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FROM The editor



The team here at *ADF* is very happy to be able to bring you what has sadly been a rare sighting this year, namely a monthly issue of the magazine. We have, like many others, been sitting somewhat in limbo since March wondering what the next steps would be, as the 'coronacoaster' took the country up and down the ramps of lockdown and moments of respite.

However, while we 'paused' print issues of *ADF* in order to ensure that we could give the market exactly the support it needs once we returned to some sort of normality, our online newsletter has been continuing successfully, and has in fact grown since lockdown in March. While our online offers are very important to the market, we are determined to sustain the focus on providing a quality printed roundup of the best in UK and international architecture, by architects, and for architects.

I do not underestimate what a worrying time this must have been, and continues to be, for UK practices, with smaller firms surely fearing the worst, and larger firms having to make cutbacks. But we have to hope there is some light at the end of what could be a longer tunnel than everyone expected, and that a usable vaccine process is going to be quickly instigated in 2021. Not wanting to be too dramatic, but it's going to be up to the professional institutes and companies concerned to do their utmost to bring what could be economic salvation to the world.

Realistically, large numbers of architects are going to be working from home for the foreseeable future. While there may be benefits to more focused Zoom calls with clients rather than time-consuming regular weekly face-to-face meetings, video calls are not always ideal for getting things done either. However they are the new normal, and in a business that exists on human communication and exchange of ideas, with colleagues and clients, architects have had to adapt fast.

As architect Martyn Evans recently opined for *BD* on returning to the office, following intense debates on how to reorganise work in the Covid context, a key learning is that you can't expect it to return to how it was. Trying to replicate your previous workflow might be a recipe for failure.

Whatever is coming in the economic storm of the next few months, architects are still required to design buildings, control quality in projects, and be at the forefront of pushing the agenda on environments that work for clients and users. This is potentially going to become even more critical in a world where there are both increased stress and safety concerns in every aspect of life due to the pandemic. Architects regulate and direct how environments support and delight people, so will always be essential to human society, no matter what the world throws at us.

If you are now home-based, we can redirect your copy of *ADF* to your home address. Please contact our circulation department at info@netmagmedia.co.uk if you are interested in doing that. In the meantime we wish you all the best for your business and personally, it's great to be able to bring you another packed issue of *ADF*!

James Parker Editor



ON THE COVER...

The Ivy Hardman Square restaurant in Manchester, designed by Sheppard Robson, features a richly textured exterior presenting a strong contrast with surrounding commercial buildings.

Cover Image © Felix Mooneram For the full report on this project, go to page 41





HEALTHCARE

Construction begins on Fosters' Cairo hospital

The Foster + Partners-designed Magdi Yacoub Global Heart Centre Cairo has started on site, a 300-bed hospital which will provide free treatment for the people of Egypt and those in sub-Saharan Africa.

The building is set within a verdant landscape including a "calming lake" with a goal to optimise the overall patient experience and decrease recovery times. Overlooking the Pyramids of Giza, the site borders the Zewail City of Science and Technology, forming part of an integrated health and medical research zone, and is accessed through a pedestrian plaza. The ground floor comprises comprehensive diagnosis and treatment facilities, including an accident and emergency department, a large outpatient clinic, and rehabilitative departments. Several courtyards bring natural light into the building, while also aiding orientation.

Supporting the innovations of the centre, the surgical department and intensive care units are co-located, "maximising collaboration between researchers and caregivers working to deliver advanced, innovative care," said the architects.

On the first floor, each of the eight

intensive care units is designed to optimise recovery, with privacy and natural daylight. Each patient room here is oriented so that patients benefit from landscaped views, and the newly formed lake to the north of the site.

The hospital also features support spaces for families to stay while the patients recuperate as well as classrooms and other educational spaces for medical students to engage within an active learning environment. The design uses "soft and warm colours throughout the interior, influenced by the psychology of colours and the Egyptian history."

Throughout, there is a focus on natural light, greenery and views out, creating an environment carefully designed to support wellbeing. Rich, native flora has been introduced to the site, creating a "ring of green interwoven with pedestrian paths and quiet contemplative spaces."



AWARDS

Adjaye OBE to receive Gold Medal for Architecture

The RIBA has announced that Sir David Adjaye will receive the 2021 Royal Gold Medal, for what it described as an "exceptional body of work over 25 years."

Adjaye, who was born in Tanzania to Ghanaian parents, draws on influences ranging from "contemporary art, music and science to African art forms and the civic life of cities." His international projects range from private houses, exhibitions and furniture design, through to major cultural buildings and city masterplans.

From the beginning of his career he has combined practice with teaching in schools of architecture in the UK and the USA. He founded Adjaye Associates in 2000, which has studios in Accra, London and New York.

His most renowned building is the Smithsonian National Museum of African American History and Culture, in Washington, DC (2016), where the practice was lead designer of the Freelon Adjaye/Bond SmithGroup. Recently completed projects include Ruby City, an art centre in San Antonio, Texas (2019), and Moscow School of Management Skolkovo (2010). Notable European buildings include the Nobel Peace Centre in Oslo, Norway (2005); Rivington Place arts centre in Hackney, London (2007); and two community libraries in London (2004, 2005) – the 'Idea Stores,' the Whitechapel one being shortlisted for the Stirling Prize.

Current projects include the UK Holocaust Memorial and Learning Centre, London (led by Adjaye Associates, with Ron Arad Architects as Memorial Architect), The Studio Museum in Harlem, New York in collaboration with Cooper Robertson and 130 William, a high-rise residential tower in New York's financial district.

Adjaye commented on the news: "It's incredibly humbling and a great honour to have my peers recognise the work I have developed with my team and its contribution to the field over the past 25 years." He added: "Architecture, for me, has always been about the creation of beauty to edify all peoples around the world equally, and to contribute to the evolution of the craft. The social impact of this discipline has been and will continue to be the guiding force in the experimentation that informs my practice."

RIBA president Alan Jones said: "At every scale, from private homes to major arts centres, one senses David Adjaye's careful consideration of the creative and



enriching power of architecture. His work is local and specific, and at the same time global and inclusive. Blending history, art and science he creates highly crafted and engaging environments that balance contrasting themes and inspire us all."

The 2021 Royal Gold Medal selection committee, chaired by Alan Jones, comprised: architects Lesley Lokko, Dorte Mandrup and last year's Royal Gold Medal recipient Shelley McNamara and structural engineer Professor Hanif Kara. The committee said: "Listening to clients and users and often working with artists, Adjaye's work is contradictory and yet coherent, contrasting and courageous, setting up and balancing elegance and grit, weightlessness and weight, dark and light."



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TRENDS

Architects optimistic on future workloads

Architects' predictions of future work continued to buck the trend of Covid gloom in September, however this was largely limited to optimism in the private housing market, and smaller firms outside London.

The RIBA Future Workload Index continued to rise slightly as in preceding months, to +9, with 31 per cent of practices expecting a workload increase over the remaining three months of 2020. Of respondents surveyed, 22 per cent were expecting a decrease in workload, and 47 per cent were expecting workloads to remain the same.

The anticipated growth continues to be driven by optimism about private housing, by smaller practices, and by practices working outside London and the south. For larger practices, and for those across the south, there was greater pessimism about future workloads. 58 per cent of practices overall expected profits to fall over the next 12 months (down from 65 per cent in August), and 6 per cent expected that drop to threaten practices' viability.

In terms of regional variance, the Midlands & East Anglia were positive about their future workload for the first time in six months, with an increase to +10 in September, up from -9 in August. Wales & the West was the most optimistic area; returning a balance figure of +40 in September, up 10 points from August. The north of England also remained positive about workload (at +16), though down six points from August.

Confidence was lower in London and the south – the latter slipped back into negative territory in September, posting a balance figure of -2. London has not posted a positive balance figure since February, said RIBA – in September the balance figure was -12, down three points from the previous month. Of London practices, 12 per cent also reported concerns about their long-term viability, a slight fall from last month's figure of 14 per cent.

Small practices (1 - 10 staff) remained the most optimistic, with a workload figure of +10, up two points from August, while large and medium-sized practices (11 - 50and 51+ staff) slipped back further in confidence, to -9 in September, compared to zero in August, and +13 in July.

When it came to architects' views on individual sectors, private housing continued to be the only one where growth was anticipated, returning a balance figure of +17, the same as the previous two months. The commercial sector rose five points to -15, the public sector rose by a point to -5 and the community sector fell five points to -11.

Million-brick 'prayer landmark' given green light

Snug Architects' design for a new "national prayer landmark" has been given the green light for construction on a site near Coleshill, just outside Birmingham.

The colossal structure, named Eternal Wall of Answered Prayer, will eclipse the Angel of the North to stand 169 ft high. It is expected to attract 300,000 visitors each year, and contribute £9.3m to the Warwickshire economy.

Constructed of one million bricks, the structure will be "one of the biggest crowd-created collaborative projects in the world," according to the architects. It will "digitally link every single brick to a personal story of answered prayer submitted from individuals across the UK." Using interactive technology and a bespoke app, visitors will be able to use their smart device, holding it against any brick to read the specific answered prayer story behind each one.



After North Warwickshire Borough Council granted planning permission, central government ratified the decision, giving the project's CEO Richard Gamble, architect Paul Bulkeley, and the wider team the go-ahead to start construction.

Construction is expected to begin in spring 2021 with completion in autumn slated for 2022.



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REFURBISHMENT

Historic baths retained in affordable Passivhaus scheme

Architects Saunders have preserved original features of a 1912-built swimming baths in Reading in creating an affordable housing scheme to provide Passivhaus homes for key workers.

Disused until recently, Arthur Hill Pool was originally donated for community use by the family of Arthur Hill, a former mayor of Reading. The site in East Reading is to be redeveloped to provide 15 new homes to Passivhaus standards for key workers in the community, including nurses.

The architects have been careful to preserve a number of the much-loved swimming pool's original features in their design. Features within the entrance hall will be retained such as the existing tiled flooring, stair and handrails, as well as the frame that surrounded the former ticket kiosk.

The new-build elements have been designed to complement the retained building, by removing the shell of the pool and rear extension, and replacing with "high quality, sustainable apartments," said the practice. New decorative detailing such as extruded brickwork and recessed windows will add visual interest to the facade, "the shadows cast by the articulations in the



masonry adding to the decorative aesthetic," said Saunders.

Socialising interactions between residents are provided for by recessed communal entrances to the new dwellings and a new central courtyard, whose design concept derives from the swimming pool's northern end. The hardscaping is organised into individual 'lanes' as a "subtle reminder of the site's former use."

CONTRACTS RIBA Jaunches Professional Services Contracts

The Royal Institute of British Architects (RIBA) has released five new Professional Services Contracts digitally, in addition to updating its current five.

The new additions comprise the brandnew Client Adviser Professional Services Contract, alongside two new Interior Design Contracts, and two new Conservation Contracts. For the latter two, contract options are provided for Domestic and Commercial projects. The RIBA commented that creating the contracts online using its RIBA Contracts Digital tool is "quick and straightforward." It is designed to provide "a simple, comprehensive and effective service for architects, contractors, consultants, commercial businesses and clients to tailor and manage their contracts in one secure location for increased clarity and efficiency of work." Users can create, alter and view all

contracts in one secure location before printing multiple copies at no extra cost.

Endorsed by the British Institute for Interior Design (BIID), the new Interior Design contract enables interior designers to secure and regulate their work in the same way architects have been able to do for many years. RIBA now has 10 Professional Service Contracts, in addition to its existing two Building Services contracts, which remain unchanged. DOORS · WINDOWS · GLASS ROOFS

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Perforated cinema completes in Cahors

Antonio Virga Architecte has delivered, in the centre of Cahors, south west France, a brick and metal-clad cinema that forms part of a master redevelopment plan for the now-pedestrianised Place Bessières.

Located on the north side of town centre and a few steps away from the banks of the River Lot, the seven-theatre, 1,051 capacity 'Grand Palais' stands on a site formerly dedicated to the army. The project offered the opportunity to "recreate and reinterpret the symmetry of the pre-existing army barracks," said the architects, by occupying the area of the east wing of the complex that was destroyed by a fire in 1943. Previously serving as a parking lot, the Place Bessières has been transformed into a "broad and welcoming urban space dedicated to pedestrians and protected by an existing canopy of trees."

The square is mostly paved in brick but benefits from a dense green area at the centre named "the oasis." Previously housed in a building on the site which was demolished to make way for the project, The Museum of the Resistance will now be





located on the new cinema building's top level, with a separate entrance.

The building is divided into two "distinct, methodically created and visually highlighted" volumes, said the architects. One is clad in brick and the other of perforated and gilded metal, each one playing a "very precise role in relation to the public space," they added. The brick volume, which is visible to the square, mirrors the two buildings of the former barracks, and has been "imagined as a contemporary and identifiable reinterpretation of these existing structures." Brick was chosen "with the aim of enhancing the collective memory of the citizens of Cahors while avoiding any hint of pastiche."





It's what's underneath that counts

RESIDENTIAL

Great Gransden development offers commuter idyll

Woods Hardwick Architects have worked alongside housebuilder Hayfield Homes to deliver a development in the Cambridgeshire village of Great Gransden which will offer families the opportunity to live in a rural village commutable to central London.

Accessed off Sand Road, Hayfield Avenue comprises 40 new residences whose design is influenced by the Arts and Crafts era. A strong village community has seen Great Gransden previously win the Campaign for the Protection of Rural England's Best Kept Village competition. The area is highly sought-after due to its schooling, local amenities and historic buildings, including the oldest remaining post mill in England.

For the off-plan launch the housebuilder has produced a large scale model of the new scheme which will enable interested parties to take a closer



look at the site layout and various house designs.

Construction work is said to be progressing well at the 4.4-acre site, where a linear route is being created through the development, which has inspired the The area is highly sought-after due to its schooling, local amenities and historic buildings, including the oldest remaining post mill in England

Hayfield Avenue name. The architects took "specific design cues" from Arts and Crafts properties in the village. A total of nine house styles will feature across the development, giving a choice of two, three, four and five-bedroom homes. 'Play Streets' will be incorporated within the centre of the scheme, which will see the road surface designated as an area for cars and pedestrians to share.

MIXED USE

Todd Architects gets mixed use consent in Belfast

Todd Architects has won planning permission for Bedford Yard, an aparthotel and office development in Belfast City centre, on a site opposite the BBC's Ormeau Avenue headquarters in the city.

By refurbishing a vacant four-storey red brick former warehouse and adding a new-build structure behind, the landmark development will deliver around 10,000 ft² of lettable office space plus a 132room hotel.

Working with client Andras House Ltd, the architects' design will add a new highrise building to Belfast's commercial core while "securing and enhancing the appearance of the Victorian terrace that sits within the city's historic Linen Conservation Area," said the architects.

The refurbishment and transformation

of the warehouse will create two new ground floor restaurants with Grade A office accommodation above.

An open-air courtyard will be located between the existing terrace and proposed aparthotel, accessed through a gated opening that harks back to traditional Belfast 'entries.'

The 13-storey aparthotel will offer panoramic views from upper floors, over the City Hall, Gasworks, Dublin Road and through to the Belfast Hills.

Commenting on the design, Andrew Murray at Todd Architects, said: "The aparthotel's mix of solid panels and glass has been balanced to create a light feeling building without becoming a 'glass box'." He added: "The building's form has been carved and cut back to respect neighbouring frontages and reduce its



visual impact. Horizontal banding on each floor adds gravitas, whilst ethereal glazed panels encase the top floors." The colour palette – an ombre effect in muted bronze – "helps sit the new building sympathetically beside the redbrick terrace, nearby listed buildings and the wider Linen Conservation Area."

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With a growing focus on achieving a green economic recovery from the pandemic, sustainability-focused technologies present a major opportunity to reduce waste while driving cost savings for designers and occupiers, says Richard Hyams

A rchitects are increasingly drawing on AI and VR software to aid the progress of projects, factoring in environmental elements that affect the sustainability of a building. Across the construction sector, offsite construction and 3D printing are radically cutting waste and shrinking delivery times, but the end product – the buildings themselves – are also helping to hit sustainability targets. New measures range from incorporating innovative facades to reduce pollution to using smart technologies to monitor energy usage or potential wastage.

VIEW POINT

With the design and construction sectors rallying together to meet zero carbon goals, it's never been more timely to leverage technology to deliver the environmentally friendly buildings of the future.

Tech-enabled immersive designs

For a long time, architects have relied on the traditional pen and paper approach to begin bringing design concepts a step closer to reality. However, the sector is increasingly moving away from this approach in favour of more immersive digital design methods, not only helping to reduce waste in the process and end product, but also enhancing the accuracy and precision of the designs themselves.

One way we can leverage more digital design techniques is through Virtual Reality (VR) software, which enables users to 'step inside' a design. This is not only useful for architects themselves but also their clients, who are able to walk through the design before its realisation. The value of such technology has become ever clearer in lockdown, offering opportunities to enhance collaboration between designers and improve consultation processes for existing communities in an age of social distancing. At astudio, we have built this into our design process and discovered the many benefits of this technology, from walking our clients through our schemes to understand space quality, to optimising window positions. Meanwhile, parametric tools are increasingly becoming valuable to architects to unite design intent within the physical constraints of the space. Each of these technologies allows architects and their clients to visualise complex projects without wasting physical design or construction materials.

They can also improve the sustainability of the final building; for example, solar analysis and material analysis tools can ensure that a proposed design is making the best use of available sunlight. Mapping likely building temperature retention and durability against the elements can also help to make an end product more sustainable for the long term.

Reducing waste

The construction industry has also been able to leverage technology to reduce its impact on the environment, streamlining the construction process, minimising project timelines and reducing the amount of waste a project produces.

Modular offsite construction, for example, uses technology to help speed up the building process, reducing completion times by as much as 70 per cent. Not only does this method reduce the time spent on site and the associated emissions, but it also has improved quality controls that reduce waste by between 70-90 per cent. Of course, with sustainability in mind, these processes are increasingly being optimised





The value of such technology has become ever clearer in lockdown, offering opportunities to enhance collaboration between designers and improve consultation

by using carbon-efficient and carbonneutral materials.

A further technique increasingly being leveraged by the architecture and construction industry is 3D printing, enabling architects and builders to respond to requirements immediately. With the greater degree of accuracy that is possible through 3D printing, waste is minimised and only the materials needed are used, often making use of discarded materials.

At astudio we are fascinated by this concept, and have partnered with Brunel University to develop new thinking in construction, assisting students in pioneering a tool that can use waste material from limestone excavation and building it into 3D printing. With these innovations, 3D printing can deliver not only small-scale projects, but entire communities and even cities that make use of the natural resources around them.

Tech & living sustainably

Of course, if the end products themselves are not environmentally friendly, our efforts to deliver buildings sustainably risk being wasted. However, modern design has the ability to enhance the habitability of a building in a way that empowers sustainable living and working practices. For example, on new build projects, architects can leverage technologies that promote the use of renewable energy including solar power and heat pumps. This can even extend to building smart technologies into the fabric of the building to regulate and monitor temperature and the use of energy.

But there are technologies and new innovations that can take this one step further. Multi-purpose green facades are an exciting innovation that is likely to become a common feature across communities internationally, changing the face of construction for the better. We have been working with Brunel University to pioneer algae facade technology that can simultaneously absorb pollutants in the



atmosphere, produce its own biofuel, and improve the insulation of a building. The benefits of biotechnology aren't limited to the outside feature of a building. Using natural substances such as mushroom fungus mycelium, we can literally grow structures without producing any construction waste, while supplying a useful food resource to the building's users.

Looking to the future

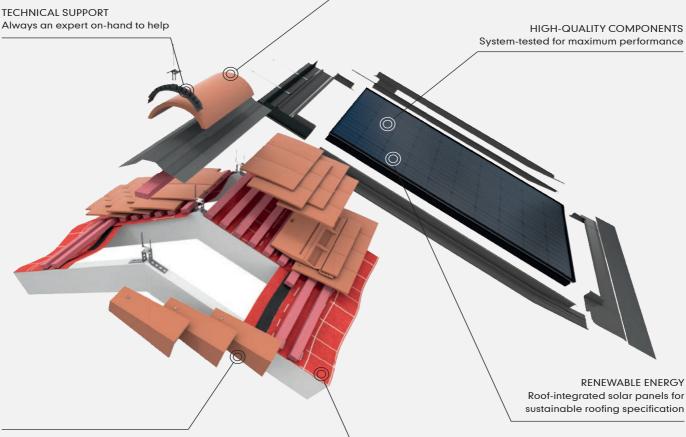
With the right attitude across the industry,

innovations like these can become the new sustainable normal. We have some way to go, but already innovations from VR to living walls are emerging that can support us as we make those vital first steps. To truly achieve a green recovery from Covid-19, sustainability must be woven into the fabric of our designs, into our construction practices, and in the way we live and work in buildings.

Richard Hyams is director at astudio

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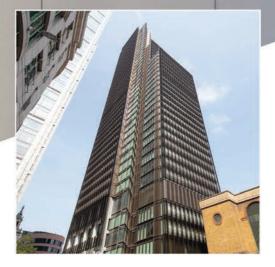


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SITE LINES

Combining cultures

Velimira Drummer of Stantec UK looks at how to mesh corporate identity with a tailored workplace culture when designing spaces for an international client, particularly in the current crisis

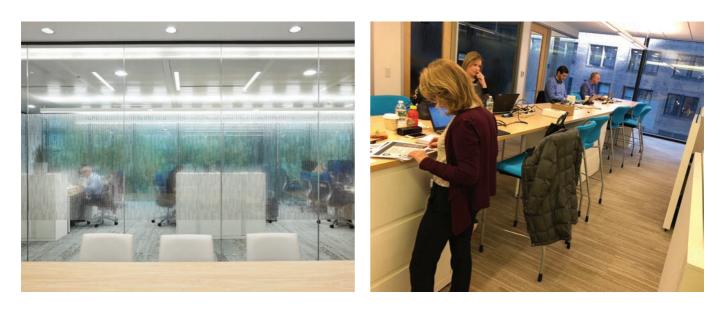
A s an interior architect, my role is not only to consider how the space within a building looks, but to closely interrogate what it's going to be used for, and who will be using it. In an office environment, that means ensuring the space delivers practically, aesthetically and holistically for the client, the workforce and visitors. For international companies with multiple sites, there are usually design guidelines in place which offer varying degrees of flexibility. The base parameters are the number of workstations, sizes and layout of offices and meeting rooms, typology of furniture, and colours – combined with standardised technical requirements.

Wrapped around the deliverables is the holistic thinking that transforms a building into a workspace that improves efficiency

and productivity and nurtures wellbeing, motivation and a sense of community. These are things that are especially important considering the current pandemic.

These were all key challenges in a recent Stantec project for Iron Mountain; a global leader in records and information management based in Boston, USA. The company had secured a new London headquarters on the ground floor of a Foster + Partners-designed building close to Tower Bridge. Our starting point for the interior design was to reflect the prestige of the location and corporate brand alongside the practicalities of fitting the headcount into the available space, while transitioning the aesthetics and layout of the firm's US base to a more UK-oriented workplace culture.

A project of this kind draws on the architect's design skills and



IRON MOUNTAIN

To create the balance between Iron Mountain's corporate style and London workplace trends, Stantec designed workstations to follow a traditional layout but as open units, contrasting with the firm's Boston office



In a world that is 'on pause' due to the Covid-19 pandemic, the health and wellbeing of each employee have come to the forefront of everyone's mind

on their cultural awareness and understanding of how workplaces function in different contexts. I have worked in many locations throughout Europe and the Middle East, and have designed for international projects at Stantec (a global practice headquartered in Canada), so I find weaving cultural nuances into the design particularly fascinating and rewarding.

Embedding the user experience

The starting point for any project is a combination of the brief from the client, and end-user engagement. It is very important to listen carefully to the client's vision, and to realise it in a flexible and creative way.

The data collected from the client engagement – coupled with branding guidance – feeds an understanding of the hard parameters the space needs to deliver; number of workstations, meeting room capacity and the brand footprint. Softer factors, such as local workplace routines, should also be explored through user engagement, to influence the design.

The hard parameters for Iron Mountain's new London HQ were very specific. The scheme included remodelling and interior fit-out of the dated 750 m² ground floor. The challenge was to bring light and openness into the space, and transform it into a modern and vibrant workplace environment.

The client's plan to downsize and optimise the facility required a very efficient 'test-fit' plan. Spaces include a stylish reception, 81 workstations, individual offices, conference rooms, a boardroom, huddle spaces, informal working areas, and a tea point. The Stantec team worked closely with Sarah Abrams, senior vice president, Global Real Estate at Iron Mountain, plus her team and CBRE project management, to develop the optimum plan layout without losing sight of project costs.

Balancing the brand

To create the balance between Iron Mountain's corporate style and London workplace trends, the workstations follow a traditional layout but have been designed as open units, contrasting with the Boston office. The blue of the corporate palette and acoustic screening make the workstations instantly 'on brand,' and corporate blue accents are supported by photo walls using marketing images.

The brand is most impactful in the London office's reception area. The reception desk follows the company's brand design with subtle changes, such as incorporating oak – in line with London corporate trends – and the introduction of art and a large statement wall.

