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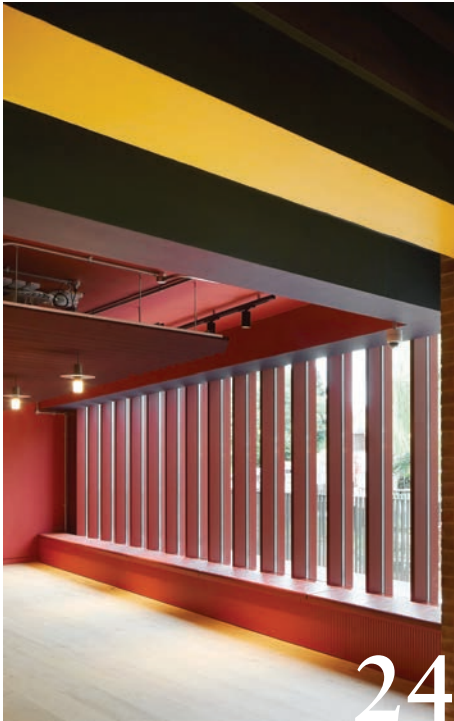
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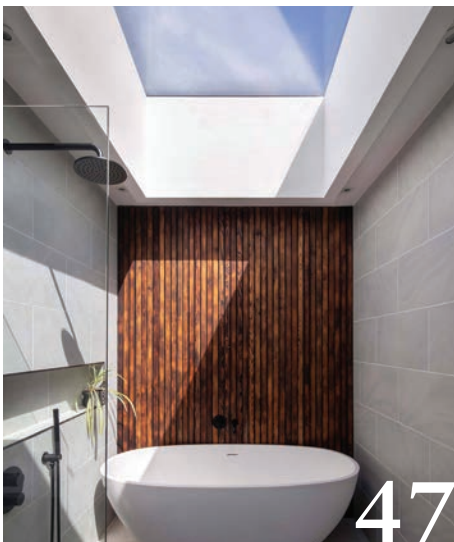
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Annual subscription costs just £48 for 12 issues, including post and packing. Phone 01435 863500 for details. Individual copies of the publication are available at £5 each inc p & p. All rights reserved

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FROM THE EDITOR



I think we need to believe that this time it's going to happen – Keir Starmer and his Housing Secretary Angela Rayner are going to build a lot more homes. Labour is tethering housebuilding to its growth-oriented early strategic moves; Rachel Reeves' first speech as Chancellor was dominated by moves aimed at honouring the 1.5 million homes pledge.

Labour has reintroduced mandatory housing targets, and taken aim at an “unfair” planning system where “determined blockers can gum up the entire building supply chain.” Starmer however also admitted that “reforming planning regulations would be “controversial.”

This could be understatement number one – Reeves and Rayner are aiming to call in objected schemes based on their contribution to the “national and local economy” – overruling local planners – and this could see a panoply of local skirmishes. Starmer says local communities will “continue to shape housebuilding in their area” (and Reeves bolstered this saying “it will be up to local communities to decide where to build.”) But the big change, said Starmer before the Election, is that ultimately Labour “won't be afraid to use intervention powers to build the houses we need where necessary.”

“Intervention” could be understatement number two, if Labour is really to deliver the eye popping stat of 1,150 homes needed every day over the next five years needed to hit the magic 1.5 million – estimated as five large scale housing estates per week. While very messy in places, railroading local objections may be the necessary means to an end, despite the inevitable casualties.

Labour's manifesto promises include the “biggest boost to social and affordable housing in a generation,” and given the party's DNA you'd expect this to be a promise honoured at least to some degree. But in the first few days of the new Government we have yet to see details of the changes to the Affordable Homes Programme that will, says Starmer, “deliver more homes from existing funding.”

Commentators in the social housing sector are worried this could mean a diversion of focus away from shared ownership, which has delivered over 250,000 homes and around £6.5bn to housing associations, to social rent and new build. Starmer said they will “support councils and housing associations to build their capacity,” but the industry needs clarity on this.

Alongside the changes to more new build social housing, Labour's innovative ‘grey belt’ idea is going to be the buzzword, or possibly bête noire, in local communities in the next few months and years, as people fight (possibly literally) over whether a local unused site should really be protected as green belt.

With the constrained plots available plus the straitened economic outlook (including for housebuilders), good design should be the tool the Government chooses to alleviate the impact of new urban additions. One of the big questions for architects, as ever in large-scale housebuilding, is where they will get a look in. Maybe helping to ensure that designs on cheek-by-jowl plots are much more sensitive to existing householders will be where careful design can be brought to bear, and help assuage local fears.

James Parker, Editor

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ON THE COVER...

A renovation of a riverside theatre and cinema complex by expert architects Bennetts Associates elevates Hertford's cultural offerings. Cover image © Hufton + Crow
For the full report on this project, go to page 24



(L-R): Alex de Rijke, dRMM architects; Jess Hrivnak, RIBA; Anthony Thistleton, Waugh Thistleton Architects; Chris Gaze, Structural Timber Association; Rory Bergin, HTA Design

TIMBER SPECIFICATION

Architects ponder the roadmap to using more timber at RIBA

The Timber Roadmap, introduced by Defra in February 2024 to increase specification and supply of timber in the UK construction sector, presents the “opportunity of a lifetime” to hit net zero in 2050 according to the Structural Timber Association (STA). That was the view of STA chief executive Andrew Carpenter at a recent event held at RIBA to explore how to grow the use of structural timber in architecture using this extensive document as a driver.

The STA recently held a morning seminar titled ‘Navigating structural timber construction to address net zero’ to share views from some of the leading architectural practitioners in the UK working in timber. Carpenter admitted that the fate of the Timber Roadmap was “still on hold” post-General Election, and the MP who instigated it at Defra, Rebecca

Pow, lost her seat in Taunton to the Lib Dems in the Election, so whether or not the Roadmap will survive unchanged is unclear.

It’s unlikely the Roadmap will be mothballed, as it is the result of substantial investment from the industry, including the multi-agency timber working group convened by Defra. Within that, each of the Roadmap’s seven Priority Themes (covering diverse areas from forestry to carbon data), have their own working group. The seven Priorities are: “improving data on timber and whole life carbon; promoting the ‘safe, sustainable’ use of timber; increasing skills, capacity and competency across the supply chain; increasing the sustainable supply of timber; addressing fire safety and durability concerns in engineered mass timber; increasing collaboration with insurers, lenders and warranty providers, and finally,

promoting innovation and high performing timber construction systems.”

Carpenter, who has personally taken a leading role in achieving the Roadmap’s adoption by Government, told the RIBA audience that in order for progress to be made on the Roadmap now, it “needs leadership, it starts with Government and goes right through the supply chain.” He added: “Designers have a huge impact, and they need to start thinking about whether timber can be their first choice.”

Carpenter also cited the Procurement Act, which comes into force in October 2024 and how it is “putting a lot more onus on using SMEs in the supply chain,” based on environmental issues, and this was a “good thing” as it could benefit a wider range of timber suppliers.

Continued overleaf...



Jerry Tate of Tate & Co Architects put the case for "super-local timber sourcing"

The panel for the event included Alex de Rijke, founding director of drMM Studio, Anthony Thistleton, founder and director of Waugh Thistleton; Jerry Tate, director of Tate + Co Architects, Rory Bergin, partner, Sustainable Futures at HTA Design; Jess Hrivnak, practice technical adviser (sustainability) at RIBA; and Chris Gaze, sustainability consultant at the STA.

Jerry Tate provided some genuinely inspiring examples of designing and engineering innovative forms using timber in a series of award-winning projects which led to sustained strategic relationships with clients. These ranged from the curvaceous Eden Project education building he worked on at Grimshaw that mimicked nature using the Fibonacci sequence in timber, to the CLT-built Cranleigh Preparatory School building designed by his current practice.

Tate admitted that designers face a conundrum around transport and embodied carbon impact, as performance specifications increase for timber builds. "As buildings have got more efficient, components have to come from further afield; the embodied carbon is massive." As a result, Tate & Co has been exploring projects using "super-local timber sourcing," including larch and chestnut poles.

Tate told the audience that from designing over 20 timber houses, the practice had learned that they "always have to pre-tender the timber frame before we get the main contractor on board, so that we know what the structural solution is. It makes us understand where to put things like DPCs, vapour barriers and breather

membranes behind the cladding."

The STA's Chris Gaze presented research data from the organisation around the challenges of reducing whole-life carbon, and build quality challenges in some masonry-built schemes, including the Project 80 'eco' social housing scheme in Handsworth, Birmingham, which had stringent targets but a performance gap on air permeability. Gaze reported the as-built score was around 2.5 N/m² – versus a design score of 1.5 N/m². He added that the insulation which had been inserted to address detailing issues around windows added "£2900 per house, plus a further £2900 for polymer spray insulation."

Despite the challenges around performance and long term embodied carbon, Gaze asserted: "The carbon emissions we are making now are much more important the ones we may make later," due to the severity of the climate crisis we face in the short-term.

Rory Bergin of HTA told the audience that "there are a lot of places in the industry where we don't have the expertise [on timber]; the industry is not fit for purpose." He added: "We are in a weird place in the UK on sustainable policy, if you go outside London there is an absence of policy."

Bergin added: "Buildings have had to be demolished due to personnel changes, and we aren't assessing everything through all the lenses," when it came to designing robustly using timber. He saw potential for the volume housebuilding sector's to engage with the Timber Roadmap agenda: "It will be very interesting to see how far we can go



The STA's Chris Gaze offered performance gap data

with volume housebuilding. Once you take them out of their 'family' pattern books, you can go surprisingly far."

Bergin concluded however that despite the "sweet spot" for timber in the residential sector being "between 18 metres and low-rise housing," the "large corporations are very risk averse at the moment, and not looking at five-six storey buildings."

Alex de Rijke of drMM Architects presented several excellent timber structures, including the beautifully simple Maggie's Centre at Oldham Hospital which surrounds an existing tree with an elevated, "weightless" timber cabin. And Anthony Thistleton gave an impassioned plea for a more open-minded approach to high-rise timber, showing how workplace schemes such as the Black & White Building in east London had given corporate clients major returns on investment. This was against the backdrop that "however green a client is, they are never green enough to pay 50% more," and he also asserted that architects "have to be absolutely ruthless about design efficiency," adding "if they want to build in timber, they have to design in timber," rather than substituting with timber.

Andrew Carpenter added that the Structural Timber Association was "showing leadership" using its STA Assure quality assurance scheme for products which "provides confidence to the sector in terms of the whole supply chain." He said: "We are putting a lot of emphasis on skills and particularly onsite competency, including a new installer training scheme."

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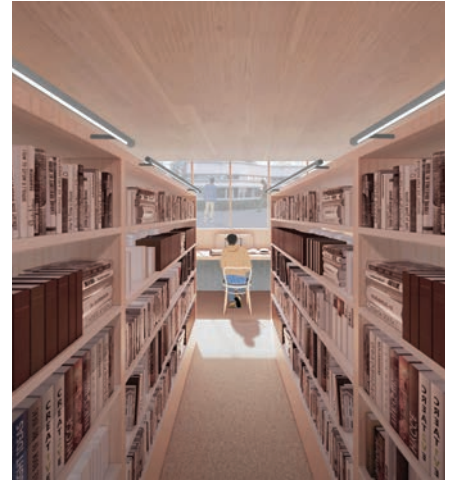
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HERITAGE & HISTORIC

University of Cambridge unveils BDP plans to restore Stirling building



The University of Cambridge, working with BDP, has announced ambitious plans to restore the Grade II* listed History Faculty Building by James Stirling, which is also the home of the Seeley Library.

This landmark project will restore and revitalise one of the iconic ‘Red Trilogy’ – the triumvirate of significant university buildings designed in the 1960s by the prominent post-war architect James Stirling.

It presents a “once in a generation opportunity to provide a new range of enhanced learning and working environments at the heart of the Sidgwick site,” said BDP, while improving the building’s accessibility, safety and comfort.

The comprehensive refurbishment will “safeguard the use and enjoyment of the building; repairing and upgrading the fabric and replacing services to improve thermal comfort, while introducing a range of carbon saving and climate resilient measures,” commented the architects.

Professor Tim Harper, head of the school of the humanities and social sciences, said: “The project is true to James Stirling’s vision in that it looks to the future. It will enable all those who use the building to work together in new and exciting ways.”

The project, said BDP, has followed a “meticulous conservation-led approach

that embraces the value, significance and distinctive character of the building while recognising the need for change to meet contemporary requirements.” After considering the multiple adaptations to the building, “careful judgements have been made about the recovery and reinstatement of materials and details.” In conjunction with an approach to new and repaired fabric, this project will “breathe new life into the building, making its architectural value more tangible,” said BDP.

A key driver for the project is to meet equality, diversity and inclusion goals. The project will significantly improve step-free access throughout the building, including external terraces, to ensure “equitable entry and circulation for all users.” Internal treatments will also provide a more comfortable range of environments, recognising the needs of a broader spectrum of people.

Environmental sustainability is also a major focus, with innovative technologies and materials being employed to enhance the building’s performance. Fabric-first and “passive upgrades,” in conjunction with renewable energy sources and efficient systems and controls, will reduce energy consumption. The project targets BREEAM Excellent certification and a “zero-gas” approach will be employed to help the university reach its own “absolute zero”

carbon targets. Incorporation of the WELL Standard will help the project “ensure wellbeing of occupants is addressed from the outset.” A pre-refurbishment audit has been undertaken in order to identify potential reuse or recycle opportunities and minimise waste.

The proposals also include extending the building, with two new pavilions proposed to provide additional library and reading spaces while supporting improved accessibility. These new elements “clearly express their function and respond to the original building scale, form and materials; deployed in a simple, abstract way to differentiate them,” said BDP.

Arup is delivering heritage, civil, structural, facade engineering and access services on the project to provide the technical and functional facilities befitting the building and has been engaged since the initial feasibility study in 2021.

The landscape around the building will see improvements, aiming to enhance biodiversity and create “more convivial and inviting outdoor spaces as part of the wider heritage setting.”

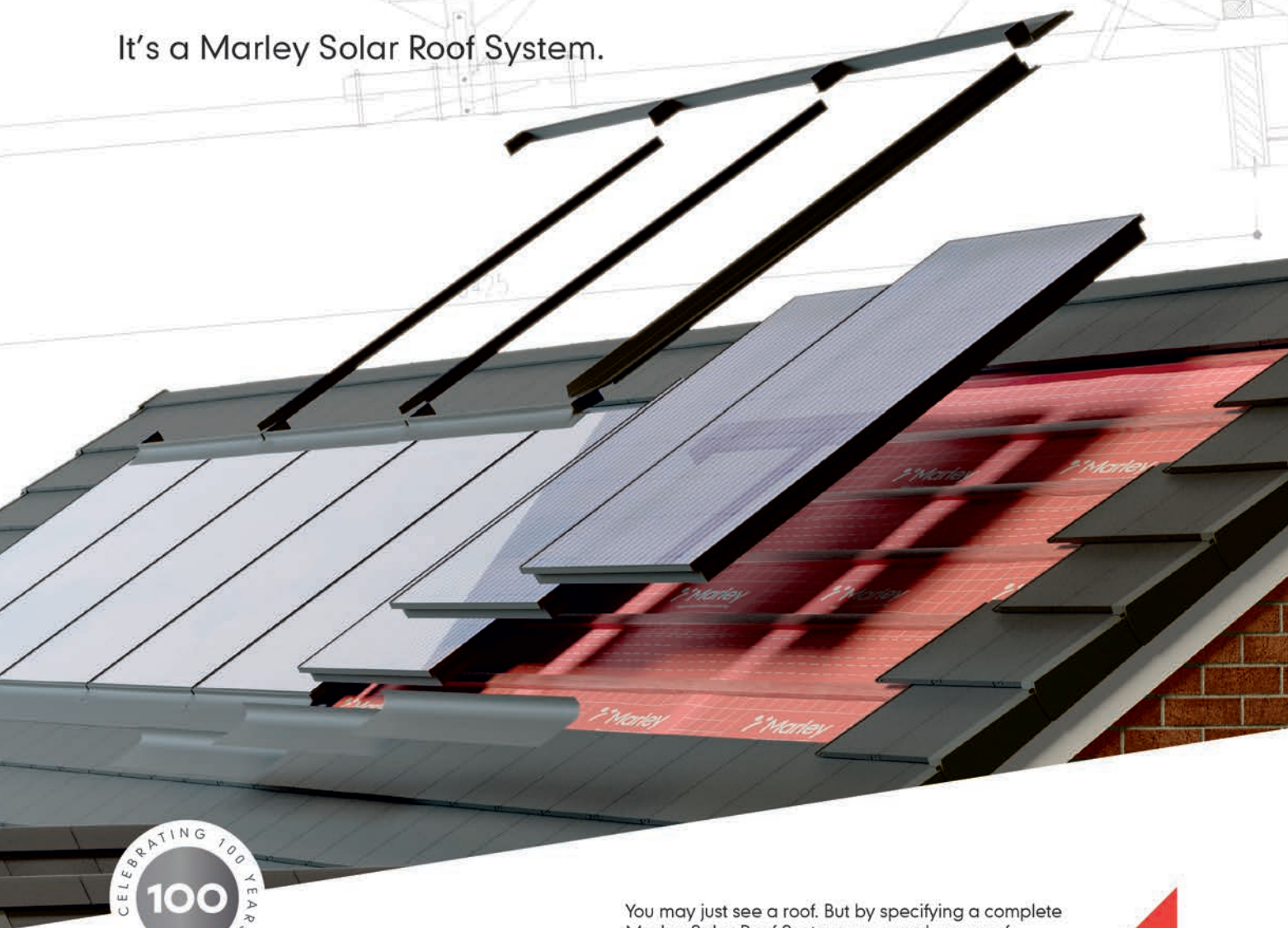
Construction is due to start in 2025, subject to university approvals, including a formal ‘Grace’ to the university’s Regent House, as well as planning and listed building consent approvals from Cambridge City Council.

