specification data," explains James Saunders, managing director at Enfield Speciality Doors. "NBS Source makes it easy for specifiers to find, understand, and compare detailed, accurate information about products quickly. It also allows us to build and maintain relationships with specifiers, and provide advice and guidance for a smoother and more collaborative process." Lee Jones, head of manufacturer solutions at NBS, says: "Specifiers want to make better and more informed decisions, and by having Enfield Speciality Doors listed on Source, this will make their lives easier."

[nbs.fyi/4SmYKW](mailto:nbs.fyi/4SmYKW) [www.enfielddoors.co.uk](http://www.enfielddoors.co.uk)





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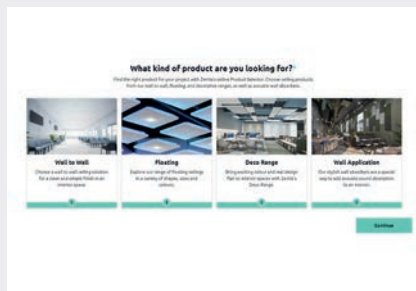
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# Zentia launches new Product Selector tool to aid product selection process

Zentia, one of the UK's market leaders in complete ceiling solutions, is excited to announce the launch of its new Product Selector tool, designed to streamline the product selection process and offer recommended solutions for every project. Available on the Zentia website, the Product Selector makes it easier than ever for architects, designers, and specifiers to find the perfect product for their specific requirements.

The Product Selector tool is user-friendly and intuitive, allowing users to enter key project details such as sector, room type, colour, material, and shape. Based on the provided criteria, the tool offers recommendations, identifying the ideal product for the project and presenting alternative options. The recommendations are designed to match the specific demands of a wide range of sectors, including education, healthcare, and commercial spaces.

Another key feature of the Product



Selector is instant access to useful resources. After receiving product suggestions, users can immediately access relevant product documents, download PDF information packs or request samples and additional specification support.

Whether your project calls for superior acoustic performance in educational environments, infection control in healthcare facilities, or striking design elements in commercial spaces, Zentia's Product Selector

offers reliable, high-quality ceiling system options to meet any challenge.

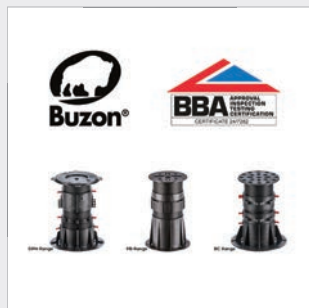
Michael Anderson, head of architectural and design consultancy, at Zentia commented on the new tool: "At Zentia, we are committed to enhancing the specification experience for our customers. With our extensive range of ceiling solutions, we understand that finding the right product can sometimes be overwhelming. The Product Selector tool makes this process easy and seamless, ensuring our customers can find exactly what they need in just a few clicks."

Zentia's commitment to innovation and customer service goes beyond providing exceptional ceiling solutions. The launch of the Product Selector is testament to Zentia's dedication to being a trusted partner in delivering products that perform, inspire, and stand the test of time.

0191 497 1000

[www.zentia.com/en-gb/product-selector](http://www.zentia.com/en-gb/product-selector)

## BBA approval elevates standards for decking & paving systems



Buzon Pedestal International is proud to announce that its PB, BC and DPH pedestal ranges have recently achieved British Board of Agrément (BBA) certification. Distributed through Buzon UK, these are the first adjustable pedestals to have achieved BBA certification. The accreditation demonstrates their suitability for projects covered by UK building regulations and eligibility for NHBC warranties through independent 3rd party testing. These versatile pedestal systems are designed for a wide range of external flooring applications from large commercial installations to smaller residential spaces like balconies and terraces. The ranges are compatible with finishes such as porcelain, natural stone & concrete paving, timber & composite decking as well as GRP grating. As a supplier and installer of highly specialised products, Buzon UK is also a keen advocate of third-party accreditations that support the performance claims of its products, driving industry safety and providing client confidence throughout the whole supply chain. The same BBA-certified pedestals have been tested with leading roofing products and finishes, achieving B<sub>ROOF</sub>(T4) with specific build ups.

020 8614 0874 [buzonuk.com](http://buzonuk.com)

## Tenax offers up to 48 bulkhead options



The Tenax range of polycarbonate bulkheads from Knightsbridge – one of the UK's leading manufacturers of wiring accessories and lighting – has just got tougher and more versatile with the introduction of the Tenax Pro Series and two more gear trays.

The modular design and wide range of options enable the Tenax Pro to be tailored to any situation without requiring an extensive inventory – there are up to 48 different combinations out of the base choices of cases and gear trays.

01582 887760 [www.mlaccessories.co.uk](http://www.mlaccessories.co.uk)

## The opinions of the architectural community



As part of netMAGmedia's research offering, ADF has been increasingly harnessing the knowledge and views of its focused readership to produce 'Industry Viewfinder' white papers based on reader surveys. These are documents which contain unique insights and data on a wide range of topics that are currently fuelling debate in the industry,

from Passivhaus to Part L. This audience research, providing real-world experience, provides us with the opportunity to better understand the needs of our readers and tailor our content accordingly.

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