The human factor

In any workplace, the company's culture and brand need to sit comfortably in the same space as the tastes, feelings and working practices of individuals. Good design must work on a human level, as well as a corporate level.

Especially now, in a world that is 'on pause' due to the Covid-19 pandemic, the health and wellbeing of each employee have come to the forefront of everyone's mind.

Development and implementation of biophilic design principles are proven to have an immediate, positive impact on both physical and mental health of each employee, from reduced blood pressure to improved cognitive functioning. Biophilia goes beyond the use of plants and green walls and focuses on holistic interior design – design which enables views to the outside, and good indoor air quality, plus a variety of lighting settings, and spaces that provide the opportunity for individual choices.

In Iron Mountain's new London premises, all workstations are close to large windows, enabling views to greenery. Enclosed quiet huddle rooms and booths can be used for private focused work and collaboration.

Evolving further away from the Boston office template, a 'heart space' has been introduced with an oak timber 'cube' to create a feature wall and ceiling area. Bistro-style seating and lighting provide an informal setting for social interaction and a break-out space. This introduces variety and a sense of openness within the workspace.

Further humanisation of the work environment has been achieved with the introduction of living plants, the use of natural materials and greens in the colour palette. An illuminated statement moss wall enhances the centre of the heart space. The abstract artwork, inspired by nature, was carefully selected and incorporates both green and blue hues, tying together the natural and corporate colour themes.

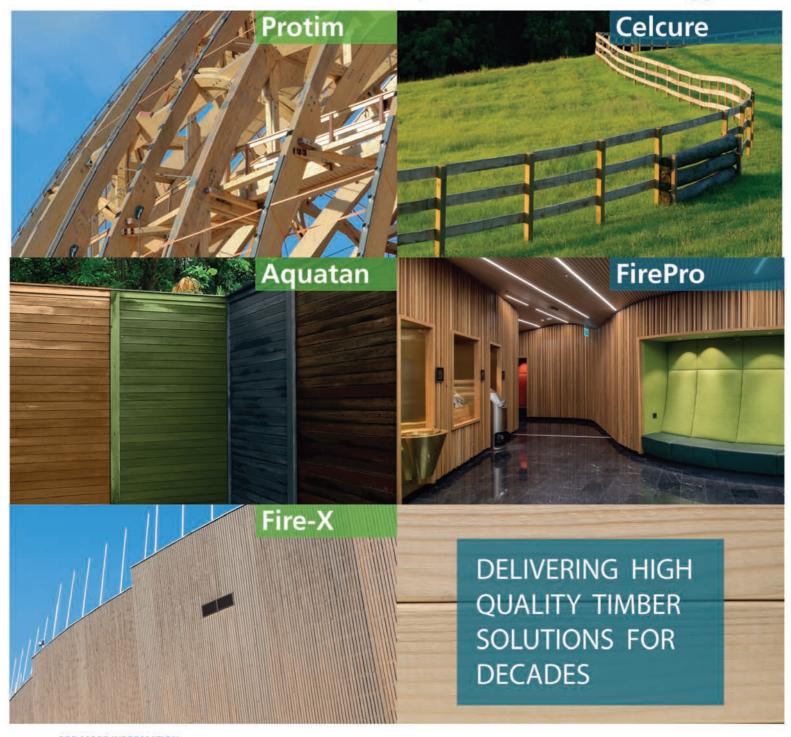
This project has created a sense of a space that's unique for this context, while optimising the office layout for the client, and keeping the Iron Mountain brand to the fore.

Velimira Drummer is interiors lead at Stantec's UK office





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NUMBER

NEWS FEATURE

Design in a time of Covid

The Covid-19 pandemic has posed major challenges to architects to modify their working methods in order to sustain business. Tom Boddy reports on how they have adjusted to a 'new normal'

A fter the stringent lockdown restrictions were imposed by the government on 23 March, architecture, like most other industries, had to change its approaches and develop new ways of working. Fundamentally, architectural practices had to adopt remote working at short notice, adopting new processes to enable designers to collaborate and function as close to normally as possible, and thus avoid huge business disruption.

Maintaining production

A major factor for practice directors – and one that many businesses would have raised as an issue before lockdown necessitated it – was whether productivity would decline severely as a result of the 'new normal' of home working. However, architects seem to have embraced the challenge of moving to remote working, and worked hard to make sure they stay on top of upcoming projects. David Shaw, national design director at Pick Everard, tells *ADF*, "At the start of lockdown there was a minor blip in productivity, as we had to become familiar with the new processes, however, this was short-lived and since then it has not been a concern for us."

Giving a similar perspective from central Europe, Prague-based Ondřej Chybík and Michal Krištof (founders of studio Chybík + Krištof), say that the crisis has actually been beneficial to their work in some ways: "We have observed that productivity and team engagement remained the same." They say a key reason for this is architects benefitting from having the opportunity to focus, in a quiet space; added to the fact that many team members have found that the reduced time spent commuting has led to increased productivity.

New processes

Throughout lockdown, architects have harnessed a wealth of existing and new technology and processes to stay connected, particularly in terms of video conferencing. The firms we spoke to all said that conferencing has been successfully used, but has come with a few issues. Chybík + Krištof found that it even aided efficiency, creating more time for staff, and allowing them to give "more in-depth and long-lasting attention" to their projects.

Joelle Laney, senior associate at Perkins and Will, comments, "One expected pro has been the feeling of intimacy; we were suddenly invited into the homes of our clients, and vice versa," – this has also helped cement staff relationships. David Shaw says that although video conferencing has been a massive boon for Pick Everard, many of their staff have "discovered how mentally taxing



(L-R) Ondřej Chybik and Michal Krištof

back-to-back video chats can be." As a result the firm have encouraged all staff to balance their diaries carefully to avoid an overly demanding video conferencing load being placed on them.

Challenges

Despite maintaining 'business as usual' to a degree, there have still been many challenges faced by architects. One that many of the architects have found onerous is the loss of 'sense of community' within practices as staff have moved to working as satellites. Laney adds: "In a creative industry such as architecture and design, being in physical communication and collaboration as part of a team is a huge inspiration for our work." She says that with the country out of lockdown, it is essential to return to face-to-face collaboration for design to flourish: "If we want to carry on producing high quality designs, having spaces for in-person interaction for our teams will be necessary."

Another issue that has posed tough challenges for architects is dealing with personal stresses for staff, as their lives have been altered in myriad ways by the crisis. David Shaw says that although his firm's staff morale has generally been good, there have been "pockets of more challenging emotions based around personal circumstances." Joelle Laney cites that "just a few" of the challenges experienced at Perkins and Will were "health-related fears, inability



"At the start of lockdown there was a minor blip in productivity, however, this was short-lived"

David Shaw, Pick Everard

to travel to loved ones, childcare and home-schooling pressures, isolation and economic concerns." To help support staff, Pick Everard have set up a wellbeing section within the practice, including 'personal resilience toolkits' as well as a number of trained mental health first aiders.

Positive outcomes

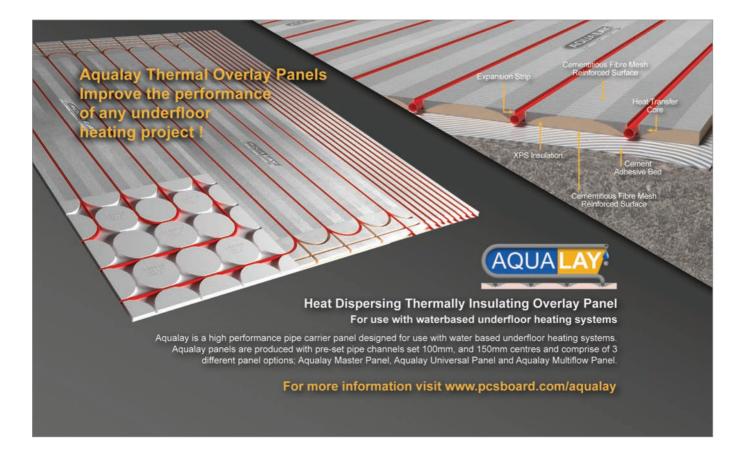
From the firms we spoke to, architects seem to have successfully confronted many of the challenges posed by this strange and difficult period, and many have actually turned this negative experience into something positive. According to Chybík + Krištof, "going through a hard time together made us stronger, and we got to know each other even better, particularly on a human level." Architects working from home have even been able to increase their focus on work, with less distractions, providing "an excellent benefit for creative thinkers," says Joelle Laney. She also mentions how Perkins and Will have been able to invite junior members of their teams to 'listen in' on client meetings and presentations, likely to not have been possible with face-to-face meetings previously.

David Shaw says that Pick Everard have discovered that flexible home working on a firm-wide scale is achievable and can still yield benefits. He comments, "Regional teams have been communicating more easily and readily through the use of Microsoft Teams, and we have definitely become a more agile business, which we're looking forward to sustaining in the long term."

Beyond the pandemic

Adjusting to the new processes that architects have adopted to function in a world living with Covid has been an upheaval to say the least. And it's led to a situation that's significantly different to their previous normal working lives, but also one which is likely to be sustained in the near future.

But will their approach and processes change post-pandemic, in a future where the virus remains a background risk? Chybík + Krištof say: "We believe that many of the strategies that we have developed as a practice during this time will be carried on in our future work." Flexibility and agile methods of working, which have been adopted by most practices, "will form part of a new way of working within our practice," says Pick Everard's David Shaw. Joelle Laney agreed that while Perkins and Will's approach to designing buildings has changed, they will continue to embrace the new working approaches required, in a way that benefits the firm for the long-term.



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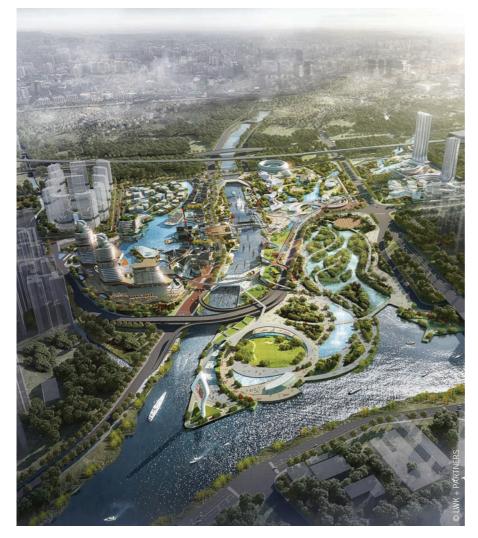
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ZHONGSHAN OCT HARBOUR, CHINA LWK + PARTNERS

China's Zhongshan OCT Harbour, master planned and designed by LWK + Partners, broke ground in early 2020. The project is "envisioned to serve as a dynamic recreational destination on the west coast of Guangdong-Hong Kong-Macao Greater Bay Area," said the architects. The harbour will feature a theme park, retail areas, residences, hotel accommodation, entertainment facilities and offices on both sides of the river. LWK teamed up with Shenzhen and Chongqing studios to create an "urban cultural hub for the community," incorporating river ecology and sustainability considerations along with business opportunities. Concerns for ecological conservation and healthy living are rooted in the project to promote a new urban lifestyle with diverse waterscapes and built spaces, in an area undergoing regeneration. Spanning a site of nearly 300,000 m², the project is scheduled to open in 2023.



EVREUX THEATER, FRANCE OPUS 5 ARCHITECTES

In Évreux, Normandy, OPUS 5 architectes have renovated a theatre, 'Legendre.' The project aimed to restore the 1903 building to its former glory, in its original architectural style, and including the design of a new decor for the lobby. Prior to its restoration, the theatre's southern facade was in state of ruin and bore traces of past damage. Its restoration was done in such a way as to remove a succession of modifications, and to restore its original proportions by recreating the brick and silex facings, and initial apertures. The program included full upgrading to current standards for theatres and the adaptations required for operating contemporary stage sets.



NINGBO NEW LIBRARY, CHINA SCHMIDT HAMMER LASSEN

Schmidt Hammer Lassen Architects has completed its first library project in China. The 31,800 m² Ningbo New Library is located 200 kilometres south of Shanghai at the centre of Ningbo. The new library, with its "open, accessible architecture," aims to double the number of daily visitors and "become the cultural heart of the community," said the architects. As well as the main collections, the building includes a main lobby, plus reader services, children's library, 24hour library, a library for the visually impaired, two lecture halls, a cafe, and a 'grand reading room.' The ground floor is visually open on all sides, connecting it to an external public plaza and a landscaped ecological park and lake.



AQUATICUM, HUNGARY BORD

Aquaticum Waterpark in Debrecen, Hungary has recently reopened its gates to the public. The complex, which is the latest landmark building in the city park, was designed by BORD Architectural Studio. The architectural concept focuses on the "life-giving aspect of water and the forest environment." Water and flora appear on both horizontal and vertical surfaces of the spa: the water in the pools, the lawn, the water curtains, the waterfalls, the walls covered by plants. A "rectangular shape made of water sits in the centre, permeated by green surfaces inspired by the surrounding forest," said the architects. Since the spa's heating requirement is vast, "it was essential to use ecological energy resources when planning." The complex's heating system uses the heat released when the thermal water is cooled for building users' needs.



DEPOT BOIJMANS VAN BEUNINGEN, NETHERLANDS MVRDV

Depot Boijmans Van Beuningen, a publicly accessible art depot designed by MVRDV, has completed construction. Located in Rotterdam's Museumpark, the depot features a new type of experience for museum visitors: a "sturdy engine room" where the complete collection of 151,000 objects is made accessible to the public. In addition to the various storage and care areas, the depot has a restaurant and a rooftop forest at a height of 35 metres. Comprising 6,609 m² of glass subdivided into 1,664 mirrored panels, its reflective facade "wears the trappings of whatever surrounds it: people passing by, Museumpark's leafy grounds, the clouds, and Rotterdam's dynamic city skyline," said the architects.



AVENIDA CORDOBA 120, BUENOS AIRES FOSTER + PARTNERS

Construction on Avenida Cordoba 120 has begun. The 35-storey office tower, located at a key junction between Buenos Aires' old city and the main entrance to Puerto Madero – the harbour area, will be a sustainable addition to the city's central district. The triangular form of the building maximises views towards the Rio de la Plata and towards the dense city centre, while the lift core located along the southern facade enables large, flexible and spacious floorplans. Seventy per cent of the ground plan is open public space in the form of a garden that continues below the building, which is raised above a cafe nestled within the landscape. The design targets a LEED Gold rating, cementing its sustainable credentials.

29

CPD FOCUS

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INDUSTRY SURVEY

Hot Topic: Exploring current thinking in offsite construction

fisite construction is hailed as the answer to many of the construction industry's problems. In particular it aids speed of delivery, given the 300,000 new homes per year target by 2022, but can also drastically reduce the defects that are impeding performance relative to design.

ADF magazine partnered with Edge Insight to survey readers, and discover more about architects' views on the offsite sector, and how it's affecting them. The results provided a revealing picture of their opinions on the pros as well as cons which are being demonstrated in practice.

While the majority of the respondents (75 per cent) agreed with the statement that 'Modern DfMA methods have transformed the reputation of offsite construction from the stigma of poor quality prefabs to the 'predictable quality answer to meeting demand,' they said architects are not doing enough to drive forward the profession's proactive engagement with these new methods.

The survey unearthed positives as well as challenges which remain to be resolved for designers, the latter ranging from more technical issues such as warranties, to issues of client acceptance of the necessary changes in approach.

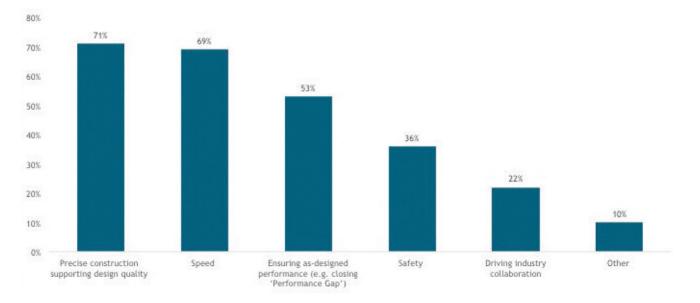
Offsite benefits

In terms of the benefits of offsite for delivering on construction's key aims, there were some fairly conclusive findings. The most popular benefit for our respondents was the ability to provide 'precision construction that supports design quality.' In fact 71 per cent of respondents picked this as a 'main benefit.'

In second place was speed of construction (69 per cent), and the ability to 'ensure asdesigned performance', and thereby potentially close the Performance Gap between design efficiency aims and building performance once constructed. In total, 53 per cent picked this attribute as a 'main benefit.' Further down the list was 'Safety' (36 per cent), and 'Driving collaboration' (22 per cent).

Design changes

Our survey found that there were as many positives as concerns when it came to offsite construction's effect on architects' work. Respondents 'strongly agreeing' that it had



BENEFITS

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"Offsite requires people to rethink design and construction processes, which many are not ready to question enough"

changed their design process amounted to 30 per cent, but revealingly, a large cohort added that it had enabled them to make decisions earlier on materials (27 per cent strongly agreeing). However, the majority of respondents (57 per cent) agreed that there were challenges for achieving design quality, in particular avoiding homogeneity of design, on offsite projects.

When it came to preferred methods of construction for offsite, these were dominated by panelised timber systems (62 per cent). Hot on its heels however was steel frame (43 per cent), followed by SIPS (39 per cent). Timber again featured in fourth place, with cross laminated timber (CLT) gaining 36 per cent of the votes. Following that was 'volumetric or pod systems' (33 per cent), other forms of panelised system than timber (23 per cent), and unitised facades at 21 per cent.

The role of architects

Respondents were not convinced that architects' roles were being greatly affected in the move to offsite, suggesting a perception that their status was unlikely to be diminished. Only 27 per cent of respondents thought that architects' roles would be reduced, for example, with 4 per cent thinking they'd be 'greatly reduced.' In total, 36 per cent thought architects' roles would be 'slightly increased.'

However, according to 66 per cent of respondents, architects were 'not engaging proactively enough in the move to offsite.' They cited several possible reasons. One respondent commented that offsite "requires much higher knowledge about manufacturing methods and processes, and higher capability in assessing problems at the start; it requires better understanding of construction in all its phases."

Obstacles to adoption

As well as the greater demands placed on architects in some aspects of offsite, there are other obstacles to takeup, such as a perception that "architects can be left out of the process after the initial design has been done," in the words of a respondent. In addition, offsite "requires people to rethink design and construction processes, which many are not ready to question enough."

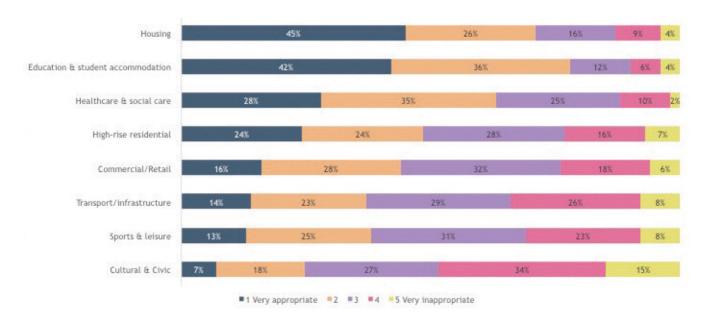
In the industry generally, respondents believe that a stigma around offsite is still hampering uptake, somewhat contradicting their general acceptance that modern methods have transformed the reputation of the sector.

From the survey, 28 per cent of respondents believed this, allied to adherence to traditional approaches, to be a 'serious barrier' to the flowering of offsite construction in the UK. Of those architects surveyed, 21 per cent saw resistance to change among building contractors as a serious barrier, and 18 per cent identified resistance in the wider supply chain as a similarly intractable problem. There is still clearly a lot of work to be done to facilitate and encourage general industry buy-in.

The collaboration challenge

Success in offsite construction means a much greater collaboration across the supply chain. The push to offsite, particularly when BIM is involved, can thus help catalyse the greater collaboration between professional silos which many have been calling for in construction for decades.

However, are supply chains adequately skilled and prepared in order to achieve this? Our survey respondents had mixed



SECTORS

"Please rank the following sectors in terms of how appropriate you believe they are for mainstream offsite construction currently with 1 being very inappropriate and 5 being very appropriate"



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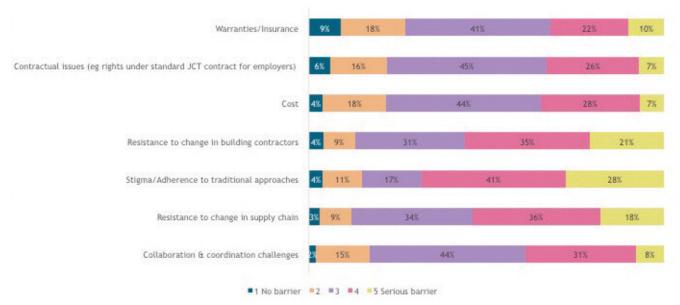
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BARRIERS

"What are the biggest barriers to offsite construction currently – with 1 being no barrier at all, and 5 being a serious barrier?"

views – while 42 percent 'slightly agreed,' 33 per cent were 'unsure,' and 21 per cent disagreed, believing that the supply chain was a long way behind the curve.

Whether the industry was best left to resolve its own challenges when it comes to fostering collaboration and improving procurement to benefit offsite, was a moot point, with 54 per cent of respondents vs 46 per cent saying yes and no respectively. Objections centred around the fact that only those in the industry are likely to be fully aware of the ins and outs of offsite requirements, and government involvement "would likely cause more complexities." One commenter said that "external influence is mostly for total standardisation and lower cost; it's anti-innovation."

Respondents were asked what government should do more of to help support offsite construction however, and responses ranged from commenters urging it to "demonstrate [offsite] works on [its] projects," to a call to "make sure Building Regulations are fully checked by local authorities." Another went further, saying government should "legislate to enforce a higher percentage of MMC, update building standards to acknowledge it, and accept European standards/certificates."

A more specific suggestion to help improve local delivery of projects was that

"38 per cent of respondents said contractors were embracing the required level of collaboration"

government should "ensure planning departments are made aware of the possibilities so they can demand high quality design regardless of offsite or onsite." One comment advocated "revising the RIBA plan of work to reflect different types of projects."

Clients & contractors

AQUARIAN

When it came to those that hold the pursestrings, it was not clear that clients, for example, were absorbing the extra costs required to go offsite, suggesting that they are demanding more from their supply chain. Only 15 per cent of architects agreed that they were absorbing those costs, with a similar number (14 per cent) 'strongly disagreeing.'

On the need to complete and freeze designs much earlier in the process than on some traditionally built constructions, clients were accepting of this new requirement, according to 24 per cent of respondents. However, 18 per cent strongly disagreed with this. More respondents (42 per cent to 25 per cent) disagreed than agreed with the statement that clients 'understand and embrace the collaboration required with offsite,' and a similar ratio (46 per cent to 24 per cent) disagreed that clients 'understood the requirements of offsite supply chains.' Again, respondents were not convinced that clients 'understand the merits of different types of offsite methods,' with 44 per cent disagreeing.

Contractors generally fared better, with 43 per cent of survey respondents agreeing they accepted the need to freeze designs early, and 38 per cent saying that they were embracing the required level of collaboration. Unsurprisingly, more respondents thought contractors also understand the merits of different offsite methods (37 per cent), as well as the requirements of offsite supply chains (45 per cent).

ENGAGEMENT

Question: Is the architectural community engaging proactively enough in the move to offsite? Yes: 34% No: 66%



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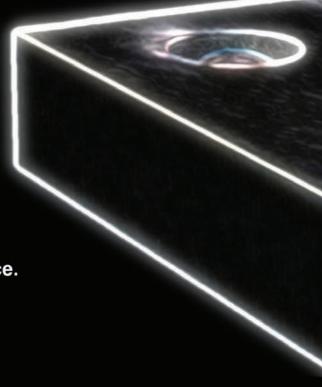
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In terms of the wider supply chain, respondents were asked the question 'What do you want more of from product manufacturers who are engaging in offsite projects?' Achieving warranties for offsite solutions from manufacturers of systems have been cited as an area of concern for some specifiers.

Respondents were given a choice of possible answers, and 'full guarantees/warranties' was the most popular, with 70 per cent picking it. The next answers in descending order were 'proven experience/case studies' (67 per cent), 'transparency of information' (60 per cent), 'demonstration of collaboration in the supply chain' (54 per cent), and 'long-term partnerships' (28 per cent).

Suitable sectors

We asked the architects which industry sectors were most appropriate for offsite construction. Housing was the top answer (45 per cent of respondents saying it was 'very appropriate); only 4 per cent said it was 'very inappropriate.' However, following closely on its heels was Education and Student Accommodation (42 per cent 'very appropriate').

The next sector categories, in terms of their ratings as being 'very appropriate' were Healthcare and Social Care (28 per cent), High-Rise Residential (24 per cent), Commercial & Retail (16 per cent), Transport & Infrastructure (14 per cent), Sports & Leisure (13 per cent). Bringing up the rear, and some way behind, was Cultural & Civic Buildings – a mere 7 per cent of respondents said such buildings were very appropriate for offsite, though a total of 25 per cent saying they were somewhat appropriate.