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HOTEL DESIGN

HLM-designed hotel opens in Sheffield



The new flagship Radisson Blu hotel in the heart of Sheffield has officially opened its doors. Designed by HLM Architects, working with Turner & Townsend and McLaughlin & Harvey, the flagship hotel consists of 154 luxury rooms, with bespoke contemporary design features that complement Sheffield's heritage and the retained Victorian facade along Pinstone Street.

Delia Harmston, studio director at HLM Architects, said: "This stunning development in the cultural heart of our home city Sheffield is the final, crucial piece in the jigsaw, forming the gateway into the wider Heart of the City masterplan."

She added: "The design carefully combines new and old to knit the new hotel architecture into the historic city fabric. We are hugely proud to have been involved from inception through to completion on this significant and complex development overlooking Sheffield's most prominent public space – the Peace Gardens. Without a doubt, the best views in the city are from the new rooftop bar."

Accommodating visitors for both work and relaxation, the hotel scheme boasts a rooftop bar, terrace and restaurant with panoramic city views, additional conference facilities and a flexible event space.

A commitment to preserving Sheffield's Victorian heritage has been integral to the development, and the retention of historic facades and the incorporation of complementary materials and colours

ensures the new development reflects the city's strong identity.

Ben Carrack, associate at HLM Architects and project lead, said: "Situated just a two-minute walk from our Sheffield studio, located on a highly constrained site, this development presented many challenges throughout the journey. Technically, this has been an extremely complex project with many aspects to navigate, including the careful demolition of the existing building fabric, ground works over existing basements, retention and restoration of the historic Pinstone Street facade and works to neighbouring Party Walls. The end result

is something I am incredibly proud to have been involved with. It has been a privilege to work on such a significant project, not just for HLM, but also for our city."

As an integral part of the Heart of the City development, Radisson Blu Sheffield "plays a pivotal role in the ongoing revitalisation of Sheffield's urban landscape, while raising the city's profile as a major destination for business and leisure," said the architects. The development aims to create a "dynamic and sustainable city centre, blending modern architecture with historic charm, and fostering community engagement."





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AWARDS

The height of innovation in London

The Tall Buildings Awards, which took place at the end of June, “paid homage to the very best of these iconic structures and the teams behind them,” with the winners coming from across Greater London.

Hosted by Peter Murray OBE, co-founder of NLA (New London Architecture), the awards took place at a reception following the Tall Buildings Conference in the City of London.

With 11 categories, the Tall Buildings Awards “celebrate excellence in an increasingly complex world that must respond to the issues of sustainability, mixed-use, community living, the circular economy and stringent legislation.” Turning the spotlight on the architects, engineers, contractors and the clients who plan and execute tall buildings, the awards are judged based on “the achievement of delivering projects of the highest quality” – this year the judges faced the task of selecting 11 winners from over 100 entries.

College Road

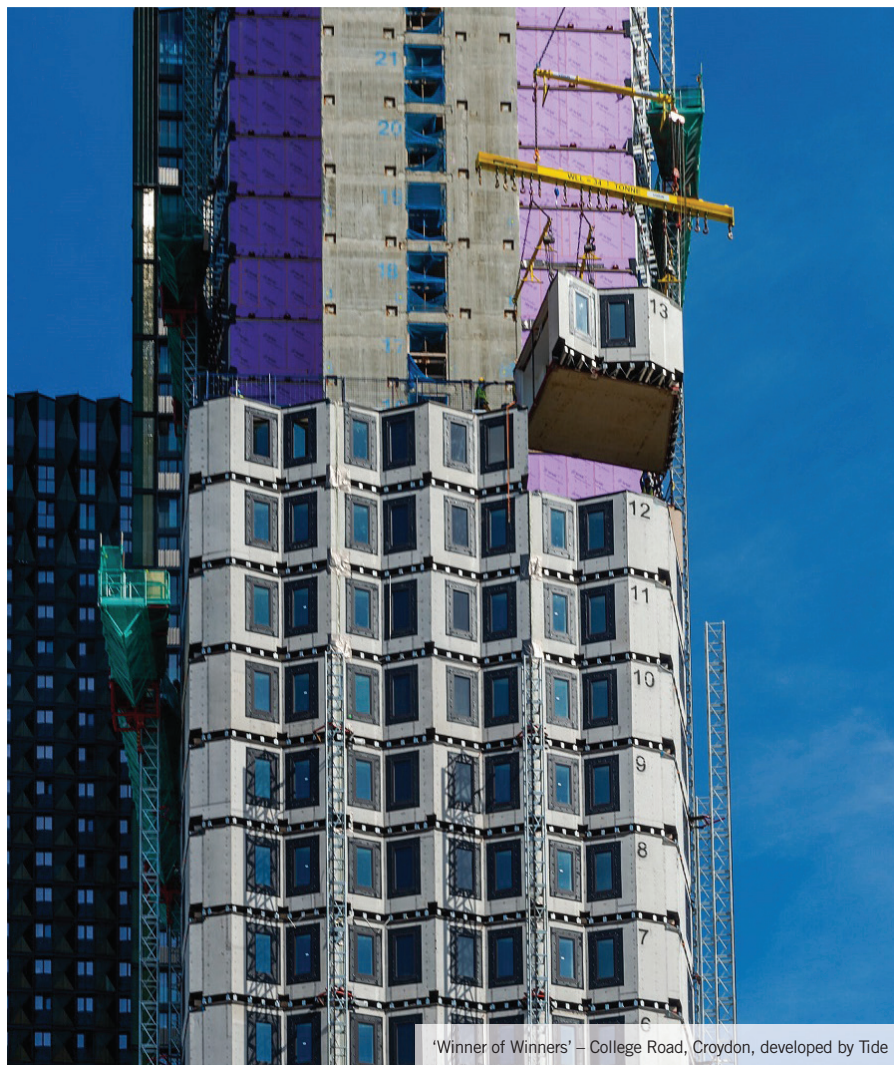
Picking up three awards and a Highly Commended accolade, offsite developer Tide and its volumetric brand Vision were crowned ‘Winner of Winners’ for College Road, a residential scheme in East Croydon, and their groundbreaking volumetric building system.

The development comprises two of the world’s tallest volumetric modular buildings delivering almost 1,000 new homes. A 35-storey tower provides 120 affordable homes, and a 50-storey tower provides 817 co-living homes – making it one of the world’s largest co-living developments.

The scheme won Best Residential Tall Building Project, and MJH Structural Engineers and Barrett Mahony Consulting Engineers were Highly Commended in the Best Tall Building Structural Engineer category for their “outstanding work” on the towers.

Completed in 2023, the project is thought to include the first volumetric modular tower to reach 163 metres high, which makes it currently the tallest in Europe and the second tallest in the world.

Tide and Vision also claimed the Tall Building Technology Innovation Award for their Vision Volumetric System. This



advanced offsite technology is “leading the way in volumetric high-rise developments worldwide,” said the judges. It is operated under a vertically integrated procurement model with Tide acting as developer and contractor.

Working together, the two firms have delivered almost £4bn worth of assets.

8 Bishopsgate

Another big winner, 8 Bishopsgate in the City of London took three awards. Over Arup & Partners, Wilkinson Eyre, Lendlease Construction Europe and developer Stanhope jointly claimed the trophy for Best Commercial Tall Building Project, with

Lendlease also picking up the prize for Best Tall Building Contractor. In addition, Arup was awarded Best Tall Building Structural Engineer for their work on the project.

A “distinctive addition to the City of London’s skyline” for Stanhope & Mitsubishi Estate, 8 Bishopsgate is “characterised by its attention to detail, holistic approach to sustainability and rigorous integration of structure and services into the overarching architectural vision,” said the award judges.

Conceptually, the building “challenges the traditional tower by breaking the massing into smaller blocks, allowing the high-rise form to bring human scale.”



Portlands Place

With two wins and a Highly Commended trophy, the team behind the Portlands Place project in east London also celebrated multiple award wins. Portlands Place, adjacent to the Olympic Park, “takes rental living to another level,” said the judges. Plot N06 is the latest addition to Get Living’s East Village build-to-rent redevelopment of the 2012 Olympic Athletes’ Village. It provides 524 homes across two towers of 31 and 26 storeys, linked together with a double-height skybridge, which contains the main communal amenity and rooftop terraces overlooking the Olympic Park to the west.

Get Living won the award for Best Tall Building Client of the year – and Hawkins\Brown were crowned Best Tall Building Architect for the design of Portlands Place. Hawkins\Brown were also Highly Commended in the Best Residential Tall Building Project category.

Get Living “strives to create places that bring people together and that are fit for the future. Portlands Place does exactly that, with its market-leading amenity space and focus on social living.” It is situated in a prime location with extensive parks and wetlands on residents’ doorstep.

DAMAC Tower

Winner of the Best Tall Building Facade & Fenestration Engineering Project for WSP and Highly Commended in the Best Tall Building Architect category for Kohn Pedersen Fox, DAMAC Tower in Nine

Elms is a “vertical mixed-use community.” Offering market and affordable homes, retail, and office spaces, the tower is a “sculptural composition of terracotta, reconstituted stone and glass.” The scheme consists of three distinct elements composed to create impressive views from every side. The all-electric building features a roof garden and a six-storey skybridge.

Best Sustainable Tall Building

A ground source heat pump retrofit project by Kensa Contracting and Thurrock Council, upgraded inefficient night storage

heaters to Kensa’s networked heat pumps in 273 flats across three social housing towers. This initiative will significantly reduce carbon emissions and lift residents out of fuel poverty.

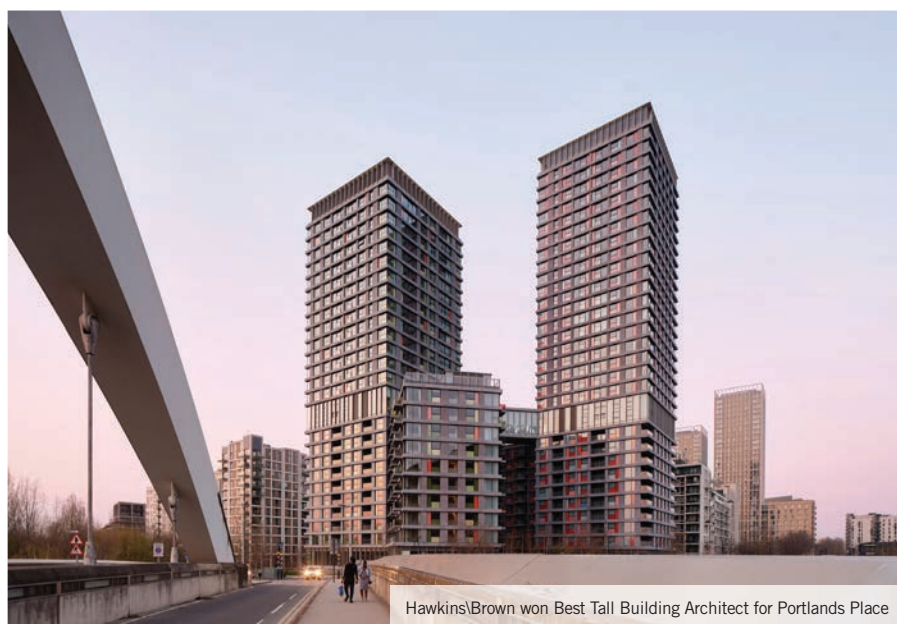
The team delivered the large-scale renewable retrofit project, installing highly efficient ground source heat pumps, and saving 7,166 tonnes of carbon over 25 years. Residents have secured 66% savings on their heating and hot water bills.

Best Tall Building MEP Services

21 Moorfields is a flagship, high-specification office development situated over London’s Moorgate underground and rail station and the Elizabeth line ticket hall. Providing approximately 55,000 m² of prime office space across 14 floors, the development is supported by a substantially resilient services strategy, normally only seen in data centres.

It has BREEAM ‘Outstanding’, LEED Gold ratings and is ‘WELL ready,’ and will serve as Deutsche Bank’s new UK and European headquarters. Winning Best Tall Building MEP Services Project for Cundall and MEP contractor Gratte Brothers – the team provided MEP, sustainability and vertical transportation analysis and design.

To discover more about the winning projects and the Tall Buildings Awards please visit: www.radarbookingsystem.co.uk/tall-buildings-awards





PRACTICE PROFILE

vPPR Architects

ADF's Kim Neville profiles a rare female-led UK architecture practice, exploring vPPR's foundations, ethos, and focus on supporting users' creativity in its designs

Established in 2009, vPPR is a female-led multi-national architectural practice, with offices in London, Liverpool and Hamburg. Tatiana von Preussen (above left), founded vPPR with Catherine Pease (above, centre) and Jessica Reynolds (above right), the trio meeting in their first year of study at Cambridge. In what is still a largely male-dominated profession – 2023 research by the ARB found that 31% of architects were female – it's refreshing to see a practice led by women.

Great-granddaughter of Crown Prince Wilhelm of Germany, Tatiana von Preussen studied architecture at Columbia University as well as Cambridge. In New York, she worked for landscape architects James Corner Field Operations on the High Line project.

Von Preussen has also lectured at US and UK universities.

Catherine Pease works in both the London and Hamburg offices, heading up the German studio. Catherine spent her childhood in France, and studied at the Architectural Association after Cambridge, before like Tatiana moving to New York to work, including a stint at SOM.

Jessica Reynolds studied at Princeton University, after teaching at Columbia University, specialising in housing design. She is a co-founder of Architecture Exchange, which is a “platform to stimulate debate between architecture and philosophy.”

The three founders of vPPR established their practice with an ethos of designing spaces that “inspire creativity by prioritising



Redchurch Street, London. Photo © Ioana Marinescu



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shared space, flexibility of use and artist collaborations.” They have put the focus on projects which are designed to be “robust and long lasting,” and to “embrace sustainable strategies and aesthetics.” Their commissions to date have included a diverse range of cultural, residential, commercial, education and public realm clients.

Tatiana von Preussen said in 2015 that in a competitive marketplace, being a female-run practice had “in many ways been a help, because our identity stands out, and it’s easier for people to remember us.” Catherine Pease commented that the combination of the founders’ different angles on design had given them a further selling point – “we all had slightly different perspectives and approaches, and that combination of ingredients is what makes us unique.”

