

**SCION TIMBER INNOVATION HUB, ROTORUA, NEW ZEALAND** Also known as Te Whare Nui o Tuteata, Irving Smith Architects' inviting new timber research institute has a net zero construction that respects local Maori heritage

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adf incorporating Building Projects magazine, architectsdatafile.co.uk and y@architectsDF Managing Editor James Parker jparker@netmagmedia.co.uk

Publisher Anthony Parker aparker@netmagmedia.co.uk

Editorial Co-ordinator Shelley Collyer

Editorial Assistant Laura Shadwell

Editorial Contributor Tom Boddy Jack Wooler

Studio Manager Mikey Pooley

Production Assistants Georgia Musson Kim Musson

Account Managers Sheehan Edmonds

Sales Executive Steve Smith

PR Executives Suzanne Easter Kim Friend

Managing Director Simon Reed

Advertising & Administration t 01435 863500 info@netmagmedia.co.uk www.architectsdatafile.co.uk

Press Releases editorial@netmagmedia.co.uk

Subscription & Circulation enquiries info@netmagmedia.co.uk

netMAGmedia Ltd Cointronic House Station Road, Heathfield East Sussex, TN21 8DF



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



Recently I attended an eye-opening event showing off an innovation which makes it possible not only to live with the reality of flooding in the UK, but also create homes where people want to live. For better or worse, this often tends to be on flood plains. In fact, it's thought that 27% of all new homes are built on a flood plain in the UK, while the Met Office says that extended extreme weather is now increasingly likely.

The Hadley FloodSAFE house, currently undergoing testing in a full-size mockup of a steel-framed family home at the country's largest flood testing facility, HR Wallingford, demonstrates a very simple approach to a complex problem. Sensors detect flood water and slowly raise the house on mechanical steel jacks, up to 1.5 metres, in around 15 minutes. The structure, which is a three-bedroomed house with standard proportions, and brick-slip cladding, will then lower as the water lowers.

Brought to the market by Hadley, a light gauge steel maker who have also begun to create offsite-built homes for the UK market, and believe that developers will now, if further tests including live pilots prove successful, be able to fully maximise their plots. Currently plots they are able to secure can have sections which are liable to flood, and they are only able to build out a certain percentage as a result.

According to Hadley's MD Ben Towe (himself a mechanical engineer), this is going to enable developers and architects to be able to build homes "with the best view" on riverside plots for example, which will be more lucrative in terms of sale price. This, plus the ability to fully maximise a site, will help to more than offset the extra capital cost (thought to be around £35,000 per unit) of the system.

At the same time, homebuyers will not be forced to move out of their local areas to find an affordable home, if more of such sites can be used. This is a key motivator for the concept's inventor, and FloodJack founder, Andrew Parker, who says the social value which this can bring to communities is vital. And practically, developers won't have to 'raise the land' in order to build across sites.

Also recently, but at the other end of the sustainability spectrum, it was confirmed that the Passivhaus in Camden designed for the late Max Fordham by his practice, bere:architects and Price & Myers, has been confirmed as the country's first genuinely zero carbon home, a few weeks after the famed engineer's death. This means that it conforms to the UKGBC (the UK Green Building Council) criteria for not only carbon emitted during construction, but also during its operation.

Whether or not this solution is repeatable at scale, having a large amount of concrete providing thermal mass, and a form boldly dedicated to performance rather than traditional notions of 'home' aesthetics, it is a huge achievement that has

rightly won major awards. It represents a completely different approach to dealing with sustainability challenges to that of the FloodSafe House, but surely, the more practical solutions we have, the better.

James Parker, Editor



#### ON THE COVER...

Working in collaboration with RTA Studio, Irving Smith Architects created a net zero timber research facility, with a design in CLT and LVT that references Maori culture

Cover image © Patrick Reynolds For the full report on this project, go to page 20

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**CULTURAL BUILDINGS** 

## Approval for FaulknerBrowns' 'cultural hub' in Sunderland

Plans for an "ambitious cultural hub" in Sunderland city centre have been approved by Sunderland City Council. Culture House – designed by FaulknerBrowns Architects – will be a modern, mixed-use cultural venue that will act as a "new civic landmark within the wider regeneration of Sunderland," said the practice.

The building will combine a library for children, young people and adults with performance spaces, exhibition and gallery spaces, a local studies and archives centre, 'creative labs,' and spaces for instructed learning and play. A cafe, roof garden and further social spaces are also incorporated, to create a "living room in the heart of the city," the architects commented.

Culture House will sit on the south side of Keel Square, acting as a focal point at a key location within the Riverside Sunderland masterplan. The project, which is due to start on site in September, is part of a bid to "diversify the city centre economy" which received £25m of funding from the Government's Future High Streets Fund (FHSF).

The design uses a "strong sculptural form" to create an identifiable landmark within the city centre, said the architects. "The overall mass is carved into smaller blocks in response to the high street setting, with punched openings and towers expressed on the facades facing Keel Square." Further details in brick, masonry and clay reflect the "rich material palette of the neighbouring Magistrates Court."

The project will target 900 kgCO<sub>2</sub>/m<sup>2</sup> of embodied carbon for the shell, core and fit out elements and operational carbon in line with RIBA 2030 Climate Challenge targets. As well as entirely electrical building servicing systems, the project has air source heat pumps and efficient LED lighting.

Culture House is expected to attract more than 500,000 visits per year and will "act as a major catalyst in transforming the city centre into a vibrant and diverse district," said FaulknerBrowns.



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## RESIDENTIAL

# BDP submits scheme of affordable sustainable one-bed 'Gap Houses' for disused Bristol site

Plans have been submitted for what's claimed to be an "innovative new concept in affordable housing" by BDP which will if approved be built on a council-owned disused garage plot in Horfield, in the north of the city.

The 'Gap Houses' have been commissioned and funded by Bristol City Council, and designed by BDP's Bristol studio in partnership with the Bristol Housing Festival. The council has said it will potentially be identifying further sites for Gap Houses in the future.

The plans propose a row of nine affordable, one-bedroom, two-storey, modularly constructed homes. The site sits between two rows of back gardens of existing homes and will include green space and outdoor seating in front of each home to encourage social interaction and "community cohesion," said BDP.

The Gap Houses are designed to be "contemporary, cost effective, eco-friendly homes," and will be largely factory-built



using modern methods of construction (MMC), minimising disruption in the existing neighbourhood.

Designed to fit into small garage sites "that are often disused in many cities and neighbourhoods," the homes will be "super-insulated," for "minimum heating." Renewables include solar PV panels and air source heat pumps, resulting in "minimal environmental impact and low running costs," said BDP.

As well as ground floor open-plan kitchen-living areas and bathrooms, they will have a bedroom and storage on the first



floor. Large windows allow for maximum natural light. The houses "generously meet national space standards for a singleoccupancy, one-bedroom unit," said BDP.

The Gap House is the latest in a series of innovations being explored by Bristol City Council and the Bristol Housing Festival to tackle the city's housing crisis. It is part of a wider research, development and innovation programme, funded by Innovate UK, which looked at the potential for MMC to increase the scale and pace of the delivery of "beautiful, quality sustainable affordable homes in the city."

## COMMERCIAL

# Barr Gazetas secures planning for sensitive refurbishment of former Victorian factory in Battersea

Architecture practice Barr Gazetas has secured planning approval for the retrofit of 220 Queenstown Road, a characterful local landmark in Battersea. Containing two uniquely shaped Victorian brick buildings which were once a factory that made caps for the British Army.

Barr Gazetas' designs will deliver 40,000 ft<sup>2</sup> of office and light industrial space across five storeys, for client Nuveen Real Estate. Located within the boundary of the Vauxhall Nine Elms Battersea Opportunity Area, the development currently comprises two outdated office buildings, linked by a glazed bridge between "rudimentary" 1980s roof extensions, said the practice.

The design unites the two original buildings via an "efficient core," while extending to the rear boundary and



upwards to create two additional floors. Seeking to retain and restore as much of the original building fabric as possible, the design incorporates "complementary additions that make a clear distinction between old and new." The glass atrium created at the junction between the two buildings will "make the most of the existing character, providing a sleek, contemporary contrast while highlighting the raw industrial heritage of the building and area," said the architects.

The proposal also includes a "generous roof terrace" plus a communal wintergarden accessed directly off the core. A combination of green and brown roofs will "maximise biodiversity benefit." At ground floor level a cafe, co-working space and flexible events space will create a welcoming entrance, allowing the wider public to enjoy the building.

Barr Gazetas has been working closely with the client and Development Managers V7 to target BREEAM Excellent as well as "pushing towards net zero carbon." They said: "Great lengths have been taken to preserve and re-use as much of the existing fabric and structure as possible to support these goals and to embody the scheme's Retro First ethos."





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## RESIDENTIAL

## 'Boutique' Fitzrovia mixed use by Assael completes

101 on Cleveland, a boutique residentialled development in the heart of London's Fitzrovia designed by Assael Architecture, has completed. Developed in partnership by Art-Invest Real Estate, Dukelease Properties and ECE, the £190m scheme offers 103 new homes housed in three new "contextually-designed" buildings in one of Central London's most sought-after neighbourhoods, said the architects.

Located on Cleveland Street, the oneacre triangular island site – created by the intersection of Marylebone and Fitzrovia – is surrounded by streets on all three sides and was previously occupied by a twostorey building comprising a number of redundant uses, including a petrol station.

The three new buildings are linked at first floor by landscaped gardens, and at ground floor by  $35,000 \text{ ft}^2$  of commercial space. This has recently been secured by British design brand, Ted Baker, for its new global headquarters.

The architects designed 101 on Cleveland as a modern interpretation of the character



and details found in the nearby area, including a dark brick to "reference the weathered materials of buildings around Fitzroy Square, accents of bronze inspired by local red brick and the University of Westminster's facade, and textured concrete that reflects the stone detailing of surrounding buildings."

Residents of the spacious, "light-filled" one, two and three-bed homes have access to a range of boutique hotel-style amenities at lower ground floor, including a private dining room and residents' bar, screening room, business



suite for home-workers, and a gym, sauna and wellness suite.

The internal spaces have been designed by Assael Interiors, who have created a "refined, elegant look with touches of industrial style," influenced by the site's history. Assael Exteriors – the practice's landscape team, also designed and implemented the external areas. The two landscaped podium gardens at first floor level, offer views of the London skyline, including the BT Tower. Prices for a onebedroom apartment in the development start at £1.3m.

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## **PRACTICE PROFILE**

# **THISS** Architects

Looking to carve out a niche as a new practice, THISS Architects focus on craftsmanship, collaboration, and landscape with a goal of ensuring that no two projects are ever the same. The firm's founders explain their working methods to Tom Boddy

Startup practice THISS Architects was founded in 2018 by long time friends Tamsin Hanke and Sash Scott. However since its inception, the east London-based practice has already been involved in some unorthodox and interesting projects – and has many exciting designs in the pipeline.

Now a full-time staff of four, the practice's specialisms sit within the sectors of landscape, residential, and arts.

Having studied for their masters together at the Bartlett School of Architecture, both Hanke and Scott then peeled off in different directions, each gaining experience in a diverse range of settings.

While working for respected firms such as Michaelis Boyd and Niall McLaughlin Architects, Hanke has been involved with a clutch of major projects including the Sultan Nazrin Shah Centre at Oxford University which was shortlisted for the Stirling Prize in 2018. She has also ventured to far-flung places such as Siberia and Iceland, to work on schemes in "extreme landscapes, including buildings in "geothermal areas, as well as mountains."

Scott has also had his fair share of travel, including cycling to India between his part 1 and 2, as well as working in Amsterdam for Wiel Arets Architects. Upon returning to London, practices he has worked for include Hawkins\Brown, Tonkin Liu, and TDO. While his portfolio boasts large scale projects such as a nuclear power station in Somerset, Scott has also worked on numerous smaller, "more hands-on" projects. "Over the years I've worked with artists such as Ivan Morison, delivering sculptures as well as small installations in places like Tate Modern, so it's been quite a range," Scott says.

The pair's experience with hands-on, craft-focused projects, in some cases seeing them directly involved with fabrication as part of their aim of "understanding exactly how things are made," has fed into the practice's philosophy. "I got a lot more out of the smaller projects," says Scott, "compared with the larger ones where you lose intimacy with the objects and the people making them." With each of their projects, a lot of effort goes into understanding the craft of how things are made, pursuing all of the work with a "much more hands-on approach."

When establishing the practice, Hanke and Scott's vision for the work they wanted to undertake was underpinned by their



LESWIN ROAD, NORTH LONDON A residential scheme which explored blending inside and outside spaces to a achieve a new level of integration between the two



#### POLINATIONS PROJECT

A concept for a city centre "forest garden" for Birmingham Festival 2022, representing a "dazzling wonderland filled with colour, beauty and diversity"

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background and personal interest in landscape. The relationship between "urban space and natural space" and how it fits within the larger landscape is a fascination of the pair, and fundamental in their design process. As an extension of this focus, the practice has coined the term 'techno landscape' – a concept that looks at how technology can disrupt and invade "a whimsical and nostalgic idea of landscape, to bring it forward and break new ground in this area," explains Hanke.

These ideas have been integrated into a recently completed residential project, Leswin Road in north London, where the emphasis was on bringing nature into the home. The team specified a large piece of curved glass to construct a window with a seat in it, "to really expand the connection between the garden and the kitchen," says Scott. "When you're sitting in the window, it's difficult to tell you're not in the garden – it takes all of that atmospheric reflection away," asserts Hanke.

Since Covid, this blending-nature concept has been embraced by more and more clients, who are "requesting to have a more atmospheric relationship with the outside," in Scott's words. And, now that the practice's range of projects is "expanding," the designers are starting to bring the approach to a much grander scale, with their Government-commissioned PoliNations project being a key example.

Working in a large group of costume designers, artists, and event coordinators, THISS will be in charge of spatial design and architecture for a 'pop-up garden' which will appear in Edinburgh and Birmingham this summer. Filled with giant artificial trees and thousands of plants, the design aims to reflect the UK's history of migration and diversity. The practice say that their role is to "listen to the narrative of the project and coalesce it into a spatial proposal." Hanke says "It's not a conventional procurement, it's more of a theatrical performance meets landscape design – so there's a lot of fusion."

Collaborative fusions such as this intrigue the practice's founders, and have been a consistent feature of their work since founding. "By constantly inviting new voices into the conversation we're establishing a sustainable, long-term educational process for us both, so we can continue to learn and evolve," says Hanke. The practice purports to only work with clients who have the same sensibility and ideologies as them. "We bring our expertise, and the clients or designers can bring their identity to the work," says Scott.

Their project 'Resilient Monument' for the Seoul Biennale of Architecture and Urbanism 2021, a collaboration with Issi Nanabeyin, an artist trained in architecture, is a demonstration of this. Influenced by the Black Lives Matter movement and the toppling of the Edward Colston statue back in 2020, the team set out to explore the role of materials used for monuments and their role in society. Historically monuments immortalise a certain moment or character in history in marble or bronze, which then "stay with the city for the next 500 years," says Hanke.

"Issi Nanabeyin was teaching us that in Ghana, monuments don't exist as objects but as festivals. They are much more temporary, and are kept alive by participation by the community," says Hanke. The project explores this idea, creating monuments that can adapt to our changing culture by using impermanent and organic materials such as wood, thatch and chalk that will require a level of assembly, maintenance and stewardship through successive generations in order for 'monuments to exist'.

The practice's collaborative strategy results in each project being approached in a distinct way, so that the practice is "not stuck on a style or a way of working," says Hanke. She adds: "We're



#### **RESILIENT MONUMENT**

The practice designed an installation for the Seoul Biennale in 2021, with Issy Nanabeyin, exploring ideas around a new concept of monuments, post Black Lives Matter

always trying something new. With each project, our goal is to learn something from it, rather than just doing copy-paste-repeat."

In the last year, THISS have directed a large amount of their energy to sustainable design, and are now Passivhaus-certified as a practice. Their reasoning is partly to validate their claims of being an 'eco' firm of architects. "Everyone always says 'we're environmentally motivated', but there's very little 'well what are you going to do about it'," says Hanke.

The firm has two key goals for 'future-proofing' projects, which further add to why they don't strictly conform to any style doctrine. These are; achieving Passivhaus certification, and creating resilient buildings that can change and adapt, "and be around for a really long time," says Hanke. "That's why style doesn't motivate us – because we know buildings are going to change." THISS's first Passivhaus home is breaking ground this summer.

In what will be a busy period, this project will be progressing alongside several others at the practice in the coming months. Scott tells ADF: "We're about to embark on a period of a lot of building, so managing the pressures of projects going on site is going to be a challenge, but one we're excited about." Despite the practice asserting the construction phase can be a stressful process, "being on site is the best place to be to get the best outcome" and "we really enjoy working with the contractor."