Maintaining specifications

'Specification switching' during the value engineering process has been vilified by many commentators for negatively impacting buildings' quality in a range of sectors, and potentially adding to the 'performance gap' between design and construction effectiveness. However, our survey revealed that the move to precisely-controlled factory construction of building elements, with greater cost certainty, may be the panacea which avoids these late-stage substitutions for less effective products, once buildings are on site.

In total, 77 per cent of respondents agreed that maintaining a specification would be easier to guarantee through a project due to 'better quality controls' in offsite construction, and 28 per cent 'strongly agreed.' This will be good news for not only architects and clients, but also for product manufacturers looking to engage in offsite construction.

Despite this, even some respondents who 'slightly agreed' with the statement that specifications could be more 'locked in,' offered caveats. One commented that there was a trade-off between the reduction in specification switching due to freezing designs, and inflexibility to tailor designs and shop around because of increased standardisation: "Offsite manufacturers often have their supply chains set, and as architects this can reduce the scope for bespoke design and force us to take what the supply chain offers only." Another said: "Due to only a specific number of products being suitable, the choice can be taken away from specifiers."

There were mixed views on this however, with other commentators saying offsite projects were "more bespoke," and that "the client is more involved at this [early] stage and is keen to maintain specification."

Remaining barriers

In conclusion, the survey found that barriers remain to the adoption of offsite across the supply chain. The biggest overarching issue, according to respondents, was a combination of the stigma still attached to offsite solutions, and 'adherence to traditional approaches,' with 69 per cent citing it as a barrier, and 28 per cent as a 'serious barrier.'

The next biggest issue to resolve was 'resistance to change in building contractors,' with 21 per cent calling it a 'serious barrier,' – 'resistance to change in the supply chain' was in third place, with 18 per cent. Although seen as a 'serious barrier,' warranties and insurance of offsite systems was overall only seen as a barrier to wide adoption by 32 per cent, making it a relatively small issue.

Contractural issues, 'collaboration and coordination challenges,' and cost all featured as issues of concern. However, their low scores suggested they were unlikely to be prohibitive, given the right amount of will. It's clear from the survey that offsite is moving to the foreground of UK construction and design, but according to architects, a smooth trajectory is not yet assured.

SELECTED COMMENTS

"Information and opportunities not advertised enough"

"Lack of skills and knowledge" "A lot of architectural technologists don't understand it"

"There only seems to be marginal awareness of offsite construction and benefits of pre-fabrication in architectural education. Similarly, in practice it is not very widely discussed when in the design stages"

"The role appears to be led by contractors and design has generally taken a back seat"

"Snobbishness in the profession and a suspicion that creativity is limited and that their skills will be marginalised"

"Manufacturers do not sell themselves enough"

For the full version of the White Paper on this survey, please visit *ADF* online at: www.architectsdatafile.co.uk/news/hot-topic-exploring-current-thinking-in-offsite-construction





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BUILDING

THE IVY HARDMAN SQUARE MANCHESTER

A timber oasis

Sheppard Robson's timber pavilion created in Manchester's Spinningfields commercial district offers a contrasting distraction, with an exposed frame and richly textured elevations harking back to colonial buildings. James Parker reports





S pinningfields is Manchester's biggest commercial district, home to a clutch of new glass and steel buildings housing finance firms and many of the city's more prestigious bars and restaurants as well as retail names. Pristine offices – including in Hardman Square which forms part of the development, contain workers ready to enjoy the new quarter's amenities.

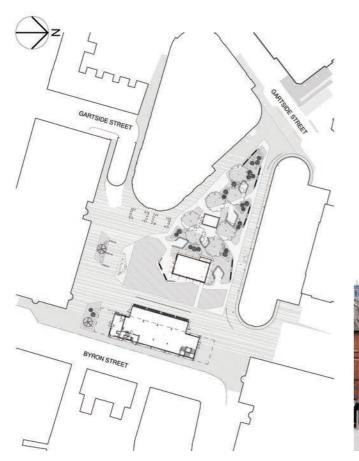
One of the popular establishments for a high-end crowd is the Ivy restaurant, located in an eye-catching timber building in the centre of Hardman Square. The rectilinear double-cantilevered pavilion's form, by architects Sheppard Robson (SR), is offset by a softer, more richly textured exterior that presents an intriguing contrast with the commercial units surrounding it. Its distinctive 'colonial' appearance befits the classically British Ivy brand established in London, and now present in several UK cities.

The practice has had a long-standing presence at this location, and a close relationship with client developer Allied London, having worked on the 3 Hardman Square office building before the 2008 recession, among other buildings. The cornerstone of the development, No. 1 Spinningfields Square, grew from an original refurb proposal by Ian Simpson Architects, with Sheppard Robson being finally appointed to deliver a landmark glass and steel building.

While SR were working on that scheme, the client approached them, says partner Neal Allen-Burt, regarding a plot between numbers 1 and 3 Hardman Street. It was occupied by a temporary single-storey popup restaurant (The Lawn Club), and Allied London asked the architects to develop proposals for a pavilion.

While this would be a relatively small (1,150 m²) building for Sheppard Robson, Allen-Burt also characterises it also as a signal by the client Allied London that Spinningfields "was growing up a bit." So rather than the more informal dining which previously took place on the site, food retail was "becoming a bit more sophisticated, linen and napkins rather than scaffolding planks on breeze blocks."

The building would also be a catalyst for the completion of Hardman Square as "the final piece in the jigsaw of Spinningfields," says Allen-Burt. The practice developed "loose" ideas of a richly green public realm, however its design would be developed by landscaping architects Layer Landscape. The pavilion would be closely linked with





its surroundings, with its elevations effectively "wrapped in a veil of landscaping, so the architects "were looking to closely align the two concepts." The proposal also included two smaller buildings within the public realm (the 'barn' and the 'cabin'), and although these did not end up getting built quite as planned, two pop-up timber kiosks have been erected in their place.

Form

At the project's outset, the final tenant was not confirmed; Allied was considering multiple restaurant operators, or a series of pop-ups. However, requiring a Manchester location for its brand, the Ivy came out on top of a range of possibles, widening the goalposts somewhat once the initial scheme had gone through planning. "The Ivy came back and said it's great, but we want more space," says Allen-Burt." What was to be a more modest two-storey pavilion is now three stories, plus a roof terrace.

The four-storey Ivy restaurant is a permanent venue, albeit only designed for a 25-30 year life, rather than a more common

60 years. Partly inspired by the temporary timber buildings in the square, the exposed glulam frame is based on a regular 6 metre grid pattern formed of 280 mm deep structural elements that are expressed externally. The structure is clearly revealed so that a viewer can understand the building's floor plates and columns from a quick glance at the exterior.

A grey-painted diagrid of steel bracing sits proud of the timber grid, forming the next layer of the relatively complex facades, largely following Allen-Burt's initial concept sketch. This structure, which needed to be in steel as timber members would have been "huge," makes it possible to create 6 metre cantilevers in the structural bays at either end of the building. These deliver the quantum of necessary floor area for the Ivy, while dealing with the issue of building above existing basements beneath Hardman Square. They also provide more visual interest, and provide a canopy and sense of arrival to the main entrance at the northern end, where the building faces onto the approaches into the square.

The designers wanted to "make a virtue"

The structure is clearly revealed so that a viewer can understand the building's floor plates and columns from a quick glance at the exterior





of this strongly expressed diagonal structure, and the cantilevers, which echo other Sheppard Robson buildings in the area (3 Hardman Street, and 1, the Avenue, which is tenanted by Armani, and has a 27 metre cantilever). Allen-Burt says that in designing an exposed external structure, it's important to "work very closely" with the structural engineers (in this case Engenuiti), otherwise the facade can "become a structural solution rather than an architectural one."

The building has no front or back, being 'very much an island," and addressing this challenge fed into the notion of creating a trellis-like exposed frame to make a visual statement; the decision to give it "more of a colonial feel" as a pavilion, redolent of buildings in the Far East, was driven by the client, says Allen-Burt, but the practice's key ambition to expose the timber, and solve how it would weather, was a challenge. "When we first pitched the idea, I remember saying to their chief executive, I don't know whether we can build this yet. We've done lots of timber buildings, but not quite like this. But they were extremely supportive."

The idea behind the 700 mm deep multilayered facade was to "contrast with the surrounding buildings, which are largely single skin with small amounts of solar shading," says Allen-Burt.

The horizontal and vertical exposed larch glulam elements provide a good amount of shading, but the architects wanted to enhance this, while also facilitating landscape growing up and across the building. So a metal trellis was designed, in front of the darkened timber cladding, with further timber slats positioned within it. Onto this structure is mounted GRP planters with laser cut anodised aluminum faces, which sit on the projecting floor edges. This enables a high volume of planting to combine with the trellis as the final visual layer of the facade, producing bands of green running across the building. There are also gabion boxes hanging underneath floor ledges for "trailing and hanging" plants, and a mesh between the trellis members for climbing plants.

As well as offering further shading in summer months, the landscaping will provide "some disorder to what are very rigorous, ordered facades," says the architect, "as if it started to overgrow the building." To complement the natural feel, the architects wanted to avoid overt symmetry; which, with the building being eight structural bays long, was a risk. The

You have to work very closely with engineers, otherwise it can become a structural solution, rather than an architectural one

flexibility provided by the multi-layered facade was exploited to both adjust to the changing window placements as the tenant decided on its internal arrangement, but also to offset the facade elements from the windows so that the metal meshes and timber louvres don't line up precisely with the windows behind them. This disrupts any impression of the building being too orderly that might have resulted from what is a fairly simple underlying structure.

Interiors & roof terrace

The ground floor contains the Ivy Brasserie, with the first floor housing the 'Dalton Room' for private dining, kitchens and staff areas. The second floor has the Ivy Asia late-night bar and restaurant, complete with a bright green, illuminated stone floor. The Roof Garden is a separate restaurant, on an enclosed terrace added to the building's three storeys.

The architects wanted the roof to have a considered design, as a "fifth elevation that's looked down on," and the final solution came late in the day. The architects suggested including a glazed, metal 'orangery' structure sitting within a timber trellis, "It was very important to me to keep it as honest to the original idea as possible." The semi-external space has a retractable roof, but also has two canvas 'boxes' at either end, providing further dining space required by the client.

CLT & glulam

The 'stick' glulam frame consists of columns and beams, on which sit 140 mm CLT floor slabs, supported by ribs. Due to this construction by manufacturer Stora Enso, the thickness of floor slabs can be reduced considerably, in this case to match the exposed external glulam beams. In addition, floor to ceiling heights are maximised, and a lighter weight overall structure is produced.

Thanks to the structural engineers suggesting this approach, the alternative of a "potential 200 mm thick CLT panel to span 6 metres was avoided," says Allen-Burt. He adds that it's "potentially a more



stable structure, as it's deeper overall when the glulam ribs are taken into account.

There were compromises when it came to the interior of the building and the question of exposing the CLT panel walls, due to the client's desires for their own distinctive decor. Says Allen-Burt, "we worked very hard to disguise all the bracketry, but when the Ivy came on board they covered everything up." Despite the diagonal metal bracing, this is largely a timber building; the lift and stair cores are CLT, as well as stair treads and risers.

Collaboration

Another benefit of going for timber wherever possible, supported by the contractor BAM, was that subcontractors on site were minimised. The architects and contractors decided to maximise efficiency by allowing all of the trade packages that did exist to be "effectively subcontractor designed." Allen-Burt explains: "We took our design up to a very detailed phase 3, but ultimately most of the elements other than the frame itself were designed and detailed further with the subcontractors.

"It was a very collaborative process, rather than traditional D&B jobs where you put forward a design intent, something else comes along, and doesn't quite work or coordinate." Allen-Burt adds: "It actually helped us to resolve complicated interfaces."

As part of the drive to minimise packages, Allen-Burt pushed for a CLT screen to be included around chillers and boilers in the roof. An unintended benefit of this occurred when the restaurant suffered a small fire on the roof terrace three months after it opened, despite significant damage that meant the glass and steel enclosure had



The landscaping will provide some disorder to the facades...as if it has overgrown the building

to be replaced, the restaurant levels below were able to resume operation within 24 hours, partly because the fire charred the CLT wall, but it didn't spread to the plant room."

Landscape

The idea for a 'field' in the square to provide an oasis for office employees and others "came from Allied London," says Allen-Burt, adding that they are "very good at creating narratives for places and weaving them into developments." The concept developed by landscape architect Layer reflects the local history, there having been a garden nearby.

Working with Sheppard Robson, they developed ideas of "field edges, meadows, woodlands – an existing group of trees further down in the public realm would be retained." The two kiosks in the square tie in with "ideas of timber shacks in woods and fields," and the landscaping scheme "tapers down from the woodland into the 'field edge' and more rough cut areas, into a 'meadow.'" Finally there are more lawned areas with hard landscaping, adjacent to the new building.

Conclusion

This modest scheme, by Sheppard Robson's standards, demonstrates what the architects can do to create a carefully textural timber building, and one which stretched their proven abilities into new areas. Having shifted somewhat from its original concept, its low pavilion form still adds a sense of welcome relief to a commercial district which exhibits the familiar glass and steel materiality of many of its counterparts.

Costing only £5m, the building represented a different challenge for Sheppard Robson, given the amount of design time and effort it would require. However it's a "career highlight" for Neal Allen-Burt, who adds: "It's not often we get a chance to do something like this." The results of a somewhat experimental approach to using timber are bearing fruit: "Some of the ideas on it we have developed on the project are starting to inform ideas of how we may use timber on other buildings in the future."

PROJECT FACTFILE

Client: Allied London Architect: Sheppard Robson Tenant: The Ivy Main contractor: BAM Structural engineer (superstructure): Engenuiti Structural engineer (substructure): RoC Consulting Floor area: 1,150 m² Landscape architect: Layer (Landscape Architecture) Timber frame: B&K Structures CLT & glulam manufacturer: Stora Enso

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Secondary glazing enriches Art Deco revival of Hatfield's most iconic building

The distinctive Art Deco Grade II Listed Comet Hotel is located in Hertfordshire at the junction of the Barnet by-pass with St Albans Road on a busy roundabout, five minutes away from the Selectaglaze office and factory.

Previously known as the Ramada Hatfield, the Comet's multi million pound make-over which began in 2017 is now complete. Stride Treglown worked up the designs for the new extension and refurbishment of existing areas, with works entrusted to main contractor ISG Bristol.

The building's original crittall sash windows were retained but this did not provide the required level of noise insulation to a number of the guestrooms, restaurant and function spaces for meetings and networking events.

Selectaglaze installed 104 secondary glazed units, with a cavity between the existing crittall windows and the secondary units to heighten the level of noise insulation.



The Series 20 vertical sliding units were faceted onto the curved on plan original bay windows on the ground and first floors. This was to provide adequate thermal and noise insulation to the restaurant and meeting room. The Function room was fitted with the Series 15 3-pane horizontal slider, which can support thicker glass when higher levels of noise insulation are needed.

The openings in the hotel guestrooms were treated with Series 10 horizontal sliding units, which is a versatile system providing easy access to the outer window. This slimline unit has not only produced exceptionally quiet rooms thanks to noise insulation in excess of 45dB but will reduce heating costs, thus improving sustainability.

The new secondary glazing to this Hatfield landmark will now help lower energy bills and afford the guests a good night sleep, along with those visiting the hotel guaranteed a pleasant experience.

Refurbishments like the Comet Hotel are often fast track projects requiring close cooperation between client, contractor and specialists. Working closely with front of house, secondary glazing can be fitted in operational hotels during room turn around periods. Selectaglaze has wide experience of working in buildings up to Grade I Listed and offers a technical advisory service and specification advice to ensure correct interface with other trades.

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Growing interest in digital wooden buildings



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Ceilings help to transform former court



Hunter Douglas Architectural ceilings have helped to transform a former magistrate's court near London into a landmark office building. Known as the Old Court House, the former Richmond Magistrates' Court, was acquired for William Grant and Sons, the family-owned distiller of

Scotch whisky, and fully refurbished in 2019. ESA architecture specified Hunter Douglas Architectural's award-winning HeartFelt® and solid wood grill in European oak. A total of 250m² of felt HeartFelt® panels were used to unusual effect in some of the informal open office spaces, being set at an angle and used in a specific circular design.

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INDIGO HOUSE RICHMOND

Escaping the pastiche

Wimshurst Pelleriti, the architects behind a renovation and extension of a historic office building in London, explain how the practice pushed for a modern addition, rather than a proposed 'pastiche'. Jack Wooler speaks to Leo Pelleriti

In a compact site in central Richmond, London, a historic building has been revitalised and extended by architects Wimshurst Pelleriti (WP).

With the project being located in the heart of a conservation area and being surrounded by historic properties, many of which are listed, the project required a sensitive approach.

According to Leo Pelleriti, co-founder of WP, however, the practice wanted to avoid creating a "pastiche" of history, and instead intended to create something that – while still conscious of its surroundings – would provide a modern addition to the site.

In order to achieve this and meet the aims of the client, CBRE Global Investors, WP submitted plans for a "carefully detailed" glass extension on the ground floor where there was no impact on the conservation area, a "more sensitive" approach to the roof extension which overlooks and can be seen from surrounding properties, and a new second floor constructed in the place of an existing plant area.

Planning was approved within five months, and the building now stands completed, 15 months after the permission was granted.

Opportunities

Being based locally in west London, Leo and the practice were advising CBRE Global on their commercial properties in Richmond when Indigo House came into the picture. Leo says: "They had been trying to redevelop this site in particular for a few years to upgrade its quality and spaces, but for some reason, they failed.

"After visiting the site, we started looking at potential opportunities for development, and we came up with a number of different options and extensions – which eventually led to the final design which stands today."

The building was erected between 1960 and 1978. From 1909-1911 until then there were different buildings used as a stable yard and a motor garage, Holbrook Motor Works.

In 2015, the owners got planning for change of use to residential. This application was never implemented however, and in 2016 the owners decided to renovate the building and increase its value – with commercial use being the chosen route to take.

As such, after a few failed proposals from other practices, WP were brought in to create a new planning application that would make better use of the site – and achieve what others couldn't.

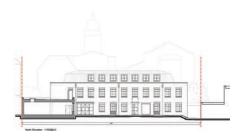
Applications

Achieving planning was no easy task, largely due to the complexity generated by the building's neighbours.

Leo describes the process: "We spent quite a bit of time in planning because of the location – being surrounded by Grade II listed buildings meant it was quite challenging in terms of matching the heritage and local design.











"We started engaging with the officers and held a couple of pre-application meetings to discuss the quality we were proposing, and how we wanted to improve the site – it's a beautiful location in a sort of mews courtyard, but the hard landscaping was in a very poor condition."

The architect believed the building "needed some love" – Leo says the previous architects' design proposals were a "poor pastiche," which would have resulted in a pseudo-historical building.

"We wanted to walk away from that principle," he continues. "We want people to know it's got a huge heritage value, but we didn't want to propose imitation design."

They submitted two new planning applications for the building – one for the ground floor extension to the rear of the building, which was reportedly "low-risk" in the architects' view due to its simplicity and modernity – and then a separate application for the roof extension.

Through engagement with local consultees and Richmond's conservation team, WP demonstrated that the plans for both the proposed extensions would not reduce privacy, block out light, or impact the historic nature of the surrounding

"Even the neighbours who share the courtyard have said they can't believe what we've done here"

properties – as such, the application was approved. Though achieved in a relatively short time frame, getting through planning was the "main challenge," says Leo.

"After that," he continues, "the whole construction process was really enjoyable – all the contractors, everyone, stuck to the programme, on time and on budget, which was amazing."

Leo adds: "We had a very good team of consultants, as well as a very strong and detailed construction package. When we went into tender we interviewed three contractors with a strong cost plan – we didn't just select the cheapest, we selected the one that was going to deliver what we wanted."

Flexibility

When first entering the site, Leo was immediately struck by the main deficiencies of the project – each of which the architects



planned to not just address, but futureproof as much as possible, so that it could be flexible enough to be used by single or multiple tenants.

"We started by seeing how we could integrate the main services and toilets so that it wouldn't need to be changed for differing tenant types over the next 10, 15, even 20 years," says Leo. "We created an open plan office space on the ground floor, with a reception area and a central entrance, and then moved the workspaces, services and toilets around so multiple tenants could be accommodated if necessary."

Furthering this flexibility, they included two separate entrances into the ground floor – one by the reception, and one by the terrace off the other floors. The first floor was also entirely renovated, with an open plan office space installed.

The existing building terminated at these two floors, except for a volume above for plant. Leo explains the plans for this area: "We wanted to use that as an additional office space, and so we went with a very modern glass box extension to the roof to accommodate this. Throughout the negotiations with the planners, there was discussion about making it extremely One of the main improvements the architects were able to make was in using the space gained from removing the old suspended ceilings

modern, or trying to mitigate the impact to the conservation area."

As such, this plant area was removed, and replaced with more efficient plant provision throughout the building – the roof space then being extended with an additional office space.

External improvements

With the building now completed, users can head through the mews into the central courtyard – shared by Indigo House, a residential building, and another office – and are greeted with a completely revitalised design inside and out.

In terms of the outside, one of the major improvements to the external envelope was





"We want people to know it's got a huge heritage value, but we didn't want to propose any pastiche architecture"

the removal of all the old single glazed windows, to be replaced with double glazed timber sash windows. This allowed for the retention of the existing external brickwork, which was integral to the building's heritage.

"Then, as a complement to what was already existing," adds Leo, "we added the glass box."

This frameless glass volume protrudes from the ground floor, resting underneath a green roof. The box was intended to bring far more natural light into the building, while avoiding obstruction of the ground floor plan – "providing a nice contrast between old and new."

The new second floor features zinc cladding and dormer windows. According to Leo, this allows them to blend with the character of the surrounding properties – which at this height was particularly important, so as not to diminish neighbours' views.

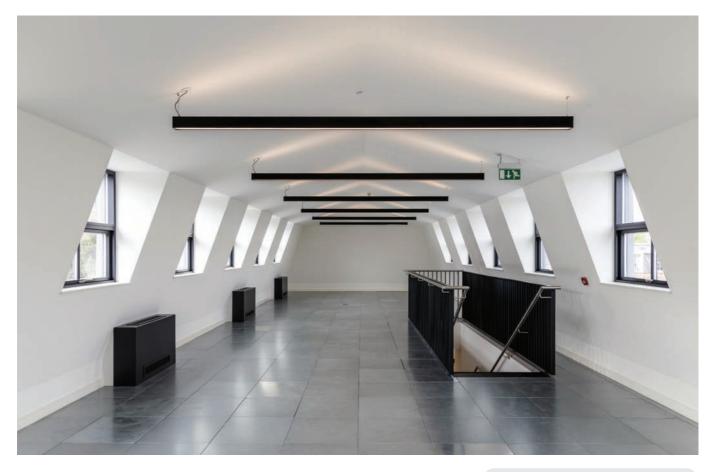
Alongside these elements, the team also improved the surrounding area – upgrading the soft and hard landscaping around the scheme, which, the architect tells *ADF*, made "a big contribution to its quality."

Exposure

When users enter inside this completed building, they are now presented with a refurbished interior design in a "lightindustrial" style, featuring what Leo describes as a "minimalist palette," including an exposed structure, exposed brickwork, exposed services, and timber flooring throughout.

One of the main improvements the architects were able to make in the interior design, to add this industrial feel, was in using the space gained from removing the old suspended ceilings.

Such suspended ceilings are often reminiscent of mid-20th-century office spaces, and exposing the steel structure of the building and services provided part of the look the architects and client desired. But, it wasn't all aesthetics; according to Leo, the raised ceiling



heights also allowed for more daylighting inside, and of course gave a much greater feeling of spaciousness.

The architect explains the design intent further: "We wanted to keep this idea of a historic mews site, which was semi-industrial, and to bring in the feel of a warehouse."

Performance

When it came to the finished building's performance, the building achieved BREEAM Very Good, largely through the upgrades made to the external envelope such as windows, as well as through an efficient energy system installed on the roof, which provides hot and cool air into the building through mechanical ventilation.

"The BREEAM rating is great for this kind of building," says Leo, "and the EPC was also vastly improved," with the building's ongoing CO_2 emissions having been lowered as a result.

Transformed

The building, now transformed, has a vastly improved character and quality – which

reportedly has added the strongest appeal to potential tenants – but also "considerable" additional floor space, all without compromising the conservation area that surrounds it.

"After the long journey through planning, we really got what us and the clients wanted – which in the end was largely to increase space."

According to the architect, the reaction from those around it has also been "excellent." He says: "Even the neighbours who share the courtyard, they've told me they 'can't believe what we've done here."

Leo continues: "They were very worried about the development, but the reaction from the neighbours and the local people was brilliant, as was the reaction from the client."

The architect tells me that one group was so impressed with the office's finish, that they went looking for the practice behind it, and have recently contracted WP on a similar development.

"All in all, the project has been a real success," Leo concludes.

PROJECT FACTFILE

Structural engineer: Thomasons M&E: Quinn Ross Main contractor: Scott Osborn QS: Jam-Management Heritage consultant: Montagu Evans Interior designer: Wimshurst Pelleriti Project manager: CogentBC

PROJECT SUPPLIERS

Glass extension and rooflights: IQ Glass Zinc cladding to second floor extension: VMZinc Double glazed timber framed windows: Rationel Suspended linear luminaires: Lightforms Timber floor: Ted Todd Bathroom and entrance lobby tiles: Eco Friendly Tiles

Stunning new projects with elegant acoustic design

anish manufactured Troldtekt panels are commonly specified throughout the UK and Europe to improve the interior acoustic environment. Two recent Danish projects are the transformation of an old building into a car dealer's offices for Karvil Biler, while the other is an extension of Randers Architects' own headquarters into a mix of offices and exclusive residential units.