Ethos in practice

Many of the practice’s projects exhibit carefully detailed and ingenious approaches to small urban sites, their residential schemes cleverly combine private and communal spaces in new ways, maximising the available land without compromising on quality.

One of vPPR’s first schemes, Ott’s Yard in Tufnell Park, saw the architects commissioned by Islington Borough to make the most of every last piece of a tight site – their design creating two triangular houses around a small courtyard. The project won a clutch of awards in 2014, including the RIBA London Award.

More recently, Idlewild Mews in Croydon carefully inserted a compact but distinctive terrace of eight homes into another challenging site, but the result picked up several awards in 2023 consolidating the practice’s reputation for residential schemes. According to vPPR, the design “ensures privacy for nearby residents while engendering a sense of community.”

A current project, The Camden Highline, is a great example of their sustainability and shared design practice ethos, which transplants the high level ‘park’ concept successfully instigated in New York, to north London. The Camden Highline is a proposed public park and garden walk, which will reimagine a 1.2 km section of elevated and disused railway viaduct between Camden Town and King’s Cross as new green infrastructure: an “ecological corridor and landmark walking route for post-pandemic community activity in London.”

vPPR’s commissions to date have included a diverse range of cultural, residential, commercial, education and public realm clients

In collaboration with James Corner Field Operations and a broad range of supporting consultants, the project has been developed as a “community connector, threading through many disconnected neighbourhoods to provide a freely accessible, direct and safe public walking link, that is distinctive of Camden’s character and diversity.” Another Camden project sitting at ‘high level’ is the conversion of a Victorian stables to site an elegant new terrace bar, Lucky Club (as featured in *ADF*’s May 2024 issue).

A project which showcases the studio’s “collaborative approach to design and community” is a warehouse conversion to mixed use at Redchurch Street in London, completed in 2016. It features two floors of retail space at the lower levels and five new apartments above, arranged along two parallel streets – one private and one open to the public.

On the public-facing side are a series of “curtain-like” steel fascias above the outlets, using industrial materials in an elegant manner that “suits Shoreditch’s new role in the city,” says the practice. To the rear, communal terraces provide residents with shared outdoor space to “promote neighbourly interactions.”

The traditional warehouse aesthetic of the existing building has been preserved and celebrated, with sturdy industrial elements exposed in large, open-plan areas. The deep-planned block, which previously struggled with natural daylight, now features an elongated courtyard that threads through the building, acting as an internal street and bringing light to the back of the retail floors.

A series of timber boxes are “scattered across the upper floors, housing bathrooms, kitchens, and bedrooms, allowing light to penetrate every room from above.”

This project, along with several others in its portfolio, exemplifies the practice’s continued exploration of the potential to provide private and communal spaces in dense urban settings. ■

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VIEW POINT

A new 'independent' database of products has been designed to help specifiers substitute and reduce the use of plastic in buildings they are designing, and thereby tackle a major sustainability challenge. Architect Gareth Abrahams explains how the Changing Streams initiative is working with academia on the way forward



Over the last 10 years, there has been a growing awareness that the buildings we live and work in play a fundamental role in achieving our sustainability ambitions. We can see this in the Building Regulations, which have seen many revisions to Part L over this period.

Each of these revisions has been used to encourage us to design buildings that perform better by retaining the energy used for heating and cooling. As architects, we have become adept at specifying materials according to their thermal conductivity, and their capacity to fit together as part of

an airtight thermal envelope. The problem, we argue at Changing Streams, is that our focus has been governed too firmly by the way materials behave and perform, and less by what they are made of. Or, put differently, we have been increasingly sensitive to what materials do and less aware of what they are.

There are signs that things are changing. When we talk about operational energy and carbon, many of us are also referring to embodied carbon. Indeed, this link between operational and embodied carbon is now part of the RIBA's sustainability targets,

If current trends persist, plastic pollution in construction could triple by 2060, surpassing 1.1 billion tons of waste

along with potable water use. This wider conception of sustainable building design is important if we are to achieve a more balanced approach to national carbon zero targets. But these changes in behaviour and

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If we are to truly help the industry reduce use of plastic, we need to provide people with the information and tools they need to make better decisions

framing only partly tackle this gap. If we are to develop a more nuanced approach to sustainability, then we also need to think about the amount of plastic that is used in these products.

Much of the plastic that is produced today will take many years to degrade, very little of it will be recycled, and the small portion that is recycled will only be recycled several times. At some point, some of this plastic will be burned, and some of it will enter our ecosystem through our streams and soils. We have all seen wildlife programmes showing the impacts of plastic within our oceans, and we have read reports in the newspapers about microplastics in our food, our drinking water, and ultimately, in our bodies.

So far, these documentaries and newspaper articles have mostly shown plastics produced by the retail sector. We have seen plastic bags in the ocean, crisp packets in bushes, and water bottles on beaches. But it is important to consider that the construction sector is the second

largest consumer of plastic after the retail sector. The construction industry in the UK generates a staggering 50,000 tons of plastic packaging waste annually. Alarming, if current trends persist, plastic pollution in construction could triple by 2060, surpassing 1.1 billion tons of waste. And so, while we may not see pieces of insulation or membranes in these images, the construction sector is the second largest contributor to plastic pollution. Given that much of this plastic is specified by architects and other members of the design team, this suggests the specification process is central to any efforts to curb plastic pollution and the environmental impacts this has.

So how do we reduce the amount of plastic used in building construction? This is the underlying question directing our work and our partnership with the University of Liverpool. Since 2018, Changing Streams has worked hard to draw attention to this issue, to engage with key actors in the construction industry, to formalise their commitment to plastic reduction measures, and to undertake research to help us understand where this plastic is located in real-world projects. Over the last few years, such research has been developed through a dedicated research centre within the School of Environmental Sciences. This research is the first of its kind in the world, and has provided industry funders with the knowledge and insights they need to make a real change on real projects.

But this research is only one part of a

much bigger strategy. If we are to truly help reduce plastic, we need to provide industry with the information and tools they need to make better decisions. It is with this in mind, that we drew on this research to develop Changing Materials, a materials database that architects can use to inform outline and full NBS specifications.

Unlike some of the other databases we can find in the sector, this database will be focused on plastic reduction and will not be funded by product manufacturers or suppliers. This independence is important because it means that the information can remain impartial and free of any conscious – or unconscious – bias.

We are at the early stages of this ambitious project, and so we are calling on architects from industry to work with us; to engage with the information we produce; to ask questions; offer new ideas and new materials that we have not considered. We are also calling on product manufacturers to contact us so we can include your products in our database. It is only by working together in this way that we can challenge some of the normative assumptions, rules of thumb, and take for granted ideas that have structured the industry for too long.

Dr Gareth Abrahams is co-founder and director of Changing Streams CIC (and senior lecturer in Environmental Sciences/ head of the Changing Streams Research Centre at the University of Liverpool)



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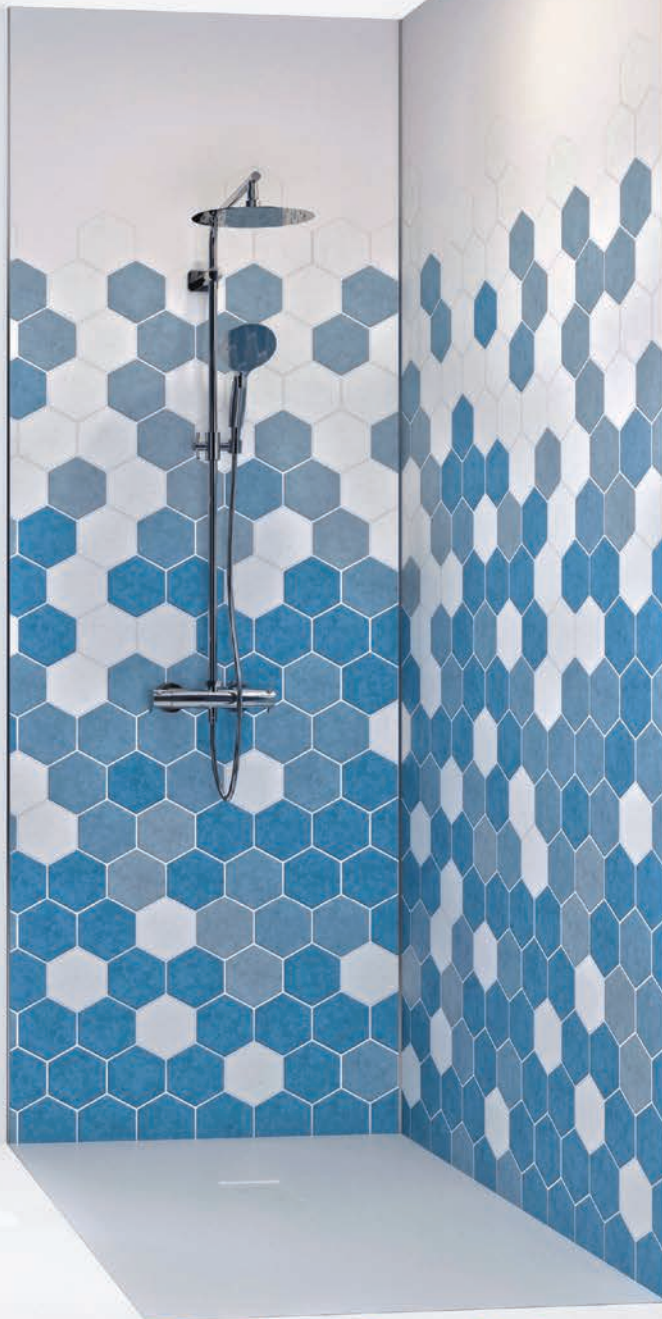
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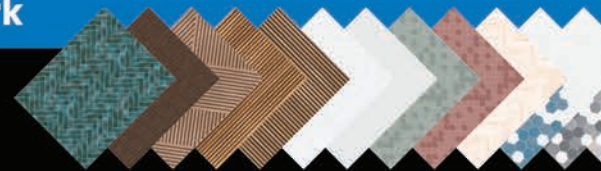
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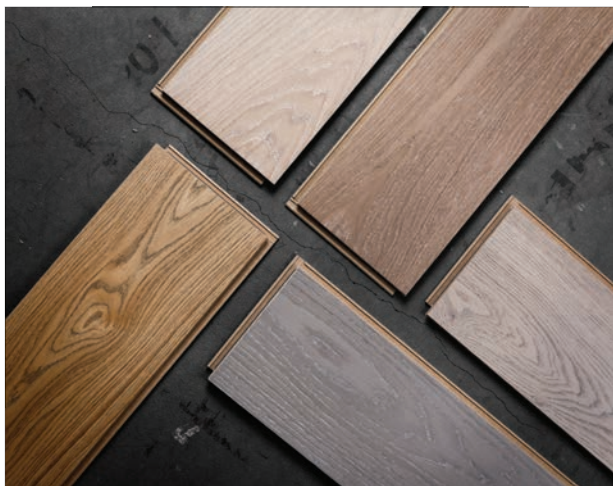


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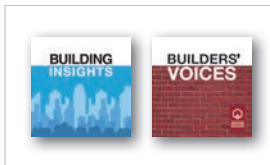
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Senior makes a major new appointment



Senior Architectural Systems has appointed Mark Rossouw to the newly created role of major projects manager. A familiar face within the construction industry, Mark brings with him over 15 years' experience of helping to design and deliver multi-product fenestration packages and previously worked

for Senior as one of the company's regionally based architectural advisors. Mark rejoins Senior as major projects manager to support the company's growing order book of larger and more complex contracts, and further develop its supply chain partnerships with national main contractors, architects and fabricators.

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Operations Director completes challenge



Alan Parkinson, Operations Director at National Ventilation, has completed the D-Day 44 Challenge in aid of Combat Stress, the UK's leading charity for veterans' mental health. Alan ran 44 miles along the Normandy beaches that formed part of the landings,

finishing his ultra marathon at the historic Pegasus Bridge. "A huge congratulations to Alan for completing the D-Day 44 Challenge. We are delighted Alan decided to commemorate D-Day through this run and to raise funds to support mental health of veterans today," said Robin Francis, Managing Director at National Ventilation.

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Hertford hub's second act

A renovation of a theatre and cinemas complex in Hertford by cultural sector experts Bennetts Associates has created a riverside hub with new openings both theatrically, and for the community. James Parker reports

Opening this summer, BEAM transforms Hertford's existing but outdated theatre and cinema provision to provide what will be a major cultural hub in the area, but also an important focus for the local community both socially and practically. Bennetts Associates, which specialises in theatres and working with existing structures, won a competition run by East Hertfordshire District Council in 2019.

The firm's 30+ years experience working in theatre projects, such as the Royal Shakespeare Theatre's refurbishment on the River Avon in Stratford and Storyhouse in Chester, stood it in good stead for tackling this project. The Hertford project was a far from straightforward expansion, sitting on a site in the heart of town that's partly over the River Lea.

The new additions comprise five interconnected blocks on this very compact site, increasing the theatre capacity while adding three dedicated cinema screens and community functions for the client, but raising a host of challenges for the architects. Alastair Bogle, associate at Bennetts Associates, told me: "There's a lot to fit in, it became apparent straight from the beginning that it's more than just the theatre, it's always been very much a community-based building."

Partly due to the client being the council, and having a fundamental interest in the community involvement rather than just commercial positioning of the building, the supporting functions give this project a fairly distinct cultural mix. It was "much more than the Christmas shows and second release cinema" that the theatre ran, says Bogle. "That's one of the things that we found most interesting about the project – being able to create that space for people."

Following their appointment, the country "went straight into lockdown." However, Bogle admits that "in some ways, it helped the project that the theatre was 'going dark' anyway." But once the project was underway to transform the building, he says that the town's expectations for its rejuvenated facility grew exponentially, with gatherings to enjoy culture having been prohibited across the UK.

Bogle says there were "a lot of interesting conversations with the client around whether people would want to come and gather anymore due to the rise in streaming platforms." But he adds there has been a "real drive for people to get back together and experience things collectively, and I think that this building is going to be really important for that."

The redevelopment of the theatre also "represents a significant and timely



PERFORMANCE ENHANCEMENT

The original, outdated auditorium was stripped out and replaced with a new interior with more capacity but a more intimate feel; an adjacent 'studio' theatre is also a vast improvement on the former offering

investment in the town centre of Hertford,” say the architects, forming part of the council’s “wider urban strategy to open up the riverside to the public.” The project has therefore been planned to include routes through for pedestrians, which further enhances its position as a social and community hub, not a cultural ‘ivory tower.’

The new internal programme provides a range of flexible event spaces plus three cinema screens, a new ‘studio’ auditorium for smaller live acts and performances, and an expanded main auditorium suited for larger productions, with an added balcony level. The building’s new foyer plus riverside cafe-bar helps connect the building with the river, and the old theatre auditorium with the new additions.

Brief & design approach

The commercial drivers largely centred around increasing the capacity of both cinema and theatre provision, and

increasing the quality of what Hertford could stage as a ‘receiving house’ and provide first-run cinema releases. The existing 1970s auditorium had “very much a civic hall feel,” with around 400 retractable seats, and “lacked any sense of grandeur,” says Bogle. It also had a very small adjoining ‘black box’ studio. The only real connection to the river in the built form was a hireable function room “which hung over the river,” says Bogle, that wasn’t maximising the opportunity of the site.

The building had seen a light refurbishment in 2010, however this was focused on the front of house and some technical upgrades to accommodate ‘second release cinema.’ Already a venue punching above its weight before the interventions by Bennetts Associates, the expanded capacity – particularly that of the theatre – increases the venue’s reach on the national touring circuit, plus giving the potential to generate much more of its own work.



© Bennetts Associates

In the words of the project architect, the many stakeholders behind BEAM had “never had a building that matched the quality of what they do, and how much community work that they are involved in. The client was very, very adamant that we would make sure that this building is going to be for everyone, and everyone feels comfortable there.”

The former Hertford theatre building did not take advantage of the “amazing” riverside setting, says Bogle. A key goal of the project was therefore “to open up that piece of the site and re establish that connection, but also on a biodiversity level, and giving that to the public as well.”