Moving forward, THISS are excited about the prospect of working more in the cultural and commercial sectors, but are also eager to bring the lessons they've learnt from residential projects into more public sector work. They fully acknowledge that breaking into new sectors may require them to grow as a practice.

With this in mind, as they take on new projects their objective is to grow and evolve at a sustainable rate. "With scale changes as a practice, it's vital that we try to acclimatise and settle in new areas, so we don't lose ourselves in the process," says Hanke.

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## JPMORGAN CHASE, MANHATTAN FOSTER + PARTNERS

JPMorgan Chase has unveiled the design for a 'state-of-the-art' global headquarters at 270 Park Avenue, New York City, designed by Foster + Partners. The 423 metre high, 60-storey skyscraper will be designed as the city's largest all-electric tower, designed for net zero operational emissions and "exceptional indoor air quality, exceeding the highest standards in sustainability, health and wellness," said the architects. The building will "help define the modern workplace," with "21st century infrastructure," smart technology and 2.5 million ft<sup>2</sup> of flexible and collaborative space that "can easily adapt to the future of work." The project is the first in New York City's 'Midtown East Rezoning plan', which encourages modern office construction and improvements to the business district's public realm and transportation. The building will house up to 14,000 employees and will provide two and a half times more outdoor space than currently at street level. Features will include wider sidewalks and a large public plaza on Madison Avenue with "natural green space" and other amenities.

The concept for was to create a "timeless addition" to Park Avenue, which celebrates the city's iconic architectural history and serves as a "powerful new symbol for the next generation of office towers in New York." Using a state-of-the-art structural system to negotiate the site constraints below and at ground level, the "innovative fan-column structure" and triangular bracing allow the building to "touch the ground lightly across the entire block," said Fosters. By "lifting the building around 24 metres off the ground, it extends the viewpoint from the Park Avenue entrance through to Madison Avenue." Nigel Dancey, head of studio at Foster + Partners said: "Sustainability is at the heart of the project, with workspaces flooded with daylight and fresh air, incorporating biophilic elements and materials to improve wellbeing. As a team, we sought to question and re-evaluate every aspect of the design to create an ambitious future vision of the workplace for JP Morgan."



## ONE SOUTH FIRST, BROOKLYN COOKFOX ARCHITECTS

'One South First' is the first phase of Domino Park on the Williamsburg waterfront in Brooklyn, New York City – a new neighbourhood by real estate developer Two Trees on the site of a former sugar refinery. Designed by Cookfox architects, the building comprises two interlocking towers, the taller of which is residential - including 66 units designated as affordable housing. The smaller building is office and retail space, and both buildings were designed to prioritise energy efficiency. Excess heat produced from workspaces will be captured and reused for the residential component, "significantly reducing energy use," said the architects. The roof is designed to reduce stormwater runoff and cooling load.

Cookfox designed a "complex system of deep facade and window forms," in angled white precast concrete panels, inspired by the structure of sugar crystals, thereby "connecting to the industrial history of the site." The panels were engineered to respond to specific solar orientations and times of day, creating a facade that gives the interior spaces shade and optimised reduced energy use for cooling. The architects worked with Gate Precast on an innovative process whereby the moulds for the large concrete forms were 3D printed at Oak Ridge National Laboratory. This allowed for faster and less expensive manufacturing, and the moulds were "so durable and precise that they never had to be replaced or re-made," said the architects. They added: "These buildings and Domino Park unlock previously inaccessible waterfront to the neighbourhood." As with other Two Trees neighbourhoods, the retail mix was "carefully curated" and is made up of independent, small Brooklyn-based businesses.



## 800 FULTON MARKET, CHICAGO SKIDMORE, OWINGS & MERRILL

Skidmore, Owings & Merrill (SOM), QuadReal and Thor Equities announced the completion of 800 Fulton Market, located at the threshold of Chicago's Fulton Market District. The 326-foot-tall mixed-use office tower includes seven landscaped terraces that allow for indoor/outdoor workspaces and assistive smart building systems that promote wellness, sustainability, and energy efficiency. The project is certified LEED Platinum, WiredScore Platinum, SmartScore Platinum and targets WELL Building Standard certification, and is home to offices for leading companies such as The Aspen Group and John Deere. The building is distinguished by its external steel X-braced frames, a continuation of SOM's history of creating structurally expressive architecture. Engineered to withstand Chicago's harsh winters and strong winds, the frames are designed to contract in cooler weather and expand in warmer temperatures. Together with an offset core made of glass suspended along the north side of the building, this unique structural system enables large, open floor plates and flexible, light-filled workspaces. Inside, a triple height main lobby is defined by a cantilevered staircase and mezzanine. The material palette of exposed concrete, wood and red brick matches the tower's exterior and draws inspiration from the neighbourhood's industrial character.



## TRANSAMERICA PYRAMID CENTRE, SAN FRANCISCO FOSTER + PARTNERS

Foster + Partners has been appointed by luxury real estate development and investment firm SHVO, to revitalise the iconic Transamerica Pyramid Centre in San Francisco. The biggest renovation in the building's 50-year history, this redevelopment seeks to "give a new lease of life to one of the city's most recognisable landmarks and its second tallest building," said the architects. The project will also expand and upgrade the adjacent Three Transamerica (at 545 Sansome Street) to a "contemporary highdesign office building." The broader site consists of the latter building plus additional building Two Transamerica (at 505 Sansome Street), and the central Redwood Park, which will be tied together by what the architects describe as "generous landscaping." The previous office areas have been "reborn as new living spaces, with an emphasis on wellbeing."

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Staircase experts, Spiral UK, offer architects a live bespoke staircase CPD presentation on Microsoft Teams or Zoom free of charge at a time that suits them. The session covers: staircase design, stair regulations ADK, ADB, ADM and specifically BS5395 Part II (which relates to spiral and helical staircases), the design, manufacture and install process, materials and finishes and case study examples. The session is 30-40 minutes depending on questions and can be tailored to the interests of the practice. Certificates of attendance can also be issued. 0330 123 2447 www.spiral.uk.com

#### CERTIFIED BUILDING REGULATIONS CPD FOR NEW BUILD HOMES



Vent-Axia has launched a certified CPD 'Domestic Legislation for Ventilation' on the revised Building Regulations, following the company's successful webinars on the topic. Certified by The CPD Certification Service, the CPD is aimed at housebuilders, M&E contractors, consultants and architects, and will inform delegates of the recent changes to the legislation, focusing on Approved Document F (for Ventilation) and Approved Document L (for Conversation of Fuel and Power) and will explain how they will affect ventilation in New Build homes. cpd@vent-axia.com. vent-axia.com/tools-services/cpd

#### ALIAXIS UK LAUNCHES ACTIVE DRAINAGE VENTILATION CPD



Aliaxis UK is pleased to announce the launch of a new CPD, which focuses on Active Drainage Ventilation. The new CPD from Aliaxis UK focuses on a number of key areas associated with this important topic. The CPD discusses the types of systems used to manage water and air, ways to manage trap seals and the effect of loss, as well as the benefits of Active Drainage Ventilation. For specifiers, contractors and MEP engineers, the presentation also provides detailed guidance on Positive Air Pressure Attenuator and formulas to produce spacesaving calculations. www.aliaxis.co.uk/contact-us

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## BUILDING

SCION TIMBER INNOVATION HUB / TE WHARE NUI O TUTEATA ROTORUA, NEW ZEALAND

# **Respecting climate & culture**

A timber research facility has been constructed in Rotorua, New Zealand which combines a net zero design showcasing timber's potential with a high degree of local cultural sensitivity. Jack Wooler reports

> The fritted pattern of the glazing between the timber structure of Te Whare Nui o Tuteata – otherwise known as Scion Timber Innovation Hub in Rotorua – depicts the surrounding forests that inspired its design. And similarly the

building is intended to act as a bastion that proudly displays what timber is capable of.

Located on the edge of the redwood treeline of Whakarewarewa Forest Park, the project, commissioned by New Zealand's Government, brings much of the institute's



workforce, previously siloed in smaller buildings dotted around the Te Papa Tipu Innovation Park, together in one 'innovation hub.' It also provides a new arrival point for the campus, strengthening the institute's public face.

Now, as visitors encounter the building at the entrance to the campus, they are presented with an impressive, three level, 1800 m<sup>2</sup> timber diagrid structure of laminated veneer lumber.

Having created a building whose timber structure is easily read as such from outside, the architects hope the strong expression of the material's use will inspire building designers of the future, showing them how timber framed buildings on this scale can provide a viable alternative to their steel and concrete counterparts. However it's also aimed at potentially achieving even more, providing an exemplar of working within the constraints of a zero-carbon future. Not just an homage to timber, however, the building also respects the Māori culture of Rotorua, resulting in a form rich with symbolism. Its name, Te Whare Nui o Tuteata, pays homage to the Tuteata, from whom the region's three Hapu (Māori tribes) descend.

#### The brief

The brief given to two practices working in collaboration, RTA Studio and Irving Smith Architects, was to reimagine the headquarters, creating a 'new front door' for Scion, and showcase timber technology and the institute's work. However the design also needed to "engage with the forest, acknowledge the cultural significance of the region, and to create a contemporary workplace environment that brings Scion together," said the architects. This meant employees, the public and also its commercial partners. According to Dr Jeremy Smith, design

#### A TRIO OF PEAKS

A trio of glulam 'peaks' framing the entrance represents the three Māori 'hapu' of the region Photography © Patrick Reynolds

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The diagrid "legibly demonstrates that timber buildings do not need to be designed like steel and concrete buildings" director at Irving Smith Architects and an associate professor at the University of Auckland, as well as fulfilling this brief, the building has already had a positive reception following its 2021 completion. He says this is "a recognition of the outward thinking to the building and its contribution and invitation to the community." He says that in so doing, the building provides "a real-life experience of science."

Smith explains that, as a new insertion within an ageing existing campus, the building achieves a lot in improving the sprawling site's 'key adjacencies.' The architect says the careful building placement "consolidates and links the campus" by relocating an existing laboratory block to "enable the new building platform," and it also "boldly connects" the new hub to two existing blocks (including one of laboratories). This also has the benefit of "triggering public Health & Safety control points."

He tells me that this placement also capitalises on the opportunity to shift the campus' entrance from the former "confused" approach from Sala Street, to a more scenic alternative through towering redwoods (along Titokorangi Drive). Scion's new hub slowly reveals itself and is only fully viewed once visitors pass through the entry gates.

### Three peaks

Forming a trio of 'peaks' in glulam timber, the entranceway has been designed to reference the three Hapu (Māori tribes) in the region, "standing proud and tall" as users enter the building, says Smith.

Visitors passing beneath this portal are greeted by a triple-height atrium, containing a curated exhibition of wood fibre technology.

Just as on the approach from the road, once within the building, it reveals its nature slowly, "like a forest," says the architect. Natural light penetrates deep inside thanks to the extensive glazing, continually changing throughout the day as if "under a tree canopy."

Fully exposed and immediately obvious inside is the structural diagrid, which rises three storeys to form the skeleton of the building. Made of highperformance LVT (Laminated Veneer Lumber), the skeleton features dovetail node joints which have been slotted and glued together.

The triple-height atrium is topped by a spectacular custom-designed wooden ceiling (reportedly inspired by the genomic structure of the radiata pine used for the building's frame). According to the architects, the timber battens and plywood panels in subtle tones are intended to depict the 'barcoding' effect that comes from the plant's DNA. The arrangement of atrium ceiling lights is intended to represent the Matariki star cluster, a much-loved astrological feature in New Zealand which is described as 'mother Matariki and her six daughters,' the stars'







re-appearance signalling the beginning of the Māori New Year.

The ground floor is open to the public, with a cafe accessible to all. However the spaces this atrium sits between on the upper floors – where the collaborative scientific work spaces are located – are restricted, with secure access at the stairways and lifts.

Even from downstairs, however, research work can be seen being carried out on the upper floors, bringing a lively bustle to the open plan-offices and collaboration spaces. However separation is provided from the surrounding noise thanks to private spaces and acoustically treated rooms.

To achieve this, an innovative CLT acoustic partitioning system was developed for the meeting room spaces, further showcasing the use of engineered timber as a flexible and versatile material.

## **Expressing timber values**

It is obvious from only a brief glance at the building that its predominant material is timber. This is transparently obvious in the interior – primarily in the open mesh of the diagrid – but viewable from the extensive glazing of the external envelope.

Other key uses of timber in the building include a lightweight composite CLT and LVL floor system (timber at ground level), exposed and cantilevered CLT stair elements within the three-level central atrium, overlay acoustic floors to promote acoustics and building servicing, and a simple 'gang nail' truss roof structure. Timber was also used in many other parts of the interior, with the structural Radiata Pine being paired with locally grown exotic hardwoods like Tasmanian Blackwood for handrails and 'leaners,' along with Victorian Ash for screening elements. Radiata Pine is also used in the reception counter, with plywood panels CNC machined, layer by layer, to achieve an organically curving wood form – reminiscent of a fallen log in the forest. Even meeting room doors are made from CLT, routed with a simple pattern to reference the geometry of the diagrid structure.

According to the architects, such a broad expression of the material was key to the design of the project, with both the client and designers keen to "reveal its natural aspects," and maximise the material's inherent "visually warm and inviting nature."

The raised acoustic floor system, for instance, achieves this by allowing flexible running of surfaces through the floor space, meaning that the CLT and LVL floor structure could be exposed and showcased.

## Challenging structural stereotypes

Perhaps the most important aspect of the timber design for the project, says Smith, is how the three-storey engineered timber diagrid "challenges stereotypes of timber structural buildings."

He says it "legibly demonstrates that timber structural buildings do not need to be designed like steel and concrete

#### TRANSPARENTLY TIMBER

In addition to the open diagrid mesh, timber is also present in the composite CLT and LVL floor system, exposed and cantilevered CLT stair elements within the atrium, overlay acoustic floors, and the 'gang nail' truss roof





The positive reception is "a recognition of the outward thinking to the building and its contribution and invitation to community"



buildings, but instead can act more like trees where strength follows the continuous grain of the wood," explains Dr Smith. "With this simple shift in thinking," he continues, "the structural size of the timber has been reduced by around three quarters."

As a further example of innovation, the timber structural nodes not only transfer loads and hold a 'seismic fuse' which, if an earthquake occurs, will yield to be replaced afterwards.

Besides cost efficiencies, the smaller nature of the structure also means that the timber was easier to handle, transport, and sustainably resource, and ultimately change or re-use.

Prefabrication was reportedly key to the realisation of this project, with the LVL diagrids assembled from a limited number of repeating, multi storey components, to maximise the potential of repetition, and simplify both fabrication and site erection.

In the future, Smith hopes that such techniques will allow an increasing number of buildings to be built using the material, which he says is useful not just to a small, isolated country like New Zealand – where new machines and construction materials like steel and concrete usually come via boat – but to larger countries where efforts to store carbon in buildings often is thought of in larger and larger components, befitting the 'mass' timber name.

He sums up the approach: "Sustainability does not mean more, it means less."

## Meeting net zero

While the building isn't entirely constructed of timber – it has a concrete ring beam foundation for geothermal reasons, and a perimeter curtain wall glazing system – the building was nonetheless carbon neutral "from day one," say the architects.

In order to achieve this, besides the inherent benefits of the use of timber itself, the building utilises low energy lighting and low water usage sanitary fittings, which, together with the mixed mode ventilation system, means the building has a predicted energy usage of 80 kWh/m²/year, and water usage of 12.6 litres per person per day. It also has a 34% reduction in 'operational impacts' when compared to equivalent 'baseline' reference building.

In order to ensure this level of sustainability, the team employed the ETool system to measure their embodied carbon – how much carbon is released, and how much is stored in the making of the building. The building achieved zero embodied carbon at the end of construction, storing as much carbon as has been released through the raw material mining, manufacturing, transportation, and installation, and without any offsetting of carbon credits.

According to the architects, whole life carbon usage of the building (over the next 60 years) will be around two thirds of those of current 2020 RIBA reference building targets The building sequesters 530,488 kg of carbon, or around 300 kg of carbon per square metre, and stores approximately 415 tonnes of 'carbon dioxide equivalent' (C02-e) in just its primary timber structure for the life of the building – the latter being comparable to the emissions of 160 flights around the world.

As such, Smith hails the building as "ahead of its time," noting that the 454 m<sup>3</sup> of structural timber used is regrown "every 35 minutes" in New Zealand.

### Looking forwards

Looking back on the project, Smith reflects that Te Whare Nui o Tuteata represents "more than 10 years of advancement and sophistication in the way timber structural buildings are not just put together but conceptualised."

He hails the project as well as bringing benefits to future generations, it "encourages others to think harder about what timber is good at, and how timber buildings might be better prefabricated and pieced together." Smith adds that being such a timber showcase makes it a "globally significant scientific demonstration of how we might build tomorrow." He says it's a "real prototype, rather than just a possibility," as New Zealand works towards zero carbon in 2050.