Both projects use Troldtekt[®] line with its perfectly symmetrical vertical lines to balance walls and ceilings with great

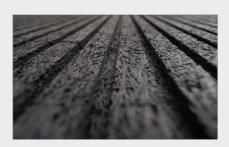


aesthetics, conveying warmth and providing a modern look coupled with high performance sound absorption.

For the Architects' washrooms, Troldtekt[®] line was chosen to add visual vibrancy to the rooms. It also exhibits different appearances depending on the angle from which the wall surfaces are viewed. The edges have been milled where the panels meet the ceiling, around electrical sockets and switches and also at floor level where bamboo skirting has been integrated. All have been elegantly cut to ensure a neat finish and fine detailing.

In the car dealers, Troldtekt[®] line was selected in order to enhance and benefit the whole indoor climate. "We wanted to create a coherent look. The milled grooves have a visually calming effect and contrast well with the new raw concrete floor," the project manager explained.

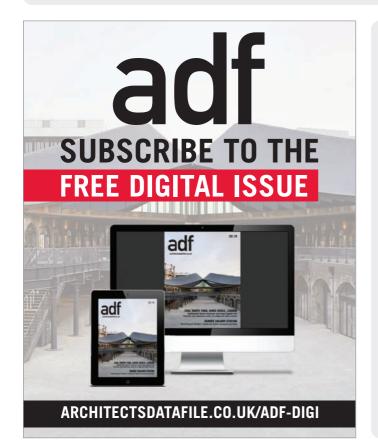
Troldtekt[®] line forms one of nine acoustic solutions that make up the 'design solutions' range which combines the best ideals of



form and function. Founded on the Cradle to Cradle design concept, 100 per cent Troldtekt's natural wood wool panels are manufactured in a new state-of-the-art production facility. With a variety of different surfaces and colours, they can be supplied in the FSC® 100 per cent category (FSC®C115450) contributing to a building's BREEAM, DGNB and LEED rating.

In addition to their high sound absorption and tactile surface, the panels offer high durability and low cost life cycle performance, as well as inherent sustainability. They are also a natural, breathable material which can absorb and release moisture, which is why they have been awarded an Allergy Friendly Product Award by Allergy UK.

01978 664255 www.troldtekt.co.uk





Project - Rejuvenated.

With the help of Forbo Flooring Systems' integrated portfolio of solutions, the Bioscience Filtration Division of Parker Hannifin in Birtley, County Durham, was transformed into a contemporary, uplifting and dynamic workplace environment. Labelled 'Project Rejuvenate', the scheme designed by Blake Hopkinson Architecture was awarded top marks in the annual Fly Forbo 2019/20 competition. On the ground floor in the reception area and general circulation spaces, the natural aesthetic with true to life embossing of Forbo's Allura Flex Wood Luxury Vinyl Tiles (LVT) in Oyster Seagrass were installed to create a striking and sophisticated finish. Offering unprecedented dimensional stability, strength and performance, it was the perfect solution for the high traffic areas. The tackified loose lay LVT was also installed alongside Tessera Layout and Outline carpet tile planks in the meeting areas and open plan concourse, which leads off the circulation spaces, using the same tackifier and without the need for transition strips, enabling a seamlessly integrated flooring design.

01773 744 121 www.forbo-flooring.co.uk/flyforbo

Vicaima launches new website strengthening the user's experience

A lways aiming to build the perfect online experience for its customers and partners, Vicaima, one of the largest European players in the production of sophisticated solutions for interior doors, wardrobes and panels, has just launched a new website, which aims to improve the ease of navigation for its users, providing spontaneous and differentiating interaction with all features and tools. Yet another innovation, from a company which is continuously investing in a close, modern and intuitive digital footprint.

	vicaim
NEW WEBSITE Unique Design & Experience	A STAR
vicaima.com	

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Among the new features, Vicaima highlights the speed of the platform and the contemporary, functional and responsive redesign, strategically created to facilitate the search process for users, in line with their intentions, needs and desires.

Thus, the new website is characterized by dynamism, accompanied by carefully selected content, as well as a wide range of products, performance and solutions, with a view to boosting the digital presence of the brand in the national and international arena.

This redesign includes aesthetic improvements allowing for more immersive experimentation and improved navigation, which allows visitors to easily find the information they need.

The new Vicaima page thus highlights the company's willingness to invest in a digital sphere that provides the best user experience for its customer. The renewal follows, precisely, the thought provoking attitude of the brand towards the different markets in



which it operates. This is also related to an integrated multichannel strategy, which reconciles the company's multiple digital tools, placing it, once again, at the forefront of the sector.

01793 532 333 www.vicaima.com

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Krol Corlett appoints new Head of Construction

orth West construction contractor, Krol Corlett, has appointed Peter Dunn as the company's new Head of Construction, as part of a targeted growth strategy.

An experienced construction director who joins Krol Corlett from a national construction company, Peter brings 35 years' construction sector experience to the Krol Corlett team, including a wide range of £multi-million projects. His track record and industry contacts across the North West will support Krol Corlett's continuing growth, which has seen the company take on bigger projects and expand across Merseyside, Greater Manchester, Cheshire, Lancashire and West Yorkshire over the past three years.

"This is a critical period in our development as a business," explains Simon Krol, Director at Krol Corlett. "Over the past few years we have successfully taken on larger projects while continuing to offer a flexible, agile service for projects of all sizes. We have also grown geographically and opened new offices in Manchester and Preston to enable us to offer high levels of reliable and expert service to clients across the region for a varied array of projects.

"Now is the time for us to build on those successes and Peter's experience will be instrumental in enabling us to scale up without losing sight of our values, our heritage or our commitment to quality."

Peter's impressive track record includes residential, education and healthcare projects, with his experience in live hospital refurbishments dovetailing with Krol Corlett's strength in the healthcare sector. His new role involves engaging with the existing supply chain and developing new supplier relationships, mentoring the team and developing Krol Corlett's systems and health & safety best practice, along with direct involvement in tenders and live projects.

Peter adds: "Krol Corlett is a very dynamic business that has grown by showing ambition



and embedding quality and collaboration in everything it does. The company's willingness to invest in training, nurture its people and foster excellent relationships across both upstream and downstream delivery partners provides an excellent foundation for sustainable growth. Taking an active role in delivering on that potential is a very exciting prospect."

0151 546 1031 www.krolcorlett.com

Fastflow Group makes Top Track 250



Fastflow Group has made it into the Sunday Times PwC Top Track 250 for the first time, ranked 177th. The Sunday Times PwC Top Track 250 league table ranks Britain's leading mid-market private companies with the biggest sales. Fastflow Group provides essential gas, water and multiutility infrastructure services to blue chip customers across the UK, as well as

the development of new homes and planned and responsive property maintenance services for social housing and local authority clients.

01322 665522 www.fastflow.co.uk

Now is the time for timber



Time for Timber campaign is launching a new drive that directly targets the financial and insurance sectors. Andrew Orriss from the Time for Timber campaign commented: "We are at a crossroads in the UK and on a global basis: we need to act now if we are going to meet our environmental obligations

and timber is the primary building material that will help us do this. As well as being sustainable, replenishable and easily recycled, the adoption of timber within off-site construction and MMC techniques would have a profound effect on the wider construction market and a demonstrable reduction in the carbon footprint of projects."

01259 272140 www.timefortimber.org

TZ Air Conditioner wins Good Design Award



Panasonic Heating & Cooling Solutions is pleased to announce its first-class wall-mounted air conditioner, the TZ has been awarded the Good Design Award by the sole comprehensive design evaluation and commendation system in Japan since 1957. Panasonic's award-winning TZ proves to be a worthy addition to any home. Having

recently undergone major improvements to its design, the system boasts a smaller and more elegant chassis at only 779mm wide, whilst still maintaining impressive power and efficiency. The unit is small enough for above door installation, making it ideal for limited spaces.

01344 85 3182 www.aircon.panasonic.eu

'UK Business Hero' for COVID-19 response



Vent-Axia has been named as a 'UK Business Hero' by the British Chamber of Commerce as part of the Chamber's campaign to recognise the incredible work UK businesses are undertaking, in the most challenging of years. Nominated by Sussex Chamber of Commerce, the leading British

ventilation manufacturer was awarded this prestigious accolade for its valuable work supplying ventilation to COVID-19 hospital wards and field hospitals in unprecedented timescales, throughout lockdown and beyond. The Crawley-based company is delighted to be one of only 399 UK businesses to be given this national recognition.

0344 856 0590 www.vent-axia.com/dilutethevirus

Sustainable Platform for 50 years

The quickening pace of environmental awareness is leading architects, engineers and developers to look for environmental products and one company has been endorsing environmental products for fifty years.

Grass Concrete Limited, is celebrating its 50th birthday on a platform of growth developed around its Grasscrete paving innovation. With a worldwide commitment to promoting change, this UK firm helped to shift thinking away from uncompromising hard engineering, moving instead towards more enlightened and truly greener solutions.

Grasscrete was first introduced in 1970 as a unique permeable paving solution, the same system is still specified today



meeting demands for Sustainable Urban Drainage (SUDS) best practice and is essential for any landscaping external works envelope for housing and commercial projects. Applications range from grassed car parks to driveways, highways hard shoulders and embankments, access roads and spillways as well as major flood defence schemes worldwide.

With Grasscrete the benefits don't just stop with its impressive levels of permeability. With its promotion of a naturally grassed environment, Grasscrete is able to balance the need for increased urbanisation whilst at the same time helping to maintain a natural green landscape. In urbanised areas this crucially helps to sequestrate CO₂, within parking areas, all of this taking place low down at exhaust emission level. The increased levels of greenspace help to elevate levels of evapotranspiration, leading to a cleaner more temperate climate condition.

More recently Grass Concrete's environmental contribution has matched the growing demands for greener urban landscapes. The company has invested widely



in enviro-friendly products including a range of Betoconcept vertical landscaped retaining walls and Grassroof products.

Bob Howden Grass Concrete Limited's MD says: "Grass paving systems have an increasing role to play in the development and sustainability of a harmonised landscape. We are very proud of the role we have played and our achievements in helping to push away the traditional barriers to environmental change.

Over these last 50 years, we've honed an unparalleled level of expertise, which we commit to our clients in many construction sectors and in many locations throughout the world"

01924 379443 www.grasscrete.com/50



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Touch-free urinal flushing technologies from Viega



Designed for maximum hygiene and cleanliness, Viega has introduced two new touch-free flushing technologies for urinals in public facilities such as offices, transport hubs and sports stadiums. The concealed and infrared flushing solutions are available in a variety of design options and are protected against vandalism. For the concealed flushing solution, a sensor is installed inside the urinal siphon, which registers the change in flow and temperature when the urinal is in use. This will trigger the flushing mechanism automatically, delivering exceptional hygiene for the user. In addition, the whole system is concealed behind a wall, protecting it from any form of damage or vandalism. The infrared technology system offers another option to deliver maximum hygiene with touch-free flushing. The system is installed behind the wall together with the compatible Viega Prevista Dry urinal element. Once installed, only the flush plate with its integrated sensor is visible. The flushing mechanism will trigger when a user stands in the detection range of the infrared sensor for at least eight seconds.

0330 111 4568 www.viega.co.uk

Second bathroom pod contract for Zeal Hotels



Offsite Solutions has delivered its second hotel bathroom project for developer Zeal Hotels – a £700,000 contract for main contractor Midas Construction. Offsite Solutions has manufactured 136 steel-framed bathroom pods for the new £11.8m Ibis Plaza Hotel at Woodlands Court

Business Park in Bridgwater, Somerset. The pods feature a large walkin shower with a fixed glass panel and pivot glass door; a contemporary square hand basin mounted on a floating black graniteeffect shelf with a black-finished metal towel rail below; wall-mounted toilet with brushed satin dual flush fitting, and Roca sanitaryware.

www.offsitesolutions.com/hotels

Duravit and Cecilie Manz expand series



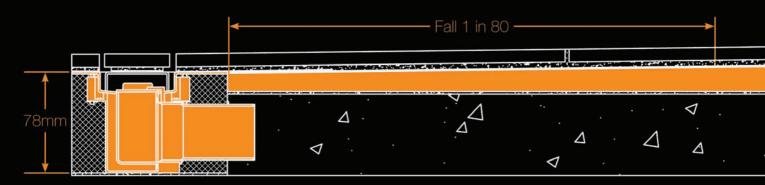
The Luv series created for **Duravit** by Danish designer Cecilie Manz invokes the Scandinavian concept of living with a sense of wellbeing. Carefully conceived materials that appeal to the sense of touch and a harmonious colour palette help to complete the overall picture. This is reflected in the new furniture colour Almond Satin Matt; with its interplay of light colours and natural shades combined with the different

console surfaces, in quartz or solid wood creating a calm interior which exudes elegance.

01908 286 680 www.duravit.co.uk



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Enabling Support from Horne



Horne's CARE shower is widely used across the NHS, extra-care, dementia care and Changing Places facilities and, with its enhanced inclusive design, provides extra support to enable better independence for its users. The robust riser rail is fully redesigned; a durable core of anodised aluminium, treated with hard-wearing polyester paint, is fixed to solid and smooth injection-moulded elbows \pm wall fixings. The riser grip/release mechanism epitomises inclusive design; combining fishing-reel technology for a finely controlled friction grip and a customdesigned spring for its low-force release. Wheelchair and shorter users can also pull on the mechanism release extender to easily lower a high-set shower head. Available in standard white or deep orange, the rail offers valuable support and optimum visibility – contrast and colour – appropriate for elderly or dementia care establishments where progressive visual impairments are commonplace. Grab rails, also in white or deep orange, provide further support and these can be paired with shower, bath, hand-wash basins or WC for additional accessibility. Horne grab rails can accommodate a maximum load of 150Kgf.

01505 321455 www.horne.co.uk/Included

Kaldewei introduces new washbasins



Introducing new editions of Miena with a playful stylish colour contrast, available in: "Soft Touch" Mint, "Sweet Love" Pink, "Deep Dream" Petrol, "Navy-Blue" matte and 13 more colours. The new washbasin; Ming is the embodiment of subtle sophistication. The convex lines form an elegant silhouette, whist the classic black-and-white colour range acts as a perfect setting for creative

design. The new Ming washbasin comes in four different variations: matte lava black, classic lava black, matte alpine white and classic alpine white. Visit the **Kaldewei** website for more information.

01480 498053 www.kaldewei.co.uk

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Changing habits in public washrooms

Hand washing has become a preoccupation for the nation. As the spotlight turns on our public washrooms, Carole Armstrong, marketing manager at DELABIE, asks if they are able to cope with the increased demand to maintain the nation's collective health.

You can't teach an old dog new tricks, but in recent times we have had to rethink our approach to something as simple as hand washing. Current advice to help prevent the spread of germs and bacteria has made us much more aware of how to wash our hands thoroughly and correctly. The current situation aside, we need to ensure that good hygiene habits are reinforced and continue in our public washrooms in the future.

Turn on the tap

We now find ourselves washing our hands far more frequently... before handling food and eating; after every toilet visit; after sneezing, coughing or nose-blowing; after treating a cut or wound; and after touching animals. And we are more conscious of how to clean them effectively: using soap and water where possible, and drying hands thoroughly with a disposable paper towel.

Self-closing time flow or electronic washbasin taps optimise hygiene because there is no manual contact with the tap after rinsing. Any germs or bacteria present on the controls are not transferred back to the hands. Replacing the aerator with a hygienic flow straightener will also minimise dirt and water retention at the outlet, helping to prevent the development of limescale and bacteria. Electronic taps have an additional benefit of a pre-set anti-bacterial duty flush which activates if the tap is not used for 24 hours. This prevents water stagnating in the tap and the pipe work, a key factor in reducing bacterial growth.

Turn off the tap

In the fight to keep bacteria at bay, our washing routine is now longer and more frequent. But how often do we leave the tap running? Traditional basin taps typically consume nine litres per minute. If hand washing takes 32 seconds, including wetting, soaping and rinsing, and the tap runs throughout, total consumption is 4.8 litres per use*. Typically, we wash our hands four or five times a day, but as we now pay more attention to hand hygiene, this has risen to at least 12 times a day. The impact on



consumption is significant... increasing from 24 litres to 57.6 litres per person per day*.

With environmental concerns running high, self-closing time flow or electronic taps from DELABIE provide the ideal solution. They allow the owner to optimise the water bill without sacrificing user comfort. The valve closes automatically after seven seconds (time flow models) or after removing hands from the detection zone (sensor-controlled models), and the flow rate is also limited to three litres per minute at three bar. The user can, therefore, wet their hands, apply the soap and rinse without the tap running continuously. With a DELABIE electronic tap, water consumption falls to 0.6 litres per use, a drop of almost 90 per cent*.

Wash wash wash

Washing the hands more often and for longer takes its toll on the washroom facilities. Can taps and soap dispensers cope with this increase in use? Unmodified traditional taps have components that wear more easily, resulting in leaks, water wastage and more frequent repairs. DELABIE's taps and soap dispensers, on the other hand, are made from durable materials like solid brass, with mechanisms that can withstand more than 500,000 operations. The fixings are also reinforced to prevent them from working loose over time.

But even the most durable mechanisms require maintenance when used intensively. Timely maintenance extends the life of the tap or soap dispenser. By choosing models with standardised replacement parts, that are easily accessible and easy to exchange, this maintenance is greatly simplified.

Apply enough soap

Bars of soap can potentially harbour germs and bacteria**, as a result, liquid soap and anti-bacterial gel have recently become essential commodities. For effective hand hygiene, the soap dispenser must be reliable and easy to operate. An electronic soap dispenser provides the ideal, hands-free solution for maximum hygiene. The DELABIE battery-operated dispenser works equally well with soap or gel, and delivers an optimum dose (0.8ml) with every activation that can be limited to a maximum of seven doses per user if the user gets a little too enthusiastic. In addition, DELABIE soap dispensers are easy to refill thanks to a wide opening.

Accessorise

Soap dispensers, paper towel dispensers and waste bins must also be able to cope. Public washrooms need accessories that will withstand regular cleaning, and that are equally durable and reliable. The non-porous, smooth surface and bacteriostatic properties make stainless steel the ideal sanitary material: easy to clean, requiring less detergent, and after cleaning, the retention rate of bacteria, germs and dirt is up to 20 times lower than with other materials such as glass or plastic.

Product design is also important – both taps and accessories should have simple designs with minimal joints where dirt and bacteria can build up. Models with a simple, one-piece design have a clear hygiene advantage over complex designs.

Hygiene is likely to remain firmly on the public health agenda. In the fight against the spread of germs and bacteria, hand washing is an essential weapon. Those at the forefront of public washroom management need to have solutions to provide their users with hygienic, water-saving and reliable handwashing facilities.

01491 821822 www.delabie.co.uk





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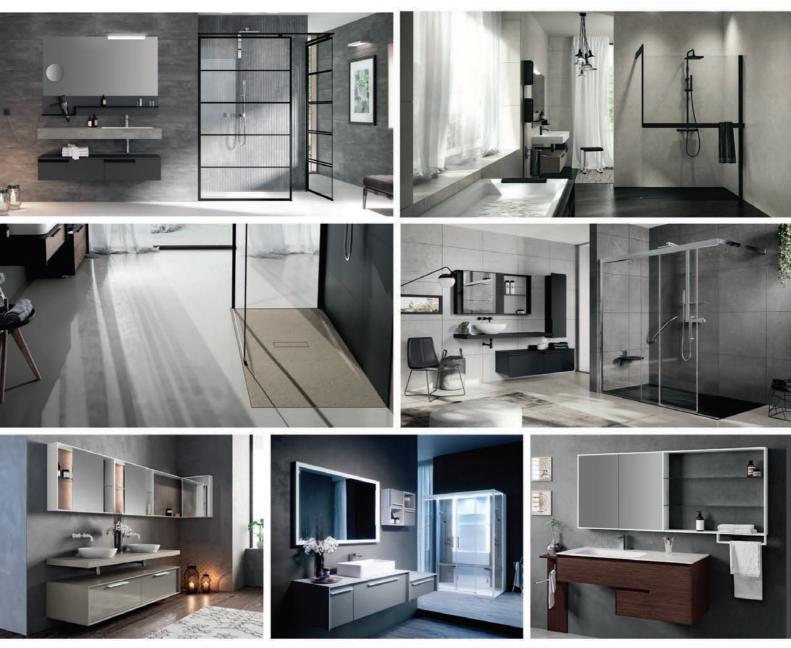
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Novellini UK offers a full range of bathroom products; including bespoke shower enclosures, wet-rooms, steam rooms, spa baths, furniture and much more. All our products are designed and manufactured in Italy ensuring quality and availability. We have an extensive showroom facility at our HQ in Italy to support specifications and technical needs., If you are interested in talking to us about future projects or visiting us in Italy, for more details and availability, please contact our contracts manager Steve Shirley: **s.shirley@novellini.com**.

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www.novellini.co.uk www.iotti.com



Schöck CAD/BIM library now includes Isokorb, Bole and Dorn

C chöck, as a leading international supplier of load-bearing thermal insulation products and reinforcement technology solutions, continues to optimise its digital portfolio service for planners; with the focus very much on improved digital workflow using web applications and BIM objects. In addition to the Isokorb thermal break range which offers three distinct levels of detailing - the updated CAD/BIM library also now offers the Bole punching shear reinforcement range and Dorn single-shear and heavy duty dowels. All in many common 2D and 3D formats. The BIMcompatible IFC files of these varied Schöck products can be used in all common BIM planning software such as Revit, Archicad or Tekla Structures. Digital product information is easily accessible for all those involved from planning to the construction site and can be efficiently integrated in a continuous, networked process.



01865 290 890 www.schoeck.co.uk

The Light Gauge Steel Solution



Simpson Strong-Tie is all set to provide the steel frame construction industry with performance tested connectors and fixings with the release of their 2021 Connectors for Light Gauge Steel catalogue – created for suppliers, architects, engineers, erectors and contractors alike. Alongside the ever popular TJC Jack Truss and Rafter Connector, an on-site adjustable angle bracket, HTT5 Tension Ties and the Quik Drive collated fastening system sit brand new product innovations: The LGSSC Splicing Clip connects over–sail LGS studs to the primary structure; The RCKW Parapet Wall Bracket resists an over-turning moment at the base of exterior knee-walls and parapets; X1214 screws are capable of drilling through 5mm steel and suitable for 450 grade hardened steel; X1224 screws are capable of drilling through 12.5mm steel and suitable for fixing to hot rolled steel sections. "Our range of connectors can assist on-site installation and ensure projects are completed on time and to your specification." Explains Sales Manager Keith Lister. "Our dedicated technical support team are available daily to help you select your solution."

01827 255600 www.strongtie.co.uk

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Whilst clay and concrete airbricks commonly have airflow ratings under 1,200mm², the Cavibrick has an airflow rating of 7,500mm² and is offered in a range of colours. Providing the requisite NHBC ventilation is made easier plus there's a range of straight and cranked sleeves to ensure the Cavibrick can always be

the correct height off ground level. And if there are obstructions such as contaminated land gas barriers present in the cavity, there are gastight preformed harmonising sleeves to pass through them. For more information, please visit the **Cavity Trays** website.

01935 474769 www.cavitytrays.com

Steel and timber combine on stylish build



The Kingspan TEK Building System of structural insulated panels (SIPs) has been used to create a spectacular, cantilevered self-build in Oxfordshire, achieving excellent airtightness and energy efficiency with a fast-track build programme. The Kingspan TEK Building System is formed from

rigid insulation panels which are faced with OSB/3. Kingspan TEK SIPs are pre-cut to each project's specifications by trained delivery partners, ensuring a simple, fast and accurate installation once on site. Their unique jointing system also ensures excellent insulation continuity throughout the envelope while limiting air-leakage.

01544 387 384 www.kingspantek.co.uk

Schöck Isokorb for seafront Passive House Award Winner

eaton is a traditional Devon seaside resort town, but the eye-catching new development on the seafront is anything but traditional. Seaton Beach Apartments offers innovative, award-winning luxury beachfront apartments, complete with a penthouse - and is the first multi-residential development in the UK to be certified as passive house plus. The ground floor is concrete, with monolithic clay block construction used from the first to third floors and timber frame for the penthouse. Combined with high-performance external render and internal plaster, the result is an entirely mineral hygroscopic wall build-up, which helps regulate humidity and provide a comfortable internal environment.

Uses 90 per cent less energy

Other features include low electromagnetic field wiring and a highly efficient mechanical ventilation system with heat recovery and exhaust air heat pump for hot water supply. There is constant filtered air within the triple glazed, airtight construction and PV roof panels generate more energy than the building uses - which is 90 per cent less energy usage than a typical new build. Because passive house standard is easier to achieve with simpler, box-like forms, buildings can be considered aesthetically limited. However, design ingenuity and the use of Schöck Isokorb thermally broken balcony connectors defies that notion. The potentially unexciting building now features



large sea-facing balconies with generous curves. The detailing of these balconies is critical though, if thermal bridging is to be minimised and the energy performance not compromised.