The project takes the auditorium capacity from 400 to 550, which “moves you up a band” in terms of the potential touring productions which can be staged at the venue, says Bogle. In addition, there a studio theatre is in progress, with around 150 seats, which will be fitted out later this

year as one of the final parts of the scheme. On the first floor of the block nearest the river there is a hireable dance studio with a sprung floor, and on the ground floor is a new function room (replacing the former ‘river room’) which can be hired for the various groups which are run at the venue.

The site is bounded by a road to the north, and the tree-lined river running north-south alongside the west flank. The plan extended a small amount into the park space next to the river on the south west edge, but generally it was kept within the confines of the existing footprint.

Bennetts employ a collaborative approach to tackling its often complex cultural sector projects, which often have the sensitivities of existing structures to contend with alongside delivering state of the art performance spaces. “It’s about establishing what the client really needs and being able to drill down to that really quickly,” explains Bogle. “I see architecture

The original ‘malthouse’ fly tower remains, an angular metal-clad structure which refers to the nearby medieval tower



WARM WOOD MATERIALITY

View from first floor dance studio – the new cinema spaces and first floor rooms for hire are created in CLT
Image © Bennetts Associates

as a collective endeavour; I don't see the point in not taking the people we're working with on that journey."

He adds: "What's the point in spending five years with people that you don't really want to spend time with? It's a large chunk of your life!" Bogle believes that establishing client 'buy in' at the beginning of projects bears considerable fruit later on: "It just helps with lots of decisions, because sometimes we're going to be challenging, and sometimes we're going to be challenged, and you need to have that core relationship there."

Despite the design post Stage 3 needing to be delivered "from people's bedrooms" due to Covid restrictions in 2020, Bogle says the process was very straightforward, and the

client "was very accommodating. He adds: "They gave us the space that we needed; they trusted us, when they needed to trust us." There were cost increases on the project largely attributed to post-Covid inflation and global conflicts, and a value engineering process with contractor GPF Lewis, but Bogle is confident the design has not been compromised, though they "worked really hard with GPF Lewis to reduce costs on the building when necessary."

A model of Hertford

The new building created is at once a unified design and a set of forms, with a "grain and a scale that works as a contemporary object that also works very much in this historic context."

Bogle explains that by wrapping a series of “boxes” around the existing theatre auditorium, and creating a central courtyard, “it sort of creates a mini version of the town itself, almost a contemporary reflection of the way Hertford is.” The client “bought into that as an idea,” he adds, and it “allowed them to be able to describe it to other key stakeholders when they took them around the building.”

The five blocks surrounding the tower are contiguous, in an overall composition that’s deliberately “pushed together, with a lot of time having been spent thinking about the overall ensemble” says Bogle. Cinema and theatregoers enter via an aperture under one of the blocks, which “feels very much like how you get into a medieval yard space in some ways. but in a contemporary manner.”

One of the designers’ challenges was that they “really wanted to pull those blocks back from the river edge to create space that you can walk along in front of the building.” However, the balance of the space required internally left “even less space to be able to do that; it took a lot of time, but it was worth the effort.”

The original ‘malthouse’ fly tower remains, an angular metal-clad structure which refers to the nearby medieval tower. It is still prominent but the theatre auditorium it sits on is largely obscured by the cluster of five new volumes. The main overall difference brought by the additions is that the formerly single-storey buildings around the theatre have been replaced by two-storey blocks, three of which contain the new cinemas on their CLT-framed first floors. Bogle believes that retaining the auditorium and fly tower was partly justified by it still functioning as “an interesting form in the town,” as well as from a sustainability standpoint.

When working with existing buildings, the architects profess an approach of “trying to keep as much as possible, which is obviously best for an embodied carbon, as well as a cost point of view and is a design challenge we enjoy.” This of course is balanced against the client’s requirements, and in this case the challenge of “how can we fit this stuff on the site?”

The existing buildings to the front of the site were not able to support the upper levels required, so they were removed including the front-of-house functions. Adding to these existing spaces “wouldn’t have worked, and they were a barrier.”



The three blocks on the ‘front’ of the site which contain the cinema spaces are adjacent to the street – which the river rushes underneath at the northern corner. On the western flank along the river, the two further blocks contain, respectively, the entrance foyer plus two new cafes and hireable function spaces, and finally the studio theatre, in the block next to a medieval motte, which is given a new connection to the building and town thanks to a riverside walkway to be completed at a later stage.

Part of opening the building and its enviable site up to the community is the way the windows to the cafe “directly address the river.” The hired function spaces are also enhanced by river views, but

The architects’ brick facade concept echoed historic buildings, and included clear-glazed raised pattern sections

© Hufton + Crow

“A core idea was that it is a building for everyone, and also a very different beast to what the old building was, so they wanted to feel like it was a rebirth of the whole thing”

Alastair Bogle, Bennetts Associates

FACING PAGE

Feature staircase within courtyard foyer, with view of retained auditorium's brick structure
© Hutton + Crow

anyone using the cafes also gets to benefit.

The connected brick-clad new buildings plus the existing theatre auditorium presents a unified form, but one whose facades are broken, to give a more approachable feel. “It couldn’t work as a singular monolithic thing in terms of a straight facade in that setting, it wouldn’t be appropriate.”

Although the building has a new main entrance, unusually for theatres it “doesn’t really have an obvious back, and is more of a 360 degree building really,” says Bogle. This makes circulation and external access, as well as the aesthetic approach overall, more of a challenge.

Dealing with the river was not so much of a headache, given that the gradient dropped down “quite soon” after the curtilage. A bigger design challenge was posed by the sound of the fast-flowing river, with a large amount of focus being placed on the soundproofing of the auditorium and cinema spaces.

Exposing CLT’s potential

To benefit the building’s overall embodied carbon, the architects and engineers specified the new upper stories of the added buildings as CLT boxes. Bogle says he has enjoyed seeing these boxes go up on site, “as each houses a function – a cinema, a studio, a rehearsal room, so it’s very much like the brief manifested in individual buildings around the site.”

He says there are “myths around the use of CLT” which can be a challenge to counter, and fire safety requirements sometimes do mean “you do end up having to cover it up quite a lot, which is a real shame.” However, here he says “it’s been really nice to be able to keep it exposed where we can.”

He continues that the architects were particularly pleased with the “raw” CLT they achieved in the circulation corridors, “before you reach the ‘cinema world.’” This enables a rare change for the users to engage with and understand the upper storeys’ timber structure, with elsewhere the external brick language being brought into common areas internally.

In terms of the facades, the architects came up with a brick concept which subtly tied into historic buildings in Hertford, but also added a vibrant new identity using a protruding and glazed brick pattern. Bogle explains: “The context of Hertford is quite a lot of brick and glazed brick and tile, and

we thought that would work really well for us.” They selected a brick from local manufacturer HD Matthews, working closely with them to “get the blend right” and produce a custom clear, crackled glaze.

The relief pattern of glazed bricks looks somewhat random and natural, but “actually took a long, long time to work out.” With the slight differences in shape which naturally occurs, the light reflects in a variable way across the faces, creating a shimmering effect, which is “a bit theatrical,” says Bogle.

A new identity

The considerable amount of CLT in the building is not the reasoning behind the name for the building being ‘BEAM’ (subtitled ‘Stage, Screen Social’), as Bogle explains. There was a lot of input from stakeholder groups as part of the extensive consultation, and there was consensus that the word ‘theatre’ should be avoided as the building is so much more than that. The consultation “just reinforced how important this building would be to the community and how much engagement people wanted to have with it.” It “allowed us that greater sense of how important the job that we were doing there was.”

He continues: “A core idea was that it is a building for everyone, and also a very different beast to what the old building is, so they wanted to feel like it was a rebirth of the whole thing.” The name refers to a beam of light, and “outreach into the community,” says Bogle, “but it can mean many different things that are obviously also theatrically based.”

Fitting several different functions onto a constrained site has not resulted in a set of cramped spaces, shares Bogle, he says: “We have used the site to its maximum, but from an internal organisational point of view, it feels both spacious and intimate.”

Internally, the blocks flow into each other, with clear visual connections but function as individual entities. “You can see you can always see two other spaces, and how they are layered – there’s a really rich flow, but at the same time everything does feel like its own area,” says Bogle. There are quieter spaces provided for those that need an escape, and everything “connects back to the triangular courtyard.”

The original access for theatre deliveries was on the river side of the building – “the wrong side,” says Alastair. “So we flipped it to the yard side, and created a proper





Ground floor cafe bar © Hufton + Crow

This meticulously designed and locally important cultural project has been unsurprisingly very well received by both client and community

‘get-in’ with dock leveller and a stage access with proper stage doors. “The triangular courtyard at the centre of the site serves the key purpose of soaking up the peaks of visitor circulation during performances.

The main theatre auditorium itself, which Bogle says previously felt like a “civic hall,” was stripped out internally – the ceiling was replaced, and the interior “reimagined to make it feel a much more intimate venue.” The new fixed seating and balcony gives it the “feel of a really serious theatre space.”

Conclusion

This being a publicly-funded council building meant that its budget was

tightly controlled, and that’s one reason to celebrate how it has achieved a highly quality hybrid timber structure for this diverse range of functions.

This meticulously designed and important cultural project by Bennetts Associates has so far been a hit with both the client and the local community, for the way it helps to enhance the town and riverside.

Alastair Bogle concludes: “We’re just really excited to get the doors open and for the people to experience it. Ultimately, it’s their building, the aim was to give them a building that replicates the quality of the work that the venue does, and which serves the local community. We’re just really looking forward to people enjoying that.” ■

A.Proctor Group collaborates with park home manufacturer to deliver fire safety

For Lissett Homes, a manufacturer of premium park homes and lodges, one customer's request to use a different style of cladding had ramifications beyond the aesthetic appearance of the building. Minimum heights and distances are a key feature of fire safety regulations, and it is no different for park homes and lodges.

"The Caravan Act requires a six-metre gap between buildings," said Chris Close, Design Director at Lissett Homes. "It can be possible to build closer than that, but it depends on the fire classification of the products used in the build-up."

For the new 'Bainland' homes, the customer requested a type of vertical cladding, treated with linseed oil, which only achieves Class 4 when tested to the same standard. That meant looking at incorporating a fire-rated vapour permeable membrane behind the cladding. "I've worked with A. Proctor Group for seven or eight years," said Chris, "so they were our first port of call and



together we found the right solution."

In wanting peace of mind that the new specification could offer the right level of fire safety performance, Lissett Homes benefitted from A. Proctor Group's high level of technical support.

That support started with a recommendation to use Fireshield®, a vapour permeable membrane offering Class B-s1,d0

reaction to fire when classified in accordance with BS EN 13501-1:2002 Fire classification of construction products and building elements. Classification using test data from reaction to fire tests.

Find out more on the website.

01250 872 261

proctorgroup.com/products/fireshield

Sustainability-focused Mapei's EPD's total over 500



In-line with its commitment to sustainable construction, Mapei now has EPD (Environmental Product Declaration) certification for over 500 products throughout its range – spanning adhesives, admixtures, coatings, floor preparation products, grouts and surface care products. The certification reflects Mapei's commitment to whole life cycle sustainability, from raw materials, through manufacturing and packaging and reducing the amount of CO₂ associated to the product itself. All EPD products are included within Mapei's Product Information Library; an online resource and specification tool which lists all certifications including TDS', SDS', DoP's, GEV's and more. EPD's are a fundamental tool within the construction sector, used to document the effects a product has on the environment throughout its entire life cycle. They enable identification of low environmental impact products to meet project requirements and certification protocols for sustainable building. Mapei calculates the impacts its products have on the environment using the standardised LCA (Life Cycle Assessment) method.

info@mapei.co.uk www.mapei.co.uk

'The Proctor Podcast' launched by A. Proctor Group to talk all things construction



The A. Proctor Group is moving into the world of podcasting with the launch of 'The Proctor Podcast'. Hosted by Managing Director Keira Proctor, and promising to discuss all things construction, episodes are available on all of the usual podcasting platforms. Each one features a blend of information, inspiration and entertainment, keeping listeners abreast of the latest construction industry trends, innovations and insights. Having already reached new audiences through webinars, online round table events and a successful YouTube channel, the company is now exploring the possibilities of the audio format. The first episode of The Proctor Podcast delves into the world of modular construction with Will Jones (Head of Business Development) and Adam Salt (Business & Development Manager). Will, Adam and Keira discuss all aspects of the technology, including sustainability, efficiency and design flexibility. The Proctor Podcast is easy to access and provides a flexible, on-demand approach to learning about the construction industry and A. Proctor Group products and solutions. Subscribe to the podcast via their website.

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Steel windows at the core of sustainable design

Russel Ager of Crittall Windows explores how a historic window design continues to find favour for countless commercial and residential projects prioritising sustainability

As we edge closer to the launch of the Future Homes Standard, sustainability-focused design has become a necessity. It means architects must consider every aspect of their projects.

It is essential that all building designs achieve optimal thermal performance to not just adhere to UK Building Regulations but to also positively reduce the amount of carbon emissions produced per property.

Unfortunately, more often than not, inefficient windows are one of the main reasons a building's energy is unnecessarily wasted. Poor product design and materials are often the recipe for a disastrous window that struggles to retain heat within a property and maintain a comfortable indoor environment.

Ultimately, windows play a fundamental role within a building, so the type specified can 'make or break' a project, meaning their performance and sustainability credentials should be carefully considered.

One window material which is often overlooked but effortlessly ticks all boxes required from architects looking to work with the most energy efficient, high-quality building products, is steel.

Specifying steel windows in sustainable architecture

Originally introduced to the UK in the 1880s, steel windows have a long association with British architecture, and have been installed in properties up and down the country for well over a century.

Thanks to steel's impressive strength, a new era of windows was born when steel windows were launched into the market. With impressively slim sightlines and large expanses of glass, commercial and residential buildings were transformed into light-filled spaces – a style which is now synonymous with the best steel windows.



Throughout the years, major developments and investments in steel window manufacturing ensure that any products created today perfectly combine cutting edge technology with traditional craftsmanship. For instance, polyester powder coating guarantees an unmatched steel window finish. This evolution in steel window design plays a role in transforming the final products into an incredibly economical, long lasting solution as it provides a layer of protection against corrosion, scratches and chips.

What's more, with the introduction of components like thermally broken steel sections and co-extruded dual weather seals, steel windows today deliver superior weather and thermal performance in keeping with alternative window types.

Additional benefits of specifying steel



Poor product design and inadequate materials are often the recipe for a disastrous window

windows that may not be well known is their incredible durability and versatility. When manufactured to the highest standards, steel windows last in excess of 60 years and work perfectly in the most demanding new build or replacement applications.

In terms of design, black steel framed windows remain a popular choice, but bespoke shades in any RAL, BS colour means that steel windows can be work with an array of styles.

Sustainable steel windows

Steel window manufacturers with a passion to evolve and adapt their offerings have worked throughout the decades implementing fantastic developments to the thermal performance of steel windows.

Specifically, this means reducing the U-values and increasing WER ratings, meaning modern steel windows excel in insulation and successfully capture beneficial solar heat, helping to create a more energy efficient home.

While steel windows have been adapted and developed to achieve outstanding thermal performance, steel in itself counts as a sustainable building material. It boasts

exceptional recyclability with some steel window manufacturers working with profiles made from 100% recycled source. Plus, the steel systems can be recycled at end of life, creating a closed-loop process that conserves natural resources and keeps the metal out of landfill.

Steel's durability also contributes to its sustainability credentials. With high quality products achieving a lifespan in excess of 60 years, the need for replacements and maintenance is dramatically reduced and therefore lessens the environmental impact of demolition and disposal.

Modern steel window design

Fitting perfectly within a modern commercial space as well as self-build or restoration projects, steel windows make a fantastic choice. If you're looking to specify innovative, versatile and high performing windows, why not consider a solution that not only meets the latest building regulations but also lasts a lifetime and looks fantastic? Steel windows offer timeless style and lasting value.