## The A. Proctor Group establishes Sustainability Focus Group



The **A. Proctor Group**, recognised worldwide for its extensive portfolio of technically advanced thermal, acoustic and membrane products for the construction industry, has set up a dedicated Sustainability Focus Group. This increased focus on sustainability demonstrates the commitment of the company to recognise its social and environmental responsibilities and have a positive impact through its actions. Led by the Group's Managing Director, Keira Proctor, the fourteen strong Sustainability Focus Group includes specialists from technical, operations, manufacturing, IT, marketing, sales, and accounts. Keira Proctor commented: "For more than 50 years, the group has been serving the construction industry with high-quality, innovative solutions. As a family business, we are committed to continuously improving how we protect our communities and environment and care for our employees and customers. Sustainability is fundamental to our corporate vision and business philosophy, to provide and care for the future legacy of the generations that follow us. The creation of a dedicated Sustainability Focus Group has generated much interest within the business."

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## Pub installs Panasonic nanoe<sup>™</sup> X



The New Inn Pub in Warwickshire, a communityowned pub dating back to 1750, needed a new approach to heating and cooling to create a welcoming and pleasant environment for its customers. **Panasonic** Etherea air conditioning units with nanoe<sup>TM</sup> X were recommended as the

ideal solution. Tony Bourne, a member of the steering committee said: "The space is now much cosier and warmer with the new Panasonic units making a significant difference. We have also seen an increase in more of the local residents coming back to the pub, as they feel much more confident now that the nanoe<sup>TM</sup> X technology is installed."

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BUILDING

## WASHINGTON HEIGHTS NEW YORK CITY

# New colours on the block

MVRDV's first completed major US project is a mixed use scheme including a boutique hotel, which makes a bold architectural diversity statement in a range of colours and scales to help it blend with the locality. Tom Boddy reports



The building "replicates a typical composition of a Washington Heights block, deconstructs it, and then reassembles it into a stack of boxes" In New York City's Washington Heights, at the very top of Manhattan Island, adjacent to the Bronx, sits the first major project in the US by Netherlands-based architects MVRDV. Named Radio.181, the 22-storey mixed use high-rise incorporates office, hotel, retail, and event space, assembled in a colourful composition of asymmetrically-stacked blocks intended to express the vibrancy and diversity of the surrounding neighbourhood.

This has been, during design and construction (and will be in operation, once opened this summer), a high profile project, being a large volume on the thinnest part of Manhattan, and one which also fulfilled a local need due to Washington Heights' previous lack of hotel and office space. The project started on site in 2018 and is due to open to the public this summer.

The scheme was initiated by developers Youngwoo & Associates, who identified the site, next to Washington Bridge, as being ideal for such a scheme. Having established a robust relationship over the years, Youngwoo approached the architects to come up with a design concept that was at once "bold and fitting" for the practice's first big statement in New York City. While the pair of firms had already developed various concepts and designs for multiple locations across the States, Radio.181 was the first to reach the construction stage.

The building sits on Amsterdam Avenue, between 180th and 181st Street, at a bustling intersection opposite the bridge, which is a major link connecting Manhattan to the Bronx. Having been occupied by an automotive repair shop/ gas station for over six decades, the site had deteriorated and was in dire need of rejuvenation, and a "spark" in terms of design that would ignite regeneration in Washington Heights, say the architects. "It felt like a scar on the neighbourhood that such a prominent location, facing the bridge and Amsterdam Avenue, lacked any sense of community," says Fedor Bron, associate director at MVRDV.

## **Community first**

From the outset, and in particular because of its prominent location at the junction terminating the bridge, a huge emphasis was put on designing a build that served and prioritised the local community. The goal therefore was a building that had the ability to accommodate multiple functions, while being formed carefully to fit the surrounding context.

In the early stages, MVRDV explored several concepts, all of which were "very different in size," says Mick van Gemert, associate architect at the practice.





Incorporating a diverse programme on the ground floor with room for food and beverage establishments, local retail, and publicly accessible in- and outdoor spaces was always part of the plan. However, later down the line, once more of the community's needs were established, the brief and design evolved to include a hotel, in addition to office facilities.

With there being two major institutions nearby – the New York Presbyterian Hospital, and Yeshiva University – the Washington Heights district is visited by many thousands of people every year. However, as these were in both cases lacking accommodation facilities, there was a high demand for a new facility that offered users a place to stay. Additionally, according to the architects there was also a local lack of Class A office space in a highrise, which would provide the "astonishing views" that this scheme would deliver.

Once the architects began to integrate a hotel and office programme into the design, "the project really took off," Bron tells *ADF*. The briefing and approval process was reportedly characterised by a strong collaboration between all parties, with MVRDV and developer Youngwoo hosting regular workshops in NYC. Due to the project's sensitive nature, it was vital that the team worked "hand in hand with local leaders," says Bron.

Via partnering with several community organisations in New York such as the Local Community Boards, Business Improvement District representatives, and local community stakeholders, MVRDV ensured that from an early stage the project's agenda was to firmly "articulate the philosophy of the building as a community-first development."

### Vertical village

Being situated in a relatively low rise section of Manhattan, it was imperative that a new development on this scale  $(26,500 \text{ m}^2 \text{ of floor area})$  didn't overwhelm its surroundings. Van Gemert tells *ADF* that while there are some high rises in this part of the city, they are mainly just "extrusions of the same floorplate." Ensuring they took a different approach to this, MVRDV's aim was to produce a form that replicated some of the design elements of the nearby structures, which resulted in an asymmetrical stack of eight differently coloured boxes.

The local neighbourhood is home to a "diverse and vibrant" community of around 150,000 people including a mix of families, creative professionals, and institutions, and typical urban blocks are composed of different building typologies, but of similar

#### CLASS A

The building serves a need for Class A office space as well as hotel accommodation, both previously in short supply in the Washington Heights area



## "Having an engaging street presence is the essence of Radio.181"

Mick van Gemert, MVRDV

dimensions, arranged side by side. "The individual buildings vary in size a little, but overall the buildings nearby are quite uniform in terms of their dimensions," says Van Gemert.

To help this large new addition fit within the area's urban landscape, it "replicates a typical composition of a Washington Heights block, deconstructs it, and then reassembles it into a stack of boxes," say the architects. Each of the eight different blocks within the development takes its inspiration "directly from the adjacent buildings" explains Van Gemert, so that the window lines and overall facades replicate the look of the neighbourhood.

MVRDV's original concept was to design all of the different components using the same "narrow range of dimensions" of nearby existing structures, states Bron. But because of the density required by the client, this more "horizontal" approach wasn't feasible. "So in order to work with similar-sized blocks, we needed to stack them," which enabled the designers to reflect the local scale while building higher to incorporate the different facilities.

The staggered stacking of the different boxes – and the splitting up of the hotel and office programme into several sections within that composition – provided MVRDV with the opportunity to diversify the spaces even more, and introduce a greater number of roof terraces. "The expression of different functions and the stacking of indoor and outdoor spaces makes it a vertical village," says Bron.

## Facades

Not only are the different components of the building such as the hotel and office space clearly defined through its geometry, but each section – and function – has its own colour. There's a precedent in the diversity of local architecture: "Walk the streets of Washington Heights and you sense that diversity. Radio.181's colour scheme is just an abstraction of this experience, taken directly from the streetscape," says Van Gemert.

Bricks were the chosen material for the building's multi-coloured exterior, to tie in with local facades. But as the team wanted the elevations to also reflect the vibrancy of the neighbourhood, they opted for glazed bricks, and this unusual specification across such a composition has "worked to quite an impressive effect," says Bron. He adds: "Most people aren't really used to seeing glazed bricks in large blocks of solid colour like this, so people are surprised by how colourful it is."

The bright colours have captured people's attention, including on social media, where one commenter criticised the building based on an image taken at a distance. They

assumed the brightly coloured building facades were made of plastic. "We had to show them a close-up of the bricks – to prove that our design was not that unsustainable!"

Although its composition reflects the local built vernacular, Radio.181's height and variety of bright colours, while achieving the client's brief of being bold, means it still makes a substantial architectural statement in the area. However at the same time, this very mixed composition – "the diversity, scale, window patterns, facade material, the diversity in all of these elements – already existed in Washington Heights," says Bron.

### Programme

The client's decision to provide the varied range of facilities within was made as an attempt to resolve a number of challenges within the local community. Each section has been carefully placed to optimise its functionality, and thereby provide locals and visitors with truly valuable amenities.

The red, purple and turquoise blocks facing south towards West 180th Street and Amsterdam Avenue houses the hotel. Serving the high demand for temporary accommodation in Washington Heights, MVRDV's hotel design incorporates 212 rooms, plus a restaurant, a bar, and a courtyard space.

Inside, the hotel's compact floorplans contain typical double-loaded corridors, but the overarching sentiment of the interior aims to be a less standard, more boutique offer, "to provide a more informal, festive, and diverse atmosphere compared with typical offerings in more southern parts of Manhattan," says Van Gemert. The buildings' facade colours have been replicated in their interiors, reinforcing the separate identities of each of the functions.

On entering the hotel on the ground floor, which also boasts "a very colourful mix," both users of the building and neighbourhood residents can walk through to a courtyard space, where they can enjoy a coffee and the community garden.

Also at ground floor level is the project's 8,345 ft<sup>2</sup> of retail space, – providing an "active street level" on both 181st Street and Amsterdam Avenue. "Having an engaging street presence is the essence of Radio.181," says Van Gemert. Adding a variety of retail on 181st street, already a thriving corridor in the Washington Heights neighbourhood – will "attract young professionals who value convenience and a relaxing shopping experience."

The yellow, orange and grey blocks facing north at West 181st Street serve the office floors. This section comprises 20 floors and 167,000 square feet of Class A office space. Bron asserts that the extra commercial space will "enable local businesses to scale up and take their next steps." The interior offers flexible floor plates with 12 to 19 feet ceiling heights, and great views of Manhattan. To achieve a high level of security and efficiency, the office will be served by a dedicated entrance and lobby.

On floor 12 sits the long, flat blue block which connects both the hotel and office and houses an event space which is accessed via the hotel. This space, connecting to a terrace offering further panoramic views, will provide "flexible food and beverage possibilities" as well as a leisure programme for the neighbourhood. Also, it will provide a space for locals to host weddings and other events. This is just one of many ways Radio.181 adds an amenity that did not previously exist in Washington Heights.

## **Details**

Designing the building with such an irregular assemblage of forms didn't come without its challenges. For example, says Fedor Bron, "The location of the vertical cores, with the stairs and elevators, was tricky to make the composition work, as they need to serve all the differently shaped blocks in a functional manner."

Overarching this, ensuring the building provided health and comfort to its occupants was fundamental in the design. For example, designing the office floorplates to be "relatively small," allowed workspaces to be filled with daylight throughout the day. Another way the design contributed to the wellbeing of the building's users was that the architects made sure each of the blocks has its own accessible, dedicated outdoor terrace, or terraces.

The architects assert that Radio.181 also represents a scheme that is a marked contrast with other new buildings for commercial clients in the key area of energy efficiency, thanks to its brick materiality: "As we opted for a brickbased facade, we are much more energy efficient in comparison to other new developments."

With the client having a projected opening date for this vibrant new addition to the area of this summer, both they and the architects are anticipating a positive response from the community, and beyond.



#### PROMINENCE

The new mixed-use tower sits at a prominent location, overlooking Manhattan and the Washington Bridge

## **Bringing light to Fairmont Windsor Park Hotel**

Situated in the English countryside of Windsor Great Park, within a short commute from central London, the Fairmont Windsor Park Hotel is described as a luxury retreat from the city with a focus on health and authentic wellness.

LAMILUX designed, supplied, and installed an impressive faceted domed rooflight with an internal span of 8.5 meters to display a remarkable example of how the LAMILUX Glass Roof PR60 can achieve almost any bespoke shaped glass roof solution. The bespoke rooflight compliments the modern elegance of the indulgent retreat, whilst flooding the hotel foyer with an abundance of natural daylight.



Working with the architect from the early planning stage of the project, LAMILUX presented a design providing a glazed solution, which closely resembles the design intent and the style of architectural heritage that the hotel was to represent. The factory prefabricated rooflight assembly, which included everything above the perimeter concrete opening, is a self-spanning structure requiring no additional sub-structure above the pre-weathered kerbs.

The LAMILUX installation team framed out the 2.2 tonnes of steelwork within a dedicated exclusion zone at ground level on site before using a tele-handler to crane the structure into position at roof level and fixing it to the faceted perimeter upstand. A key consideration of the installation was to check the diagonal dimensions were equal for squareness. Careful diligence was therefore necessary with the assembly of the aluminium frame mullion and transoms.

The spectacular domed rooflight was then glazed with an impressive total of 64 glass panels, each a bespoke size and shape, to make up the unusual shape and complete the



installation. The glass panels, specified with high performing solar glazing, measure up to  $1,341 \times 1,744 \text{ mm}$  and weigh up to 86 kg. The LAMILUX operatives, equipped with full body harnesses, were secured back to a man-anchor with inertia block and used a vacuum lifter to complete the installation.

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## Unlock the Power of Nature at Clerkenwell Design Week



Join IVC Commercial at The Gallery Clerkenwell for Clerkenwell Design Week as it explores the power of nature in design. Across the three days, the brand is holding a programme of creative and informative events that explore the central theme of nature and how it can be used to connect people with the spaces in which they work. IVC Commercial is giving the architecture and design community the chance to explore how the natural world influences approach to the design of commercial interiors. From the supportive qualities of nature in interior materials and spatial design to the need to be active in building a sustainable future that preserves the planet for future generations, the programme has something for everyone involved in the design of today's work, leisure and living spaces. On Tuesday afternoon, visitors can take part in a Kokedama workshop that teaches the Japanese technique of hanging indoor plants. For those keen to hear opinion from peers on the topics that matter, Wednesday's Live Interviews with Grant Gibson is not to be missed. Thursday is a chance to explore multi-material flooring solutions including the new Origin luxury vinyl tiles collection and have your questions answered by the team.

www.ivc-commercial.com www.eventbrite.co.uk/e/clerkenwell-design-week-tickets-321240287347

## Parkside & Strata serve up zero waste and The Next Generation at Clerkenwell Design Week



**Parkside** & Strata's Clerkenwell Sustainability and Design Studio will be home to a full programme of activities during Clerkenwell Design Week and keep your eye out for the Parkside & Strata Pizza Truck to enjoy a slice of freshly cooked wood-fired pizza. On Tuesday 24<sup>th</sup> May, Parkside & Strata will kick off its Clerkenwell Design Week programme with The Next Generation, showcasing student sustainability concepts. Starting at 2pm, the afternoon will be a fascinating chance to see how the next generation of designers are thinking about the challenges of global climate change and how commercial interior design can make a lasting impact. Wednesday's activities will focus on zero waste, with the chance to craft your own upcycled planter in Parkside & Strata's 3pm workshop. Then at 6pm catch Planq, a furniture brand that's one of Holland's Sustainable Young 100 organisations, as it talks about making beautiful products from waste materials. The theme continues on Thursday in light-hearted fashion with a zero-waste cocktail masterclass at 3pm, followed with a chance to taste these fabulous cocktails – coloured to match Parkside tiles – with friends and colleagues and a live DJ until late.

0116 276 2532 www.parkside.co.uk

# **Inspiration returns**



Clerkenwell Design Week (CDW) is returning after a two-year break from 24-26 May, taking over London's creative hub with promises to be the 'biggest and boldest' yet

Since it made its debut in 2009, CDW has become one of the UK's leading independent design festivals, providing an important platform for brands to showcase products and for the 100+ resident showrooms to open their doors to new audiences. Clerkenwell has a deep layer of historical heritage, from clock making to gin distilling, and now hosts a vibrant network of architects, designers and creatives that adds a rich backdrop to CDW. CDW's new brand identity for 2022 has been inspired by the printing and craft industries that have traditionally been part of Clerkenwell's creative history.

There is much excitement around CDW 2022 and its return to the design calendar since the 2019 edition, which welcomed 34,185 attendees and over 300+ exhibiting brands including major industry names such as Deadgood, Ercol and Benchmark.

This year CDW's 'festival route' has been extended to include Charterhouse Square which will see Orticolario's Delenimentum installation taking centre stage. A gigantic version of the renowned Adirondack Chair created in 1903 by the designer Thomas Lee is a playful and photo-worthy addition to this year's show.

## What to expect

Visitors can expect a show full of the latest designs, innovations and creative ideas, plus hundreds of design-led fringe events, pop-ups, workshops, talks and showroom presentations. The show will again host a series of talks in Spa Fields by leading designers and architects tackling topical and newsworthy issues.

Across EC1, there will be nine exhibitions, in both purpose-built and historic venues, all showcasing a curated mix of leading brands and emerging talent covering furniture, lighting, textiles, surfaces, accessories and product design from around the world. New for 2022 is 'Covered' sponsored by RAK Ceramics – an



exhibition dedicated to interior surfaces. Also 'Contract,' where visitors can view the latest products for commercial interiors. Clerkenwell's subterranean House of Detention will showcase Light + Rising Stars – seeing a host of new and upcoming designers exhibit alongside leading lighting brands. 'Pop' – the former cold store turned nightclub – will host brand activations and immersive experiences throughout the three days of CDW.