A technically advanced solution

Schöck Isokorb thermal breaks are installed where the balconies meet the clay block structure. Ineffectual insulation at these cantilever connectivity points will result in local heat loss, requiring more energy to maintain the building's internal temperature. Low internal surface temperatures around the thermal bridge can also cause condensation, leading to structural integrity problems with absorbent insulation products and the potentially serious occurrence of mould growth. The Schöck Isokorb is one of the most technically advanced countermeasures against thermal bridging. It thermally separates components from one another and also acts in a structural design capacity. The product type used has an innovative HTE Compact compression module and transfers both negative moments and positive shear forces with cantilever balconies.

Enormous freedom of design

As the leading international supplier of structural thermal breaks, Schöck is able to offer planners complete construction dependability and almost limitless freedom of design with the options available. There are solutions for concrete-to-concrete, concreteto-steel, steel-to-steel, a thermally insulating connection for reinforced concrete walls and even a maintenance free alternative to wrapped parapets. The temperature factor used to indicate condensation risk (fRSI) which must be greater than, or equal to, 0.75 for residential buildings, is easily met by incorporating the Isokorb. All products meet full compliance with the relevant UK building regulations and the NHBC. They also offer LABC Registration and have independent **BBA** Certification.

01865 290 890 www.schoeck.co.uk



Wooden roof of Macallan Distillery resonates authenticity and honesty

The Macallan Distillery and Visitor Experience in Craigellachie, Speyside in Scotland is a stunning sight. Five meadow-covered hills hide the undulating roof of the distillery. The contemporary building combines a wooden roof with glass and steel. Fast, light and green Kerto LVL (laminated veneer lumber) was used as part of the prefabricated roof.

The building includes a Visitor Experience centre, three still houses and a mash house with a common roof and fully glazed wall. This reflects the wishes of the Macallan Distillery, a premium brand, whose single malt whisky production dates back to 1824. The goal was a contemporary facility celebrating phasing, authenticity and honesty.

"Enthusiasts can see how whisky is produced, because the machinery can be viewed from the fully glazed Visitor Experience area. The architecture elevates the beautiful copper stills into something special," says Toby Jeavons, Project Architect at Rogers Stirk Harbour + Partners, a renowned international architectural practice responsible for the architecture.

The natural materials add to this.

"We wanted to celebrate the honesty of materials rather than hide the roof structure with a ceiling," continues Jeavons.

Prefabricated roof structure

The roof consists of a wooden waffle structure, supported by a steel structure. The wooden parts were manufactured at the Wiehag factory in Austria. The glulam beams feature Kerto LVL used as cheeks on both sides, and triangular Kerto LVL panels have been used as roof panels.

"Kerto LVL is a very good engineered wood material, because you can trust the material dimensions," says Johannes Rebhahn, Sales Director International Timber Projects at Wiehag, who was responsible for the roof construction.



and Visitor Experience took only six months. It was a carefully coordinated operation, because the roof contains some 3,600 beams and 2,500 roof panels.

"In general, offsite construction is a great way to save construction time. When prefabrication such as cutting is done in the factory and connections have been designed to be simple, the easier, safer and more cost-effective life on the site is," Rebhahn continues.

The construction of the Macallan Distillery www.metsawood.com

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Fast and agile over rough terrain



BAL have launched a new rapid-setting levelling compound – BAL Level Fast. BAL Level Fast lets you get on with tiling sooner with floors ready to walk on after only 30 minutes and ready to tile after only 45 minutes! Fast and agile over rough terrain, it is suitable over underfloor heating and timber

floors from just a 3mm bed depth, BAL Level Fast is engineered to ensure a longer wet edge (10 minutes) and anti-shrinkage technology to provide the perfect substrate for tiling small domestic projects.

01782 591160 www.bal-adhesives.com

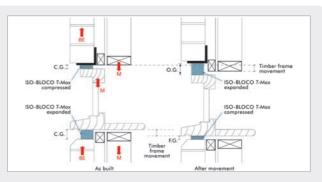
Roofshield recognised for Royal protection



The Royal College of Music in London has been given an extra layer of protection in the form of Roofshield, which has long been recognised as one of the highest performing roofing membrane solutions, providing a pitched roof underlay, which is both air and

vapour permeable. D. Harkin chose Roofshield air permeable roofing membrane from the **A. Proctor Group.** The product's exceptional performance has been demonstrated in the toughest locations around the world. Its characteristics allow even very complex pitched roofs to breathe, without the need for air gaps or secondary venting.

01250 872261 www.proctorgroup.com

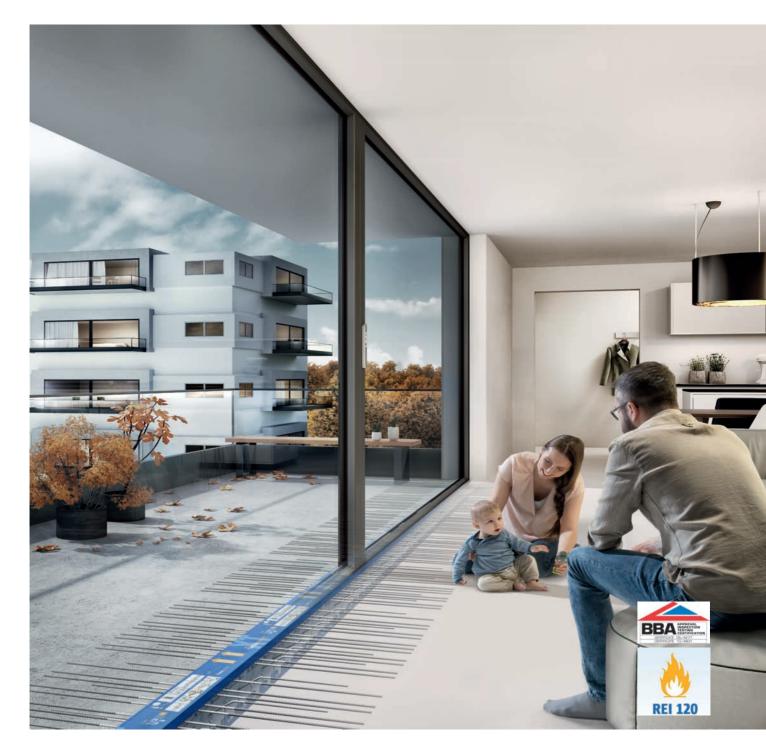


Improved differential movement sealed with ISO BLOCO T-max

Improved compensation of differential movement in timber frame structures is provided by ISO-BLOCO T-Max from construction foam tape specialists, **ISO Chemie**. Designed for multi-storey timber frame structures, ISO BLOCO T-Max compensates for the large amount of differential movement which can occur between the internal timber wall and roofs and the external brick or block work. Engineered to provide 39mm of movement and ensure the joint remains weather tight to a minimum of 450 Pa, equivalent to Storm Force 10 on the Beaufort scale, the tape is the best in class for movement accommodation. It also offers a highly effective 'fit and forget' perimeter weather and air tightness seal for windows, particularly at heads, cills and under the roof eaves, while remaining permeable to trapped water and water vapour – in the same way a breathable style material works on a building facade.

01207 56 68 67 www.iso-chemie.eu/en-GB/home





Latest Schöck BBA Certification raises the bar.

Thermal break technology you can trust.

No need to compromise on performance, quality or service. Schöck products meet full compliance with relevant UK building regulations, are approved by the BBA, LABC registered and classified as fire resistance class REI 120.

Cradle to compliance

Peter Rigby at Cellecta proposes a simple way to achieve high levels of acoustic insulation to meet Part E in concrete floors, while providing acceptable tolerances



t is not uncommon to experience uneven substrates in both new and existing concrete floors, particularly in high-rise buildings where large sectional pours mean tolerances can be extremely varied. As a result, installing the levelling compounds required can prove to be costly and time-consuming.

Installing an acoustic cradle and batten system provides a floor that is quick to install, lightweight and extremely accurate, enabling contractors to get the floors to within the nearest millimetre. The flexibility of the system also enables services to be run in the floor zone, as well as being suitable for underfloor heating systems, and will accept a multitude of floor finishes with very little preparation required.

Large apartment blocks, by their very nature, utilise large areas of concrete floors and getting the tolerances right can be challenging. Whether that is allowing for a camber in a hollowcore plank floor, or pouring insitu concrete slabs, a cradle and batten system can level up even an out of tolerance slab, or just be used as a lightweight way of raising floors. We have seen projects where the floors are out of tolerance by up to 30 mm in an apartment, and have had contractors ask for floors to be raised by 325 mm.

The system comprises certified softwood timber battens, supported by acoustic cradles with a high compressive strength





rubber pad for impact reduction. The timbers are levelled using a combination of plastic packers and elevation blocks to offer flexibility in height adjustments, with the system designed to provide quick and easy installation.

Often there is a conflict between reducing impact sound through the slab, which by its very nature should have some flexibility, and the stiffness required for the use of brittle finishes such as large format ceramic or porcelain tiles. Extensive testing of the systems is required to provide specifiers, contractors and installers with the confidence that the system will perform, no matter what floor finish or acoustic performance is required in any given specification.

With underfloor heating becoming more prevalent in many new building projects, floors of this nature are not just looked upon to level uneven floors.

Thermal benefits

The global climate crisis is rightly bringing energy efficiency into focus, and having proficient heating systems is just one small part of how we are constructing more environmentally friendly homes. This has seen a bigger call for overlay boards and floor finishes with low thermal resistance, ensuring a more responsive underfloor heating system that has greater controllability.

Further aiding flexibility, the systems are designed so that incorporating an underfloor heating system and a highdensity gypsum overlay board is simple. Installing insulation and diffuser plates in between the timber battens means the heat is transferred upwards with very little resistance from the overlay board meaning the heat is transferred into the room quicker. Heat transfer can cause its own issues however, with chipboards traditionally having high levels of expansion and contraction with changes of temperature. High-density gypsum boards do not have this issue, and so installing tiles, vinyls and wood flooring has never been easier.

Engaging with stakeholders

As with any system, engaging with the stakeholders of the project is key to eliminating possible issues or time delays on site. Issues such as metal frame facades, high point loads for projects such as schools or hotels and fire detailing all have simple solutions if thought about from an early stage in the build process. An acoustic cradle and batten system is quick to install, lightweight and accurate, and enables contractors to get the floors to within the nearest millimetre

A lot of the issues we see on sites using raised floor systems can be overcome very easily, however, it is critical that these are identified at an early stage so that we can work together to offer solutions. It may be as simple as bringing in the centres of the batten system for corridor areas or kitchens and bathrooms that typically experience higher loadings, but even the simplest solutions can seem trickier if they are dealt with 'last minute.'

Case study

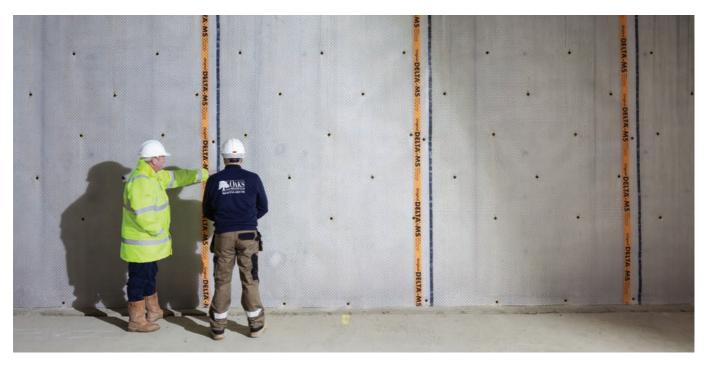
A recent project in London highlights many of the points discussed in this article. Over $12,000 \text{ m}^2$ of acoustic cradle and batten was installed, incorporating underfloor heating, with most of the floor finished with 600 x 1200 large format porcelain tiles. It was important on this project that consultation was undertaken with the architect, tile manufacturer and tile installer at an early stage to find a balance between the needs for acoustic performance while minimising deflection.

The system was rigorously tested at a UKAS accredited laboratory to confirm that the overall level of deflection met the stringent requirements from the customer. The flooring and underfloor heating contactor were also engaged and trained with the improved acoustic system, and the installation incorporated a cantilever solution at the glazed facade which accommodated differing floor void heights, also requiring increased loading to kitchens and corridors. This did have an effect on how the underfloor heating zones were to be fitted, so again consultation prior to the start of the works was so important in order to maintain output and overcome potential snags before they happened.

Peter Rigby is key account and supply chain manager at Cellecta

Watertight concepts

Christopher Burbridge from Delta Membranes looks at the importance of concrete in below ground waterproofing, and the key factors for achieving a robust specification



The restrictions Covid-19 will inflict on the construction industry, and how the pandemic might influence how we work in the future, is very much an unknown. Of huge reassurance is that the industry is well versed in dealing with difficult times, and adapting to change. We often think of the word "change" as being a negative, however, it can help us to develop a more resilient approach and assist with our capacity for growth and learning.

One material which has definitely seen a lot of coverage during the pandemic has been concrete. With many plants closing during lockdown, concrete supplies were choked off, with limited options and increased lead times. Construction projects rely heavily on quarry products, and this will have impacted on projects in various ways ranging from delays to sourcing new supplies.

The strong industry demand for concrete, due to its many important attributes such as in structural waterproofing, will continue in importance, as specifiers look to ensure life-cycle oriented design and reliable, durable and robust waterproofing solutions.

Structural waterproofing

In terms of types of structural waterproofing, concrete is classed as a Type B, integral protection system. British Standard BS 8102:2009, which all waterproofing systems should adhere to, defines three types of systems.

Type A (Barrier) Protection

Also historically referred to as 'Tanking,' this provides protection against groundwater ingress by applying a waterproof material to the internal or external walls and floor slab of a basement or underground structure, forming a barrier between the structure and any groundwater. Historically, methods for Type A systems included internal, external and sandwich.

Type B (Structurally Integral) Protection

This is protection against water ingress provided by the structure itself. Type B





The devil is in the detail – all waterproofing elements must be considered at the construction design stage to be durable and effective



Protection relies heavily on the design and materials incorporated into the external shell of the structure.

Design, materials, as well as the quality of the workmanship, contribute to the success of Type B Systems. The pattern of any seepage encountered is often associated with poor joints, cracks or other 'discontinuities' such as service penetrations.

Type C (Drained) Protection

Provided by an internal water management system, Type C Protection allows moisture or running water to penetrate through the external wall or floor of the structure and to travel behind the membrane in a controlled drainage system. Type C systems collect and manage water ingress by diverting it into a designated safe point of disposal (such as a sump pump/package pump station).

Waterproofing systems for below ground structures have stringent requirements regarding durability, exposure and stress conditions. Today, the service life of modern reinforced concrete and glass curtain wall buildings is required to be 60 years or more, and in conventionally built structures (masonry and wood) up to 120 years is expected. The lack of water-tightness in a structure can severely reduce the service life however.

Water ingress over time will result in a physical attack and deterioration of the concrete and embedded steel.

While concrete is classed as impermeable, the water tightness of a Type B construction

system is reliant upon the design and construction of the basement as an integral shell. Designing and constructing a concrete structure to be watertight requires good crack width control, waterstops/waterbars in joints, design considerations to service penetrations, and the use of suitable concrete such as a reinforced or waterproof variety, with admixtures included. Concrete which incorporates a range of admixtures has improved resistance to water ingress.

To establish a waterproof structure when using concrete, it's essential to follow good concrete practices. The importance of ensuring concrete is fully compacted and cured should be fundamental. If compaction is not appropriately carried out various problems may arise, such as honeycomb, loss of strength and increased risk of cracks. Poor compaction of concrete can also lead to water entry via capillaries and pores.

The compaction process expels trapped air from freshly placed concrete, and packs the aggregate particles increasing the density of concrete. Adequate compaction is essential in maintaining the structural integrity of a structure, especially in basement slabs. It increases the concrete's ultimate strength, as well as durability and resistance to water ingress, while minimising shrinkage and the chances of cracking while enhancing the bond between concrete and reinforcement.

Project failure can happen to any project, and there are an infinite number of potential reasons. In most cases, failure is controllable. There are many common pitfalls when it comes to designing a robust waterproofing system. Products do not fail; when failures occur, it is due to the design and build philosophy not being correct. The devil is in the detail – all waterproofing elements must be considered at the construction design stage to be durable and effective.

Expect your structural waterproofing designers to advise on what tests they would expect to see for your scheme, such as geotechnical and soil testing. Waterproofing design approaches should encompass the entire project, with consideration to technical challenges – which can arise from soil conditions, water tables, groundwater conditions and environmental changes – whilst anticipating any defects such as improperly cured concrete, inadequately designed foundations, or poor workmanship.

Christopher Burbridge is managing director at Delta Membranes

Design Flexibility & Performance from Scotframe



Key to achieving this extraordinary performance is that the insulation is injected in off-site, quality-controlled factory conditions. The foam expands into every nook and cranny, providing a best-in-class BR443 U-value correction factor of zero. As well as excellent thermal insulation performance, details are available to minimise thermal bridging and give excellent airtight fabric levels.

The Scotframe Val-U-Therm[®] building system was originally launched in 2011 and has been used in over 8,500 homes with an excellent track record. A UK market leader in full timber frame packages for new housing and commercial projects, Scotframe exclusively offers the Val-U-Therm PLUS[®] closed panel building system. This is accepted by financial institutions, NHBC, Premier Guarantee and Checkmate – the panels have a 60-year minimum service life.

Because it's a hybrid of the best aspects of SIPS and timber frame technology, coupled with the latest advances in material science, it offers much flexibility and innovation in the design and build process. The unique combination of design opportunities includes:

- Can be used for walls, roofs and floors
- All types of design and architecture, even curved walls and roofs
- Can be thermally engineered to perform as an optimum combination
- Unrestricted elevational treatments brick, stone, render, cladding, tile, timber, etc.
- All interior finishes and treatments
- Large-span roofs with vaulted ceilings, if required
- Dramatic open-plan layouts offering lifestyle flexibility
- Extensive glazed features and uninterrupted roof-space living areas
- BBA accredited building system, including in-fill panels in other building systems

Couple this with its exceptional thermal



performance and sustainability, Val-U-Therm PLUS® provides a straightforward and cost-effective way for architects to hit energy efficiency, air permeability and other environmental targets. It offers a fit-andforget, future-proof solution, whatever level of environmental specifications are required – for example, 'A' rated Energy Performance Certificates, PassivHaus or the highest levels of energy saving and carbon neutrality.

The patented Val-U-Therm PLUS[®] is also inherently sustainable due to careful sourcing of raw materials with a minimal environmental impact. Scotframe's timber is sourced from FSC and PEFC sustainably managed forests and the insulation in Val-U-Therm PLUS[®] panels is based on renewable vegetable oil, has zero ozone depletion potential and is CFC, HFC and HCFC-free with a Global Warming Potential of less than 5. This means it has a BRE Green Guide A/A+ Rating – the same as straw bales or sheep wool yet is hydrophobic offering flood mitigation.

From the UK's first PassivHaus for rent (which won a Green Apple Award) to examples that significantly exceed the PassivHaus standard, Scotframe has been leading the way using Val-U-Therm[®] technology in energy efficient building for many years.

The Maryville PassivHaus delivered a total primary energy demand of 69 kWh/m²a (exceeding the PassivHaus requirement of 120 kWh/m²a). This 'Fabric First' approach is also suitable for commercial buildings – the Rocking Horse Nursery at the University of Aberdeen, which caters for 78 pre-school children. achieved an air tightness of 0.475 ACH.

Hence Scotframe homes and buildings are warm and draught-proof in winter, cool and well ventilated in summer, healthy for all the family and enjoy remarkably low energy bills. Scotframe Val-U-Therm PLUS[®] allows the construction of typical family homes that can cost less than £95 a year to heat.

The great news is that building to these high standards is not necessarily more expensive or time consuming using Scotframe Val-U-Therm PLUS[®]. Edinburgh Napier University compared the cost per square metre of superstructure using 10 different building systems.

Scotframe Val-U-Therm® cost £1092 when built to PassivHaus standards, while the other nine systems ranged from £711 to £1138 when built only to existing Building Regulations. It took 65 days to build a Scotframe home to PassivHaus standards; the other 26 homes ranged from 49 to 126 days to build, again only to Building Regulations.

So, if you are looking to design a dream home or superlative building – think Scotframe Val-U-Therm PLUS[®].

Scotframe Timber Engineering and Val-U-Therm are proud to be part of the Saint Gobain Group of Companies.

01467 624 440 www.scotframe.co.uk

Soprema UK adds to Roofing Range with Alsan 601 Wet-on-wet Membrane

Soprema UK, the specialist in roofing, waterproofing and insulation solutions, has added to its wide-ranging roofing systems with the launch of Alsan 601; a wet-on-wet polyurethane cold-applied liquid roofing system.

Developed to enhance the choice and variety available to specifiers and contractors from the trusted Soprema brand, Alsan 601 builds on the versatility of the company's roofing range, which includes PMMA liquidapplied systems, bituminous membranes, hot melt and single ply. The new system will be available through Soprema's UK-wide distributor network, enabling contractors to benefit from local supply chains, while specifiers can benefit from Soprema's usual high levels of technical support and advice.

With a BBA-accredited service life of at least 25 years, Alsan 601 will carry a 20-year Soprema warranty and cures to form a durable, seamless, waterproof roof covering that eliminates any risk of water tracking



below the surface.

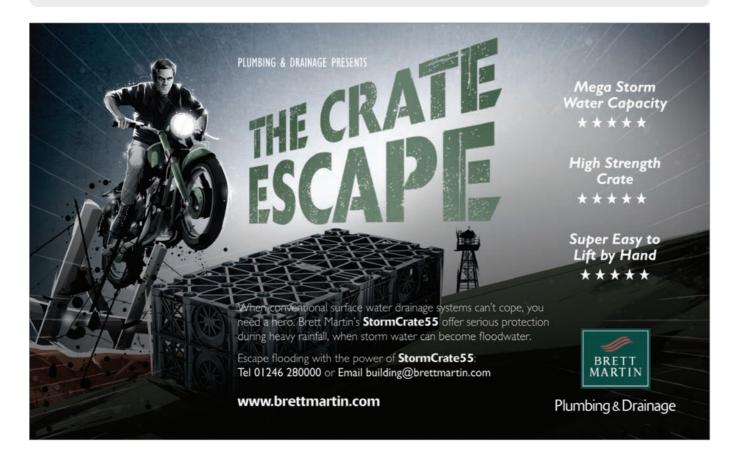
The Alsan 601 system has been developed with ease, speed and convenience of installation in mind, with smaller 10 litre tins available for minor works, along with standard 15 and 25 litre sizes. The liquid membrane provides flexibility of cure rate to suit installation conditions, with use of an accelerator reducing cure time to 2-4 hours. The accelerator also allows the system to be installed at temperatures as low as 00C, making it ideal for projects delivered during the winter months.

Alsan 601's viscosity can also be adjusted in response to application requirements, with an additive available within the range to enable installation on vertical surfaces and upstands.

Available in a choice of two shades of grey, the liquid membrane is used in combination with a glass fibre reinforcement fleece, which breaks down as a homogenous component of the system during installation for a smooth roof finish.

Like all Soprema roofing systems, Alsan 601 will be supported with a full installation training and approved contractor programme, along with technical support and warranties.

0330 058 0668 www.soprema.co.uk/en



Pump Station selection made simple!



Francis Construction Ltd. were asked by the owners of an industrial site in Berkshire to convert the usage of a single warehouse into two separate units, each incorporating offices, kitchen facilities and toilets. The site plans and levels were given to **Pump Technology Ltd**, who sized and specified a below

ground pumping station which perfectly matched the company's needs and budget. "PumpMatic" 75/1000 station was installed within the footprint of the warehouse. PumpMatic pumping stations are manufactured within the Pump Technology Group, enabling them to fully control the high build quality and ensure on-time delivery.

0118 9821 555 www.pumptechnology.co.uk

Protecting our staff and clients



H.D. Services Ltd specialise in the construction and development of boreholes and soakaways and the installation and maintenance of independent sewage treatment systems and open-loop ground source heat pumps in the South East. The past few months have seen

much change for everyone, and have impacted some business hard. We are one of the fortunate ones and have much to thank our staff and clients for. We are paying close attention to Government, PHE and WHO advice and adapting our working practices to ensure the continued best level of safety for our staff and customers.

01494 792000 www.hdservicesltd.co.uk



PUMPING SOLUTIONS



Modular skylights to maximise the positive effects of daylight upon patient welfare



140 modules of the **VELUX** Modular Skylight system have been installed at the new Wicklow Hospice at Magheramore, Ireland, providing ventilation, thermal comfort and natural light.

Wicklow Hospice Foundation appointed Martin Noone Architects, from Dún Laoghaire, to undertake the design of this section 38 facility, which was completed in January 2020 and accommodates 15 in-patient bedrooms, a number of treatment rooms, café, shop and an oratory, plus management and office suites. Critical to the design of this healthcare facility was the need to harness the positive benefits of natural daylight and create an environment that would be sensitive to the needs of patients, nursing staff and visitors alike.