Russell Ager is managing director at Crittall Windows

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Rehau Genio 7 / Synego
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Aluplast HST 85

Govette Windows wins at the SWA awards

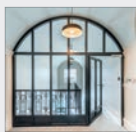


Govette Windows has won the Best Domestic Project category at the Steel Window Association Awards for work on a house extension in Weybridge, Surrey. John Ramshaw, Technical Editor of Architecture Today and judge for the Steel Window Association Awards, explained: "Govette worked hard to

ensure that the windows and doors met the exacting performance and aesthetic demands of both the architect and client – and this really shows in the finished building. A worthy winner."

www.steel-window-association.co.uk

Manufacture of Jansen steel windows & doors



The manufacture of new steel windows and doors from Jansen cold formed steel profiles is underway at the Clement Windows Group factory. Jansen is one of the leading producers of cold formed, thermally broken steel profile systems for windows and doors, and Clement now manufactures

Janisol Arte 2.0, Jansen Standard 50, Economy 50, Economy 60 and Janisol HI. These meet the highest requirements of thermal insulation, security and fire protection, while offering mechanical strength and longevity. Suitable for restoration work and new build projects, the slender frames can be fitted into all opening types.

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Staying power

The seemingly humble door limiting stay is a key component which enables functionality and safety in entrance design in a range of sectors. Craig Fox of Strand Hardware outlines how architects might apply these little problem solvers



Architects strive to design spaces that are not only aesthetically pleasing but also functional, safe, and durable. Every element in a building contributes to these goals, including often-overlooked hardware like door limiting stays. These small but mighty components – which can also be used for windows – can play a crucial role in maintaining the integrity and usability of doors within various architectural environments.

From warehouses to modern apartments, grand entrances to internal cupboard doors, a stay device can address a variety of needs including those where there is limited space or where underfloor heating prevents floor mounted door stops from being used.

Their installation can bring a host of benefits, as listed below.

Preventing damage to doors & surroundings

One of the primary reasons to use a door limiting stay is to prevent damage. Doors that swing open too far can collide with walls, furniture, or other doors, leading to unsightly dents, scratches, and structural damage. This is particularly problematic

in high-traffic areas such as commercial buildings, schools, and hospitals where doors are frequently used. By installing door limiting stays, architects can ensure that doors open only to a specified angle, thus protecting both the door and its surrounding environment from unnecessary damage. This small investment can save significant costs related to repairs and maintenance in the long run.

Enhancing safety

Safety is a paramount concern in any architectural project. Doors that swing open too quickly or too far can pose a serious risk of injury, especially in environments with children, elderly individuals, or people with disabilities. For example, in a busy school, an unrestrained door could swing open and injure a passing pupil. In a healthcare setting, a door that opens too widely could block crucial pathways or hit medical equipment. Door limiting stays mitigate these risks by controlling the range and speed of the door's movement, thereby enhancing overall safety.

Protection against wind & elements

In locations prone to strong winds or sudden gusts, such as coastal areas, doors can be blown open or shut forcefully, causing potential damage or injury. Door limiting stays act as a safeguard in such scenarios by restricting the door's movement, preventing it from being thrown open or slammed shut by the wind. This is especially useful for exterior doors, patio doors, and doors in high-rise buildings where wind pressure can be significant.

Facilitating controlled ventilation

Ventilation is an essential consideration in architectural design, contributing to the comfort and health of a building's occupants. Door limiting stays allow doors to be opened to a specific, controlled position, facilitating natural ventilation without the risk of the door swinging

wide open or shutting unexpectedly. This controlled opening can improve indoor air quality and provide a pleasant environment, especially in residential and hospitality settings where airflow is crucial.

By controlling the range of motion, door limiting stays can significantly reduce the wear and tear on door hinges, frames, and the door itself. This is particularly beneficial in commercial and institutional settings where doors are subject to frequent use. By minimising the stress and strain on door components, these devices help extend the lifespan of doors, ensuring they remain functional and aesthetically pleasing for longer. This not only enhances the building's overall durability but also represents a cost-effective solution by reducing the need for frequent repairs and replacements.

The application of door limiting stays can be useful in a variety of settings but specifically in:

- Residential buildings: In homes, door limiting stays are useful for external outward opening doors, patio doors, and internal doors where space and opening is limited.
- Commercial spaces: Offices, retail, and hotels benefit by preventing doors

from hitting displays; in hotels, stays allow partial opening for security

- Healthcare: Door limiting stays ensure doors do not interfere with medical equipment or pose risks to patients and staff. Controlled door movement is crucial in emergency situations.
- Educational institutions: Schools and universities see heavy door usage; here door limiting stays protect doors from damage due to frequent opening and closing and ensure the safety of students and staff;
- Public buildings: Libraries, museums and government buildings benefit from added security and controlled access.

In conclusion, incorporating door limiting stays into architectural design is a thoughtful and practical approach that addresses multiple concerns, from safety to durability and comfort. By paying attention to these small but significant details, we can enhance the overall quality and longevity of projects, ensuring they meet the highest standards of design and usability.

Craig Fox is sales director for Strand Hardware



Incorporating door limiting stays into architectural design is a thoughtful and practical approach that addresses multiple concerns, from safety to durability and comfort



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Metsec underlines commitment to accurate product information

Voestalpine Metsec has become one of the earliest adopters of the Code for Construction Products Information (CCPI), introduced by the Construction Products Association in response to Dame Judith Hackitt's review of Building Regulations and Fire Safety, set up following the Grenfell Tower tragedy.

CCPI assessments are undertaken by Assessors from Construction Products Information Ltd. and are carried out on a manufacturer's specific products and systems, not the company as a whole. As such, an organisation or brand cannot, in itself, gain assessment or make any claims of conformance beyond a specific product set.

To date, voestalpine Metsec has successfully achieved assessment for four of its key construction systems; SFS light gauge galvanized steel structural framing systems and Metframe pre-panelised framing system from its Framing Division, dry lining metal framed components for gypsum plasterboard

systems from its Dry Lining Division and roof, side rail and mezzanine floor systems from its Purlins Division.

Alan Harris, Quality and BIM Compliance Director at voestalpine Metsec, states, "Continuous investment in independent performance testing and quality assurance is what keeps our construction solutions at the forefront of the industry."

"Ensuring that the data and information derived from these tests is conveyed in a clear, unambiguous fashion is key to providing specifiers, installers and users with more confidence in the systems' capabilities and suitability for their projects. Successful assessment to the CCPI confirms we are doing things right and underlines our commitment to the industry's needs."

CCPI aims to address the stipulation from Dame Hackitt's review that construction product information needs to be communicated in a clear and accurate way. Its aim is to help organisations drive



for higher standards in the presentation of construction product information, with a priority on building safety.

voestalpine Metsec has set up a rigorous information review process to ensure that messaging from all divisions is based on accurate, verifiable data and that this information is presented in a clear and accessible manner, which can be easily found and assimilated by its intended target audience.

metsec.plc@voestalpine.com metsec.com

Kent self-builder shields basement structure using Wykamol/Triton System solution



The comprehensive product range offered by waterproofing and timber treatment specialist Triton Systems, part of the **Wykamol Group**, has proved to be the perfect fit for a Kent self-builder undertaking his first self-build project in challenging ground conditions. Internally, the walls are lined with the BBA approved Wykamol-Triton's CM8 Waterproofing Membrane, while a layer of CM20 will be laid across the top of the floor slab. Both of these products are made from high density polyethylene and are installed with their 8 mm or 20 mm studs against the face of the concrete. Sureproof Ultra comprises a very stable polyethylene film offering a consistent reaction to longitudinal and transverse forces, having been developed for the waterproofing of basements, foundations, walls and flat or ventilated roof structures. The self-adhesive material is self-sealing and forms an effective barrier against methane and radon while being resistant to chemicals and physical damage. As well as being ideal for protecting concrete and masonry, Sureproof Ultra is also compatible with metal substrates.

01282 473 100 www.wykamol.com

Paddington station improves assisted travel experience



A new lounge, that has been designed for Network Rail passengers using the assistance programme, has opened at Paddington station. **TORMAX** was contracted to work with Saper Glass to manufacture and install an automatic, single sliding door system, giving clear and easy access into the Assisted Travel Lounge (ATL). Powered by the in-house designed TORMAX iMotion 2202 door drive, smooth and reliable operation is assured thanks to the innovative design of the high torque, synchronous motor that ensures rapid response to approaching foot traffic. Featuring none of the parts that regularly wear out, such as gears and brushes, the iMotion motor offers a longer lifespan, with lower maintenance demands, than other similar door operators. Ensuring the TORMAX automatic door opens and closes appropriately every time, speed settings and hold-open time can be easily adjusted by station staff via a user-friendly keypad. Maximising system performance, an intelligent microprocessor control system guarantees permanent monitoring of door leaf movement, making automatic adjustments in response to say a build-up of debris on the floor.

sales@tormax.co.uk

Biomass based insulation for flat roofs



Bauder introduces BauderECO FF, an innovative PIR insulation manufactured from 80% biomass-based raw materials.

As we move towards a more sustainable future, Bauder is on the journey to lowering the embodied carbon of its PIR insulation for flat roof construction. The innovation stems from employing the biomass balance approach in the production process. Introducing to their product range; BauderECO FF, a polyisocyanurate insulation manufactured from 80% biomass-based raw materials, as evidenced by the REDcert² certification and product-specific Environmental Performance Declaration (EPD).

BauderECO FF has been developed to offer an alternative to conventional PIR insulation manufactured from fossil fuel derivatives – without compromising the performance of the product. The insulation is specified within warm roof construction for a heat/conditioned building on both new-build construction and the refurbishment of existing flat roofs. ECO FF PIR insulation is already being selected by clients aiming to achieve carbon reduction targets for sustainability and a net zero carbon roadmap across their supply chain for building construction and refurbishment.

What is the biomass balance approach?

The biomass balance approach is a chain of custody model designed to track the total amount of renewable biomass-based raw material content through the manufacturing process or supply chain, ensuring an appropriate allocation of this content to the final product. The production method permits the blending of sustainably sourced materials with non-renewable resources. This approach enables manufacturers, such as Bauder, to integrate alternative bio-based raw materials into existing, complex production pathways, efficiently with minimal requirements for additional or modified plant and equipment.

About BauderECO FF Insulation

The production of BauderECO FF insulation utilises the biomass balance approach sourcing approximately 80% feedstock from processed renewable biomass, replacing those derivatives obtained from fossil sources giving a reduction of embodied CO₂ and conserving fossil resources. Combined with the biomass-balanced raw materials are recycled milling and sawing dust from PIR, coupled with other raw materials to create the insulating core of the finished product.



Plus points

BauderECO FF insulation offers numerous advantages including:

- Achieving low-embodied carbon compared to Bauder's standard PIR offering.
- The product is manufactured using renewable materials from biomass waste and residues to save fossil reserves, for example, agricultural production, crop, or food processing.
- Retaining all the advantages and technical characteristics of Bauder's PIR insulation, such as weight, durability, and fire performance.
- The product presents a suitable alternative for specifiers seeking to achieve sustainability goals while maintaining the performance of Bauder's renowned PIR insulation.

The above claims are verified in Bauder's EPD certification, in accordance with product-specific REDcert² certification.

Flat roof waterproofing systems utilising BauderECO FF Insulation

BauderECO FF insulation can currently be used within two of Bauder's warm roof

waterproofing solutions, which have been tested and are available for specification.

Within Bauder's reinforced bitumen membrane system portfolio, Bauder Total Roof System (BTRS) is available with BauderECO FF. There are a range of capping sheets for a tailored solution to meet individual project requirements. The completed waterproofing system can be enhanced with green roofs, solar photovoltaics (PV), or a biosolar system.

Bauder Thermofol is a single ply system suitable with BauderECO FF insulation comprising a mechanically-fixed application. Single ply solutions are advantageous for projects where loadbearing limits are a factor due to its lightweight properties compared to other waterproofing systems. The membrane offers root resistance for extensive green roofs. The waterproofing also allows for solar PV, and/or an integrated biosolar system.

It is important to note that under the biomass balance model, the resulting products may not contain quoted volumes of biomass-based raw material. However, the volumes of biomass-based raw material are allocated and verified by a third-party certification scheme. In this process, the volume of biomass inputs, and Bauder's outputs, are independently verified and certified in accordance with the REDcert² standard sustainability certification.

Bauder is renowned for its flat roof solutions which encompass green roofs, blue roofs, and photovoltaics. With the introduction of BauderECO FF, it is taking important steps by advancing its manufacturing processes by implementing the biomass balance approach.

Clients choose Bauder because of the way the company approaches business, treating each project individually, and collaborating with clients to deliver the most appropriate solution for a building and all stakeholders involved.



01473 257671
bauder.co.uk

Advances in post-installation anchoring challenge cast-in's dominance

LIEBIG Ultraplus heavy duty anchors have demonstrated in a project to create a new lifting bridge over the River Yare in Great Yarmouth that post-installation anchoring can offer performance equivalent to that of cast-in anchors, whilst also being better suited to the complexities of modern construction processes.

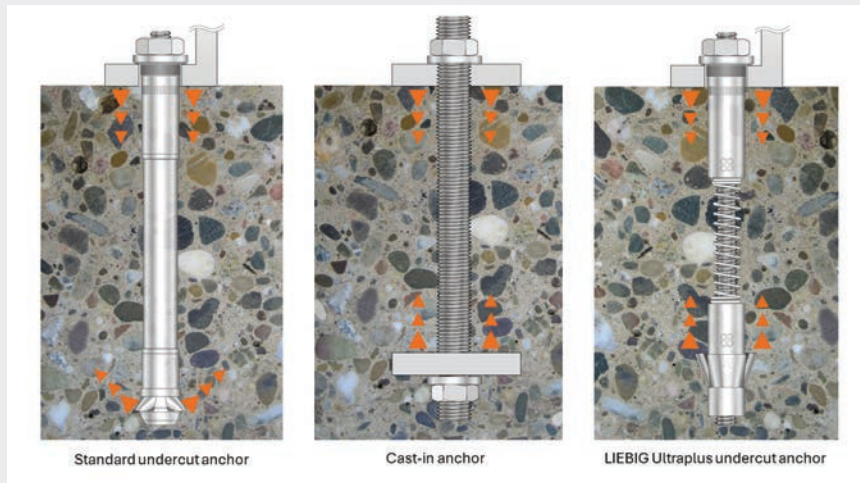
The £121m Herring Bridge project is an excellent example of how the application of innovative products is enabling major civil engineering projects to be delivered more efficiently in a shorter timescale.

The twin bascule bridge's construction process involved building cofferdams on both banks of the river. These house the machinery and mechanism required to lift, hold and lower each leaf of the bridge, all of which had to be securely anchored to the concrete.

As with many major civil engineering projects involving the kind of 'design and build' process used here by main contractors BAM Farrans, the team did not have the luxury of the 'ideal world' approach where anchors are cast-in to the concrete. Construction of the cofferdams had to commence as soon as the project received the green light, which meant there was no scope for the extended design time that cast-in anchors would have demanded.



LIEBIG Ultraplus anchors securely angled to support the hydraulic mechanisms of the bridge decks as well as the tail locks that hold the Herring Bridge in its raised and open position.



How three recognised anchoring approaches compare – left to right: a standard undercut anchor provides compression of the concrete by partial expansion forces being created at the bottom of the anchor. A typical cast-in place anchor allows compression of the concrete to be achieved between the cast-in washer plate and the concrete. With a LIEBIG Ultraplus Anchor, compression of the concrete is achieved between the undercut and the concrete surface.

The design team, therefore, explored the potential for a post-installation anchoring solution to attach the baseplates of the bridge's operating mechanism. Crucially, any anchors would have to be suitable for the concrete conditions within the cofferdam design and offer a very high load capacity.

Yorkshire-based engineering specialists Qualter Hall were consulted to help identify a post-installation anchor that would meet this demanding criteria, which they found with LIEBIG Ultraplus anchors.

For the Herring Bridge project, the design required EJOT to produce and deploy possibly the largest post installed mechanical anchors ever used in a civil engineering project. Two lengths of M36 size Ultraplus anchors were produced, with the longest being 1.45 m in length and the shortest 1.09 m, with both lengths being used on the same baseplates in an unconventional yet successful design approach.