## **CDW** presents

Each year 'CDW Presents' showcases specially commissioned, site-specific street spectacles across Clerkenwell.

In a partnership that has spanned five years, CDW will once again collaborate with Scale Rule to present the NextGen Design Pavilion. This year's design concept for the NextGen pavilion exemplifies human impact upon the earth and in turn mankind's responsibility to protect and shape it for better, a highly topical issue following COP26 in 2021.

Conversations at Clerkenwell have always been a highlight of the show, with a specially designed venue in Spa Fields. Designed by Fieldwork Architects, the concept for the CDW 2022 talks space reimagines the traditional Victorian bandstand as a focal point within the park, a place for gathering, discussion, entertainment and shelter.

Additionally, BAUX, maker and supplier of acoustic panels, will create an immersive sound experience, the 'BAUX House of



Acoustics,' in Brewhouse Yard. Designed by company co-founders, international design studio 'Form us With Love', the space will be open to all, demonstrating acoustic properties with talks and live music, across the three days.

Billi UK will be supplying drinking water with water taps located throughout Clerkenwell - visitors can bring their own bottles and fill up, in what the organisers say is a "sustainable nod to the traditional Clerk's Well that gave the area its name."

Showrooms & exhibitions

Clerkenwell has flourished as one of London's creative hotspots – with over 115 participating showrooms confirmed for 2022, this year's show is truly bigger than ever before.

CDW's exhibitions are hosted in distinctive spaces around the area linked by a route running through the centre of EC1. There are nine exhibitions, each with a different curatorial focus, ranging from cutting edge international design, to emerging talent, lighting, luxury interiors and the best of British design.

After a two-year hiatus due to the pandemic, there is great enthusiasm and excitement among creatives in the area about the new edition of CDW, and the return of the 'pink trail.'

If you are interested in attending Clerkenwell Design Week, please scan the QR code:



## SIMONSWERK showroom opens its doors for Clerkenwell Design Week

Simons WERK will be opening its showroom doors for the return of Clerkenwell Design Week. CDW is a three-day event taking part on the 24 - 26 May, showcasing leading UK and international brands and companies in a series of showroom events, exhibitions and special installations that take place across the area.

Visitors to the showroom at 45 Great Sutton Street will be able to view the company's full range of hinge applications and take advantage of one-to-one demonstrations of the SIMONSWERK online advanced PRODUCTSELECTOR information system created specifically for architects, ironmongers, specifiers and interior designers.

Products on display include the award winning TECTUS and ANSELMI completely concealed hinge system and the increasingly popular CE marked TRITECH fire rated solid brass hinge with concealed bearings,



25-year performance guarantee available in wide range of finishes.

SIMONSWERK showroom in Clerkenwell, 45 Great Sutton Street, London, EC1V 0DE. Open from 24 - 26 May, 10am to 7pm.



Find out more and register for free at www.clerkenwelldesignweek.com

0121 522 2848 www.simonswerk.co.uk

## Stop by and learn how modulyss is taking shape in London at Clerkenwell Design Week



Belgian carpet tile manufacturer, **modulyss** will be holding a sneak preview of its new showroom in Clerkenwell for Clerkenwell Design Week. Designed by a leading London-based D&B practice, the space will provide the opportunity for the architecture and design community to discover modulyss carpet tiles that lead the way in sustainability and design, including 28 Cradle to Cradle Certified Gold® products. Throughout Clerkenwell Design Week, 24th– 26th May, modulyss will host a programme of events at its Clerkenwell Road space, including workshops from Laura Perryman, author of The Colour Bible and a talk from leading sustainability visionary, Chris Hines. The programme reflects the brand's ambition to make inspiring carpet tiles for a sustainable future. Jose Hamp, sales director UK & Ireland says: "We're hugely excited to be giving an exclusive preview of our first dedicated London space for Clerkenwell Design Week. We're putting on a programme that designers will find informative and genuinely useful with actions they can introduce into their projects and everyday lives. I'm looking forward to welcoming everyone to explore our inspiring and sustainable carpet tiles and check out the progress of our smart new location."

0800 096 2702 www.modulyss.com

## Unlock the Power of Nature at Clerkenwell Design Week



Join UNILIN Panels at The Gallery Clerkenwell for Clerkenwell Design Week as it explores the power of nature in design. Across the three days, the brand is holding a programme of creative and informative events that explore the central theme of nature and how it can be used to connect people with the spaces in which they work. With a full programme of workshops, talks and live interviews, UNILIN Panels at The Gallery Clerkenwell is giving the architecture and design community the chance to explore how the natural world influences approach to the design of commercial interiors. On Tuesday afternoon, visitors to The Gallery Clerkenwell can take part in a Kokedama workshop that teaches the Japanese technique of hanging indoor plants, taking home their very own air filtering palm to hang at home. For those keen to hear opinion from peers on the topics that matter, Wednesday's Live Interviews with Grant Gibson is not to be missed. With London's famous Utter Waffle serving up breakfast waffles street side on Thursday morning and a selection of loaded fries for the afternoon, UNILIN Panels is staying close to its Belgium roots for the final day of Clerkenwell Design Week.

info.panels@unilin.com www.eventbrite.co.uk/e/clerkenwell-design-week-tickets-321240287347



## New London Design Hub set to open

Opening in the heart of Clerkenwell's design quarter during Design Week 2022, RAK Ceramics is launching their inaugeral Design Hub a go-to destination for designers, architects and developers looking to explore the possibilities of choosing RAK Ceramics products for their projects. The Design hub will feature the first UK display of a brandnew collaboration with renowned fashion designer Elie Saab which will feature a range of edits from the Elie Saab Maison collection. To mark the opening several renowned European designers will provide their Design Insight in a series of inspirational talks and seminars during Clerkenwell Design Week. These include Giuseppe Scutella, who collaborated with RAK Ceramics on its luxurious RAK-Cloud and RAK-Petit collections and Federico Sandri, one half of the design duo behind the beautiful RAK-Variant collection. Guests at the Design Hub opening events can also hear from Patrick Norguet, on the thinking behind the RAK-Valet sanitaryware range. Tours of the Design Hub will take place during the launch party on Tuesday 24 May, with guests invited to enjoy a cocktail and evening entertainment to mark the opening ceremony. For a full list of events and to book visit the Clerkenwell Design Week website at www.clerkenwelldesignweek.com

01730 237850 www.rakceramics.com/uk

## Glidevale on board with Offsite Alliance



Glidevale Protect is collaborating with leading offsite construction partners and reinforcing its expertise within the sector by becoming a member of the Offsite Alliance, the not-for-profit Community Interest Company that aims to promote and prioritise the use of modern methods

of construction. With a proven track record of supplying a variety of offsite projects, ranging from private and social housing to education builds, Glidevale Protect is a specialist in energy efficiency, ventilation, condensation control and damp proofing across the built environment.

0161 905 5700 www.glidevaleprotect.com/offsite-manufacturing

## **Delivering long-term sustainability**



Tata Steel's Shotton Works has launched an ambitious sustainability commitment, with a 20% carbon reduction target in year one. The Shotton Works site has been producing market-leading steel products for 125 years. Recognising that today's changing world is faced with a

climate emergency, the Tata Steel team at Shotton Works is committed to providing a positive environmental legacy. With the Shotton Works site situated next to a protected wetland, some of its earliest sustainability efforts in preserving the natural environment were recognised with a Prince of Wales Award for Conservation all the way back in 1971.

www.tatasteeleurope.com www.colorcoat-online.com



CLERKENWELL DESIGN WEEK

24<sup>th</sup> – 26<sup>th</sup> May 2022

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## Get involved with Schlüter at Clerkenwell Design Week

S chlüter-Systems are the market leaders in essential accessories for tile and stone. Their overarching aim is to ensure that you have the perfect support, protection, and decoration for these beautiful materials. Get involved in the below activities they are holding during Clerkenwell Design Week:

### Throughout

Take part in Schlüter's Gaming Challenge and experience their products like you've never seen them before! Typically used in bathrooms and other wet environments, Schlüter-Systems have transformed their products into a series of games so come and have fun while learning about how their products can help on your projects. Prizes are available for the top scorers.

**Tuesday 4-5.30 Drawing Workshop** Join architect and illustrator Chris Simmons for a drawing workshop focusing on bathrooms and spaces with tiled flooring. Chris is an Associate Director at London based architecture practice Squire and Partners, working on large scale residential buildings and masterplans. He is a prolific sketcher and is passionate about promoting drawing as an important communication tool for Architects and Designers. All materials are provided.





**Wednesday 4-5 Tales of the Atlantic** Join architect Lauren Hunt as she shares her extraordinary experience of rowing 3000 miles across the Atlantic with Hamish Kilburn, editor of Hotel Designs. Lauren was part of a team of 4 and is now one of around 200 women to complete this epic journey.

From flying fish and minke whale, to amazing sunsets and celebrating Christmas at sea, discover how the quartet's hard work and determination got them through their 42-day crossing.

Opening hours: Tuesday 10am-6pm, Wednesday 10am-6pm, Thursday 10am-4pm. For more details and to register your interest in the workshop, visit the website.

01530 813396 schluterspecifier.co.uk

## A. Proctor Group launches new online support tools



The **A.** Proctor Group, recognised worldwide for its extensive portfolio of technically advanced thermal, acoustic and membrane solutions for the construction industry, has launched a brand new online support package for designers, contractors, and customers. A new dedicated members area offers designers and contractors full access to all the high-quality technical webinars with downloadable personalised CPD certification for each. Members can easily find and subscribe to the entire library of product documents. By subscribing, the documents will be highlighted in a personal favourites section for quick and easy access and receive notifications when documents are updated. The new Onsite App has been developed to assist customers with installing the A. Proctor Group range of products. Available to download as an App (Android only) or on a web browser, the Onsite App provides quick and easy support for customers with installation on site. Customers can access all the company's product datasheets, certifications, installation guides and technical properties. The new online support package is another part of the comprehensive dedicated technical back-up focused on providing high-quality advice and support to specifiers and customers.

01250 872261 www.proctorgroup.com

## **Aqualisa appoints Mat Norris**



British bathroom specialist Aqualisa has announced the appointment of Mat Norris as Chief Executive Officer. As part of a planned succession, Mat will replace Colin Sykes, who has held the position since 2018. Colin will remain as a non-executive director and strategic advisor to the business until December, focusing on the company's international expansion,

at which point he will semi-retire and focus on other non-executive roles. As pioneers of the smart digital shower, Mat will work with his team to continue Aqualisa's focus on transforming the smart bathroom sector, creating the ultimate experience for homeowners and installers alike.

01959 560010 www.aqualisa.co.uk

## **Domus Ventilation welcomes Jessica Cook**



**Domus Ventilation**, manufacturer of marketleading ventilation systems that save energy and improve indoor air quality, is pleased to announce the appointment of Jessica Cook as General Manager. Jessica joined Domus Ventilation at the start of 2021 as Head of Marketing, but her wide ranging, in-depth experience of marketing,

strategy, leadership, sales, operations and people management quickly paved the way to this new role of General Manager. For Jessica, the next six months will see her immersed in the wider business, understanding all aspects of its operation, including the services it provides.

vent.info@domusventilation.co.uk www.domusventilation.co.uk
#### Harrison Thompson appoints a Finance Director

A lison Greer joined the board of directors of Harrison Thompson this month on 6th April 2022, becoming the first female director in the company's 56-year history. Alison will provide leadership to the Board's Finance and Accounting strategy, providing financial analysis and guidance, business drive and plans. This will optimise the company's financial performance and contribute to the development of company strategy.

In July 1984, Alison began working as a receptionist at Harrison Thompson. After a short period, she was promoted to working a dual role between accounts and sales demonstrating enthusiasm in all responsibilities. Managers were quick to identify Accountancy was where she flourished and found fulfilment. It was then that she was appointed the Accounts Administrator role, to pursue this career path. Alison successfully attained several

accountancy qualifications, becoming a qualified finance professional achieving MAAT and was promoted to the Accounts Team manager. After many years of hard



work, dedication and going above and beyond in this role, in 2001 she was appointed the Company Secretary. This was a successful transition and she excelled in this role working closely with directors.

For almost 38 years, Alison has played a vital part within the company and is already a key decision maker. Already involved in the operations and outcomes, it has been an

easy business decision to invite her to join the board of directors.

Alison remembers been asked by a company director some years back, where she sees herself in 10 years' time and her response was "I want to be in your role, I want to one day become a director." Harrison Thompson is pleased that she has been able to achieve what she set out to do at an early stage in her career and that they have been able to provide this opportunity for her.

The company directors are excited to have Alison on board saying: "We feel that this appointment is well deserved and will strengthen the company moving forward. Congratulations Alison, we wish you all the best".

Alison's response was: "I am chuffed to bits, it's a privilege to join the board. I do not underestimate the responsibilities that come with the role, but I am excited to take them on."

Harrison Thompson congratulates Alison on this fantastic promotion.

0113 279 5854 www.yeomanshield.com



#### **Rediscovering Pendock.**



The launch of Pendock's new website not only marks its 35th year in business but is also the latest in a long line of initiatives and product developments that have been implemented by the company to support architects and specifiers.

For many, the Pendock name has become synonymous with high-quality column casings and service enclosure systems. Perhaps less well known is that since it was formed in 1987 the company has evolved and diversified, enabling it to respond to the changing requirements of specifiers and the wider construction industry.

Today, Pendock's range includes six distinct product lines, ranging from column casings and building linings to complete washroom systems, backed by comprehensive design, manufacturing, supply and installation services.

#### Innovation and evolution

Initially, Pendock produced casings and enclosure systems manufactured from pre-formed plywood with a choice of finishes, including laminated real wood veneers. The adaptability and performance of its products meant that it was soon supplying a wide range of interior and exterior solutions to conceal or protect structural elements and building services on new-build and retrofit projects.

Pendock's relationship with architects and specifiers ran in parallel with the introduction of new products, but its visibility increased considerably when the company cosponsored the RIBA Stirling Prize in 2004 and 2005. Earlier in 2005, Pendock launched its washroom solutions range, which broadened its reach and offered a wide range of products from single cubicles to complete washroom and IPS duct panel systems.

Following a period of continued growth, a new brand structure was introduced in 2021, which amalgamated key product ranges with the aim of simplifying specification while also upgrading access to product and technical information online.

The six brands comprise Radius, Linea, Profiles, Washroom, SafeHeat and Ducting, enabling casing solutions to be selected and sourced from the company's comprehensive range of standard and bespoke products.

Pendock's Technical Projects Manager, Gavin Byram, explained: "Prior to this re-structure all our products simply fell under the Pendock name and had no clear distinction between their type or relevant application. Now they have specific identities, which eases specification and access to information."

#### **Pendock Linea**

The extensive Pendock Linea range comprises nine different types of building lining and architectural finishing product, from exterior rooflights, parapets and soffits, to interior pilasters, perimeter casings and ceiling features.

Suitable for a wide range of applications, they can be manufactured from plywood, MDF, compact laminate, HPL, moulded GRG or GRP, plus stainless steel, aluminium and textured metals.

"The range now allows architects to

specify several lining elements within a project, as opposed to these items being unlisted or 'floating' within various sections of the specification document," added Byram. "It also allows consistency, as the elements can be manufactured, supplied and/or installed from a single source. This in turn reduces risk, mitigates potential coordination issues on site, and ensures a uniform, highquality finish."

#### Pendock Radius

Designed for concealing interior and exterior structural steelwork or concrete columns, Pendock Radius unites the company's six individual column casing types.

The range includes interior only casings manufactured from pre-formed plywood and GRG, alongside aluminium, stainless steel and GRP models, which can be used for exterior and interior applications. Each product is available in a range of standard dimensions and shapes, as well as bespoke options.



#### Pendock Washroom

Designed to meet most specifications and requirements, Pendock Washroom includes five systems – Classic, Classic Plus, Robust, Ultimate and Education – as well as duct panel systems for use with IPS washrooms. Vanity units, back panels and accessories are also included within the range,





ensuring design homogeneity, versatility and cost- effectiveness.

Depending on the range, they are manufactured from 18 mm melamine faced (MFC) or high-pressure laminate (HPL) faced chipboard, as well as 12 mm compact laminate for use in high traffic applications or wet areas. DDA and Approved Document M compliant solutions are also included.

#### **Pendock Profiles**

Forming a key offering for public sector housing and education sector specifiers, the Pendock Profiles range of casings for services. These include pipe boxing and casing solutions for concealing pipework used on heating systems and fire sprinkler installations, as well as classrooms and other education applications, such as STEM teaching laboratories.

Among the six product ranges available are the MXF fire sprinkler boxing and the CHM-MXM metal casings range, which are designed to provide protection for external pipework used in low carbon district heating, as well as ground source or air source heating solutions.