To find out more about the importance of daylight in the healthcare sector, please read the full case study at: commercial.velux.co.uk/inspiration/case-study/wicklow-hospice

01592 778916 commercial.velux.co.uk/en

Marmox makes ideal render backer



The redevelopment of an unusually large agricultural homestead at a farm in the Surrey commuter belt has seen the main contractor make full use of the technical benefits offered by **Marmox** Multiboard, in facilitating the creation of an attractive new outward appearance that

will deliver low maintenance as well as improved energy performance. One of the company's founders, Charlie Cooke, recounts: "Marmox offered us all the technical guidance we required, including comprehensive installation instructions, and our operatives found the boards very easy to install using the special washers and sealant."

01634 835290 www.marmox.co.uk





J&P Building Systems' thermally-isolated balcony connection products ISOPRO® and ISOMAXX®, have been issued a European Technical Assessment (ETA 17/0466). Used to prevent thermal bridging at balcony connection points, ISOPRO® and ISOMAXX® improve the thermal efficiency of the building envelope, helping prevent heat loss, condensation, and

mould growth in interior rooms. ETA 17/0466 provides verification by UK and European building authorities of product performance in up to 120 minutes of fire conditions. ISOPRO[®] and ISOMAXX[®] are also used to support walkways/other exterior concrete features.

01844 215200 www.jp-uk.com



BURNHAM-ON-SEA, SOMERSET TA8 2HW TEL: 01278 786104 EMAIL: SALES@BIODIGESTER.COM WEBSITE: WWW.BIODIOGESTER.COM



Kalwall secures cargo

Kalwall® translucent cladding has been used in another project at Heathrow Airport. This time it has been specified for a new 10,000m² state-of-the-art premium cargo terminal. Designed by specialist logistics architects Gebler Tooth Architects, this temperaturecontrolled facility has been built to handle pharmaceutical and other premium cargo. Kalwall has been installed to transmit high quality diffused daylight while also helping solve the issues around solar gain, privacy and security. A specialist bespoke Kalwall canopy provides protection without compromising visibility for critical operations. The Kalwall wall elevation provides glare free diffuse daylight, avoiding hot spots and reducing the reliance on the HVAC systems to maintain the constant internal temperature required in such a facility. The cladding's inherent strength and heavy duty impact resistance make it ideal for secure locations such as this while U-values as low as 0.28W/m²K, equivalent to a solid wall, can be achieved by including translucent silica aerogel within the panels.

www.structura-uk.com/kalwall



More than just elegant façades and roofs

Attractive aesthetics combine with low maintenance, 100% recyclability, an Environmental Product Declaration with a 100 year service life and A1 / A2 combustibility ratings.

For more information, literature, a CPD request or samples please contact us.



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VM Building Solutions Phone: 0203 445 5640 vmzinc.uk@vmbuildingsolutions.com

www.vmzinc.co.uk

Balcony decking replacement essential



As fire-safety regulations continue to evolve, property managers are facing the mammoth task to make their buildings safe. **AliDeck** recently supplied their aluminium decking to a retrofit project at a one-year old high-rise development in

London. Composite decking had been used on the hundreds of balconies on the site which failed a subsequent EWS1 fire-safety survey, resulting in thousands of pounds of material having to be disposed of to bring the building to compliance. Richard Izzard, AliDeck managing director, said "We are still seeing new developments using composite decking on balconies, which is non-compliant and will need to be replaced."

01622 534 085 www.alideck.co.uk

Sto brick slips used to complete facade



A combination of external wall insulation and brick slips from **Sto** were specified for a major new landmark building in Birmingham. The StoTherm Mineral K insulation system and StoBrick were chosen for the city's new Toybox student accommodation building for their ability to combine outstanding thermal performance with a traditional brick appearance, and blend with other construction materials. The StoTherm Mineral K

insulation system uses mineral fibre boards which were adhesively fixed to the substrate. This allowed for fast and easy installation.

0141 892 8000 www.sto.co.uk

No more 'Ugly' Solar Panels



The experts at **Crest** outline the benefits of the Crest Planum and PV Integrated solar system. With an increasing focus on sustainable solutions in the built environment as the UK looks to reduce its greenhouse gas emissions, Crest Building Products offers the Crest Planum and PV Integrated solar system. Engineered to fit quickly and easily with the Crest Planum

concrete flat tiles. Crest's PV Solar Tile solution provides an almost seamless, attractive finish to the completed roof, whilst supplying the homeowner an instant clean and efficient energy supply.

01430 432 667 www.crest-bst.co.uk

Dream big and dream bold with Aliva



Aliva UK's 'Class A' EWI brick slip systems offers versatility, adaptability and cost effectiveness. Aliva UK's combines EWI with four leading-edge solutions: Clay, Lightweight, Stone and Ceramic to realise bespoke brick slip design with scale and scope rather than watered down architectural aspiration. Its brick consultants have 25 years' experience, a proven pedigree in providing

counsel around Modern Methods of Construction alongside the possibilities and practicalities of brick slip solutions. Why use traditional when you can use a slip method from Aliva UK as your new normal?

01183 240 130 www.alivauk.com



Cladding fit for the future

With the Government targeting net-zero carbon emissions by 2050, Paul Richards from Aquarian Cladding Systems looks at why brick cladding systems might prove to be an ideal solution

ith architects under pressure to be cleaner, faster, and safer, one of the most important decisions to be made on future building projects will be whether to achieve a brick finish using traditional brickwork, or a brick cladding system.

And as the desire increases to reduce both construction cost and build time, as well as build more sustainably, the widespread use of the humble brick is likely to find itself being confined to the past, and nostalgia.

Its legacy, however, will live on as brick facades remain as popular as ever in British architecture, with the use of modern brick cladding systems increasingly being used to achieve a natural finish which looks and weathers exactly like conventional brickwork – but without the limitations that come with brickwork installation.

The benefits, however, are much more far-reaching than just providing a traditional brick facade, and shelter from the weather.

Reduced installation times and cost

The process of laying bricks by hand is messy and weather dependent, so can therefore be slow and unpredictable.

Lightweight brick cladding systems can be installed in almost all weather conditions, and installation is typically much faster than traditional brickwork, dramatically reducing installation times.

By eliminating the need for masonry supports, the method offers a reduction in foundations, structural frame and 'prelim' costs (including replacing scaffolding with mechanical access equipment and fewer storage requirements). It also offers greater flexibility of build sequence and earlier project completion, ultimately leading to less risk of programme over-runs.

Sustainable

Using brick cladding can also reduce the impact on the environment, due to the use

As panels are factory-made there's greater quality control throughout, and a more consistent and predictable product

of brick slips, which typically require 80 per cent less volume of clay and mortar.

Thinner pieces of clay require less embodied energy to produce them, and less mortar means a reduction in the supply, use and storage of sand, cement, and water.

Due to the reduced volume of materials, deliveries to site are also reduced by up to 75 per cent, improving sustainability by reducing the impact on global resources and adding value to local communities, with less waste disposal on site too.

A better build

Brick cladding systems improve thermal efficiency and, when used as a rainscreen with a cavity, can provide healthier, breathable buildings; they dry out quicker and are therefore less prone to the risks of interstitial condensation than thicker, conventional brickwork.

Thinner walls also mean that the internal floor area can be increased, providing commercial benefit via the real value of space.

As brick cladding panels are factorymade, the quality of workmanship is higher than traditional brickwork, allowing for greater quality control throughout the process and therefore a more consistent and predictable product.

A design for life

Brick cladding systems can enable the designer to achieve a brick facade without compromise. With a wide choice of natural colours and finishes, they provide a wealth of design opportunities to be creative and, it could be argued, provide even greater design flexibility, allowing the designer to









achieve more with a brick cladding system than with conventional brickwork.

From a weathering perspective, you can expect brick facades, when designed and built well, to improve with age, unlike other facade materials that can react negatively to UV light and show degradation from the elements over time.

Brick cladding systems also provide an improved quality of appearance compared

with brickwork, which can vary wildly. With an ageing workforce, bricklaying is a skill that isn't as widely available in the market today, so using a cladding system enables you to achieve greater productivity and a higher standard of bricklaying, while still giving you a building that's built to last.

A viable alternative

The choice of whether to go with traditional brickwork or a brick cladding system depends on many factors, but importantly specifiers now have another option when considering the cost, buildability, programme, and complexity of design to achieve a perfect brick wall.

The typical 'go-to' solution of conventional bricklaying to achieve a brick facade now has a serious competitor. Brick cladding systems are a perfect hybrid alternative, combining all the benefits of a traditional appearance with an offsite solution that can be adapted onsite. Welcome to the fourth industrial revolution.

Paul Richards is managing director of Aquarian Cladding Systems

Carlsberg Group Headquarters

Office building, Copenhagen, Denmark Architects: C.F. Møller Architects

> "bubbly" facade is part of a major development project.

A massive transformation of what is (probably) the most famous brewery site in the world, has resulted in a stunning and vibrant new city district in the heart of Copenhagen. With a combination of both modern and historic architecture, the extraordinary Carlsberg City District will provide both office and residential buildings, as well as cafes, shops, hotels and schools.

The Carlsberg brand is synonymous with thirst-quenching drinks, so it is fitting that the facade design for the entrance of their new headquarters depicts refreshing golden bubbles, leaving you to imagine your favourite Carlsberg tipple. The facade was manufactured and supplied by RMIG using RMIG ImagePerf to create the pattern of the bubbles.

01925 839 600 www.rmig.com



TECHNICAL CHARACTERISTICS

Raw material: Aluminium Pattern: RMIG ImagePerf Thickness: 3.0 mm Finishing operation: Bending Surface treatment: Anodising D1(AC-Gold)20 MY



BEING BOLD IN BRICK SLIPS

Architects can dream big and dream bold with Aliva UK's 'Class A' EWI brick slip systems, a product suite that offers versatility, adaptability and cost effectiveness.

Architects are not bound by one type of brick slip, standard or restricted ranges with Aliva, thanks to its relationships and supply chain that spans the UK, Spain, Italy, Germany and Holland.

The facade specialist combines EWI with four leading-edge solutions: Clay, Lightweight, Stone and Ceramic to realise bespoke brick slip design with scale and scope rather than watered down architectural aspiration.

The team can advise on weight and support systems through to the cost efficiency that EWI and brick slip solutions can present compared to a traditional construction method. Why use traditional when you can use a slip method as a 'new normal'?





Off-the-shelf non-combustible whole balcony specification now easily achievable

Which fire-safety paramount post-Grenfell, the specification of non-combustible materials to all external building elements is essential. With the launch of two new product lines for soffit cladding and balustrades, aluminium decking manufacturer AliDeck have made the process of specifying compliant balconies simple.

Aluminium decking manufacturers AliDeck have added two new product lines to their offering; AliRail and AliClad. These firesafe, aluminium balcony balustrade and soffit cladding systems are welcome additions to AliDeck's established range of balcony decking products and create a full package for easy balcony specification.

Richard Izzard, AliDeck Managing Director, said "We have worked very closely with steel fabricators as we've developed and grown our decking line and those conversations have helped us understand how an off-the-shelf whole balcony system would really simplify the process of balcony construction."

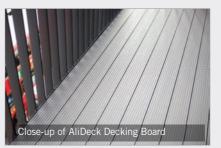
AliRail is a versatile balustrade system for bolt-on or slide-on balconies and offers multiple options for handrails and in-fill panels. Modular and configurable, the balustrades can be specified with aluminium rails and panels or glazing, or a mixture of both. An option for LED lighting in the underside of the handrail has been designed into the profile for a striking night-time aesthetic effect.

"Balustrades are a major component in balcony construction, needing to provide safe edge protection and a seamless aesthetic integration," continued Richard. "Following the Grenfell tragedy fire safety is also a major concern, so with AliRail achieving the Euroclass A fire rating, satisfying load and durability requirements, and possessing elegant visual design all of those concerns are met and exceeded."

The new AliClad soffit cladding is a similarly solution-driven system. Consisting of three distinct products (Flow, Decor, and Lite) in the AliClad range, this novel approach to balcony cladding solves in turn problems relating to drainage, aesthetics, and cost.

AliClad Flow has been designed to provide a water-management system at the balcony







underside. Delivering fast and efficient removal of rainwater and other liquids, AliClad Flow is an ideal solution for safe and controlled balcony drainage.

With just three simple components making up the 100% aluminium AliClad Flow system, soffit drainage is quick and easy to factor-in to balcony design. Effectively a channel drain, the AliClad Flow system is comprised of a flat, interlocking soffit/fascia panel, a starter trim, and an innovative soffit gutter. Water is collected by the soffit panels and evacuated in a controlled way at the front of the balcony.

AliClad Decor is, as the name suggests, a decorative product, with an attractive box profile providing excellent visual impact as it seals the soffit, with drainage managed in the balcony deck above. Finally, AliClad Lite is a simple, cost-effective, free-draining soffit cladding option that neatly conceals the steel framework of the balcony underside.

"We believe that AliClad will help change the way that architects and fabricators approach balconies and were delighted to see that aspiration begin to be validated when it was specified into projects within days of launch," remarked Richard. "By removing the need for bespoke folded steel and providing an entirely off-the-shelf cladding solution, architects can be sure that cost, compliance, and design concerns are satisfied from the moment of specification."

With the combination of AliDeck, AliRail, and AliClad now providing the ability to specify in a stroke all elements of a balcony excluding the steel framework, balcony design and integration into schemes has become markedly simpler. It also fully resolves questions of compliance, as all components of the three systems have undergone independent fire testing to achieve the EuroClass A Rating required by legislation.

It is this guaranteed compliance that is perhaps the most impactful element of the AliDeck, AliRail, and AliClad proposition. Against a backdrop of turmoil in the leasehold mortgage market due to issues surrounding the External Wall Fire Review/EWS1 scheme, the value of the certainty of the entire balcony specification exceeding legislation requirements cannot be understated.

"We're very excited about the opportunities our triple offering can deliver to the industry," concluded Richard. "Our goal is to provide safe, compliant, durable, and practical products that positively impact the workflows and outcomes of the construction sector."

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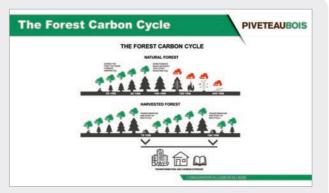
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Wembley Pink MSCP is part of an extensive regeneration project that will also include new housing, shops, venues etc. The multi-storey car park has been built to serve the needs of the national stadium and can provide parking for 290 coaches and 730 cars. It will also house 18 outdoor broadcast units for large international events.

RMIG provided a colossal 4665m² of perforated metal to create the facade that encases the car park.

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ALUCOBOND® chosen for Erie Basin Development Salford Quays, Manchester







PROJECT DATA:

Project: Erie Basin Location: Salford Quays, Manchester Facade material: ALUCOBOND® A2 Special Colour Red Construction system: Tray Panels on bolts Architects: Sheppard Robson Fabricator / Installer: Premo Fabrications / FK Group Year of construction: 2019 Copyright pictures: John Kees Photography

A Composites GmbH, has been chosen to clad Erie Basin, a stunning new landmark residential development, for Peel Holdings / Millennium Estates, on the former Dock 9 site in Salford Quays.

The scheme forms part of a much wider regeneration of the waterfront and offers two separate blocks, comprising of more than 200 apartments, as well as 6,000 ft² of retail space, positioned to maximise views in southerly direction along the dock.

Sheppard Robson Architects chose ALUCOBOND® A2 aluminium rainscreen cladding panels finished in different shades of the special colour Pigmento Red, in order to enhance the simplicity of each of the individual components. In addition, ALUCOBOND® A2, being a non-combustible aluminium composite panel with a mineral-filled core, it meets all

the strict requirements of fire regulations, as well as being impact-resistant, breakproof and weatherproof.

ALUCOBOND® A2 was the ideal choice given its sustainability credentials, having an environmental product declaration (EPD), according to international ISO standards, which provides and independently verified life cycle assessment (LCA) as well as BREEAM contribution.

Some 15,000 m² of ALUCOBOND® A2 cladding was used on the project, which was installed by FK Group and fabricated by Premo Fabrications.

Paul Herbert, Sales Manager: 07584 680262 Richard Clough, Business Development Manager: 07760 884369

www.alucobond.com

Comar 7P.i FSDX – British by Design

The next generation of aluminium bifold, folding sliding door has arrived from Comar Architectural Aluminium Systems. Designed with demanding specifications in mind including industry leading door leaf weights and widths, high security ratings and contemporary styling.

Comar FSDX eXtra – Glazing

The view out of the FSDX door offers the homeowner that little bit eXtra. With the slimmest sightlines available of 60mm, the doors maximise daylighting into the home. The maximum width of the doors has been increased allowing door sets over 4m with only 3 doors.

Comar FSDX

Superior, stabilised rolling action with the quietest roller in the industry and improved weight bearing capacity means fit once and easy maintenance. The new outer-frame is a single profile all round, used for the track, jambs and threshold, reducing fabricators' stock holding. The frame construction is mitred with 2 crimping options: pinned cleats

for creating pre-assembled outer frames that can be shipped to site or mechanical cleats allowing outer-frames to be shipped for onsite assembly.



Comar FSDX eXtra Roller

The stainless-steel dual roller always keeps perfect contact with the stainless-steel track due to stabilisers, meaning that even if building tolerances cause slight track misalignment the smooth rolling action is ensured. The weight bearing capacity is a substantial 120Kg which with FSDX's 62mm glazing pocket allows triple glazed or acoustic glass to be easily incorporated.

Comar FSDX eXtra – Threshold

Superior thermal performance with the integrated stainless-steel track means that low U-values and performance are guaranteed. The efficient profile design offers threshold, jambs and head all in one. In service the profile is simple for occupants to maintain, reassuring for designers and installers alike by minimising call backs.

Comar FSDX eXtra – Hinges

The new hinge design, duplicated in the roller hinged pillars, thoughtfully includes preapplied foam pads to give a draught free seal when the doors are closed, increasing homeowner satisfaction and no call backs for the installer.

Comar FSDX eXtra – Security

Security performance of PAS 24 is assured due to a single piece stainless steel multipoint hook lock with adjustable keeps that provide optimal airtightness.

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Adjustable-height dock bumpers from Stertil ensure versatility and quadruple working life



Designed to provide unrivalled protection for vehicles, loading bays and buildings, the proven range of PE Dock Bumpers from Stertil Dock Products has been boosted with the introduction of adjustable-height versions. Stertil PE dock bumpers are renowned for their innovative design which allows left and right bumpers to be simply interchanged and rotated to enable users to achieve four times the working life of traditional dock bumpers. Now, the latest generation of adjustable-height bumpers offers a host of features and benefits. For example, the latest adjustable-height PE dock bumpers are adaptable for all vehicles and trailer types and are especially suitable for cold stores and sea containers. The bumpers are self-releasing while a truck is docked and are of particular benefit when used in conjunction with 'step frame levellers' by allowing vehicle doors to be opened after docking, thereby maintaining the chill environment and reducing possible contamination. Ideal for simplifying all types of loading and unloading duties, the new adjustable-height bumpers provide an impressive reach of 248mm above the mounting position and are suitable for use in low height docks.

0870 770 0471 www.stertil-dockproducts.co.uk

Transforming workshop into luxury home



When engineer, Ivan Semenenko, decided that he no longer required his former barn and workshop in the heart of the Cotswolds, he pondered a new life for the building. Ivan decided to embark on a project to transform the workshop into a beautiful new home. To

create the distinctive steel windows and doors, he called on **Steel Window Association** member, Cotswold Casements. W20 sections, finished with black polyester paintwork and double-glazed units, were used. Espagnolette fittings were introduced to the doors to ensure maximum security both at the top and the base of the units.

www.steel-window-association.co.uk

Marley Alutec provides outdoor solution



Aluminium guttering and drainage system specialist **Marley Alutec** has produced a bespoke Evoke fascia, soffit and coping system for a customer's property in Grantham. After working closely with the homeowner, Marley Alutec delivered a solution for a new outdoor

barbecue area. Prior to this project, Marley Alutec had provided a similar Evoke fascia and soffit system in 2012 when the existing property underwent a modern rear extension. Karen selected the same Marley Alutec Evoke solution in RAL 9005 Black that was originally installed on the rear extension, to ensure a uniform aesthetic.

01234 359438 www.marleyalutec.co.uk

Sika Sarnafil protects UK's first dedicated centre for stroke and dementia research

Sika Sarnafil's single ply roofing membrane has been installed on the UK's first dedicated centre for stroke and dementia research at the University of Oxford, providing a long lasting waterproofing solution for this impressive building.

The Wolfson Building is situated on the University's John Radcliffe Hospital site and provides purpose-built facilities for the Wolfson Centre for the Prevention of Stroke and Dementia (CPSD), as well as research space for the Wellcome Centre for Integrative Neuroimaging (WIN).

Offering expansive views of the city and its surroundings, the new neuroscience research building's H-shape floor plan was designed to symbolise the two departments' collaborative relationship. When it came to the roof, the facility required a robust and fully integrated waterproofing system that would accommodate roof penetrations, walkway and PV requirements.



Sika Sarnafil, the UK's leading single ply roofing manufacturer, was specifically requested for the project by the University of Oxford and came on board during the early design stages to help Oxford-based architect firm fjmt with the specification.

Sarnafil's single ply membrane has been used across many of the University's existing buildings, including the Department of Chemistry's new Teaching Laboratories. Highly regarded by the educational establishment for its ease of use, robustness and straightforward maintenance, the client insisted it be used again.

Sarnafil G410 12 ELF in Lead Grey along with Sarnavap HD were chosen to weathertight the concrete slab room. Due to an uneven and rough surface, a system had to be specified that would overcome this problem. Roofing contractor Vertec liaised with Sika Sarnafil and opted to mechanically fix the single ply to overcome this.

Further challenges were found due to the multiple penetrations in the roof, numbering over 50, including cables, pipework and ducting. Opting to box them in, all penetrations were successfully sealed thanks to expert workmanship from Vertec's Sika Sarnafil-trained installers.

With support from Sika Sarnafil, who oversaw the project and offered advice and knowledge throughout, Vertec was able to get the roof weatherproofed on schedule.

01707 394444 gbr.sika.com

Nordic Copper by Rail

esigned in a crisp contemporary style, new additions to a 19th century terraced house backing onto a railway embankment in south London give a nod to local heritage through dark materiality, with Nordic Brown pre-oxidised copper alongside charred timber cladding.

The project – designed by Michael Collins Architect LLP – involved extensive refurbishment of the original house and new extensions to the rear, conceived as two cubic volumes embedded within a plinth. The language of the new extension was inspired by the honesty and simple poetry of self-built 'add-ons' seen along the rear of railway terraces. One, copper-clad, volume creates a tall central 'lantern' over the dining area and is detached from the rear of the property to allow light to enter from all sides.

The choice of materials was informed by a robust environmental agenda but also inspired by the location, as Michael Collins explained: 'There is a charm to the aged sootiness of the London stock brickwork facing the old railway. We wanted the cladding to relate to this historic context and the changing finish of Nordic Brown preoxidised copper alludes to the age of steam.

'Through previous experience, we have been impressed by copper's longevity, resistance to moisture and ability to tackle sharp details without venting. We were also interested in its sustainability credentials and ability to be continuously recycled. Nordic Brown copper was used for the roof coverings and facades, and pre-weathered Nordic Brass was applied to the glazing reveals, which take on a golden hue and stand out in the light. Brass was also used for the kitchen splashbacks and these different forms of copper blend well together, giving a real sense of continuity inside and out'.

The extensive Nordic Copper range of architectural copper products is available from Aurubis, part of the world's leading integrated copper group and largest copper recycler.

01875 812 144 www.nordiccopper.com





A safe bet for aesthetics and efficiency

With efficiency and aesthetics and well as safety being top priorities in domestic settings, Mark Lester of Hörmann UK discusses the key features fire doors need to have for residential projects

The safety and security of property and its occupants is obviously high on the list of priorities when choosing building materials, fixtures, and finishes, while not compromising on practicality and style. With UK Government statistics showing that in 2018/19 there were over 29,000 fires in domestic dwellings, the fitting of modern and effective fire doors will help provide peace of mind, and protect property and people.

A fire door plays an important role in not only in protecting against flame and heat, but also in preventing the penetration of smoke through the door. Today the most common fire door type fitted in domestic settings is a FD30, which will provide protection of at least 30 minutes. However, there are doors on the market that can offer protection of 60, 90 and 120 minutes, if required.

The specification of fire doors for domestic dwellings is covered by Building Regulations – Part B. Compliance with the regulations means that for buildings of more than two levels, a fire door should be fitted on any doorway of a habitable room leading onto a stairwell or escape route but excluding bathrooms and toilets. Also, in the case of an integral or attached garage, a fire door should always be fitted between the main house and garage; and with the increase of mixed use buildings they should be fitted between the residential and business elements.

Industry bodies such as the Door and Hardware Federation recommend the use of fire resisting door sets, which are supplied complete with all essential parts from a single source. The benefit of using a door set is that it is supplied as a whole system, including door leaf, frame, intumescent seals, smoke seals, hinges, hardware etc. It is designed and manufactured to perform as a single unit and tested and certified as such.