It was an approach that, despite being incompatible with the product's ETA (European Technical Assessment), satisfied the requirements of the globally respected ACI (American Concrete Institute) Building Code.

The Ultraplus anchor's design is unique in the way that it transfers stress into the

concrete extremely effectively. It also does this in a way that differs significantly from 'normal' post-installed anchors and other undercut anchors, including those intended to work like cast in anchors.



Demonstrating compliance with the ACI Building Code enabled Ultraplus anchors to be deployed in this bridge construction project with confidence and ensure a post-installation approach could be utilised. The advantages that stemmed from this meant the bridge's design and construction time could be reduced, with subsequent cost benefits.

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www.ejot.co.uk/cast-in_vs_post-install_anchors



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Vandersanden is launching the very first CO₂-negative facing brick on the market under the name Pirrouet®. One tonne of Pirrouet® facing bricks absorbs up to 60 kg of CO₂ during the curing process and throughout its lifespan. This breakthrough is due to a unique industrial application of carbonation technology. In addition, only 20% of the Pirrouet® brick consists of primary raw materials – the rest comes from residual flows from the steel industry. With this first in the construction industry, Vandersanden is ensuring that attractive facades can contribute to a smaller environmental footprint.

01954 268 075 www.vandersanden.com/en-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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Garador's side-hinged Windsor designed for modern living



Garador's Windsor side-hinged door, with its modern design and useful features, is in a class of its own and is without doubt one of the standout garage doors of 2024.

The Windsor side-hinged door has been specifically designed for homeowners requiring frequent access to their garage. With its push down level handle and simple design, homeowners can easily pop into the garage to retrieve or store essential items, from small gardening tools to larger equipment or bicycles. Outward opening doors also mean it is suitable for parking a vehicle inside the garage as well.

Door stays mean it's easy to prop the doors open, even in blustery conditions, and 2-point locking using an espagnolette locking system means excellent security. Weatherproof rubber seals are built into the door frame to give added protection to items stored in the garage.

Garador's stand out Windsor side-hinged door is manufactured from high-grade galvanised steel and is available in a wide colour choice with various options.

01935 443722 www.garador.co.uk

Sto revitalises London office building with specialist rendering



Sto, in partnership with applicators Chiltern Contracts, have delivered a rendering project maximising performance and aesthetics for a refurbished multi-purpose building in central London. Henry Wood House was constructed in the 1960s and comprises a 16-storey tower with two five-storey interconnecting wings. The external renovation required the existing facade to be refurbished including new rendering. Sto was selected to design a system which would not only repair the damaged facade but meet a specific design brief from Ben Adams Architects and building owners Derwent. A modern, linear render finish was needed to bring texture to the building render and provide a durable surface. The complexity of the installation saw Sto provide ongoing technical advice and support to the applicators throughout the project. Due to the building's existing structure and high negative wind loads, strict fixing patterns had to be agreed and adhered to. The installation was reviewed by Sto at various stages to check the workmanship and to secure an extended warranty. The rendering project was completed on time and meeting all parties' high expectations.

0330 024 2666 www.sto.co.uk

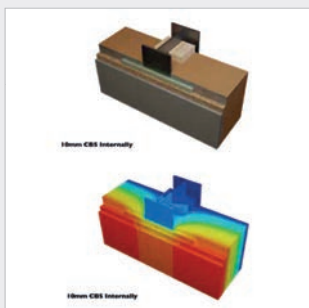
ESW achieves massive improvement in heat retention, comfort & aesthetic with Mapei



The Mapetherm Mineral Wool External Wall Insulation (EWI) system from Mapei, has been installed as part of a Bristol City Leap (BCL) pilot retrofits scheme. The scheme, in the City's Brentry district, comprised the upgrade of 16 Easiform homes to achieve energy efficiency and carbon reduction. The EWI system was installed by Bristol-based ESW Construction Services Ltd. Following installation of a cavity fill system combined with the Mapetherm EWI, a u-value of 0.22 W/m²K was achieved, compared with a pre-retrofit rating of 2.06 W/m²K, demonstrating greatly improved heat retention and comfort. As part of the energy efficiency improvements, Mapetherm Mineral Wool – BBA 13/4977 certified high-density rock wool insulating panels for thermal insulations systems – were installed throughout the properties external walls, totalling over 1,400 m². "The Mapetherm system has been tried and tested on many of our projects. Mapei's products are high quality, easy to use and the final results speak for themselves. The service we get from Mapei's sales and technical team has always been first class," commented Carlo Bonomini, ESW's Commercial Manager.

info@mapei.co.uk www.mapei.co.uk

A. Proctor Group launches new thermal bridging calculation service



A new calculation service to provide thermal bridging heat loss calculations has been launched by A. Proctor Group. It fits seamlessly alongside the company's other high quality technical support services, including dynamic moisture movement calculations using WUFI®. The issue for designers and specifiers who obtain Psi values, whether through A. Proctor Group's calculator or another source, is not being completely sure whether the performance achieved will actually help to deliver a healthy building. With that in mind, the new thermal bridging calculation service goes a step further in providing A. Proctor Group customers with information to help them understand how a thermal bridging detail performs. "The A. Proctor Group's ethos is to help create healthy buildings for people to spend time in," said Iain Fairnington, Technical Director. "We operate based on what we call HAMM principles – heat, air and moisture management. So, using our new thermal bridge to advise customers about condensation risk was the obvious extra step to take, over and above Psi values alone."

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The current outlook for innovation in daylighting

Joanna Vaiou of Sunsquare explores current glazing trends and discovers how evolving technologies are enhancing light and fluidity of space, as well as sustainability and aesthetics in contemporary architecture

Step into the summer of 2024, where home design embraces a bold new era. Architects and designers are reimagining living spaces, prioritising sunlight, sustainability, and a seamless flow between indoors and out. Homes aren't just shelters this year – they're dynamic havens that reflect users' changing world and lifestyles.

Smart home integration

The smart home revolution is in full swing, and glazing products are no exception. Electric skylights and windows with easy-to-install systems that integrate into home automation ecosystems are becoming more common. Voice-controlled or app-operated windows and skylights are no longer futuristic concepts, but present-day realities.

Multifunctionality

Today's homeowners are looking for products that serve multiple purposes. Skylights that double as roof access points or windows that transform into balconies are examples of this trend towards multifunctionality. It's about making the most of every square inch of living space.

Energy efficiency

Energy efficiency has become a necessity rather than a luxury in 2024. The industry is pushing the boundaries of thermal performance, with some high-end skylights achieving U-values as low as $0.94 \text{ W/m}^2\text{K}$. This level of efficiency ensures homes stay warm in winter and cool in summer, significantly reducing energy costs.

Triple glazing

Triple glazing is gaining popularity despite its higher cost. According to the Energy Saving Trust, triple glazing can reduce heat

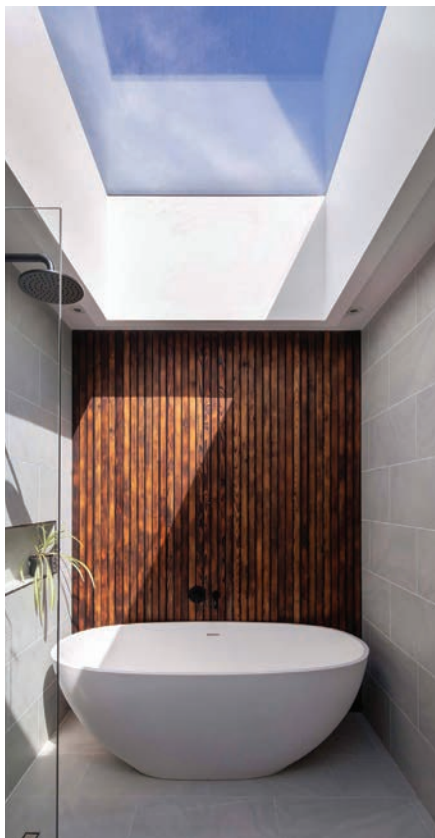


loss by about 50% compared to double glazing, leading to substantial savings on energy bills. While it costs about 30-50% more than double glazing, the long-term savings can offset the initial investment. The U-value of triple glazing can be as low as 0.6, considerably better than the typical 1.2 U-value of double glazing.

Safeguarding interiors with UV protection

As awareness grows about the damaging effects of UV rays on furnishings and fabrics, homeowners are increasingly seeking glazing solutions that offer protection. Many manufacturers now offer skylights and windows with up to 99% UV filtering, allowing enjoyment of natural light without worrying about faded carpets or damaged artwork.

The smart home revolution is in full swing, and glazing products are no exception



Tailored to your home aesthetic & structure

The trend towards bespoke solutions is stronger than ever in 2024. Many manufacturers now offer made-to-measure options for their glazing products, allowing homeowners to find perfect fits for unique spaces or architectural designs.

Blurring the lines between home & nature

The distinction between indoor and outdoor spaces continues to blur, with glazing playing a crucial role. Walk-on skylights for both external and internal use are revolutionising how we think about flooring and roofing, creating unique design possibilities.

Buyers are on the lookout for more information

Safety standards for glazing products are becoming more stringent. Many manufacturers are now seeking independent certifications like the BSI Kitemark to ensure their products meet the highest safety standards, giving homeowners peace of mind.

Built to last

Consumers are increasingly looking for products that are stylish and durable. This trend is reflected in the impressive warranties offered by some manufacturers – up to 25 years on skylights and even longer on supporting structures.

Framing views, not windows

The minimalist aesthetic will continue to dominate in 2024. Glazing products with sleek profiles and minimal sight lines are in high demand, complementing contemporary and traditional architectural styles. The focus is on maximising the glass area while minimising visible framing.

This trend towards minimalism has sparked a debate between frameless and framed skylights. While frameless options offer a sleek appearance, framed skylights such as those from Sunsquare can provide superior performance in terms of weather resistance, thermal efficiency, and structural integrity.

Architects are now tasked with balancing aesthetic desires against practical considerations. The challenge lies in creating designs that maximise views and natural light while ensuring optimal energy performance and structural stability.

Prioritising safety without compromising design

As glazed areas grow larger, safety considerations become paramount in architectural design. Some manufacturers are setting new standards with advanced glazing units with insulating glass that features a clear toughened soft coat low-e outer panes for energy efficiency, warm edge spacer bars for improved thermal performance, and clear laminated heat-strengthened inner panes for safety and noise insulation.

Optional coatings such as self-cleaning glass and SN70/35 for solar protection enhance functionality without compromising aesthetics.

Architects must be vigilant in specifying high-quality safety glass that meets or exceeds building regulations. This focus on safety doesn't mean sacrificing design; cutting-edge glass technologies can offer enhanced safety features while maintaining aesthetic appeal and energy efficiency.

The challenge for architects in 2024 is to create visually striking, secure spaces that comply with regulatory requirements.

Glazing without boundaries

Flexibility is key in 2024, with many glazing products finding homes in residential settings and commercial spaces, schools, and public buildings. Adaptable designs that can be used in flat and pitched roof applications showcase this versatility.

As we look to the future, it's clear that the role of skylights, windows, and other glazing products in architecture and home design will only continue to grow. The industry's commitment to innovation, quality, and customer satisfaction drives this evolution.

Whether for home renovation, new builds, or commercial spaces, today's glazing solutions offer options that not only meet but exceed the expectations of 2024's discerning consumers.

From energy efficiency and UV protection to smart home integration and bespoke designs, the glazing industry is not just following trends – it's setting them. As we embrace a future where natural light, sustainability, and cutting-edge technology intersect, innovative glazing solutions are illuminating the way forward.

Joanna Vaion is product specialist at Sunsquare





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Shown in Boxcar Blonde 2464L

Unique facade concept with wind-resistant and multicoloured fabric sun protection

In Aspholz, a seven story student residence has been built to accommodate 332 students in 30 apartments and 11 studios, making it the largest of its kind in Zurich. For the project, Darlington Meier Architects had Iranian-born Swiss artist and photographer, Shirana Shahbazi, design the external screens.

Darlington Meier Architects used tall and wide windows to increase the amount of sunlight able to reach the kitchens and living rooms from the forward loggias. The Fixscreen vertical blinds from Renson are

correspondingly sizeable with the largest measuring around 22 m².

White polyester fabric Soltis 86 was chosen as the base for the colourfully designed west side of the building. For the exact colour coating of the fabric, the artist developed a facade plan to reveal the geometric patterns extending across the entire facade. Each blind is a standalone colour composition, which combines with the adjacent blinds for an extended artwork.

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Moduleo Roots Herringbone brings the Vibe touch

Moduleo Roots Herringbone wood-effect luxury vinyl has given a new look to offices designed by Vibe Business Interiors, a commercial interior design and build, fit out and refurbishment company. Used throughout the teapoint and breakout areas, as well as a border to frame Mohawk Group carpet tiles in the boardroom, the striking floor brings the outdoors in with a finish that's durable and easy to maintain.

Vibe Business Interiors opted for Moduleo Roots Herringbone in Classic Oak because of its hardwearing and practical nature, and its ability to be both professional and refreshing.

Cydnee Glenn, interior designer, Vibe Business Interiors, says: "I chose to fit Moduleo Roots herringbone in the teapoint and breakout areas as I wanted to create spaces that felt bright and refreshing. I wanted the meeting rooms to be more fun but also create a professional environment, so I

used the LVT to echo the other areas in the office and create a visual feature that brought an additional element of excitement to the office, which was easily done with Moduleo flooring. The floor achieved the desired effect while bringing unity to the space."

Made in Belgium, Moduleo Roots Herringbone Classic Oak is a high-quality luxury vinyl floor that's ready for the task of busy office environments. Hardwearing thanks to its 0.55 mm wear layer, water-resistant, fade-resistant and scratch and stain protected; the floor met the all-important practical objectives of the project while remaining soft, quiet and comfortable to walk on.

"We needed to ensure longevity of the finish, so I was positive that the floor would withstand any fading and scratches from foot traffic as well as the obvious spills that occur in a busy office environment," continues Cydnee. "The great quality of Moduleo Roots gives us the confidence to recommend

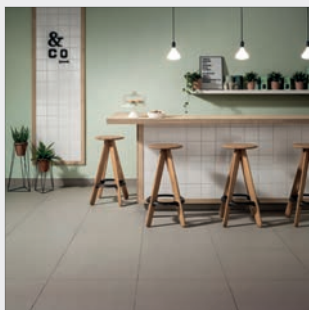


it as a finish that would still look as great after five-years as the day it was fitted."

A total of 182 m² of Moduleo Roots Herringbone was used alongside carpet tiles to give Vibe's project a unique look ready to withstand commercial use.

01332 851 500 pro.moduleo.com

Make your tile installation more regal



The updated Regal collection exclusively from **Parkside Architectural Tiles** brings a complete high performance porcelain tiling solution. Designed for exceptional performance, Regal is the complete tiling solution from Parkside Architectural Tiles. Made up of wall and floor tiles, mosaics alongside coordinating grouts, thresholds and trims, the new-look Regal collection introduces a palette of neutral tones and different surface effects making it suitable for a large array of projects. Nine sophisticated neutral colours including tones of vanilla, grey and ash, are all available in a range of sizes (35 mm x 35 mm wall mosaic up to 1,000 x 3,000 mm floor tile) across polished, matt and grip (36+ PTV) finishes, so that projects can enjoy a beautifully coordinated tile installation from floor to ceiling. And with a durable porcelain frost-proof construction, the smart look can be continued in outdoor spaces too. Alongside this impressive array of standard pieces come etched Geo and Orbital design feature tiles that can be used to add even more visual interest. With every Regal installation, specifiers and designers can select from a range of complementary grouts, thresholds and trims.

0116 276 2532 www.parkside.co.uk

Passivhaus accreditation with help of Forbo



With a target to reduce energy costs and create a space that promoted the wellbeing of students, Architype specified a range of **Forbo Flooring Systems'** environmentally conscious floor coverings to meet these important objectives

on the new Riverside Primary School in Perth, Scotland. Sam Boyle, Associate at Architype said: "To meet the Passivhaus standard, it was important that the materials we put into the building were carefully chosen. This was one of the main reasons behind our use of Forbo's flooring solutions, with its industry-leading sustainability credentials and wide range of designs ideal for satisfying the project expectations."