#### **Pendock SafeHeat**

Pendock SafeHeat low surface temperature (LST) radiator guards are designed to reduce the risk of burn injuries in a wide range of sectors, including care homes, schools and hospitals. There are three core models: Prima, Ultima and ST, each of which also has a 'Plus' model variant that incorporates hidden fixings and lockable, drop-down access panels. All models incorporate antibacterial coatings as standard, as well as antiligature options.

#### Pendock Ducting

Simple but highly effective, the Pendock Ducting range is designed to conceal pipework, electrical cabling and other utilities, while also ensuring easy accessibility for maintenance. Secured to the surface of the subfloor before screeding, the two-part system is available in standard or bespoke sizes, comprising of a pre-formed, hot-dip galvanised steel tray with decorative plywood cover, that sits flush with the finished floor level.

#### Knowledge and expertise

"We have a very low staff turnover," Byram commented. "This means that our workforce, from shop floor to the management team, have decades of experience, which provides huge breadth and depth of knowledge. Consequently, we can provide specialist input and guidance for specifiers, which could help them avoid pitfalls and save time. We know what works and, more importantly, what won't work."

Pendock's ability to tailor existing products and/or provide completely new solutions on a project-by-project basis is perhaps one of its greatest strengths. "Although standard products still form the largest percentage of our business, particularly with column casings, many specifiers require bespoke designs where a solution must be engineered to solve the needs of a particular application," continued Byram. "By innovating and working closely with specifiers, we are able achieve not only the desired aesthetic, but also ensure the results are a precise match for the specification."

#### Enhanced online experience

Last, but not least, at the start of April 2022, Pendock launched a completely redesigned and restructured website with the aim of helping specifiers locate the product ranges and information they need more quickly and easily.

New images and information have been added, together with a new project gallery section, which combine to provides clear examples of the practical and aesthetic benefits of the products in use. Technical details, product brochures, drawings and NBS clauses for each range are also clearly marked and simple to download.

01952 580 590 www.pendock.co.uk





#### Knauf launches market first project design tool including a BIM Plug-In and web based system finder

nauf UK & Ireland has launched its Planner Suite specification tool platform enabling customers to find, import and specify Knauf products and systems quickly and easily.

A market first, the new project design tool is available as a BIM Plug-In for Revit and ArchiCAD and a browser-based version (system finder), reducing time spent manually searching for products and crosschecking data.

Knauf Planner Suite contains the most up to date and market leading performance data. Its guided search function provides specifiers with an overview of products and systems that match their specific project requirements, such as fire protection or sound insulation.

The tool also considers factors such as regional availability to ensure only products relevant for the project location are



recommended, which is particularly useful for international project planning.

Planner Suite ensures data accuracy over the full BIM model lifetime with its data validation function which checks and updates the data for all Knauf systems. Dan Roehner, Head of Technical at Knauf UK says: "We are delighted to be able to support our customers at all stages of their planning journey with this suite of tools. Planner Suite will make project planning simpler and more efficient and because Knauf has the most up to date system performance data in the market it will minimise errors at planning stage too. Specifiers can also access product information such as data sheets, EPDs and stockists easily through Planner Suite – and even generate a 'shopping list' to provide directly to their supplier."

Planner Suite is available now for the specification of Knauf solutions from standard components to high performance systems.

01795 424499 www.knauf.co.uk/planner-suite



#### Ruukki starts collaboration with M4C Ltd



**Ruukki** Construction and Sales & Business consultancy M4C Ltd based in Northumberland in the North-East of England, are pleased to announce their strategic collaboration to develop the UK market for Ruukki's range of high-quality steel based composite products for walls & roofs of both commercial & residential buildings. M4C was founded in 2018 by

Managing Director Matthew Curtis and has been providing strategic consultancy and business support to the Construction, Engineering & Chemical Sectors. Matthew commented: "I am delighted to be able to partner with Ruukki and to assist them to grow their UK market share."

sales@ruukkiuk.co.uk www.ruukki.com

#### HD Services Ltd have been shortlisted



On the 18th February, representatives of the energy efficiency industry across the nation descended on the Birmingham Hilton Metropole to recognise the best in the industry at the National Energy Efficiency Awards 2021. HD Services Ltd were lucky enough to have been shortlisted in both the categories of Renewable Heat

Installer of the Year and Business Development Manager of the Year and while they did not win either, they did receive a special commendation in the Renewable Heat Installer of the Year category – no mean feat for a small family run company! HD Services Ltd has also been shortlisted for Installer in the 17th British Renewable Energy Awards.

01494 792000 www.hdservicesltd.co.uk

## **Good vibrations**

With the average person spending an estimated 90% of their time indoors, Sarah Cartwright from Polypipe Building Services says the need to ensure occupier acoustic comfort and noise reduction is now a key priority

n article published by the BBC in 2019 pinpointed how noise in the home can affect an occupant's mood, an outcome that was further explicated by numerous scientific studies investigating the effects noise has on indoor comfort. Creating a building that reduces noise is therefore crucial to the mental and physical wellbeing of inhabitants.

#### Limiting sound transmission

Using a high-rise residential property or luxury hotel as examples, minimising sound transmission will be a top priority due to the high standard of living expected in such projects. An abundance of noise has the power to negatively impact a person's general health and wellbeing, and compromises the level of indoor comfort they should expect to experience. Such an outcome has become more of an issue with many more people now working from home. Shift workers also suffer when their peace is interrupted by exterior noise disturbances.

As well as being crucial to dispensing vital services throughout a building, pipework has a role to play in keeping noise levels to a minimum while it carries out its vital service. However, changes to building design have impacted sound levels, with insulation being installed in increasing quantities in order to meet more stringent energy standards.

This outcome is not without its negative relative impacts. Better-performing insulation reduces a building's natural noise levels, thus sound generated by building services packages will become more noticeable to the human ear.

#### Noise-reducing systems

With a firm eye on the future, some manufacturers are launching systems with noise reducing properties to ensure high-rise residential buildings and the like optimise occupant comfort.

Easy-to-install push-fit systems with multilayer technology make them



ideal for a range of commercial and highrise residential buildings. When water flows through a pipe, it creates a vibration which can penetrate a wall's fabric. Compared to airborne noise, which tends to be a shorter sound, structure-borne noise travels further. The industry standard for structurebourne noise is 30 dB. These noise-reducing systems have been engineered to reduce noise levels to a 20 dB rating.

Human beings spend the majority of their time indoors, meaning buildings have to deliver when it comes to noise reduction. Having an optimum environment such as this keeps everybody happy and ensures a building is well catered for in terms of interior acoustic performance.

Sarah Cartwright is senior product manager at Polypipe Building Services

#### The industry standard for structure-borne noise levels is 30 dB

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#### Flagship zero carbon home uses reflective membrane technology to deliver energy efficiency

A concept house for sustainable living developed by one of the UK's major housebuilders has been installed with reflective, insulating wall membranes from Glidevale Protect to deliver an airtight and energy efficient building envelope. Z House, built by Barratt Developments PLC, is a unique zero carbon home built on The University of Salford's main campus and is a collaboration between the housebuilder, industry partners and University of Salford academics.

Glidevale Protect supplied its reflective wall membranes Protect TF200 Thermo and Protect VC Foil Ultra as part of the build to deliver a low emissivity solution through the use of still airspaces, with the products providing strong aged thermal resistance to reduce energy consumption and heat loss, thereby helping to achieve a low overall U-value. The membranes were installed offsite to timber frame closed panels by specialist manufacturers and designers Oregon Timber Frame Ltd before being delivered and constructed on site.

Z House is constructed using MMC to reduce build time by half and is packed with cutting edge technology to reduce carbon emissions and substantially surpass the Future Homes Standard, being the first home built by a major housebuilder to achieve this. Glidevale Protect is one of over 40 organisations involved in the project from across the housebuilding, sustainability and technology sectors, supplying a wide array of advanced low carbon technologies including PV solar panels, battery storage and electric vehicle charging points. Continually monitored for energy performance, the Z House will be lived in by University of Salford academics to better understand the customer experience of zero carbon living.

"We're delighted to be involved in this ground-breaking project which goes beyond current regulations to deliver a future proofed design with carbon reduction at



its heart," explained John Mellor, Glidevale Protect's senior product manager. "With energy efficiency and net zero carbon high on the agenda, we're proud that our thermally efficient construction membranes have played their part in this build."

info@glidevaleprotect.com www.glidevaleprotect.com





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Start your journey to net zero by thinking fabric first. With one of the most innovative combinations of reflective and airtightness membranes on the market, our technical experts can help you value engineer your project and meet energy efficiency targets.

> Project shown: Z House - flagship zero carbon home by Barratt Developments Plc



When you're creating better buildings and healthy homes, innovation really is everything. With new Building Regulations Part L & F due in June 2022, it's time to future proof and get ahead of the game. glidev/le

For technical guidance or to book a presentation, contact us on +44 (0)161 905 5700, email info@glidevaleprotect.com or visit www.glidevaleprotect.com/innovation

## Framing the MMC challenge

David Atkinson at Metsec explores why harnessing digitalisation and lightweight steel framing can maximise the benefits of MMC as the industry pursues its various goals

The UK construction industry faces a challenge to improve the availability, quality and affordability of new homes. Modern Methods of Construction (MMC) encompasses a broad range of offsite and onsite techniques which have evolved to achieve these objectives.

Today, MMC needs to embrace demands for environmental responsibility, safety and information flow. Combining offsite manufacturing with digitalisation of construction promises can unleash the potential of MMC to deliver the key advantages of speed, efficiency, safety and sustainability.

Key to the process for specifiers is consistent, data-driven design. Three areas are becoming particularly important drivers for architects: the drive towards carbon net zero, fire performance, and the 'golden thread' of project data.

#### Net zero

Achieving net zero in 2050, and an interim goal of cutting carbon by 68% before 2030, will rely on applying expertise in buildings' design, and careful selection of the materials used in their construction. It is here that lightweight steel framing offers a number of advantages. While the process of making and converting steel into building components may appear carbon intensive, the advantages it offers can mitigate the building's carbon footprint.

Steel framing systems offer the potential for zero material wastage as all components are designed and manufactured to exact dimensions and assembled to strict tolerances. Lightweight steel framing reduces the burden on foundations, it can be designed and constructed with less material, and using methods which have a reduced environmental impact.

Pre-panelised steel framing systems are precision-manufactured in controlled factory conditions. Each panel precisely matches the requirements of the project and is delivered to site ready for rapid installation without the need for potentially carbon-intensive wet trades. Also, steel has



a re-use and recovery rate that makes it one of the most recyclable materials.

#### Fire performance

In the wake of the Grenfell Tower fire, specifiers and the entire construction industry have looked to manufacturers to provide evidence-based performance data to demonstrate the suitability of products and systems in providing resistance to the spread of fire.

Steel framing systems can offer the assurances required, with reputable manufacturers amassing large suites of test data as a result of continuous investment in independent fire testing by UKAS-accredited laboratories.

Pre-panelised steel framing systems can be tested using many different combinations of sheathing board, insulation and dry lining, to ensure that designers are given maximum choice in design and specification.

#### The 'Golden Thread'

Here, again, the tragedy of Grenfell has acted as a catalyst for change, with Dame Judith Hackitt's 'Building a Safer Future' report recommending a 'golden thread' of While the process of making and converting steel into building components may appear carbon intensive, the advantages it offers can mitigate the building's carbon footprint





information to support CDM duty holders on projects.

Within its definition, the golden thread is seen as holding the information that those responsible for the building require to show that its design was compliant with applicable Building Regulations, and provide evidence of meeting the requirements of the new Building Control process throughout its design and construction or refurbishment. In addition, the information will help identify, understand, manage and mitigate building safety risks in order to prevent or reduce the severity of the consequences of fire spread or structural collapse throughout the life cycle of a building.

Amongst other requirements, the definition goes on to stipulate that information should be updated as and when necessary, be stored digitally, be accessible to relevant people and apply through design, construction, occupation, refurbishment and ongoing management of the building.

At the heart of the golden thread are 10 guiding principles covering, amongst other things, accuracy, trust, residents' security and accessibility to, and longevity of, the information.

The processes necessary for the successful

implementation of MMC are already based on advanced information systems, and lend themselves perfectly to the requirements and principles of the golden thread. In the case of lightweight steel framing, this thread of information starts with the architect's initial designs and runs through the entire design, manufacture and installation process.

Advanced 3D design systems, managed by an experienced in-house engineering team, are used to create detailed models of structures incorporating the pre-panelised system. Frame manufacture and assembly details are produced from these precise designs together with installation schedules stipulating exactly which panels go where.

With the installation of steel framing systems normally undertaken by a single specialist installer, the number of stakeholders involved in a project is minimised, streamlining information flow and simplifying information management. Additionally, many MMC projects utilise BIM to co-ordinate the design, manufacture and installation information used through construction to handover to the building's owner.

David Atkinson is specification manager for framing at Metsec

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#### Servicing expertise extends working life



While contemporary steel windows are precision-made and finished, the early examples which predominate in many of our older buildings were all prone to variations in frame section size, corrosion and consequent cracking of the glazing. Property owners therefore need the skills of a metal window specialist, such as **Associated Steel Window** 

Services (ASWS) when it comes to their servicing and repair. ASWS is a contractor trusted by heritage bodies and council conservation officers to carry out detailed repairs and refurbishment on historic buildings. Its range of capabilities can also include routine maintenance to keep original steel windows operating smoothly and looking attractive.

www.asws.co.uk

#### Senior helps build the Arc



Leading aluminium fenestration solutions provider Senior Architectural Systems is continuing to make a name for itself in the leisure sector after completing work on the new Arc Cinema in Daventry. The new cinema's welcoming frontage has been created using a combination of Senior's thermally-efficient slimline SF52 aluminium curtain wall system, alongside the company's robust SPW5021 aluminium commercial doors and stylish low U-value PURe<sup>®</sup> SLIDE doors. Designed to offer the perfect balance between daylighting and thermal comfort, Senior's fenestration package was fabricated and installed by supply chain partners Acorn Aluminium for main contractor Willmott Dixon. The cinema has been designed by Marchini Curran Associates and the extensive use of glazing floods the main entrance, restaurant and bar areas with natural light during the day, and creates a show-stopping effect at dusk. The dark grey powder coated frames of the doors and curtain wall systems also perfectly complement the exterior facade design of grey and white cladding with feature multicoloured panels. The new Arc cinema in Daventry has been created as part of the wider £12.5m regeneration of the town centre.

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#### **Bailey Fields – High-end student accommodation**





Sheffield is a noted centre of academic study, being home to the University of Sheffield, the University of Sheffield International College and Sheffield Hallam University. With a combined student population of over 65,000 there is much demand for high quality student accommodation. Ideally situated, Bailey Fields student accommodation is located on the doorstep of Sheffield town centre and is just a short walk away from the University of Sheffield, Sheffield Hallam University City Campus, and just a bus journey away from the Collegiate campus.

Bailey Fields was designed by architects Kelsey Design Associates, on behalf of building owners and developers Watkin Jones. Their brief was to design class leading student accommodation, that would promote learning as well as provide a social experience with communal facilities for leisure, relaxation, and wellbeing.

With the building required to be sympathetic to its local surroundings but also to be constructed without compromise with regards to fire safety, Kelsey Design Associates specified approximately 1,320 m<sup>2</sup> of ALUCOBOND® A2, which is characterised by its non-combustible properties that meets all strict fire regulations.

ALUCOBOND<sup>®</sup> A2 was specified because it also includes an environmental product declaration (EPD) according to international ISO standards. This provides an independently verified life cycle assessment (LCA), as well as BREEAM contribution – proof of its sustainable credentials. In addition, the ALUCOBOND<sup>®</sup> A2 composite panels are distinguished by their outstanding product attributes, such as precise flatness, variety of surfaces and colours, as well as excellent formability, making them the ideal choice for this project. The panel's weather resistance and colour fast properties ensure the building's appearance will be maintained over its entire lifetime too.

The ALUCOBOND® A2 panels were fabricated and installed by leading building envelope provider Precision Facades and finished in anodized look C0/EV1 and 500 Silver Metallic, which together present an attractive and welcoming presence that has received local praise.

The building, which was completed in 2018, stands as one of the most attractive and desirable student residents, with waiting lists for many of its apartment styles.

Paul Herbert, Sales Manager 07584 680262 www.alucobond.com

#### PROJECT DATA

Project: Bailey Street Student Accommodation, Sheffield Architect: Kelsey Design Associates Fabricator: Precision Facades Installer: Hickton Construction Facade System: Riveted, Screwed Year of Construction: 2018 Product: ALUCOBOND® A2 anodized look CO/EV1 & Silver Metallic



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rinity Riverview, Manchester

## Wienerberger: The changing shape of Biodiversity in the built environment

ienerberger UK and Ireland has launched a new specialist report aimed at architects exploring the role of Eco-habitats in the drive for Biodiversity Net Gain across projects.