Testing and certification of fire doors sets is to BS EN 16034, which sets out the product standards and performance criteria which must be met for the door to be used for either fire resistance or smoke control. Door sets which comply with this standard require a certificate of consistency of performance which is issued by a notified product certification body, along with a declaration of performance and the application of a CE mark. However, with the imminent withdrawal of the UK from the EU, following the Brexit transition period, some changes in product accreditation will come into effect. The new UKCA mark will become effective from 1 January 2021 and will coexist with the CE mark for 12 months. From 1 January 2022 the CE mark will cease to be recognised in the UK and will be fully replaced by the UKCA mark.

With this in mind, architects should ensure door sets are compliant with the above, and that due diligence is taken throughout the specification process.

Fire doors that are supplied as complete door sets shorten installation time, as the frame, architrave and door are all supplied together. This enables the installer to fit the door quickly and easily to various wall sizes, while also making maintenance simple and easy, diminishing any potential disruption for the homeowner. Fire doors should be fitted by a fully qualified, professional installer to ensure that the integrity of the door is not compromised in any way during the fitting process.

It is also important that the internal door selected is not only fit for purpose, but also complements the overall design scheme. While importance has traditionally been placed on the functionality of internal doors, manufacturers are now focusing on supplying a wide range of door styles which





meet both the practical and aesthetic requirements of individual projects. From elegant, classic styling to more contemporary modern designs, fire doors are offered in a wide choice of colours such as modern greys, traditional woodgrains and on-trend colours such as Taupe.

The latest advancements in aesthetics are

The benefit of using a door set is that it is designed and manufactured to perform as a single unit, and tested and certified as such

also placing greater importance on texture, with decorative surfaces such as slate, linen, and horizontal woodgrains being a popular choice, particularly when available in a range of shades and finishes. A particularly fun choice for kitchens, children's bedrooms and playrooms is the ultra-matt contemporary surface which can be written on with chalk.

When choosing modern fire doors for a domestic project today, it is now easy to satisfy all the required safety and security aspects, without having to compromise when considering the overall design and finish of the property.

Mark Lester is internal door manager at Hörmann UK



C70S 70mm window system has arrived

AluK has launched its brand new C70S aluminium window system, designed with all the versatility required to suit low, mid and highrise applications in both residential and commercial projects. Engineered to the highest UK standards, the C70S delivers what AluK are calling 'a winning combination of high performance and impressively slim sightlines'. This new 70mm system offers market leading U-Values as low as 1.1W/m2K with triple glazing and 1.3W/m2K with double glazing, but it also comes with three different foam insulation options so that specifiers have the flexibility to design U-Values either up or down to suit the specific performance and budgetary requirements of each project. The C70S boasts class-leading wind (600Pa) and water tightness (1500Pa) performance, even with large span top hung window openings and can accommodate 50mm acoustic glazing, making it suitable for use everywhere from exposed coastal settings to noisy urban environments.

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Associated Steel Window Services is a family-managed business now into its third generation and 60th year as a specialist steel window refurbishment and replacement company. It has evolved continuously since 1960 and is now a leading figure in the steel window

industry. ASWS has been a member of the Steel Window Association since the late 1980's working to optimize expertise in the industry. Part of the company ethos is the continual support and guidance for clients which invariably results in a successful conclusion to projects.

www.asws.co.uk

Senior's stadium performances



A hattrick of fenestration solutions from Senior Architectural Systems alongside a great team performance from supply chain partners Elite Aluminium Systems Ltd and Buckingham Group has played a key part in the delivery of two new football stadiums. The versality of Senior's product

range enabled the project team to meet the various requirements for the building and its different users. The flexibility offered by the SF52 aluminium curtain walling also enabled Senior and Elite Aluminium Systems Ltd to collaborate to develop a bespoke solution for the impressive facade of the new Brentford Stadium in West London.

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Re-tuned! Former concert hall now prestigious offices

former concert hall on a site once considered for the headquarters of the BBC has been transformed into high-end office use with Crittall windows supplying much of the fenestration.

Brock House was originally constructed as The Philharmonic Hall and occupies a complete block bounded by Great Portland, Langham, Gildea, and Hallam Streets, Westminster.



Built in 1908 the building first housed a series of promenade concerts and, subsequently, became a cinema showing mainly travel films. In 1927 it was one of a number of sites considered by the BBC for the construction of its new headquarters that, in the event, were eventually built close by – the iconic Broadcasting House.

The Philharmonic Hall was used, during World War Two, as the home of the BBC Radio drama department, then a mechanical workshop and, finally, offices before being vacated by the Corporation in 2018.

It was then acquired by The Office Group and a complete transformation internally and externally was completed with a two-storey mansard roof extension added. The site covers 28,000 sq. ft. of space.

Windows on the first, second, third and fourth floors were installed using Crittall W20 section steel frames, polyester powder coat finished in RAAL 911 Crittall White. The frames are glazed with 16mm insulating



glass units featuring solar control glass to the outer pane. Black framed ground floor windows were also supplied by Crittall.

This is one of very few central London office locations on an island site allowing natural light to penetrate from every elevation, a fact that is enhanced by the slender steel frames of the Crittall windows.

01376 530800 www.crittall-windows.co.uk

New Decoroc paint line opens doors for Fastframe

Restframe, one of Deceuninck's leading commercial fabricators, has invested over £150,000 in a state-of-the-art Decoroc paint line for Deceuninck commercial windows and doors. The Decoroc line is the first of its kind outside Deceuninck's head quarters in Belgium and, since opening the line, Fastframe has won a number of major commercial contracts.

Decoroc is Deceuninck's patented colour coating system. It gives a high performance, long lasting finish which matches aluminium powder coating for looks and performance. Scratch, impact, and abrasion resistant, Decoroc is microsprayed for a highly durable, easy-clean matt finish and comes with a 10-year guarantee. It comes in an a wide choice of RAL colours and is ideal for demanding commercial applications.

Commenting on the new Decoroc line, Fastframe Commercial Director Paul Moody says: "Architects and specifiers love the Decoroc finish because it's extremely durable and looks very similar to aluminium powder coating. We have a thriving commercial business, so it was the logical step to invest in our own Decoroc line to take full control of lead times and offer more flexibility to our commercial partners.

"This is the first time Decoroc has been licensed outside Belgium, so we had to go through an extensive process of training, auditing, and quality checks to get the line commissioned. But it was worth it – demand has been so strong we've made a second investment to increase capacity! We've won a series of major commercial contracts and quickly covered our initial investment. We're confident the new Decoroc facility will open more doors for Fastframe."

Deceuninck MD Rob McGlennon adds: "Decoroc is a truly innovative colour coating system, and when matched with our slim, incredibly strong 5000 window with LinktrusionTM technology it's almost



Fastframe has opened a new Deceuninck Decoroc paint line. Pictured is a recent Decoroc installation

impossible to distinguish from aluminium by look, touch and performance. Major developers like Berkeley Group frequently specify our commercial windows with Decoroc, and Fastframe's new line will further strengthen their commercial business."

Deceuninck is a leading PVC-U window systems company and Fastframe is one of Deceuninck's top commercial fabricators.

01249 816 969 www.deceuninck.co.uk

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Offering an extra peace of mind to customers the elZinc Alkimi[®] range, available in the UK through **SIG Zinc & Copper**, is now available with a lifetime warranty. Unique to the metal roofing

and cladding market the guarantee is the first of its kind and currently the only zinc warranty available that covers your product for life. The guarantee covers the 'service life' of the product and will protect against flaking, blistering, peeling, cracking and chalking and that the finished will not fade to any colour that cannot be associated with naturally weathering or naturally weathered zinc.

0330 123 1820 www.sigzincandcopper.co.uk/elzinc

Contemporary and traditional design



The true versatility of aluminium as an eaves product has been realised through **Marley Alutec's** involvement in the Woodside Square development in North London. Marley Alutec's snapfit boltless rainwater gutters were included on the specification for the contemporary flats.

Sustainability was a key part of the concept for Woodside Square not only in terms of ensuring energy efficiency but also in the building materials chosen. The low environmental impact and infinite recyclability of aluminium further justified its use for the scheme.

01234 359438 www.marleyalutec.co.uk



Holdsworth Windows is a family run business specialising in the manufacture of bespoke steel windows, doors and screens. Established for over 50 years we have designed, fabricated and installed windows, doors and screens for a wide range of contemporary, listed and historic buildings.

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CUPA PIZARRAS achieves carbon neutrality

World leader in natural slate production, CUPA PIZARRAS, has become a carbon-neutral company according to the Carbon Trust. The achievement highlights the company's commitment to sustainable practices and was achieved by working with Carbon Footprint Ltd. and The Reduced Emissions from Deforestation and Degradation (REDD) project to protect and plant trees in both the UK and the Amazon rainforest. Climate change has become a global challenge. CUPA PIZARRAS chose to commit to two different projects to offset emissions generated from its quarries in Spain. The first programme with Carbon Footprint Ltd. facilitated the planting of trees in UK school grounds for every tonne of CO₂ generated. The second project offset an additional tonne of CO₂ through the REDD Verified Carbon Standard (VCS) project, which acts to plant trees and protect the Amazon from deforestation. In addition, over the next two years, CUPA PIZARRAS is committed to reducing its greenhouse emissions by 5 per cent.

020 3318 4455 www.cupapizarras.com/uk

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The JUWO Evolved SmartWall[™] consists of a structural aerated clay block system with a thin bed adhesive layer that provides many advantages over conventional brick & block or other thin bed mortar products: Excellent Thermal, Fire &

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01691 707 100 www.evolvedsupplies.co.uk

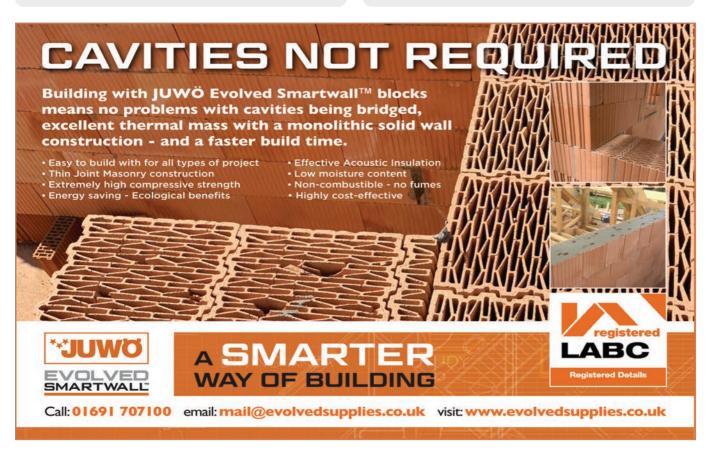
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London's premium address deserves premium fenestration

When it comes to views from your window, they don't come much more prestigious than No 1 Palace Street which affords residents stunning views over the gardens of Buckingham Palace from the front of the historic listed building. With this in mind, arguably the fenestration on this project is one of the most important elements of the development as well as one of the more complex when taking into consideration the requirement to retain the facade of the building. Retained facades and the design and installation of the windows for them is not a



straightforward mix and each project we come across throws up different challenges. A fusion of styles spanning Italian Renaissance, Beaux Arts, French Renaissance, Queen Anne and today's 21st century contemporary design and build requirements, the seamless blending of old with new at No 1 Palace Street is something George Barnsdale is increasingly becoming known for.

George Barnsdale was delighted to be entrusted with manufacturing and installing the timber windows and doors for this latest exclusive development beside the most famous of Royal palaces. Working directly with the contractor Balfour Beatty Plc, George Barnsdale supplied and installed 282 timber windows and 181 timber doors over a lengthy and complex project.

Multiple discussions took place between the architect and the Barnsdale team to agree the best way to deliver the design intent whilst balancing the function and performance of the products.



As the plans and technical specifications developed, the surveying team spent a lot of time on site measuring the old openings which were anything but standard and taking this back to the technical team to incorporate into the designs as well as the comprehensive installation details.

From measuring and designing windows for openings that are old and often all over the place, to changes in personnel resulting in potential miscommunication, it is down to the excellent project leadership, experienced design oversight and comprehensive record keeping of the team members that any glitches were overcome.

01775 823000 www.georgebarnsdale.co.uk



Why choose LAMILUX Glass Roof PR60 for your flat glass roof project?

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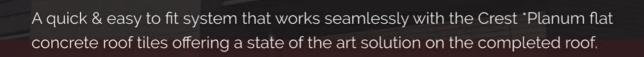


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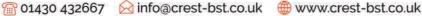
Crest 'Planum PV Solar Tile Panel, with black frame - black cells and black backsheet



For more information on our roofing tiles and PV integrated solar system or to order a FREE sample contact the Crest team.









Alumaflex[®] gains LABC recognition



As a slim and highly efficient thermal multifoil insulation, Alumaflex[®] is ideal for barn or loft conversions and in general timber frame construction. The proven, high performance product has UKAS accreditation and thanks to

further investment by IPP (Magply), was also awarded LABC Certificate No EW 1045. Alumaflex[®] is very versatile and installer-friendly, being initially fixed with stainless steel staples, before normally being secured with battens to create a cavity. Alumaflex[®] can help architects and other specifiers achieve the highly sought after PassivHaus standard for airtightness and perform as a vapour control layer by taping the joints.

01621 776252 www.alumaflex.co.uk

Balanced acoustics for high profile building



A StoSilent Distance acoustic system from **Sto** has been used to create a balanced and practical acoustic environment for a major London landmark building. Bracken House was the first in England, and the second post-war building, to receive listed status. The premises have

recently been extensively refurbished, while preserving the original style and character. This involved the installation of the StoSilent Distance acoustic system in the atrium area, to create an environment that functions efficiently from an acoustic perspective, while also blending seamlessly with the area's new, updated appearance.

0141 892 8000 www.sto.co.uk

Savings with tapered roof insulation



A new white paper from **Kingspan Insulation** has highlighted that tapered roof insulation systems, which combine flat roof insulation and drainage in a single product, can achieve considerable savings when compared with other common methods for creating a fall on a flat roof. The report shows the tapered insulation systems require no drying time, can be as

little as around 3 per cent the weight of screed to fall systems and deliver cost savings of as much as \pounds 58 per m² (43 per cent) on the roof build-up above the deck. To read more about the benefits of tapered roof insulation, download the Flat Roof Drainage white paper.

01544 387 384 www.kingspaninsulation.co.uk/flatroofdrainage

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Icynene the spray-foam thermal blanket

A well-insulated building means a healthier, quieter and more energy efficient environment with better comfort levels, lower heating bills and a reduced carbon footprint. And nothing does a better job of insulation than Icynene – the first name in spray foam insulation.

Icynene expands 100-fold when applied, sealing all gaps, service holes and hard to reach spaces, completely eliminating cold bridging and helping reduce energy bills.

What's more its open cell structure lets the building breathe naturally.

Icynene. It's the modern way to insulate buildings, old and new.

For more information on the benefits of Icynene visit icynene.co.uk



Two thirds UK homes fail to meet energy efficiency targets

A ccording to data analysed in a recent national media report, nearly two thirds of UK homes fail to meet long-term energy efficiency targets. [Source BBC]

The report shows that more than 12 million homes fall below the C grade on Energy Performance Certificates (EPCs), which are graded from A-G. The closer to A, the more efficient the home, meaning it should have lower energy bills and a smaller carbon footprint. Grade G is at the other end of the scale. C is just above average.

Households in these poor performing properties consequently spend more on energy bills than is necessary and pump huge amounts more CO_2 into the atmosphere than they would if their homes were more efficiently constructed.

Further and faster

The Government admits that it needs to go "much further and faster" to improve the energy performance of homes and many experts say retrofit measures are needed because so many homes were built before the year 1990.

Clearly, the easiest and cost-effective way of reducing energy consumption and carbon emissions in domestic housing is by improving the level of thermal insulation and, at the same time, minimising air leakage – draughts to you and me.

Up to 40 per cent of a building's heat loss can be attributed to air leakage, so it is vital that air leakage is included in any programme of measures designed to improve a building's thermal performance.

High performance spray applied insulation

Modern spray applied insulation systems seem to be an obvious choice. They can do a much better job than traditional, rigid board and mineral fibre materials which are often difficult to install in older properties. Spray applied insulation is designed to expand rapidly when applied, sealing small gaps, service holes and hard to reach spaces where air leakage generally occurs.

Icynene is one of this new breed of spray applied insulation system. Developed in Canada to cope with their extreme winter temperatures, Icynene FoamLite is a flexible



open cell material with a soft, yielding texture. This not only provides outstanding insulation properties, but also allows the building to breath naturally, resisting internal condensation – particularly important when insulating older, heritage-type buildings.

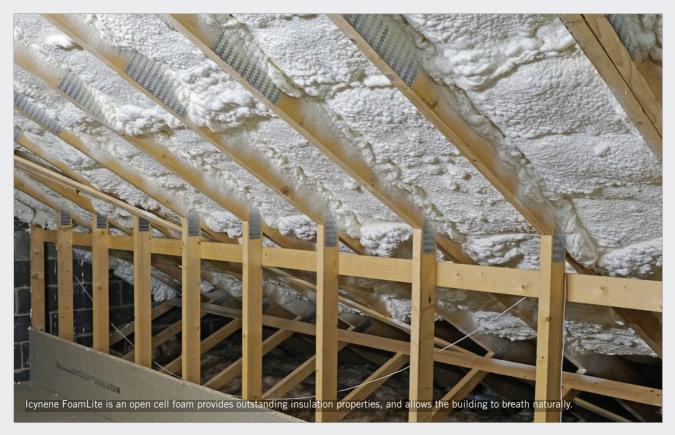
Icynene is installed using a pressurised gun system. Here, foams are applied as a twocomponent mixture that come together at the tip of a gun forming a foam that expands 100-fold within seconds of application, closing off all gaps, service holes and hard to get to spaces that conventional insulation

materials fail to reach.

Challenging targets

Government targets are to upgrade as many homes to grade C by 2035 "where practical, cost-effective and affordable", and for as many rented homes as possible, to reach the same standard by 2030.

The Chancellor's Green Homes Grant "voucher" scheme for energy saving home improvements is a major step forward, with £2bn set aside for grants to fund cavity wall, roof and underfloor insulation, triple glazed



replacement windows and draught proofing, for qualifying homes.

The Department for Business, Energy and Industrial Strategy is also investing over £6bn and is exploring how to halve the cost of retrofitting properties with measures to heat homes with lower carbon alternatives, such as heat networks and heat pumps.

With over 65.0 million tonnes of CO_2 being produced by the UK's homes in 2018 more than that from the power stations which generated the energy itself - we have a



very big mountain to climb. More efficient insulation of domestic properties is without doubt, a low cost, win-win opportunity.

The government is clearly committed to a greener future and has shown that a long term, co-ordinated approach to reducing carbon emissions through better insulation and control of air leakage is ready to be put in place.

The construction sector has the tools, the motivation and manpower to get on with the job. What it also needs is top class quality control mechanism to ensure the highest standards of workmanship.

According to Icynene, spray applied insulation systems require a high degree of skill to install – they are not DIY solutions and should be installed by manufacturer or independently assessed and accredited contractors who will provide suitable guarantees to performance and durability.

It would be a disastrous waste of taxpayers money if an unscrupulous cowboy element with no accreditation were allowed to profit from the scheme, providing no real benefit to the consumer.

https://www.youtube.com/channel/UC5Egj8 ZEb1Hp5xklPuM8-Dw www.icynene.co.uk

URSA storey's high with new Whitechapel development



Global insulation manufacturer, URSA, has seen some 25,000 m² of its specialist insulation materials specified and installed at one of the capital's largest residential development projects in recent years. Ian Claydon, Technical Manager for URSA UK, describes the specification through to installation journey:

"The Silk District is a new development located close to Whitechapel Station and within walking distance to the City of London. The Whitechapel based scheme compromises three residential blocks set around a piazza with private landscaped gardens.

"Our work with the client, Mount Anvil, began in November 2018. We provided advice and guidance on making the correct choice of materials, achieving compliance with Building Regulations (thermal



performance, fire resistance requirements and resistance to rain penetration) and compliance with the NHBC Standards. We also provided numerous thermal models, U-value calculations and associated condensation risk analysis. The Mount Anvil team were undoubtedly impressed with the speed and quality of URSA Technical Services.

"We were involved with external wall construction as well as the design of a brick clad rainscreen system and continued to work extensively on the scheme throughout 2019 as the design developed further. Work was delayed at the beginning of 2020 due to Covid and re-started in July 2020.

"Collaborating with the client in these very early phases ensured that they were able to select a product that is entirely right for each and every one of their primary and secondary needs. Planning was critical within the design and roll out and meticulous attention to detail was applied during these initial phases and throughout.

Key products installed included URSA's Cavity Batt 32 & Walltec 32 – 12,000m² and URSA Acoustic Roll - 13,000m².

URSA Walltec 32 is a lightweight, non-combustible, semi-rigid glass mineral wool slab treated with silicon based water repellent. It is faced with a black glass tissue on one side and are ideal for use behind rainscreen cladding systems in both new build and refurbishment projects.

URSA Cavity Batt is a lightweight, semi rigid glass mineral wool slab treated with silicon based water repellent. It is suitable for use in both fully and partially layed masonry



cavity walls up to 25m high.

Ian continued: "URSA Walltec proved to be the ideal choice due to its outstanding fire performance qualities, with a Euroclass rating of 'A1' making it totally non-combustible and the ultimate in safety specification for behind cladding systems. URSA glass mineral wool is manufactured from an abundant, sustainable resource and utilises at least 50% glass waste. From an installation perspective, the black glass fleece tissue facing means that the product could be used behind open joint cladding without being seen.

"The Cavity Batt is available in a wide range of thicknesses, ensuring the client was able to meet all appropriate Building Regulations and standards. Our new generation URSA TERRA mineral wool has a 'soft touch' feel making it easier to handle and install whilst still maintaining its excellent mechanical properties.

"There were several other over-arching factors to consider within this scheme and those included the sheer size and scale of the site and its location in a packed city centre. The lightweight nature of both products meant that they could be compressed therefore saving time and money on transport, effectively halving the number of journeys needed. This meant that more products could be delivered to site and stored in an area where space was at a premium.

Our distributor partner, Encon Insulation in Dagenham, worked closely alongside us during the project".

uktechnical@ursa.com www.ursa-uk.co.uk

Closing the gap on acoustic performance

Joe Cilia from finishes and interiors trade body FIS looks at how a new initiative helps improve the quality of interior acoustics through specifying and installing products based on proven and verified test data



It is in all our interests to expect and achieve better performing buildings. We only have to look at the car industry and the knock-on effect of the Volkswagen 'Dieselgate' emissions scandal as an example of what can go wrong. The issue uncovered a gap between cars' actual performance and what was promised by the manufacturer. In the construction industry, the performance gap between design and built performance is well documented, and while much of the focus has been around thermal performance, there is also the growing issue of acoustic performance.

Achieving acoustic comfort should not have to be a trade-off between clean aesthetics and acoustic performance, which is why it's important to consider the acoustic needs of the interior space early in the design process. Sound can be controlled either through absorption, which deals with reverberation within the space and makes it a better place to work in, or through insulation, which deals with the control of sound from one space to another.

The transmission of sound through walls or floors is one of the most common sources of noise disturbance. Poor sound insulation (also referred to as attenuation) between adjacent rooms will result in disturbance and a loss of privacy. Partitions and cavity barriers are generally the options used for sound insulation and provide privacy or a division from a noisy and potentially disturbing activity. The only way a specifier can evaluate and compare the performance of the two options is by looking at the data provided to them. They



need to be able to understand the acoustic claims, in what conditions the products should be installed, and ensure that the results aren't misleading.

Mind the gap

With the acoustic performance of products being so important, and in a bid to curb growing incidents of 'passing off,' a new Acoustic Verification Scheme has been created. This is in response to confusion and concerns related to the comparability of acoustic airborne sound insulation claims.

The need for an acoustic verification process began to emerge with operable walls, as users were complaining these walls were not performing in the way that was expected. This was partly due to the installation process and partly due to it being the only partition that was dismantled and re-erected on a regular basis by non-trained staff. If the acoustic seals are not correctly locked when the walls are closed, acoustic integrity can be compromised by leakage allowing sound to come through any gaps between the panels. There have been incidences of falsification, and in some cases, tests revealed that manufacturers were treating an operable wall like a normal fixed partition, and physically sealing every joint. It actually needed to be tested like a door and operated five times before the test commenced, to demonstrate it was completely operable. This made a huge difference, enough to put some manufacturers in front of their competitors.

As part of the scheme, which provides a method in which independent acoustic consultant Cundall verifies acoustic test

The new Acoustic Verification Scheme has been created in response to concerns related to the comparability of acoustic airborne sound insulation claims

data, it was then possible to verify all of the test evidence that was being put forward and highlighted companies who had not tested operable walls as they should have done. In other words, it highlighted those who were testing an operable wall as a fixed partition. During that process, some companies withdrew from the scheme.

Consistent test framework

For contractors such as Wilmott Dixon, the ability to verify acoustic test data meant they could specify manufacturers in confidence that it was a level playing field. They had been tested in the same way and had comparable figures. As a result, the contractor is only using operable walls that have met the requirements of the scheme.