01773 744 121 forbo.com/flooring/en-uk/segments/education/pcgtu9

Flotex leads by design



Forbo Flooring Systems has re-imagined its digitally printed textile range – Flotex, with the launch of new, exciting designs aimed at hospitality & leisure, education and offices. The Flotex Advance range is split into Code and Latitude designs, with 39 contemporary patterns across a range of tones.

Both are available in sheet and tile formats, with the sheet product benefiting from a new special 'next' backing, which means it can be installed adhesive-free or fully adhered. The Flotex Code collection is subtly flecked, featuring 26 colourways. The Latitude range is formed of 13 organic patterns in light and dark shades.

01773 744 121 rb.gy/d3frdr

HydroPro Floor Paint – Fast and versatile

HMG Paints Ltd has announced the launch of its HydroPro Floor Paint, an easy to apply, single pack, water-based product that provides an excellent result in the shortest possible time.



The latest addition to the Manchester-based firm's growing Hydro-Pro range of products, the Floor Paint is formulated for either interior or exterior use and can be applied over new, aged or previously painted floor areas in either domestic, workshop or factory situations.

It dries in 30 to 45 minutes and can be overcoated after one hour. Offering excellent coverage and obliteration, this high-performance, cross-linked coating is hard wearing and designed to withstand light industrial traffic so it will cope with occasional forklift use.

Ideal for shop fitting and refit, two coats can be applied in a short space of time so the client can get back to full business use with minimal delay. Also, the lack of odour means the floor can be painted while people are still working in the vicinity.

HydroPro Floor Paint is formulated for use on bare or previously coated concrete, tarmac and wooden floors, but not decking.

Superior adhesion and durability are the hallmarks of the HydroPro range with resistance to oils and grease. The product



can be applied by brush or roller. It is available off the shelf in light, medium or dark grey, yellow, tile red or mid blue while other colours can be provided in batch size quantities.

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Bradite proves a boon for community café

Bradite's One Can has helped create a bright, airy and welcoming atmosphere in a South Croydon community venture. Boon Café Croydon was conceived,

in the words of its founder Georgina Arsalides, as "a space for families to enjoy, a place for groups to meet and new friendships to form."

The non-profit enterprise has been transformed in appearance thanks to One Can paint, 50 litres of which were donated by Bradite.

"While putting together our vision for Boon, we saw Bradite One Can and were able to choose a beautiful sky blue colour in their RAL colour range," says Georgina. "Bradite was happy to gift the paint which we are so very grateful for, and the vision came to life."

Friends joined Georgina to do the decorating. "I was amazed at the coverage and how far the paint went. All the painting volunteers found the paint easy to use and were equally impressed with the two-coat prime and paint system." She adds: "we had a quick turnaround of the renovation period, and the fact that the paint dries quickly and doesn't have a strong odour was hugely beneficial. It was great that we didn't have an overpowering smell whilst painting, which made the process more enjoyable



and comfortable!"

Boon Café provides a hub for community activity and, in addition to the teas, coffees and tasty cakes, provides space for family storytelling, creative workshops and parties. And the colour scheme has not gone unnoticed. Georgina says: "I have had so many compliments on the colour of the room. People have been asking where it's from, as they want to redecorate their house in the sky blue!"

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Three new downlights offered by Knightsbridge share key features such as plug and play connectors for easy installation and dimmable drivers as standard. The line-up consists of Kara, Sara and Seren, all of which deliver superior energy efficiency through advanced LED technology, with a rating of at least IP20. The downlights offer versatile wattage and colour temperature options to meet varying lighting requirements and are compatible with EMKIT2L to provide emergency lighting options. All have generous warranty periods extending up to five years.

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Architects' Datafile website



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

Flushed with savings success

Increased awareness of water scarcity has prompted innovations in rainwater capture and a rethinking of toilet flush design. Delabie UK's Eve Wellard looks at alternatives to cistern flush WCs which prevent unnecessary waste of potable water

We are all aware that water is our most precious resource, as we witness our rivers and waterways become increasingly polluted in the UK.

Unpredictable events can suddenly restrict available drinking water, as seen in May 2024 in Surrey when hundreds of homes were issued a 'do not drink' notice by Thames Water after excessive levels of hydrocarbons were detected, or up to 16,000 homes in Devon that were recently affected by an outbreak of the parasite *cryptosporidium*.

Research by Water UK found that "42% of UK adults are worried about parts of the UK running out of water in the next 25 years." This isn't at all surprising when we learn that the average person in the UK uses 142 litres of water a day, and a family of four could use up to 500 litres.

Vast quantities of drinking water, which must first be chemically treated and processed, are wasted each day through our toilet flushes. A standard cistern toilet releases up to 12 litres of water with each flush, and leaks are also a huge problem. Cisterns contain small plastic components that are vulnerable to rust and scale build up, quickly compromising the internal mechanism.

According to Thames Water, a small cistern leak causing the toilet bowl water to ripple wastes on average 600 litres of water per day, at a cost of around £483.99 per year.

In public and commercial buildings with high footfall, the potential for unreported leaks is extremely elevated. Five leaking toilets in a cinema for example, will waste up to one million litres of drinking water over the course of a year.

One solution to the problem of leaking toilets wasting valuable potable water is a direct flush system. Cisternless WC options use just 3 or 6 litres of water per flush, compared with the 12 litre flush of a cistern-fed toilet. The flush volume can be reduced even further if desired, to 2 or 4



litres, and the system connects directly to the supply pipe, minimising the potential for leaks.

Another advantage is that this system is compatible with grey water (rainwater, but also water from showers, baths, and sinks). Treating and supplying drinking water requires substantial energy and resources; using cisternless flush technology with grey water instead decreases the energy and chemicals required for water treatment,



Installation of cisternless flush system with satin finish stainless steel control plate
© DELABIE

Vast quantities of drinking water (which must first be chemically treated and processed) are wasted each day through our toilet flushes

significantly reducing the environmental footprint. This also translates into lower water bills for consumers and operational savings for water utilities. Furthermore, less water needs to be extracted from natural sources, helping to preserve our rivers, lakes, and aquifers.

Rainwater capture can now be paired with innovative technologies such as direct-flush systems. An excellent example of the successful implementation of a direct flush system supplied with rainwater is the recent SuperLab project, by Robin Swailes Design & Development in Oxford.

Director of operations at Robin Swailes, Peter Okros explains: “The design used the entire roof area as a rainwater catchment to fill a 10,000 litre storage tank. The water coming from the roof is filtered three times as it enters back into the system, then pumped back into the toilets via separate pipework. 5 bar dynamic pressure is produced, more than enough to serve the cisternless toilet systems chosen.”

The specification reduces both drinking water consumption and utility costs, resulting in an elegantly designed, sustainable workspace.

Getting rid of the toilet cistern means

that on average half a metre of usable extra space is gained in each WC; all components are within reach inside waterproof housing behind the control plate. Wall finishes can be completely streamlined, with no need to allow for an unsightly service hatch to access the stopcocks and inner mechanisms. Mounted to self-supporting frame systems, cisternless WCs are recessed within the wall and quick and easy to install, with minimal wall depth. This is key in the restricted context of a public washroom cubicle, giving architects greater freedom to create a spacious and inviting environment.

The firm’s managing director, Robin Swailes said: “You can service it through one aperture, everything’s there, and there’s no moving parts for assembly.”

As demonstrated by the SuperLab washroom installations, ecological soundness no longer needs to be at odds with the aesthetically beautiful. A cisternless flush system supplied by grey water promotes more efficient water use within buildings, without compromising on design or effectiveness.

Eve Wellard is marketing and communications manager at Delabie UK

Stelrad Low Surface Temperature radiators



Leading radiator manufacturer Stelrad Radiators has developed the largest selection of LST radiators in its impressive portfolio – offering more sizes and outputs than any other company in the sector. They have also added different styles and even different colours to the range to give the widest choice on the UK and

Irish markets. To see the huge range of styles and options available from Stelrad, head for the Stelrad website.

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The Infinity modular fibre-optic star ceiling system by Starscape has been at the forefront of bespoke feature lighting in the Home Cinema since its release in 2012. Easy to fit magnetic rails coupled with the LightFlow™ optical connectors ensure installation is quick

and simple. Every panel array is custom made for each project and is unique, meaning no two installations are ever the same, and the system can be adapted to almost any space and ceiling. Full RGBW DMX enabled lightsources allow for seamless integration with most home automation systems, and full control of the whole ceiling.

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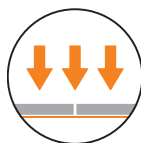
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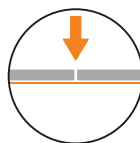
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Aruba: A trusted ceiling tile for generations

Trusted by generations of architects and installers, Aruba is specified throughout the UK almost every single day. With impressive sound properties, and a range of colours available it is an incredibly versatile range that can be found everywhere from hotels and offices to classrooms and retail environments.

The range has been named after the white sandy beaches of the Caribbean due to the finely sanded finish of the tile's surface. The Aruba tile also reflects the vibrancy and colourful nature of the Caribbean, as it is available in 35 colours, the largest option of standard colours available on the UK market. For further design creativity, the Aruba family can be specified in alternative shapes such as the Aruba Triangle. Additional tiles with enhanced performances are available within the Aruba family including Aruba hH, Aruba Max and Aruba dB, each bringing unique performance capabilities.

Aruba

The Aruba tile is incredibly versatile, with a number of attributes that deliver



a thorough solution. Combining Class C sound absorption with a sound attenuation level of 34 dB, the tile controls background noise levels whilst allowing sound to travel, creating an acoustically comfortable setting. It contains up to 44% recycled content, is 100% recyclable and is scratch resistant.

Recently specified for an industrial site in one of the UK's most important manufacturing areas, the coloured Aruba tile was able to meet the aesthetic, functional and acoustic requirements set out for the project.

Aruba hH

The Aruba hH tile offers enhanced high humidity resistance, making it ideal for areas such as changing rooms. It also has the same acoustic qualities as the Aruba tile; but can remain stable in conditions of up to 99% Relative Humidity (RH).

Aruba Max

The Aruba Max is a more robust variation of the standard Aruba tile, designed for interiors that require a higher technical performance. With an increased tile thickness, it offers higher sound attenuation levels of 35 dB, and is perfect for settings such as classrooms where sound still has to travel but in a controlled manner.

Aruba dB

For internal settings that require extra levels of privacy such as meeting rooms and small offices, the Aruba dB tile offers the highest sound absorption rating at 39 dB and reduces sound transmission through the ceiling void.

0800 371 849 www.zentia.com/en-gb

The ambassador for quiet acoustics at Embassy Gardens

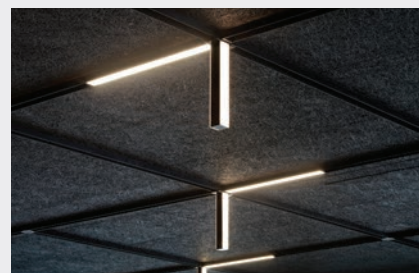
Architects Common Ground Workshop, recently named as one of the 16 emerging practices in Landsec's new retail framework, completed a new hospitality development at 6 Embassy Gardens in Nine Elms, London. The projects forms part of a wider urban realm masterplan comprising 5,000 square metres of commercial and retail spaces for client Ballymore.

Adjacent to the American Embassy, 6 Embassy Gardens includes a restaurant, bar and events space that blends hard and

soft landscaping into a material palette filled with tactile and textured surfaces set against harder more industrial finishes and reminiscent of the burgeoning infrastructure landscape at Nine Elms.

Troldekt wood wool acoustic panelling with a black finish was specified throughout the space, punctuated by a bespoke lighting track with drop-down custom-made LED light battens further emphasising the urban and industrial aesthetic look. Troldekt panels were specified for their excellent acoustic properties and ability to dramatically reduce sound reverberation as well as their superior environmental credentials.

Troldekt acoustic panels are available in a variety of different structures and colours, combining superior sound absorption with an award-winning design. The Troldekt range has a minimum expected life cycle of 50 years coupled with excellent resistance to humidity and tested to meet ball impact standards. The range is available in various



sizes and structures, from extreme fine to fine. They can be supplied as natural wood or finished in almost any RAL or NCS colour.

Depending on the panel specified, reaction to fire is classed in accordance with EN 13501 as B-s1,d0 or A2-s1,d0 respectively. Cradle to Cradle Certified® at Gold level, Troldekt wood wool acoustic panels are manufactured using wood from certified forests (PEFC™ and FSC®C115450) and can contribute positively to a building's BREEAM, WELL or LEED points.

Samples, case studies and technical guidance are available from Troldekt. See the product listings on NBS (bit.ly/3vxoTfq) or Material Bank (www.materialbank.eu).

www.troldekt.co.uk



Photos: Jack Hobhouse

CMS Danskin's acoustic saddle system fulfils brief for striking new hotel

CMS Danskin Acoustics supplied its Smartspan saddle system for the W Edinburgh, an eye-catching new addition to Edinburgh's skyline. Part of Marriott's luxury W Hotels brand, the striking 12-storey 'ribbon building' required a floor specification to provide effective impact and airborne sound reduction, under floor access for cabling and precise levelling of concrete subfloors.

BAM Construction delivered the interiors. CMS Danskin Acoustics worked closely with BAM sub-contractor MMM Joinery Ltd whose remit was to install the floors and other aspects of the interior finish in guest rooms, the sound suite and public areas in the main W Edinburgh 'ribbon building', so described as it is crafted from a winding bronze-coloured steel 'ribbon'.

The installation of the CMS Danskin Acoustics' saddle system created a void for services and it was used to level the floors to counter the 5-10 mm tolerances of concrete

subfloors. The project involved over 50,000 saddles. This dry floor solution eliminated wet trades, so enhancing efficiency on site.

Acoustics performance was key. The acoustic approach had to meet the requirements of Section 5 of The Building (Scotland) Regulations, but also the very high standards set for this prestigious new hotel.

CMS Danskin Acoustics' saddle system uses structural flooring boards, C16 strength graded timber support bearers and saddles with an integral acoustic resilient layer to construct a floating floor on top of a base floor, in this case concrete. The system should fit between the highest point of the base floor and the desired finished floor level. Packers and, where necessary, elevating blocks are used to level areas below the high point. Flanking strips prevent sound passing into the space at the perimeter of the floor.

The installation of over 6,700 m² of CMS Danskin Acoustics' Smartspan flooring board, a high density (1500 kg/m³), Class



A1 non-combustible (to EN13501-1) board, which spans between the support bearers of the saddle system with minimal deflection, added to the acoustic performance of the saddle system at W Edinburgh.

CMS Danskin Acoustics also designed and supplied a Kinetics® RIM system floating floor for the W Hotel's sound suite recording studio. The system included REGUFOAM® vibration 680plus cut into blocks and inserted into the glass fibre rollout with SmartSpan on top to create the final floor.

01925 577711 www.cmsdanskin.co.uk

Keller excels in Kiwa assessment



Keller's Misty Grey kitchen

Keller Kitchens has been reassessed by Kiwa, and passed with flying colours! The Kiwa auditors established that the company's management system continues to meet the standard requirements of ISO 9001 (quality) and ISO 14001 (environment). Tim Spann, Keller's UK National Sales Manager explains more: "Renewing these certificates means that our customers can be confident that our processes meet international quality and environmental standards, that our organisation attaches great importance to continuous improvement and that we also have a good balance in responsible growth, sustainable chain cooperation and a healthy working environment."

www.kellerkitchens.com/en/csr

Sentinel Apex in carbon negative workplace



Vent-Axia has supplied its Sentinel Apex to provide ventilation for ECO MEP's highly-efficient commercial office environment in Ashford, Kent. Alexis Roberts, C&I Channel Marketing Manager at Vent-Axia, commented: "We understand the challenges that come with designing low-carbon buildings and so are thrilled to have supplied our Sentinel Apex to ECO MEP's carbon negative offices. When we developed the Apex, every aspect was considered to maximise its energy efficiency and performance, whilst also providing excellent IAQ, ultra-low sound levels and good thermal comfort, which made it an ideal addition to this project."