The Changing Shape of Biodiversity in the Built Environment has been prepared by environmental specialists at Wienerberger, addressing the challenges faced by the construction industry as they seek to meet enhanced Biodiversity Net Gain requirements.

#### Why is it important?

The 2019 State of Nature Report shows that urban areas in the UK now hold more species than the countryside, due largely to the provision of essential components for biodiversity. But wildlife is in a state of decline across the UK, with 41% of species declining in numbers since 1970.

Bats have fallen dramatically in numbers over the last 50 years and our most common bat, the common pipistrelle, has declined by almost 70%. House sparrows have declined by around 50% in the same period and are now red-listed as a species of high conservation concern. The number of swifts fell by 53% between 1995 and 2016, and starlings by 66% since the mid-1970s – also red-listed as a bird of high conservation concern.

#### What can architects do?

Homebuyers and commercial property tenants have become more aware of both the environment as well as their own wellbeing, therefore, buildings that support local wildlife to create better outdoor spaces will become more attractive to buyers and users.

By planning for nature, architects can support developers and building users to reconnect with nature. But this relies on making informed, data-driven decisions on projects which are shaped by early



communication and collaboration. The most important point is that such measures no longer need to be costly or complex. Architects now have access to a wide range of solutions to help achieve the necessary ecological enhancements and ensure Biodiversity Net Gain. Often these will work together to help contribute to the net gain required.

For example, Eco-habitats provide a fussfree and inexpensive option, which can be introduced as supplementary enhancements to provide durable and discreet habitats for British birds, bats, bees and other species.

#### What are Eco-habitats?

The premise is simple. Initially driven by architect demand for more discreet solutions, integrated wildlife boxes offer durable and discreet habitats for British birds, bats, bees and other species. Ready to be integrated into the fabric of a building as it is built or renovated, they are produced to UK standard brick and roof tile sizing for ease of installation.



Wienerberger's range, in partnership with Habibat, is produced in the UK and can be faced in any brick type or stone, regardless of manufacturer, stone finish or suitable for render – and roofing Eco-habitats are also available. All solutions can be made bespoke to suit individual requirements for each individual project.

Bird boxes are tailored to individual species such as swifts, starlings and sparrows, providing space for nesting and roosting which is safe from predators. They are usually constructed using insulating concrete block which provides an internal roost space, with access holes to suit different species, before cladded with a brick face to match the building fabric.

Bat boxes are also solid boxes made of insulating concrete that provide an internal



roost space and cladded appropriately. Suitable for most species commonly found in the UK, the single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing freedom of movement.

Other Eco-habitats include solitary bee bricks, produced to UK brick size format so they can be easily installed in place of a standard brick. These feature holes of varying sizes to provide resting space for different species of solitary bee. Solitary bees lay their eggs in these cavities before sealing the entrance with mud and chewedup vegetation. The offspring then emerge in spring and the cycle repeats.

#### What else do you need to know?

Biodiversity is no longer a 'nice to do' in new developments. Recent changes in planning frameworks mean Biodiversity Net Gain is now a critical requirement in order to secure planning consent for new developments. Under the NPPF, developers are at risk of not securing planning consent if they do not integrate biodiversity improvements within their design.

There is currently no quantitative value assigned to Eco-habitats through Natural England Metric 3.0, but wider biodiversity benefits must also be considered, including the provision of Eco-habitats. That is why project teams are increasingly turning to these thoughtfully-designed solutions as proactive solutions, creating spaces for wildlife rather than displacing them.

Download Wienerberger's specialist report, The Changing Shape of Biodiversity in the Built Environment – Exploring the role of Eco-habitats in the drive for Biodiversity Net Gain, for free today.

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www.wienerberger.co.uk/biodiversity-report

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## Challenges overcome as balconies reach new heights in Tottenham

t 33 storeys, Anthology Hale Works is the tallest and final element of the Hale Village master plan – a major residential redevelopment in North East London.

The £82 million, 107-metre tower consists of 279 apartments for shared ownership and private sale, as well as ground floor commercial units. With the site's proximity to the Tube lines limiting some aspects of tower crane activity, many creative solutions were needed on site. These included use of mobile jib, lifting from inside the building. Creativity also extended to offsitebuilt heat interface units, mechanical, electrical and plumbing systems – and 164 Sapphire balconies.

The project provided several challenges for Sapphire and our accredited installers.

As each balcony is flush with the unitised facade and thermal breaks are usually outside such a facade, the thermal break is in the arm instead of the cast-in anchor. Also, a complex bracket was required to take up significant tolerances.

Some balconies also required additional engineering to meet Sapphire's rigidity standards. We guarantee that every balcony fixed with Sapphire anchors will achieve 50% less deflection than the British Standards requirement of L/180. This ensures the outstanding rigidty of Sapphire balconies – a comfort for residents as there are no bouncy balconies.

The multi-angled shape of the building meant we had to provide balconies of varied size and layout – for attachment on one or two sides or fully inset. Sapphire ensured all balconies were built to suit the architect's vision and designs.

The project saw the first use of the remote locker – an innovative method of securing that enhances safety and overcomes the challenges of fixing Sapphire balconies to their support arms, especially in a unitised facade situation.



The crane lifts the balcony into position and the remotely controlled locker provides a safe temporary fixing. This allows the installers to insert and tighten the permanent fixings in complete safety. before securing the final decking boards in place.

Benefits of the remote locker include greater speed and efficiency – enhancing the overall benefits of glide-on balconies, over traditional building methods.

0344 88 00 553 balconies.global

#### Garador's Ascot and Windsor are perfect for modern design architecture



With precision engineering and minimalist design, Garador's exciting Ascot and Windsor garage doors offer the perfect addition for any modern home. Garador's wide profile garage doors are the ideal accompaniment to minimalist design architecture. As minimalist design trends are adopted for homes and garages the Ascot and Windsor, with their clean lines and smooth plain surfaces, are an excellent choice. But it's not just the one-off unique building styles that this door attracts, but rather it lends itself to the uniformity and repetition of new build housing developments too. Architects and builders involved in housing developments and estates will recognize the great looks these doors can achieve. The Ascot, with its horizontal wide panels, and the Windsor, with vertical panels, are both constructed from high-grade galvanized steel for durability. The flat surfaces of the door are fixed together with spot welding, eliminating the need for rivets and offering an ultra-smooth appearance. Both the Ascot and Windsor are available in a choice of 19 colours, including neutral options to please even the purists of architectural colour design. Find out more about these great new looks by visiting the website.

01935 443 700 www.garador.co.uk

#### Marley's future-proofed roof system scoops prestigious Housebuilder Product Award



**Marley's** full roof system has won the Best External Product award in the highly competitive 2022 Housebuilder Product Awards. The expert panel of industry judges recognised how Marley's complete roof system including integrated solar PV and an innovative fire safety solution – Roof Defence, could help housebuilders tackle prominent issues round future sustainability and end user safety, and ultimately, provide future-proofed roofs. Marley SolarTile®, together with the new and innovative Roof Defence product, can both be specified as component solutions within a fully integrated roof system and help play a significant role in enabling housebuilders to satisfy new carbon reduction responsibilities under Part L of the Building Regulations, as well as enhance protection against the risk of fire spread between roof spaces. Stuart Nicholson, roof systems director at Marley, said: "Roof Defence and Marley SolarTile can help housebuilders protect the safety of homeowners and meet the sustainability demands of Part L and onwards to the Future Homes Standard, so it's great that the judging panel have acknowledged the benefits both products bring to a roof system."

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#### Crittall's T60 windows meet Oxford challenge

A new building in the grounds of historic Trinity College, Oxford, illustrates how 21st Century environmental performance can be married seamlessly with traditional aesthetic requirements.

Crittall's T60 thermally broken steel windows make a major contribution to the Levine Building's sustainability credentials.

The new buildings have been designed by ADAM Architecture in what is described as a restrained classical manner to augment the distinctive character of the surrounding conservation area that includes listed structures. It is the first major building





project to have taken place at Trinity College for more than 50 years.

A theatre seating 200 people, study bedrooms for students, teaching rooms, kitchens and ancillary space have been created in the new three-storey building whose stonefaced elevations have been finished in honey coloured ashlar limestone to complement its heritage setting. The building also features a pitched, slate covered roof.

The T60 windows are set within stone surrounds and finished in an attractive bronze coloured Duralife polyester powder coating. Many are fitted with trickle ventilation. Triple glass is installed in the windows of the theatre auditorium for improved sound attenuation. T60 features an advanced highdensity polyurethane isolator as a thermal barrier that together with double or triple glazing surpasses the requirements of current regulations. The cold formed steel profiles nevertheless retain Crittall's hallmark slender sightlines that ensure maximum light ingress. The Levine Building project also features cold form doors and internal fire screens on ground and first floors.

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## Upmarket Oxfordshire development highlights JACKON ICF benefits

A prestigious new development in the West Oxfordshire village of Kingham has used JACKON's THERMOMUR® 350 Super block to provide the most energy efficient building system currently available.

This product enables a U-value of 0.15 straight out of the box. This means it fully complies with the changes to Part L building regs coming into effect in June this year. These will stipulate a maximum of 0.16 U-value on external walls, as part of a requirement that new homes emit 31% less CO<sub>2</sub> than is required by the current Part L.

Kingham Barns comprise five buildings, one of which is a gym. The developer is the HENGE Group and the contractor is Agilitee. Two of the houses and the gym are new builds and have been constructed using the JACKON products. The other two houses are refurbishments of existing Cotswold stone structures.

Chaminda Narayan, the Managing Director of Agilitee has now used THERMOMUR® on

Danelaw



a number of projects and is very enthusiastic about its benefits. "There simply is no other block that compares to THERMOMUR<sup>®</sup> on strength, U-values or price. This is now our preferred building system. It meets the toughest new regulations on insulation, it is straightforward to use, with minimal wastage and it can be clad using almost unlimited different methods, which is important in a heritage type of project such as this."

The completed multi-residential development looks absolutely stunning and is a credit to all involved, especially the team from Agilitee Ltd. "This has been a very satisfying project," says Glenn Kiely, Business Development Manager at IACKON. "It shows that THERMOMUR® blocks can be used to create highly aesthetic new housing developments, which also fully comply with - in fact comfortably exceed the new Future Homes Standard regs that are coming in this year. JACKON is ahead of the game!"

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#### Wraptite<sup>®</sup> helps Dublin hospital



The Wraptite<sup>®</sup> external air barrier system from the **A. Proctor Group** is achieving an efficient airtightness solution at two new-build extensions to the Connolly Hospital in Dublin. The project consisted of two phases, a new laboratory building in phase one, with a brand new accident & emergency facility

constructed in phase two. The Wraptite system is the only self-adhering vapour permeable air barrier certified by the BBA. It combines the critical properties of vapour permeability and airtightness in one selfadhering membrane. This approach saves on both the labour and material costs associated with achieving the energy efficiency demands in buildings.

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#### Taking design liability on your project



When carrying out a waterproofing installation, it's vital that all aspects of the project are protected. That's why the network of Newton Specialist Contractors (NSBC's) from **Newton Waterproofing**, one of the UK's leading independent designers and suppliers of guaranteed waterproofing systems, are

able to take responsibility for both the design and the installation of a waterproofing system. This means that when you sign up with Newton, full design liability for your waterproofing project can be passed onto its NSBC's, with them fulfilling the role of the 'waterproofing specialist' as recommended by the British Standard for Waterproofing BS 8102.

01732 280708 tech@newtonwaterproofing.co.uk

#### STA launches white paper



The Structural Timber Association (STA) has released a white paper that demonstrates the vital role timber has in helping the UK achieve Net Zero status by 2050. The white paper 'Increased Use of Timber' explores the stark reality that, without intervention and meaningful

change, climate change and its effects will continue to worsen. Contributing an estimated 50% of the UK's total carbon emissions, it is little surprise that the Government has placed a particular emphasis on the built environment in its efforts to reach net zero.

01259 272140 www.structuraltimber.co.uk

#### Matching bricks for restoration purposes



York Handmade have a strong tradition of supplying matching bricks for restoration purposes, as shown in the picture which features the prize-winning Belvedere building at Dumfries House in Scotland.

York Handmade can manufacture any size or shape and can produce special blends to match up to existing brickwork. The company's proven craftsmanship, which is

vital to the whole process, is a key element in this process. 01347 838 881 www.yorkhandmade.co.uk GARADOR The Garage Door People

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## **Reclaiming bespoke's role**

Sourcing bricks and roof tiles for period renovations are a challenge for architects looking to balance aesthetic appeal, regulatory compliance, and heritage requirements. Nigel Dyer of Wienerberger proposes an alternative to reclaimed products

External brickwork and roof tiles are critical to the look and feel of properties, particularly in heritage where architects are inevitably working to strict criteria. Matching bricks is critical to ensuring visual continuity and, in many cases, will be a requirement of planning. However, when it comes to listed buildings, architects will often find that certain heritage bricks or tiles are no longer mass manufactured, and are seemingly unavailable.

Instead, they will have to source bespoke products, often by taking an original sample and reverse engineering it, to create an effective replica. In many cases they will need to meet Listed Building Regulations and may need approval from Historic England or the National Trust. Detailed planning and craftsmanship is vital to the whole process.

The key is in matching the correct profile, colour and texture to be in keeping with the age and style of a building, as well as its surrounding environment.

#### **Reclaimed or bespoke?**

Reclaimed bricks or roof tiles have often been a solution and many architects will be familiar with the time-consuming process of sourcing suitable products. As well as their often high cost, reclaimed products can come with additional labour requirements for contractors, such as chipping away old mortar. They are unlikely to come with the necessary product testing, certifications and guarantees too, even before you factor in the potential for significant wastage due to variations in colour or shape.

Fortunately, 'kiln-fresh' handmade products have become an increasingly viable alternative, made to the exact requirements of each individual project. Some companies now offer a dedicated heritage service – a specialist conservation and restoration offering that supplies bricks and roof tiles to suit all projects, including bespoke, handmade roof tiles and fittings.

A huge amount of planning will go

into such materials for a heritage project, beginning once the architect or project manager approaches their chosen supplier.

For bricks, a brick matching service is usually offered, or if stock bricks can't offer a close match, then bespoke products can be considered. Likewise for roof tiles, the team will consider what existing products can be adapted and if a bespoke product is required.

This process will usually include a series of in-depth meetings to ensure all stakeholders are on board with the proposal. Factory visits can enable the project team to see roof mockups, illustrating the concept and enabling suppliers to design any bespoke fittings.

Other technical aspects might include non-standard installation, which can require special fixings for roofs. In fact, one of the biggest barriers to heritage projects is often the competence of the roofer – suppliers will often work with the site team to offer their expertise. It's a true collaborative process, one that goes beyond simply creating the product and delivering it.

Of course, heritage bricks and roof tiles are not restricted to period properties and listed buildings. Suppliers are increasingly working with architects and designers seeking to use bespoke, heritage roof tiles on contemporary buildings in an effort to add interest and variety to their designs.

When it comes to the roof, and in some cases the facade (using tiles to create a brick cladding effect), this traditional look will usually be achieved by using natural clay – one of the most enduring, appealing and versatile traditional roofing materials available.

Natural clay combines a mellow appearance with the ability to age beautifully. Tiles are handmade, then air dried and fired using modern kiln technology, to produce high quality colours and textures.

Nigel Dyer is heritage service manager at Wienerberger UK and Ireland



Reclaimed bricks or roof tiles have often been a solution and many architects will be familiar with the time-consuming process of sourcing suitable products





#### Sustainable alternative for development



Marshalls Bricks & Masonry's Mayfair Vintage facing bricks have been used by housebuilder Backhouse on its Merlin Rise development to achieve a high-quality, reclaimed brick aesthetic that also aligns with the sustainability goals of the business. Unlike clay bricks, concrete

products do not require firing and as a result, only a small amount of additional energy is used in the manufacturing process. Concrete bricks are net absorbers of CO<sub>2</sub> due to their continuous carbonation over their lifetime. By selecting the Mayfair Vintage brick as an alternative to a traditional clay brick, Backhouse has saved 93 tonnes of carbon.

info@marshalls.co.uk www.marshalls.co.uk/commercial/bricks-walling

#### Wider Cavity – Rotational Predisposition



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#### **Building greener homes safely**



In the current climate, more businesses than ever are choosing to support the UK economy by purchasing homegrown products and brands. At West Fraser, all engineered wood panels are made in the UK and the company is committed to making

better products for a sustainable future. The latest generation of OSB3, SterlingOSB Zero, is made at the state-of-the-art facility in Inverness, Scotland. Each board has a smooth finish and is made without adding any formaldehyde, so is safer to work with and builds greener homes. The range includes SterlingOSB Zero OSB3 and SterlingOSB Zero T&G.

uk.westfraser.com

#### Sto acoustic ceiling system brings calm



An acoustic ceiling system provided by **Sto** has created a quiet and calm environment for Petersfield Museum in Hampshire. "The StoSilent Distance system is well-suited to this type of refurbishment project," comments Sto's acoustics project manager, James Gosling.

"It delivers outstanding acoustic performance, but also offers tremendous flexibility as it can be used to create large seamless ceilings, sharp joints and creases, or curved ceilings and vaults. This gives architects and designers great freedom while still allowing them to accommodate the existing structures found on a refurbishment project such as this."

0141 892 8000 www.sto.co.uk



## Triton Systems – A holistic and practical approach to ICF structural waterproofing

One of Triton's latest approved installer customers who specialise and build using ICF systems had been considering growing the company skills base and as the company grew, it became clear that it would benefit them to add structural waterproofing as a service since so many of their projects involved basement construction. One of their company directors successfully completed the Property Care Associations CSSW examinations in July 2016, which added Certified Structural Waterproofing Surveying to the company portfolio.

This property is designed specifically for the high-end holiday rental market, and the complex and intriguing design maximises the expansive sea views.

An inverted living accommodation design meant five double en-suite bedrooms formed the basement part of the project, and the high value of the property meant particular attention to the waterproofing design was paramount. The entire building is built on a sand dune which necessitated a reinforced concrete raft design on multiple piles.

The property is built entirely from insulated concrete formwork and is a highly insulated airtight superstructure providing u/values of 0.18 w/m<sup>2</sup>k.

The full Triton Cavity Drain Membrane Type C system was used as well as Triton TWS-EX100 under the reinforced concrete raft and Triton TT Vapour Membrane with Platon Double Drain on the external walls.

The structural engineers design of a heel at the floor/wall junction meant specific attention to detailing was required externally. The use of our liquid applied Triton TT



Vapour Membrane meant the detailing was achieved easily, but with no compromise on the integrity of the system. Multiple layers of the liquid applied system provided an excellent, completely waterproof result.

Triton Chemical Manufacturing Company Limited (Triton Systems) is an established structural waterproofing systems supplier (Types A, B and C as defined in BS 8102 2009). Key systems include BBA approved TT Admix, used widely in the construction of watertight concrete structures such as commercial and domestic basements, car parks and swimming pools and a range of BBA approved cavity drain membranes. Triton supply all other types of structural waterproofing and pride themselves of their holistic, solution based approach to waterproofing, not just offering materials without excellent back up services. Triton also supplies flooring systems, ground gas barriers, flood prevention systems, anti-condensation products and a range of traditional timber preservation and DPC products to a network of approved contractors.

Triton's technical team offers a full specification service, on-site and classroom based training courses and full technical support to its customers. The company is also a RIBA approved CPD provider and a member of NBS Source, the platform from where architects can research and specify products directly into their projects.

Triton is an ISO 9001:2015 Quality Assured Company. Where appropriate, all Triton's products carry the CE mark.

01322 318830 sales@tritonsystems.co.uk



#### Gilberts helps create "template" for eco prison estate transformation



Government plans to transform prisons to make them more modern and sustainable have begun with the completion of the first of six new prisons, the award-winning HMP Five Wells. The design for the new £253 million, approx. 1700 place Category C custodial facility at Wellingborough delivered by Kier Construction with a nationwide support team working to BIM Level 2 has deliberately been standardised as far as possible. This should enable up to 80% of it to be replicable across the prison estate going forward, optimising build efficiency and reliability. Kier's digital first process has been cited as a "blueprint for future public infrastructure". **Gilberts Blackpool** was able to support Kier's process, by providing information that could be directly input to the model. Gilberts has provided the ventilation supply and extract grilles- compliant with Ministry of Justice guidelines – for the 60,000 m<sup>2</sup> of accommodation via 7no. house blocks, plus smoke control dampers for each corridor and plant ventilation louvres. The combination of Gilberts' EG extract grilles, GPS4 perforated fascia grilles and FR security grilles that ensure a comfortable, fresh environment within the house blocks was all validated in advance.

01253 766911 info@gilbertsblackpool.com

#### Welsh housebuilder opts for OMNIE one-stop shop solution



An award-winning housebuilder who develops small sites and sells serviced plots to self-builders is close to completing a development of two dozen high specification homes near the Welsh Coast, having chosen renewables specialist, **OMNIE** to supply a complete underfloor heating package, including LG air source heat pumps. The two dozen three and four bedroom homes at Pludds Meadow, located in the town of Laugharne, 12 miles south of Carmarthen, have been built by Salem Construction, part of Sancler Property. OMNIE provided full drawings and specifications for each plot, indicating the layout of their Staple and TorFloor UFH arrays across the ground and first floor to each dwelling. As a fully proven and very versatile, panel based underfloor heating system, OMNIE's TorFloor presents building services consultants and contractors with an unrivalled combination of performance benefits. Crucially the TorFloor panels combine the ability to span upper storey joists or battens fitted across a ground level slab, to provide high efficiency underfloor heating and a structural deck in one product. Thus saving both time and money on installation, while avoiding the need for separate particleboard or other flooring.

01392 363605 www.omnie.co.uk

#### Viega receives seal of approval



Viega has been awarded Wates Approved Innovation Partner status for its Megapress press connection technology, thanks to the numerous performance benefits it offers – and is the only piping manufacturer to have achieved this prestigious accolade. As an Approved Innovation Partner, Viega will feature on the WIN portal alongside 41 other suppliers

approved by a screening panel including 40 environmental experts. Users can filter sustainable innovations based on their requirements to find the product and supplier most suitable for them. Find out more at wates.co.uk/articles/innovation-partners/viega-megapress

sales@viega.co.uk www.viega.co.uk

#### 6 Series from ESi



ESi Controls has launched its top of the range, 6 Series WiFi Programmable Room Thermostat, offering the latest in heating control for homes and commercial premises here in the UK. Fully OpenTherm compatible, this new range of controls allows full control via the room thermostat or via a mobile phone or tablet, with a range of features to impress even the

most demanding specifier, installer or homeowner. The new 6 series complies with all relevant directives, incorporates the latest in energy efficiency technology and is OpenTherm compatible for installers using OpenTherm in their installations. It comes with a three year warranty.

01280 816868 www.esicontrols.co.uk

#### Flexible and high efficient air handling unit



Maximum configuration flexibility, high energy efficiency, easy and quick handling during transport and installation: these are just some of the features of the CTAE air handling unit from **VORTICE**. In addition, the CTAE series offers an efficient and

innovative construction technology that allows it to be included in any building project or production process. The advanced design ensures maximum energy efficiency and reduced operating cost. The sizes of air handling units are virtually unlimited, allowing all requirements to be met with a range of airflow rates from 500 m<sup>3</sup>/h up to 190.000 m<sup>3</sup>/h.

01283 492949 www.vortice.ltd.uk

#### Introducing the Go Eco Excel Stoves Range



Introducing The Go Eco Excel range from Charlton & Jenrick, featuring two different door styles; modern and traditional. The Excel Stove is the perfect complement for any home modern or traditional. Minimalist in design but bold in statement. These stoves can be fitted in an inglenook, a large fireplace or freestanding. These stoves are amongst the

very best value for money appliances that carry over our own high-end technical features at an affordable price point. Designed and engineered to be extremely efficient and environmentally friendly. From  $\pounds 899$ .

01952 200 444 www.charltonandjenrick.co.uk

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ecodan.me.uk/ad4

## DRU introduces dynamic new flame effects for its Virtuo electric fires



The DRU Virtuo is an innovative, realistic electric fire with a unique, projected 3D flame picture and a design and build quality that is the equal of its award-winning gas fires. It is available in front-facing, 2-sided and 3-sided models that are installed into false chimneybreasts or other architectural features around the home to create complete, contemporary fireplaces.

The Virtuo is controlled by an exclusive DRU app that can change the height and density of the flames and regulate the energy consumption. In addition, DRU has now introduced four new flame patterns for even more variety and consumer enjoyment. Gentle creates a lively and warm wood fire effect, Magic generates unusual, coloured flames for people that want something different, Graceful produces an intense and vibrant flame experience and Elegant is a quieter and more relaxing option. All the new flame patterns are based on real-life log fires, underpinned by authentic glowing embers and accompanied by the sounds of real, crackling wood for a complete fireplace experience.

The Virtuo electric fire delivers a cosy 2 KW heat output or it can be run as a purely

decorative fire. There are no ribbons to twist or spindles to squeak and it is energy efficient with low running costs. The Ceraglass interior intensifies the depth of the flame effects and installation is very easy, as it only requires a standard domestic power supply.

The new flame updates are available immediately for existing Virtuo owners and can be demonstrated by all current DRU approved Virtuo dealers.

For further information and to find your nearest DRU dealer, contact the company.

info@drufire.co.uk drufire.com



Virtuo Gentle



Virtuo Magic



Virtuo Graceful



Virtuo Elegant

## **Communicating efficiencies**

Jon Tedstone from ESi Controls explores how architects can use choose modern heating controls and communication networks to precisely meet individual project requirements and maximise energy efficiency

A n architect selecting a new boiler for a new home or development needs to consider heating controls which meet Boiler Plus regulations – these came into force in April 2018.

Most control manufacturers now offer Boiler Plus-compliant controls which offer time and temperature settings plus load compensation which provides the ability to modulate the flow temperature from the boiler based on the actual room temperature. This requires the control and boiler to communicate, sometimes via OpenTherm communication. OpenTherm ensures the boiler modulates the flow temperature to provide an accurate control over the desired room temperature and stops the boiler cycling on and off, therefore reducing gas use, and saving money for homeowners.

Boiler Plus compliance can also be achieved using a smart control to provide automation of time and temperature settings and optimisation which calculates the time needed for the heating system to reach the desired comfort level – optimising the heating system's operation to ensure it uses the least amount of energy to attain the desired temperature. Smart controls can be connected to a smartphone or tablet offering the ability for the users to control their systems remotely, offering more flexibility to lower energy use.

The design of a new smart control must provide the user with a simple, easy to use and understand interface between them and their heating system. Manufacturers now provide a range of controls which offer different features and functions to suit the homeowner's age range and personal requirements such as larger clearer screens for the visually impaired and larger temperature selection buttons to allow elderly and vulnerable people to simply turn their heating up or down according to their comfort levels. Similarly, smart controllers now offer sleeker designs which blend into a modern home featuring glass and stainless steel with a lack of

#### Modern controls allow you to control individual heating zones in the home more accurately

switches and buttons with the controls being touchscreen or app based.

Modern controls allow you to control individual heating zones in the home more accurately so you can easily increase the temperature in the rooms you will use as you head home after work, for example. And you can monitor the temperature levels in different parts of the home, reducing temperatures in rooms that will not be used but leaving enough background heat to keep them comfortable.

With energy prices increasing, it's important to take a close look at every way in which energy can be saved; this is why some manufacturers' have developed their controls to be OpenTherm compatible. The way OpenTherm works allows a far smoother transition of heating control, which reduces energy and saves money. The communication method can save 10%-15% on a gas bill. We're hopeful that we'll see increased awareness of OpenTherm controls in the next few months, as people begin to realise the savings these controls offer when connected to a modern condensing gas boiler.

OpenTherm is a non-manufacturerdependent system of communication which is currently utilised predominantly between modulating HVAC heating appliances and room thermostats. It consists of a communication protocol and an interface specification. OpenTherm utilises an established technology combining simple installation procedure with high functionality and future expansion possibilities.

Jon Tedstone is head of sales and marketing at ESi Controls





#### **The Gilbert & One Lackington**

being the set of the s

AET's CAM-C (floor supply, floor return) underfloor air conditioning systems were originally installed on the 1st, 2nd, 3rd, 4th, and 5th floors as part of a major refurbishment works which were completed in 2001 shortly after the building became the European Headquarters for media giant Bloomberg. Later that year the building was awarded the BCO's Fit Out Workplace of the year 2002.

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A total of eight CAM-C units were installed around the perimeter of each floor plate providing 24-hour cooling to the densely populated office floors, which in turn were served by AET's standard TU4 Fantile<sup>TM</sup> units and slim line TU3 units on the 4th and 5th floors, due to a shallower floor void, which were sublet to the Law firm Herbert Smith.

In 2018 AET Flexible Space started working closely with the project team with the application of their floor supply, high level return. A key design consideration was how best to highlight the buildings distinctive character as well as increasing levels of natural daylight given the building small but numerous original sash windows. After extensive discussions and careful consideration, the decision was made that AET's UfAC systems fulfilled both the architectural and mechanical briefs and was later specified as the preferred air conditioning solution.

AET's system has formed a significant element of the refurbishment works, and has enabled the project team to maximise floor to ceiling heights throughout.



Given the inherent flexibility of AET's UfAC systems allowed the developer, Brookfield Properties, to differentiating their offering, in London's competitive office market, by providing adaptable, creative office space that can be easily reconfigured to suit any CAT-B requirements that are both unique, modern and above all sustainable.

Following it's highly successful £60 million renovation, The Gilbert is now served by a total of 55 CAM-V Conditioned Air Modules and high efficiency heat pump units and a total of 838 TU4 and TU3 Fantile<sup>™</sup> units across the buildings nine floors.

#### 01342 310400

www.flexiblespace.com/casestudy/the-gilbertone-lackington



#### **Domus Ventilation exhibits at Specifi events**



This year, Domus Ventilation is pleased to announce it is exhibiting at even more Specifi Mechanical Services events than ever before. Three shows – in Bristol, Manchester and Birmingham – have already been held and a further five are booked for the remaining year, in London,

Edinburgh, Dublin and Leeds. Aimed at the full gamut of specifiers in the construction sector, the Specifi events provide a more relaxed, informal alternative to major exhibitions. They are designed for networking and professional development through the sharing of information.

03443 715 523 www.domusventilation.co.uk

#### Keller kitchens make Perfect Sense



New from sustainable manufacturer, Keller, is the Perfect Sense kitchen model, a bold design which highlights black and white contrasts. Pictured is a Japanesestyled scheme which cleverly mixes warm timber and solid colour. Fenix<sup>®</sup>, in black and white, is used for the door

fronts and, thanks to the special technology built into this material, the super-matt finish is soft to the touch. This technology goes further with the surprising bonus of being anti-fingerprint proof while microscratches on the surface can be repaired by a simple thermal method.

www.kellerkitchens.com

#### Modern, stylish and on-point: Matte Black shower hardware makes an impression



HORNE

http://b.link/SafeHands | 01505 321455

Alternative finishes to chrome are a big interior design trend and Matte Black hardware from **CR Laurence** offers a stylishly sophisticated option for the modern bathroom. Giving greater creative freedom in the choice of shower hardware, the Matte Black finish from CRL achieves a minimal look, blending seamlessly into the overall design of any space. And as the art deco-inspired look for frame design showers gathers pace in 2022 and beyond, CRL offers the hardware solutions needed to embrace this latest bathroom fashion too. CRL's EUFB19MBL Flat Bar, for example, is a strip of metal that can be easily installed on glass shower frames to create the stunning effect. The metal-framed glazing gives the bathroom a contemporary feel, adding a hint of industrial style by taking a standard clear glass shower enclosure or screen and adding this important detail with ease. This coupled with the company's range of shower frame hinges, handles and support bars in the matching finish, are the ideal products for incorporating the striking Matte Black hardware finish into any setting. The finish is available on many of the brand's best-selling ranges including Geneva and Pinnacle hinges, door knobs, support bars and U-channels.

01706 863600 www.crlaurence.co.uk

#### IN THE SAFEST HANDS

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## Mixed material look in luxury vinyl tiles for global law firm

uxury Vinyl Tiles from IVC Commercial have been used to give a mixed material floor at the Glasgow office of Ashurst, a progressive global law firm.

Occupying its Central Exchange, Glasgow, office since 2013, Ashurst asked Wellwood Leslie Architects to develop a scheme that demonstrated change across three floors. Choosing a minimalist design that was influenced by the history of the building, Nick Roemer, Wellwood Leslie, took to a mixed material look across the 2,780 m<sup>2</sup>



office: "The client had originally wanted carpet as previously used, but as they wanted to ensure a noticeable change and needed easy maintenance, I recommended Luxury Vinyl Tiles for the majority of flooring within the office. Using wood to give warmth and stone to reflect the history of the building, I chose IVC Commercial's Luxury Vinyl Tiles as they gave me flexibility to create the Scandinavian influenced design scheme I was after, while delivering on installation, cost and quality expectations."

Wellwood Leslie selected the warm and characterful wood of Blackjack Oak, contrasting it with the sleek modern tile of Ceramic across the open plan space. Aiding navigation and defining areas, thanks to the use of IVC Commercial's Luxury Vinyl Tiles the mixed material layout has transitions without metal profiles for an elegance that is not obtainable with original materials.

Yet it is not just a more pleasing aesthetic that makes Luxury Vinyl Tiles ideal for



a mixed material scheme like Ashurst. Using a 0.55 mm wear layer for longterm durability and with Protectonite® for scratch-resistance and easier cleaning, Blackjack Oak and Ceramic also require no specialist maintenance, giving a floor finish that's tough and easy to care for – no matter what the look.