0344 856 0590 www.vent-axia.com

MVHR features in new SME Energy Centre



Domus Ventilation is proud to be a participant at the SME Energy Centre in Surrey, where it has provided an HRXE-HERA Mechanical Ventilation with Heat Recovery (MVHR) unit for display, along with wall mounted graphics for the informative showroom explaining the benefits of this ventilation technology. The Domus Ventilation HRXE-HERA on display at the SME Energy Centre is a high performance MVHR that combines supply and extract ventilation in one system. It efficiently recovers the heat typically lost in waste, stale air and uses it to temper the fresh air drawn into the building via a heat exchanger.

vent.info@domusventilation.co.uk domusventilation.co.uk

Panasonic unveils game-changing solutions



Panasonic Heating & Cooling Solutions wowed the crowd at InstallerSHOW 2024 with its latest innovations, new partnerships, and significant investments in UK training centres. These efforts are set to revolutionise and speed up the UK's journey to Net Zero. Panasonic unveiled the new Aquarea M Series range of air source heat pumps with TCAP technology, an industry game changer developed to meet the decarbonisation challenge. Panasonic's presence at InstallerSHOW 2024 highlights its focus on building a greener and more sustainable future through its partnerships and collaborations.

0808 2082115 www.aircon.panasonic.eu

Seal the deal on sustainability with Rad-Seal 15

In the search for greener building practices, Rad-Seal 15 offers a sustainable and efficient solution for housebuilders, architects and homeowners alike. Rad-Seal 15 is the face-fixed radiator pipe guide and seal designed to provide an effective air leakage barrier around the entry points of 15 mm plastic radiator pipework. 15 mm pipework is becoming more frequently used in developments incorporating energy efficient heating systems such as Air and Ground Sourced Heat Pumps.

Designed and manufactured by Timloc Building Products, the patent-pending Rad-Seal 15 helps to preserve room temperatures and reduce energy consumption and costs for the homeowner. For housebuilders, it is a simple yet effective way to help achieve Part L's required air leakage performance and the new Future Homes Standard effective from 2025.

The Rad-Seal 15 is manufactured from 100% recycled materials, demonstrating Timloc's commitment to sustainability without compromising on performance. As a carbon-neutral manufacturer, Timloc



Building Products is dedicated to building a greener future with around 75% of products in the Timloc range currently made from 100% recycled materials.

The environmental benefits of Rad-Seal 15 extend beyond regulatory compliance. Made from recycled Polypropylene and Thermoplastic Elastomer, the product not only diverts waste from landfills but also

reduces the demand for virgin materials. This contributes to lower greenhouse gas emissions and supports the circular economy adopted by Timloc Building Products.

The straightforward installation of Rad-Seal 15 ensures secure pipe positioning, eliminating pipework kinking. The slim 23.5 mm profile and ability to accept various pipe routing methods, including ground floor, upper floor, and horizontal configurations, make it the ideal choice for a range of projects.

Alternatively, for projects utilising 10mm pipework, Timloc have the Rad-Seal Face-Fix available with the same material and performance benefits.

Incorporating Rad-Seal 15 not only helps to meet stringent building regulations but also champions environmental best practice, exemplifying how sustainable products can seamlessly integrate into modern construction, paving the way for a greener future in the industry.

01405 765 567

timloc.co.uk/products/rad-seal-15

Introducing the new

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01206 713801 | marketing@titon.co.uk | titon.com/cooler

Titon
ventilation systems

Gilberts elevates the standard in ventilation @ Nine Elms



A brownfield industrial site along the banks of the River Thames is going from “rags to riches”, where even the background detail of ventilation is being given a high-end finish. Nine Elms is being completely transformed into a new mixed-use area, including the addition of 20,000 homes. One of the latest structures being delivered is Building N6, a 19-storey premium residential block. To achieve the high-end finish, Gilberts’ grilles and diffusers, supplied via DBA Air Solutions have been installed throughout all the apartments by ESG (Essex Service Group). A combination of Gilberts HSL high-capacity slot diffusers and LN linear bar grilles ensure efficient supply and extract of ventilation in bedrooms, and open plan living spaces and kitchens for the central MVHR and 10no fan coil four-pipe heating & cooling systems, with the strategy validated by BIM. The HSL diffusers deliver high capacity – up to 150 l/s/m – of smooth, accurate airflow which makes them particularly suitable for integration into a fan coil strategy. With the multi-function LN grilles, which can attain up to 77% free ventilation area, the directional bars are manufactured level with the surrounding flange.

01253 766911 info@gilbertsblackpool.com

Explore Uponor with new virtual showroom



GF Building Flow Solutions has announced the launch of its Uponor Virtual Showroom. This innovative virtual space has been designed to offer a dynamic and comprehensive view of the Uponor range, with an interactive system that is easy to use and allows users to learn

more about specific features and benefits at their own pace. The new virtual showroom allows users to discover practical scenarios and applications that demonstrate the use of Uponor solutions, gain a deeper understanding of product features and benefits and access a range of resources, including videos, brochures, and case studies.

www.uponor.com/showroom

Diffusion provides a sustainable solution



Keane Environmental supplied Diffusion fan coils units to the Bank Centre site in Ballsbridge, Dublin. Diffusion’s slimline fan coil units were specified for the project to ensure the client could make the best use of the original floor to ceiling heights while providing a

comfortable, practical thermal environment. “We’ve been working in partnership with Diffusion for over 20 years because their units are built to last. We know we can fit them and trust them to do the job they were specified to do.” said Ryan, Keane Environmental Ltd.

020 8783 0033 www.diffusion-group.com

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AG launches EPDs for over 370 products



Fivemiletown headquartered Paving and Building Products firm, AG, has reinforced its position as a market leader in sustainable construction through the publication of Environmental Product Declarations (EPDs) for over 370 of its products.

The firm, which has manufacturing locations in Fivemiletown, Toome, and Carryduff, already has one of the lowest carbon footprints in the industry and is committed to reducing the environmental impact of its operations to an absolute minimum.

Created to encourage transparency across the construction industry, an EPD is a standardised formal document that quantifies a product's environmental impact. It is based on a detailed life cycle assessment and verified by an accredited third party.

Recently awarded Sustainable Manufacturing Business of the Year at the prestigious Business Eye Awards, AG's EPDs reflect the company's dedication to innovation and its ongoing carbon reduction efforts.

Michael Davies, Head of Innovation and Carbon Reduction at AG said: "For

many years, we have worked tirelessly to reduce our environmental impact and we are delighted to publish our Environmental Product Declarations.

"A reflection of the continuous innovation we've employed to date, our EPDs will provide our customers with essential data that will enhance the sustainability credentials of their projects and provide them with a comprehensive overview of their scheme. We are extremely proud to be able to say that our facilities and products boast some of the industry's lowest embodied carbon statistics."

From 2019 to 2023, AG reported a 47.8% reduction in its Scope 1 and 2 emissions, a significant achievement considering the firm's extended operational hours and the construction of a new £3 million factory in 2023 to meet increased product demand. Additionally, AG reduced its Scope 3 emissions by 4.67% from 2021, underscoring its commitment to a greener future in construction.

Verified by EPD Hub, AG's Environmental Product Declarations represent the latest in the firm's series of sustainability initiatives. These efforts include a longstanding

commitment to producing a significant portion of their product range using recycled aggregate and locally quarried materials.

AG's commitment to energy efficiency is reinforced through regular reviews of its systems and procedures, driving continuous improvement. As part of its CSR strategy, the company has recently made a significant investment of over £5.4 million to modernise its plant, equipment, and technology, underscoring its dedication to sustainable practices and cutting-edge innovation.

AG's CEO, Stephen Acheson commented, "At AG, sustainability isn't merely a responsibility but a guiding principle that fuels our innovation and shapes our operations. Our EPDs mark a major milestone in our journey to reduce carbon emissions, providing transparent and comprehensive insights into the environmental footprint of our products. These documents and the data they contain underscore our commitment to creating high-quality, sustainable products, solidifying AG's reputation as a leader in low-carbon solutions."

0121 796 3022
ag.uk.com

Decoding roof voids

Following on from his seminar presentation at this year's Fire Safety Event, held in April at Birmingham's NEC, Dr. Karthick Govarthanam, General Manager for FIREFLY®, explores some of the issues surrounding fire risk in roof voids.

We have been assured in recent years by mainstream media that our firefighters' main role nowadays is in educating the public as to the risks they face in their homes and installing smoke alarms. Yet the UK fire and rescue services were called out to 627,553 incidents out of which 67,014 of those involved primary fires in the year ending 2022. Between 2006 and 2008, at least 10,000 of these primary fires originated from the attic occurring in pubs, care homes and schools. Under fire conditions, smoke can travel at an alarming rate of 120 to 420 feet per minute. It's no surprise, then, that 57% of all fire-related fatalities occur outside the room where the fire started, according to insurance giant Aviva. It is crucial then that Building Control Officers and others responsible for overseeing

alterations in premises such as care homes and apartment buildings, turn their attention to roof hazards – with the most common being faulty electrical wiring, ceiling insulation, flammable roofing materials and leaky roofs. The latter could cause electrical wirings in the ceiling or attic to malfunction. Indeed, 41% of fire-related deaths in Great Britain were caused by the victim being overcome by gas, smoke or toxic fumes – and it can take as little as 2½ minutes for a home to be entirely engulfed in flames.

To mitigate against these lethal risks there are of course legislative requirements governed through the building regulations. These regulations state that there should be a means of warning and escape, both horizontal and vertical with details on, for example, where a cavity barrier should be sited to ensure a protected stairway enclosure remains safe – especially relevant to flats and HMOs. In fact, upgrading roof spaces within local authority and housing association properties has become a regular application for FIREFLY's range of passive fire protection systems.



The most commonly used Fire Barriers are FIREFLY® ZEUS Lite™ which offers 90 minutes integrity and 30 minutes insulation and FIREFLY® ZEUS Horizontal™ affords a combined 60 minutes insulation and 30 minutes integrity. For compartmentations within a building where just the integrity is required, as smoke and flame entrapment systems, FIREFLY® PHOENIX Lightweight™, flexible fire rated smoke & flame barrier has been designed to provide, offering up to 120 minutes integrity only, when tested to BS 476 Parts 20 & 22 and BS EN 1364 Part 1. PHOENIX Horizontal™ also offers up to 120 minutes integrity.

info@tba-pt.com www.tbafirefly.com

Fire system overhaul brings Advanced safety



Newham University Hospital now boasts a top-tier network of Advanced MxPro 5 panels, ensuring fire safety peace of mind for patients, staff, and visitors. Steve Middleton, Director, M&G Fire Protection, stated: "We opted for Advanced panels due to their flexible cause-and-effect configuration, which makes setup, testing, and maintenance a breeze. The intuitive display makes the panels very easy to use, and the integration with external services via the BMS card is straightforward and highly beneficial. Additionally, the network setup options and speed are impressive, reinforcing our confidence in Advanced's solutions."

0345 894 7000 uk.advancedco.com

Our collection of podcasts



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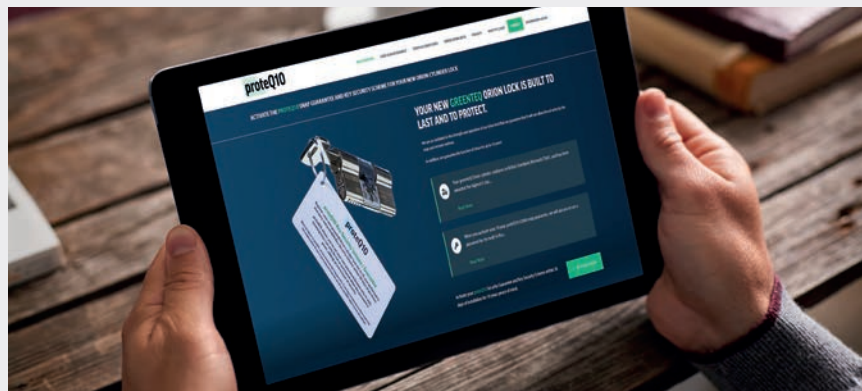
VBH, the specialist behind the greenteQ hardware range, has made improvements to the registration process for its proteQ10 profile cylinder anti snap guarantee.

Under the guarantee, which covers the popular greenteQ Orion TS007 3 star profile cylinder, consumers can expect a payment of £2000 should an Orion snap to allow a successful break in.

VBH has launched a completely new registration process to make it 'even easier' for the end customer to register their cylinder.

The information card that comes with each cylinder has now been updated to include a QR code that takes the customer directly to the registration page of a new website.

The easy-to-use site takes the visitor through the simple registration process in just a few clicks. Once registered, the cylinder's 10-year anti-snap and function guarantees are activated. In addition, by setting a Key Security Password during registration, the user activates the free Key Security Scheme, which prevents additional keys from being ordered via the key number unless the



password is provided.

Dan Powell Head of Brand at VBH, says: "We have had over 18,000 individual registrations since launching the proteQ10 guarantee and security scheme.

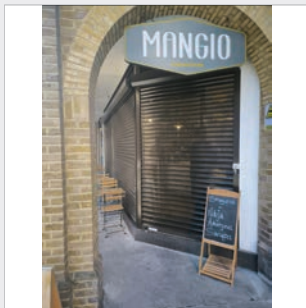
"These improvements to the key card and website make product registration easier than ever. greenteQ Orion is the obvious choice for installers and lock replacement specialists, as it is easy to explain the benefits of the cylinder

and the process of registering for proteQ10 to potential customers.

"Once the cylinder is registered, VBH takes over responsibility for all dealings with the end user in the unlikely event of an issue, saving our customers the potential headaches and costs of call outs and providing replacement products."

01634 263263 info@vbhgb.com

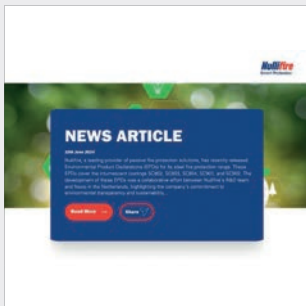
Vortex Shutters protect vandalised restaurant against attack



Located in a popular street in central London, the Mangio Pasta restaurant is favoured by both tourists and locals. However, the large glass windows at the front of the premises were frequently being targeted by vandals. Repairs were expensive for such a large expanse of glass so the owners contacted CGT Security to see what could be done. Managing Director, Roger Humphreys explains: "The glass was being continually broken after closing hours, and security shutters were the most obvious solution. However, as the building is located in the shadow of St. Paul's Cathedral, City of London Corporation were concerned about the visual impact of shutters". The Vortex+ shutters were presented as the patented lath design allows the security shutter to roll more compactly, creating significantly smaller roll zones and hood box. The Council requested detailed drawings to support the planning application, with the discreet box size being pivotal in the decision. Vortex+ shutters reduce the roll size by 50% compared to a standard shutter and have a self-locking capability, as well as LPS 1175 certification from the independent Loss Prevention Certification Board (LPCB).

0330 024 9409 www.cgtsecurity.com

New EPDs for Nullifire intumescent coatings range now available



Nullifire has recently released Environmental Product Declarations (EPDs) for its steel fire protection range. These EPDs cover the intumescent coatings SC802, SC803, SC804, SC901, and SC902. The development of these EPDs was a collaborative effort between Nullifire's R&D team and Nexio in the Netherlands, highlighting the company's commitment to environmental transparency and sustainability. EPDs are created according to the guidelines set by the International EPD system and offer a way to communicate a product's environmental performance transparently and comparably. Looking ahead, Nullifire plans to continue its commitment to environmental transparency by developing an EPD for its FB750 Intubatt, a coated batt designed for sealing service penetrations in fire-rated walls and floors. This forward-thinking approach underscores Nullifire's dedication to advancing sustainable building practices and providing stakeholders with the necessary tools to make environmentally conscious decisions. The development of these EPDs marks a significant milestone for Nullifire and sets a benchmark for future product lines.

hello@tremcocpg.com www.tremcocpg.eu/en-gb



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