The floor was installed by Devar Premier Flooring using Flex Pro self-adhesive underlay that makes glue-down Luxury Vinyl Tiles like Blackjack Oak and Ceramic faster to install. Specially designed for use with IVC Commercial's Luxury Vinyl Tiles, the underlay delivers time and cost-saving benefits, while also improving acoustics in use – important for a busy office like Ashurst.

01332 851500 www.ivc-commercial.com

#### Luceco lights the Department of Public Works in Sharjah



Luceco has supplied energy saving LED luminaires to the Council building for Department of Public Works in Sharjah in the United Arab Emirates. The refurbishment involved the replacement of existing conventional downlights to cost effective, energy efficient LED downlighters and Platinum from Luceco was chosen as the principal luminaire. Platinum is a high performance 220 mm diameter downlight with an efficacy up to 130 Llm/cW, featuring a unique swing tab design ensuring installation is quick and easy. Recent enhancements to the recessed Platinum include a further optimised heatsink and a reduction in bezel thickness from 6 mm to 2.5 mm on a standard IP44 bezel as well as being magnetic and available in white, brushed steel and polished chrome finish. Platinum also offers an IP65 Anti-Tamper bezel option. Improved reflectors in matt, gloss and black low glare variants are also available as well as extended swing tabs to suit larger cut outs. Overall, around 1450 Platinum downlighters were installed within the facilities at the Department of Public Works in Sharjah, and the lighting costs, when compared to the original lighting design, reduced by over 60%. An impressive result for this progressive government agency!

01952 238 100 www.luceco.com

#### Working towards better workspaces



With many companies not demanding a return to the office but conversely trying to remove people from working at home, co-working spaces have proved to be an excellent solution. A good example is here at LUI House in Herford, Germany. Archwerk Architects have developed this four-storey building into a sustainable co-working hub which is fully self-sufficient using heat pumps and PV cells. Complete with large break-out areas, hot desks and meetings rooms, the building exudes an aesthetic and inspiring ambience with high-quality furnishings and top-class media technology. With large open spaces and hard surfaces, the architects specified ultrafine bespoke **Troldtekt** wood wool acoustic panels in a natural grey. These were then perforated on-site with different sized holes to give an unusual three-dimensional effect. Not only do the high performance panels offer an interesting textural and visual appeal but they absorb the ambient noise created by talking as well as the echoes and reverberation caused by the hard surfaces and large glazed areas. Troldtekt's natural and inherently sustainable panels are available in a variety of different surfaces and colours and contribute positively to a building's BREEAM, DGNB and LEED ratings.

01978 664255 Troldtekt.co.uk

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# Royal Academy of Dance opens their new HQ with Harlequin flooring in all dance studios and the performance theatre

The Royal Academy of Dance (RAD) opened their new international home for dance earlier this year which is now their headquarters in Battersea, London.

The new facility occupies the ground floor podium of the Coda Residential development and covers over 4500 m<sup>2</sup> of space. Harlequin worked closely with the RAD as well as the main contractors Synergy Property Group and architects including Atomik Architecture and Takero Shimazaki Architects.

Harlequin installed over 1200 m<sup>2</sup> of flooring which included seven large dance studios with Harlequin Activity sprung floor and Harlequin Cascade vinyl performance floor with BioCote antimicrobial protection. Each studio also has bespoke Harlequin ballet barres and mirrors.

As well as the seven dance studios, the RAD's new home for dance has a 193seat performance space, The Aud Jebsen Studio Theatre, which is equipped with a Harlequin Activity sprung floor and a black Harlequin Cascade with BioCote vinyl performance surface to showcase the RAD's dancing talent.

The RAD's Artistic Director, Gerard Charles, said: "It was really easy to decide to use Harlequin Floors because I've worked with them for decades and they've always done an amazing job for us. Besides all the technical details that make a great Harlequin floor, the most important aspect is that it is safe for our students.

The floor is a dancer's main tool other than our bodies so we wanted to know that the floor would be reliable. The students can come into the studio and just focus on their dancing without thinking about





whether they might slide or if they will suffer with an injury. They are here to create dance and enjoy! Harlequin allows them to do that safely."

Each studio has bespoke ballet barres and mirrors. The RAD required bespoke colours so the ballet barres matched other RAD furnishings. Harlequin water cut the mirrors to fit the wall mounted ballet barres directly to the walls to create a seamless and neat finish.

The new building has a shop where students can test out their new dance shoes on the same floor as to what they will be dancing on in the studios.

As part of the opening, Camilla, HRH The Duchess of Cornwall, toured the building and was introduced to RAD students as well as a Silver Swans ballet class for learners ages



over 55. They were also joined remotely by a class in Perth, Australia.

The new HQ will enable the RAD to bring the transformational power of dance to more people, regardless of age, ability, or location.

Harlequin's Technical Development Manager, Jamie Stirling, said: "The process of installing the floors went very smoothly once we got on site. It was really all about collaboration and communication with the RAD, the main contractors and the architects.

We've got a great relationship with the RAD so it was easy to make sure that we had everything in place. This is a real flagship project for us and is something Harlequin is incredibly proud to be part of."

Harlequin has worked with the RAD in the UK and Australia for over 30 years, with the new HQ being the biggest project so far. The next project for Harlequin is in Darlinghurst, Sydney where the RAD building will have Harlequin flooring – Harlequin Liberty and Harlequin Cascade.

01892 514 888 www.harlequinfloors.com



## The rise of the agile office

Alistair Shove from IVC Commercial looks at the rise in 'agile'-based offices, and how architects can respond to the needs of users with flooring that embraces 'open design' post-pandemic

ne of the lasting impacts of the pandemic on the design of offices is in the change to working practices and an awareness of how a flexible approach to life in the office can bring benefits not just for employees, but also for companies. It is extremely likely that - for many of these organisations - the adoption of flexible working practices is here to stay. So in many cases, office design is now less about having to accommodate a set number of desks, and more about how the space can meet the varied needs of employees. Designers need to consider how the office will respond across a wider range of use scenarios than ever before, as well as ensuring the spaces are future-proofed, and that their designs can adapt to change.

Making things as mobile as possible is a great way to ensure that these 'agile' offices evolve and adapt with the changing needs of the business. Many offices now feature high-backed pod style furniture that provides privacy, yet which can also be relocated – suiting flexible workers in the immediate term while being easily 'switchable' if more fixed desks are required in the future. Acoustically insulated meeting booths are also popular additions.

#### Laying out flooring options

The floor is not a mobile or changeable part of the design, at least not without considerable upheaval, so what approaches are designers taking to make sure the floor can support the principle of multi-purpose, agile offices?

In recent years there's certainly been a shift to embracing different flooring types within a space; likely down to the changing nature of office environments. Whereas once a different colour or pattern of carpet tile might be used to create a 'corridor' between two departments in an open plan working area, designers are now using alternative finishes to separate a collaboration area from hard desking, or a 'contemplation area' from breakout and catering zones.



How this plays out within the office varies from design to design. There are as many examples of organic flowing transitions as there are of angular, hard edges. The approach depends largely on the brief and its interpretation by the project team, but the underlying principle is the same - the floor becomes a way of breaking up the space. This has one major advantage: it can be used to mark out areas within the office without pigeon-holing them into a sole function. Effectively, it's replacing permanent, immovable barriers between areas or fixed objects with a visual guide that can be adapted for a different use simply with a change of furniture.

Carpet tiles are something of a given for desking and contemplation areas, boardrooms and the like due to their excellent comfort and acoustic performance, but LVT floors have been widely adopted elsewhere. This is not only for their durability and ease of maintenance but also in their ability to mimic natural materials. A natural look builds a connection to nature while the change of surface material gives mental separation between an area of concentration and work and one that's Engineered LVT with builtin acoustic underlays can significantly reduce the noise of footsteps and movement while still providing a 'home-like' feel





about socialising and building relationships.

However, despite many positives, these engaging and warm designs are not without drawbacks. Apart from the wider debate circling the need to accommodate introverts as well as extroverts in the modern office, one of the most significant challenges is a practical one. With less sound-absorbing surfaces and fewer floor to ceiling divides within the space, noise is certainly a factor that designers are acutely aware of. There's certainly nothing more off-putting or infuriating than excessive background noise during a Teams or Zoom conference, and noise is well documented as a contributory factor in stress and having an adverse effect on productivity.

Designers use furniture, panels, booths and absorbing fabrics to provide as many opportunities for isolation as possible, but as the largest surface within the interior, the floor can also be used as a key acoustic isolator. Indeed, with the dominant use of carpet tiles in working areas designers have been doing this by default, but the move to multiple flooring types within offices may see additional guidance needed in the use of flooring for noise reduction. Certainly, as a relatively recent development, awareness of these solutions needs to be improved. For example, engineered LVT with built-in acoustic underlays can significantly reduce the noise of footsteps and movement while still providing a natural look that supports the design goal for a homelike feel. In turn this makes it easier for designers to create multi-use areas, maybe even letting them explore working spaces that also use LVT as a primary floor covering and negating client concerns over hard surfaces being noisy.

The growing prominence of wellbeing in the workplace and its impact on morale and productivity is another contributory factor in the adoption of these new office design principles and it should also be recognised as a strong indicator of future design direction. The move to flexible and hybrid working, the rise of agile offices and a focus on wellbeing have been largely beneficial for flooring. In combination, they have certainly fuelled new interest in how flooring can be used to support design goals of agility, while also meeting the practical demands, including a need to deliver acoustic, productivity-focused performance across more than just carpet tiles.

Alistair Shove is commercial sales manager at IVC Commercial



#### **TPS360 ensures success of project**



The Swansea Arena has been described as the 'crowning jewel' of a  $\pm 135$ m regeneration of the Swansea marine frontage. The first thing anyone will notice as they enter the foyer of the building is the very impressive polished concrete floor. In fact, there are 1,633sq metres of polished

concrete throughout entrance and the main concourse. "This is polished concrete with a difference – a distinctive red, high gloss finish, with aggregate exposed," says Mark Jackson, **TPS360's** Sales Director for the Central, North and East Regions. "It does look absolutely stunning and it was achieved without the use of acrylic or any other top layer.

0345 026 8780 www.tps360.co.uk

#### Osmo, a sustainable wood finish



The foundation of **Osmo** wood finishes is based upon purified and refined natural resources which are carefully harvested into natural oils and hard waxes. Osmo products contain natural vegetable oils and hardwaxes to help nourish the wood and retain flexibility. Depending on the product, they might include: linseed oil, sunflower oil, soybean oil as well as thistle oil and natural hard waxes. Furthermore, our extensively

cleaned pigments have been approved for use in the food industry. At Osmo, we have an FSC-Certification, so you can be reassured that the product is not just good for wood, but good for the environment too.

01296 481220 www.osmouk.com
Eventim Apollo's stage refurbishment by Harlequin Floors

# Experts in stage building and performance floors

Last year one of the UK's largest original theatres, the Eventim Apollo in Hammersmith, went through a complete stage refurbishment carried out by the expert installation team at Harlequin Floors.

Harlequin supplied and installed a bespoke stage system covering 277m2 and finished it with a Harlequin Standfast vinyl performance floor.

Harlequin works with theatres and venues around the world to build, refurbish, repair and replace stages and stage surfaces. Each stage is different which is why a bespoke solution is tailored to the requirements of the venue.

For further information about our stage floors solutions and performance dance floors, please contact our technical team.

### +44 (0) 1892 514 888 theatres@harlequinfloors.com



eventime

11 4 55 145

# Landmark Lewisham project using A1 Magply for fireproof pattress inserts



A new high-rise residential project in the London Borough of Lewisham is being built to provide high quality social housing, with the design of the structure prioritising the use of non-combustible materials: including the choice of A1 rated **Magply** boards for pattresses within the external walls. The development is being built by C Field Construction and IPE Developments to create a total of 56 one, two and three bedroom apartments, including three specially equipped units on the lower levels of one block for those with mobility issues. Within all of the high specification homes, pattress blocks cut from 18 mm sheets of Magply boards, manufactured by IPP Ltd, are being fitted to the reinforced concrete structure's infill of heavy gauge steel studs by sub-contractor, SCL Interiors. The pattresses are being positioned to support kitchen cupboards and bathroom units as well as radiators throughout the eight and 10 storey buildings. While this use of the well proven and widely specified Magply MOS boards has already been demonstrated on other multi-storey HMO projects across the South-east and elsewhere, the main contractor and client's representatives rightly insisted on witnessing a demonstration of the product's suitability for the application.

01621 776252 www.magply.co.uk

## **Smoke extraction solution**



Fire safety remains a top priority for all involved in the construction industry, with many manufacturers offering many solutions. **GEZE**, a leading manufacturer of door and window control systems, offers one more, which they believe is a unique solution for smoke extraction systems in the market place. The RWA K 600 retractable arm drive can be fitted to emergency exits on escape routes and in the event of a fire it can be used as a fresh air supply which when the fire alarm is sounded the door opens automatically allowing a large amount of air to flow into the building and forcing smoke out. The powerful drive with high torque opens a door to 90° in less than 60 seconds. Yet the door remains readily accessible due to the freely positioned activation of the lever by means of a pressure roller. The RWA K 600 is perfect for use in supply air systems where large opening angles are required, it is suitable for single and buble leaf smoke and heat extraction fresh air doors and can be installed on both the hinge or opposite hinge side. Said Andy Iredale, National Sales Manager for Automatic Doors and Window Control: "The RWA K 600 is a unique solution in the extraction of smoke from a building in the case of fire.

info.uk@geze.com www.geze.co.uk

# Office refurb specialist upgrading fire performance using TBA FIREFLY<sup>™</sup> range



A high specification office building close to Manchester Airport has been subject to a series of planned refurbishment contracts carried out by a sister company to the property developer which owns it, with the phased work including the upgrade of each floor or unit's fire performance using smoke and flame barriers from the range of TBA FIREFLY<sup>TM</sup>. Owned by Orbit Developments – part of the Emerson Group – Park Square is a modern commercial office building offering up to 65,000 sq ft of space over five floors, together with cafe and other amenities in an attractive setting. As leases of various occupants expire, the Group's fit-out contractor, Kirkham, strips out and refurbishes the vacated spaces, including installing TBA's Phoenix barriers above the suspended ceiling grids before fitting new panels and improved lighting. TBA FIREFLY<sup>TM</sup> Phoenix is a lightweight smoke and flame barrier developed to enable compartmentation within buildings to provide up to 120 minutes integrity under BS476 Parts 20 & 22. Certified by IFCC the flexible and straightforward to install material I is suitable for both new-build and retrofit situations.

01706 758817 www.tbafirefly.com

#### Pyroguard launches new technical brochure



**Pyroguard**, part of the Technical Fire Safety Group, is delighted to announce the publication of its all-new Technical Brochure, designed to serve as a comprehensive, one-stop guide to the manufacturer's wide range of fire safety glass solutions. The last twelve months

have featured the exciting launch of several new products and systems – including Pyroguard Firesafe, Pyroguard Marine and Pyroguard Balustrades. As such, the new edition of the Technical Brochure has been updated to reflect all the latest technical, test and product data.

01942 710 720 www.pyroguard.eu

# SWA achieves FD30 rating



A recently completed programme of testing conducted by the **Steel Window Association's (SWA)** technical committee has resulted in three different internal door configurations successfully attaining a half-hour fire rating with the achievement being hailed as the most important step forward for the industry since the millennium. The SWA tests were carried out in

accordance with BS 476 Part 22: 1987 at the Exova Warrington fire research facility. The result being, the SWA can now offer both single and double doors, with and without side screens, tested and assessed from both sides. All were fabricated using the classic W20 steel sections.

www.steel-window-association.co.uk

# Airport sees in 2022 with Resiblock '22'



**Resiblock**, and their 'Legendary' (as per the Paving Expert Tony McCormack) product Resiblock '22', have been specified as the paving sealer to be used at Inverness Airport. The client raised concerns about the constant joint loss from the airport aprons block

paving, how this could potentially lead to paver destabilisation, potential hazards and ultimately paver system failure. Following consultations Resiblock were able to showcase the successful use of Resiblock '22' at Airports around the world, including Heathrow, Christchurch Airport in New Zealand and Chep Lap Kok Airport in Hong Kong.

www.resiblock.com

# Stepping out with new KönigOutdoor website



Königstone, the go-to brand for quality, durable worktops and surfaces for super kitchens, has launched a website for a range of outdoor kitchens, KönigOutdoor. With the rise in popularity in innovative

outdoor living solutions, the new range offers the kitchen retailer a profitable new "string to the bow" with the reassurance of a proven, successful brand. The new website details KönigOutdoor, a sophisticated high-end solution for outdoor living. It combines luxurious sintered stone surfaces – eight to choose from – with a durable weatherproof structure to provide the functionality of an indoor kitchen, outdoors.

info@konigstone.co.uk

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