In the case of partitioning systems, it's important to verify data to ensure that everyone in the market is working to a level playing field. While fixed partitions are different from operable walls, as all the joints can be sealed, it was agreed that a set of parameters that would constitute a test could be used for comparison reasons. This would then provide specifiers and architects with the assurance that if they choose a product from this list, all products will be tested in the same way and all data has been verified. It's essentially a verification process; by simply taking the data companies are providing in test reports and verifying it meets the criteria required to meet the scheme.

Those seeking to exemplify best practice are recognised and rewarded for this, preventing inaccurate or misleading information from undermining the market and responsible manufacturers. Ultimately, it enables people to compare products and systems on a 'like for like' basis and be reassured that performance will be consistent, and reassures customers that their buildings will perform as expected.

Joe Cilia is technical director of FIS, the industry body for the UK finishes and interiors sector

New ROCKWOOL® Red Book launched



As part of continued investment in tools which help to save specifiers' time and make it easier to identify the correct insulation solutions for facades, walls, floors and roofs, **ROCKWOOL** has launched the new Red Book – a fully interactive guide which provides digital access to technical data, product certification and a wide range of specification support materials. Always well regarded by specifiers, the ROCKWOOL Red Book has been out of print for several years. Now back and digitally revamped to meet the needs of building professionals, the Red Book provides an essential and practical resource that brings all the relevant specification data for ROCKWOOL acoustic, fire and thermal solutions, into a single place. Application-driven, the Red Book provides detailed guidance for designing ROCKWOOL stone wool insulation into facade, wall, floor and roof build-ups. This includes NBS Clauses, BIM objects, BBA certification and technical datasheets. In addition to technical documentation, application pages give specifiers direct access to online calculation tools for U-values and acoustics, making it easier to evaluate the potential performance of facade, wall, floor and roof build-ups.

01656 862 621 www.rockwool.co.uk/redbook

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Demand for underfloor air conditioning systems rises

emand for underfloor air conditioning systems, which are far more flexible and adaptable than ceiling-based systems, has soared as developers and landlords scramble to reconfigure office spaces in the wake of the coronavirus pandemic. Experts have predicted a 50 per cent reduction in office occupancy, as millions embrace working from home.



AET Flexible Space, the world's leading provider of underfloor air conditioning technology, has seen increased demand, both from existing clients looking to reconfigure their office space, and new clients looking for a flexible air conditioning which can help to future-proof their office.

AET Managing Director, Glan Blake Thomas, comments, "The huge benefit of an underfloor air conditioning system is that they are inherently flexible, and can be changed to suit new room layouts within minutes. Our unique FantileTM units are installed to sit in-line with the finished floor, and can be easily repositioned at any time without the need for the significant, and costly, building works usually involved in repositioning ceiling-based ductwork."

He continues, "I think we are seeing that COVID-19 has accelerated the trend towards more flexible, future-proofed, and sustainable office space. We have been seeing an increase in demand for our underfloor systems for



some time, but the coronavirus lockdown has certainly made more people consider the endusers of this office space, and how they can be best served."

Underfloor air conditioning systems also offer high levels of energy efficiency, sustainability, and air quality. As there is no ductwork, individual zones operate at very low-pressure encouraging energy efficiency. AET's systems have helped attract LEED and BREEAM and other Green Building points, and can provide up to 30 per cent savings in energy costs and a 29 per cent reduction in CO₂ emissions when compared to ceiling systems.

01342 310400 www.flexiblespace.com





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Stelrad launches Boutique series



Leading radiator manufacturer Stelrad Radiators has launched a new radiator series of existing and new radiators under its 'Boutique' branding. You'll find familiar and welcome products in the new Series – with names such as Caliente, Concord and Column – but equally you'll find new styles and names such as Como and Lecco. The UK's no.1 brand in the radiator market is

adding style and appeal to the kitchen and bathroom and adding colours and chrome finishes to add to the sparkle.

0844 543 6200 www.stelrad.com

Gilberts gets in line for plastering



Gilberts is helping follow-on trades deliver a high end finish, by attention to detail in its product design. The company, known for being Britain's leading independent air movement specialist, has introduced a slimline plaster in border to its Series L range of linear grilles. The border facilitates

precise finishing of abutting plasterwork up to the ventilation grille, whether fitted into a wall, ceiling or bulkhead. The border means a "high end" finish can be achieved faster and more effectively along the grille's alignment edge, even through multiple pieces in a long run.

01253 766911 info@gilbertsblackpool.com

Contemporary Wood Burning Stoves



Help to make your house a home with **Future Fires** contemporary wood burning stoves. Not only do our stoves offer you a reliable source of heat, but they also can give your room an impressive focal point by adding and creating a beautiful ambience. A contemporary wood

burning stove can be a wise investment due to its ability to save you money on your energy bills in the long run, whilst also being an environmentally friendly alternative to normal heating. List of the key benefits: Contemporary finish; 8kw Output; Panoramic view with the curved glass; Carbon neutral; 5 year guarantee.

01709 587768 www.futurefires.co.uk

Marley's PVCu making history at The Box



Products from Marley Plumbing & Drainage are being used in Plymouth's new multi-million pound museum, gallery and archive, The Box, thanks to the products' reliability and the design support offered by the manufacturer. Sean Stewart, Contracts Manager at TClarke, specified

Marley's products for The Box: "We specified the PVCu Push-Fit Soil system on this project because we have a good relationship with Marley and know that its products are reliable and of a high-quality."

01622 858888 www.marleyplumbinganddrainage.com



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Panoramic view with the curved glass
Carbon neutral
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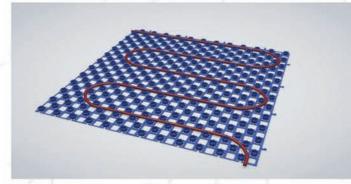
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Overall screed thickness as thin as 25mm for carpet and LVT

Overall screed thickness as thin as 30mm over rigid insulation*

*150 kPa compressive strength @ 10% compression (minimum) and taped joints

The Profix[™] PLUS Pipe in Screed System is a very low profile (as thin as 20mm) warm water underfloor heating system capable of delivering high heat outputs even at low water temperatures making it an ideal floor heating solution for both new build and retrofit projects. The independently tested self-adhesive backed interlocking pipe retention panels enable rapid installation of 14mm to 17mm diameter pipe in either serpentine or snail pattern with pipe centres starting at 50mm and increasing in 50mm increments (100mm, 150mm etc....).





01923 725180 | sales@epicinsulation.co.uk | www.profixpanel.co.uk Registered Office: 22 Wycombe End, Beaconsfield, Bucks, HP9 1NB Registered No. 7702051 VAT No. 121 5128 60

Airflow Developments conquer



On the 15th October 2020 Heating and Ventilation Review (HVR) held their 11th consecutive annual awards. As many other events have, HVR took to our screens and held their first ever virtual ceremony. Celebrating the best of the Heating and

Ventilating sector, HVR gave out 11 prestigious flame trophies to the winners of their category awards. **Airflow Developments** are a long-term supporter and attender of these prestigious awards. With the highest number of products shortlisted across the categories, Airflow conquered with two Highly Commended products and one Category Win.

01494 525252 www.airflow.com

Altro Wood gives a warm welcome



Altro Wood[™] adhesive-free flooring is helping to create a homely, welcoming and safe environment for residents at The Lawns, a family-run care home in Gloucester. The new Altro flooring was installed on the ground floor at The Lawns in the circulation areas,

dining rooms, lounges and in reception. It was fitted by C&C Flooring. MD Roo Williams said: "We have used other Altro adhesive-free floorings for a few years now, and the new Altro Wood adhesive-free product is fantastic. It looks great, really creating a home-from-home look, and it complements the care home perfectly."

01462 489 516 www.altro.co.uk/Adhesive-free-floors

Stunning furniture design



French furniture brand Hetch Mobilier used ColorCore[®] by Formica Group range on their 'FLOWA' collection in the most creative way. Their unique design approach produced stunning results! Hetch Mobilier, headed up by Furniture Designer, Pierre-Henri Devinaeu decided to combine his creativity with Paper

Artist, Maud Vantours to bring the world a contemporary and innovative furniture collection. Soon after their decision to collaborate they discovered that working with the ColorCore range would give them the edge they needed to bring their vision to life.

0191 622 0106 www.formica.com

At the cutting-edge of design



The new Genesis wall tile collection from CTD Architectural is a magnificent celebration of colour, shape and texture. Ideal for creating feature walls in commercial, residential and hospitality spaces, Genesis stimulates touch and visual sensations, delivering masterfully decorated walls in projects of all styles and

sizes. From crimson red to luxurious gold, Genesis is a colourful and textural range. A true statement collection, the eye-catching tiles provides designers, specifiers and architects with ten different glazed ceramic structures in bold colours and metallic finishes.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

HURLINGHAM Classics





Richmond 6 Colur Height: 460mm Finish: Roberson Steel Grey Richmond 9 Column Height: 340mm Finish: Roberson Blackened Bronze

Available in an extensive range of Farrow & Ball and Roberson Metallic paints or any other designer brand.



IVC Commercial meets the challenge of today's young professionals



LVT floors from IVC Commercial have been used in one of Manchester's latest build-to-rent projects, Affinity Living Trinity Riverside. Affinity Living Trinity Riverside offers luxurious PRS accommodation across a mixture of studios, one, two and three-bedroom apartments with 15 different layout styles. IVC Commercial worked with Select Property Group, operator of Trinity Riverside, to deliver affordable floor finishes that would uphold the high living standards of the project, while also fulfilling the need to maximise ongoing profitability. Across 11,000m² of floor space, IVC Commercial has provided LVT for apartment living areas, off-site constructed bathroom pods from Offsite Solutions, communal amenity space, corridors and lift lobbies. Throughout the project, IVC Commercial's Moduleo 55 LVT specification has been used. Moduleo 55 provides durability and ease of maintenance, equipped with Protectonite[®] for a floor finish that's easy to look after by renters and maintenance teams alike. Opting for the same high-performance specification throughout ensures that Affinity Living Trinity Riverside utilises a floor made to withstand intense use, providing a long life while bringing a natural look to foster wellbeing within private and shared spaces.

info@ivc-commercial.com www.ivc-commercial.com

Polyflor BIMobjects available to download



Polyflor is pleased to announce that their collection of commercial and residential floorcovering is now available to download on the BIMobject platform in a range of popular native file formats. Recognizing the need for digital information to support their customers in the A&D community, Polyflor opted to digitally innovate, capturing their entire portfolio of products as high-quality BIM objects. BIMobject was selected as the hosting platform due to their leading position across key global markets and the broad range of native file formats offered. Polyflor's full range will be available via the BIMobject platform as intelligent, native objects in the most popular formats including Revit, ARCHICAD and SketchUp. Objects in commonly used formats such as IFC, 3DS, DWG and WebGL will also be available. Tom Rollo, Polyflor Marketing Director comments: "Collaborating with BIMobject has significantly broadened the number of native file formats we can offer and increased our reach in international markets, allowing us to offer greater support to specifiers during product selection."

www.polyflor.com www.bimobject.com/en/product?brand=polyflor



WWW.ARCHITECTSDATAFILE.CO.UK



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-Ben Hillman, Interior Designer & TV Presenter

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The latest from CTD Architectural Tiles

Inspired by the typical roofs found in Mediterranean cities, BOW is a collection of large curved tiles in a range of on-trend colourways. Designed by Harmony Design, the collection measures at 150 x 450mm and stands out for its relief pattern and characteristic volume, offering a modern new take on traditional roof tile design to create standout feature walls in residential, commercial and hospitality spaces. Ideal for adding depth and interest to walls, the curved tiles reflect light and shade in a distinctive manner. Available in five glossy colourways from crimson red to minty green, and a matte finish Clay colour, the BOW range provides designers, specifiers and architects with a versatile tiling solution ideal for projects of all styles and sizes. Part of the Saint-Gobain family, **CTD Architectural Tiles** specialises in the supply of high quality ceramic tile finishes and tiling solutions across all sectors in the UK commercial specification market.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

Altro creates peaceful environment



Altro Ensemble modular flooring has helped create a comfortable and elegant reading and learning environment for children and adults in a Swedish library. Award-winning Altro Ensemble is a modular flooring system that gives complete design freedom to create

stunning floors for interior spaces. From colour blocking to geometric patterns, the possibilities are as endless as the imagination. The flooring has up to 15dB sound reduction with added comfort underfoot, making it perfect for front of house areas in hotels, restaurant and cafe dining areas, retail, offices and student accommodation.

01462 489 516 www.altro.co.uk

Bishopstone Homes can rely on CaberDek



Bishopstone Homes is currently creating Amberley Gardens, in Kingsteignton, Devon. Creating high quality homes demands high quality, reliable materials and Bishopstone has once again chosen **Norbord's** CaberDek flooring panels for the intermediate floors. Sam Bishop, Managing Director

of Bishopstone Homes, particularly likes the strong film covering on CaberDek which, he says: "protects our homes during the build process and peels off easily to reveal a clean smooth surface ready to accept floor finishes. We use CaberDek on all our housebuilding projects as it is easy to work with and debris is easily swept off at the end of the day".

www.norbord.co.uk



WWW.ARCHITECTSDATAFILE.CO.UK

Clean Air Series: UVC lighting that actively reduces the bacterial and viral charge

humanlumen, the lighting brand with a uniquely human-centric approach, introduces the Clean Air Series, a range of UVC Air Sterilisation Units, providing a safe, reliable and sustainable solution for a safe 'Return to Work' for many employers and employees.



The Clean Air Series is a range of efficient UVC lighting devices that actively reduce the bacterial and viral charge of the air in closed environments.

This truly innovative design can provide fast sterilisation for offices, classrooms, hotel rooms and healthcare environments.

The International Ultraviolet Association (IUVA) believes that UV disinfection technologies can play a role in a multiple barrier approach to reducing the transmission of the virus causing COVID-19 and SARS-CoV-2, based on current disinfection data and empirical evidence.

UVC Air Purification Unit

The powerful UVC radiation is totally isolated inside the Air Filtration System (AFS) as exposure of UV light, of any type, in high dosage to the naked eye will cause potential long-term health issues.

The system draws in contaminated air and removes all bacteria through a series of

integral filters and then delivers clean air back into the space. Each unit cleanses up to 3000 cubic square metres of open office space and is a simple plug and play system with no integration into the existing mechanical systems.

The clean air units work like an air purifier, but instead of filters it uses the UVC technology to eliminate the viruses. The fan located in the bottom of the fitting sucks in the air of the room and channels it through a series of UVC light canals that have the UVC lights. The UVC kills the viruses and the clean air is released in the room through a carbon filter.

The carbon filter's main purpose is to clean the odours from the air, with an additional dust filter at the entrance of the fan, neither is essential to kill bacteria, this is the role of the UVC light.

0203 961 4500 www.human-lumen.com

Luceco on the crest of "The Wave" in Coventry



Luceco luminaires have recently been installed at a multi-million-pound water park, The Wave, Destination Water and Leisure Project (DWL) in Coventry. At the centre of this state-of-the-art water park are six slides, a splash pad with water jets, a lazy river, wave pool and fitness and spa suites. Over 200 Platinum Mini Downlighters from Luceco lit spaces including changing areas and WC facilities, locker rooms, corridors and circulation areas. Platinum Mini is recessed mounted with a unique swing tab design for quick and easy installation into a 152mm cut-out. Climate Extra is a robust LED IP65 rated luminaire offering an efficacy of 140 Llm/cW with increased performance for improved energy efficiency in areas where a higher protection against ingress of water is needed. Climate Extra was installed on the "wet" staircases including those providing access to the attractions in the water park. Both single and twin fittings were installed, the opal diffuser enhancing the appearance and uniformity. Other luminaires included Academy, installed in store rooms and the communication hub and Luceco's renowned 600 x 600 square recessed LuxPanel.

01952 238100 www.luceco.com/uk

Style and simplicity key



A new streamlined Prima[®] worktop Collection from Formica Group promises offers the ultimate in fresh, modern kitchens. Product and design experts at Formica Group have opted for a quality-over-quantity approach, simplifying the Prima Collection from 52 to 34 core and

on-trend designs, including 16 new worktop decors and 10 feature splashbacks. Light woods, warm stones and solid colours are at the heart of the selection, which draws upon intensive design research, complemented by detailed customer research and of course knowledge and expertise from its own in-house design team.

0191 622 0106 www.formica.com

Megaman[®] launches its TEMPUS[®] range



Megaman has launched a new comprehensive range of easy to install emergency lighting solutions. Offering a variety of lighting systems from emergency slim bulkheads to spotlights and downlights, Megaman's TEMPUS[®] Emergency Lighting Series

accommodates a wide range of applications including offices, schools, retail spaces, fire escape routes and public areas. The new range of lighting solutions includes high quality IP65 LED operated suspended and wall mounted emergency exit signs, LED exit light box and bulkhead solutions with optional pictogram exit signs.

01707 386000 www.megamanuk.com

New rounded panel HeartFelt® line



Hunter Douglas Architectural's awardwinning HeartFelt[®] modular felt system for ceilings and walls is now available in a rounded panel – adding yet another option for innovative designers and architects. The range, which has won two prestigious, international Red Dot awards for

innovation has introduced the new line, available in five shades of grey. Hunter Douglas Architectural prides itself on its green credentials and HeartFelt[®] is C2C Bronze certified and is 100 per cent recyclable or easily reusable.

01604 648229 www.hunterdouglas.co.uk

Forbo reaffirms carbon neutrality



As part of its Live Forward campaign, Forbo Flooring Systems is underlining its commitment to sustainability and minimising the environmental impact of its products and processes wherever possible. This includes highlighting that its linoleum product, Marmoleum, is CO₂ neutral

without carbon offset and is manufactured from 97 per cent natural raw materials – using linseed instead of plastics. In addition to its sustainability, Marmoleum offers true design freedom and choice with over 300 colours and designs to choose from. It is also phthalate free for improved air quality and Allergy UK approved.

01773 744 121 www.forbo-flooring.co.uk/liveforward

Earthborn – doing things differently



Earthborn is delighted to introduce The Earth Collection, a palette of five harmonious new paint shades inspired by the natural world, themed around the earth, land, sand, sea and clouds. The Classic Earthborn colour card will remain unchanged for now; instead a simple bookmark is available displaying real painted swatches of the five new colours.

Crocky Road: Its faintest green undertone lends Crocky Road an easy, earthy quality.

Up Up Away: A cool, calm and collected off-white shade.

Grassy: This elegant grey-green is reminiscent of misty, mountainous landscapes.

Skipper: This warm denim shade has a casual charm.

Sandy Castle: The feeling of sunlight on sand dunes to create our own take on cream.

With Earthborn you get no acrylics or oils, but you get high quality and high performance and a full list of ingredients to help you make a more informed choice.

01928 734 171 www.earthbornpaints.co.uk

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Search for local CEDIA members with our free finder service: cedia.net/findapro

The Axiom® Worktop Collection



Twenty new and exclusive decors, 13 new feature splashbacks and three new textures are among the exciting highlights of Formica Group's cutting edge Axiom® by Formica Group worktop Collection launched in October 2020. The details have been revealed as Formica Group prepares to unveil an ultra-premium, refreshed and refined

collection for one of the market's most recognisable worktop brands. A selection of lighter woods, stones and slates have been added to meet growing demand for enriched yet timeless designs.

0191 622 0106 www.formica.com

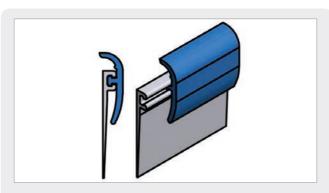
Adapting your workspaces without worry



As employees start to return to the workplace, they need to feel confident that their work environment will be safe. With hygiene a higher priority than ever before, cleanability of surface materials is coming under close scrutiny in workplaces across all sectors. **Altro's** systems

are 2.5mm thick, with colour throughout the thickness of the product. They are durable and robust, with life expectancy of up to 25 years and come in a wide range of colours and bespoke options. Because it's vital to clean floors, walls and doors effectively, Altro have produced a range of cleaning guides to help you get it right first time.

01462 489 516 www.altro.com



Quantum Fusion

Quantum Fusion is **Quantum Flooring Solution's** brand new Clippedin Capping system. This unique and elegant design consists of two separate parts. The rigid base is attached to the wall first, after which the flexible Capping Strip can be clipped neatly and firmly into the base over the fitted vinyl flooring. The base comes pre-taped, so it is perfect for projects in schools and hospitals where solvent based contact adhesives are often prohibited. Meanwhile, the flexible cap ensures that there are no dirt traps, making Quantum Fusion ideal for healthcare environments. The capping can be clipped into the base in long strips, even around corners, allowing for a seamless join. Quantum Fusion also overcomes the issue of platiciser migration, as no plasticisers are used in production of the base. This greatly reduces incidences of stains or adhesion issues over time. Email to request a sample of Quantum Fusion.

0161 627 4222 info@quantumflooring.co.uk



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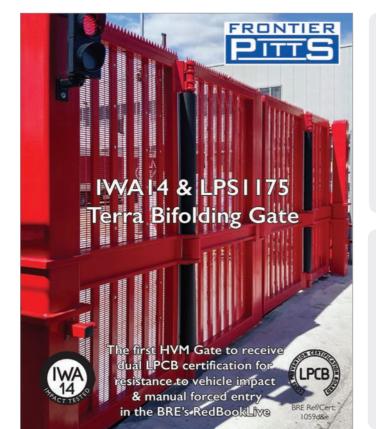
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Homely and hassle free solution



New Altro Wood[™] adhesive-free is providing Coate Water Care's Woodstock Nursing Home in Gloucester with homely flooring for bedrooms and en suites, was quick to fit and caused minimal disruption. Altro Wood adhesive-free is a safety wood-look floor with

easy cleanability; perfect for decorative, homely or biophilic areas. The range has been created with design freedom in mind – Altro Wood adhesive-free shares some designs with Altro Wood Comfort and Altro Wood, allowing you to coordinate floors with different performance criteria across different areas of the building.

01462 489 516 www.altro.co.uk

ERA Protect – backed by BSI IoT Kitemark



ERA, the UK's security specialist, has launched ERA Protect, the next generation wireless smart security system and the first of its kind to attain the prestigious BSI IoT Kitemark. Bringing alarm and camera excellence, ERA Protect offers the ultimate in security confidence and even when there is a broadband outage, the built-in

4G roaming SIM allows crucial data to be sent to the secure ERA Cloud, all controlled by one intuitive smartphone app. ERA Protect offers a multitude of capabilities and features that empower users to take charge of their smart security from start to finish.

01922 490000 www.eraeverywhere.com



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Enhancing passive fire safety **CHECKMATE** at the Puro Hotel



ixing aesthetics, acoustics and assurance, Alufire's fire resistant glazing provides our clients with maximum safety and compliance - while delivering a stylish solution. Installed and supplied by our UK partner, Checkmate Fire, we work together to deliver the best-in-class, fully accredited installs, ensuring the ongoing compliance of your buildings.

As a company focusing on fire-resistant, frameless aluminium systems, we have



decades of experience in designing, manufacturing and distributing the highest quality of fire-resistant aluminium joinery.

Managing the project from conception to completion, our delivery teams collaborate closely with architects to determine product specification, efficient manufacturing, and a timely final product installation and certification.

Alufire's fire resistant glazing products are used extensively throughout the UK and Europe, protecting a wide range of environments, including public spaces, industry, offices, theatres, education centres and hotels. As the hotel sector invests further in passive fire solutions, we are proud to showcase our recent project at Puro Hotel.

PURO HOTEL, POLAND – CASE STUDY

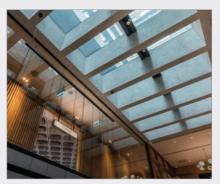
Client: Genfer Products utilised - Vision Line, Classic Line doors Fire resistance - EI30, EI60 Total weight of the construction/glass -10700kg Area: 235M2 (2530 FT2)

PROJECT ANALYSIS

At the beginning of 2019, in the center of the Polish city Łodz, opposite to one of the city's biggest buildings - the neo-baroque Izrael Poznański's palace, a new four-star hotel was inaugurated under the Puro brand. The hotel has 136 rooms, a restaurant, a bar on







the roof-garden with a view to the city, conference rooms and even a cinema called "Cinema Paradiso". The interior was designed by the London based firm Superfutures. The impressive interior design follows the artistic and cinematic tradition of the city and the strategy and tradition of Puro's parent company Genfer.

As a project that strategically wanted to focus on design, aesthetics and functionality, Alufire products were a perfect fit.

THE SOLUTION

The frameless fire-resistant system, Alufire Vision Line (AVL) was chosen to complete the sophisticated and modern interior of Puro hotel in Łodz. The AVL system was used among others to complete the obstacle-free views from the corridors, staircase and some rooms to the internal atrium. Mounted on the edge of the ceiling without handrails due to the incredible 1000N/m of force sustained, AVL gives the possibility of creating wide, undisturbed view lines optically enlarging the space and allowing natural and artificial light to reach more spaces. This solution's primary function though is restricting and resisting fire, up to 60 minutes. And AVL ensures in this project too, the safety of people in a fire emergency.

If this sounds like something you need, get in touch with our UK partner, Checkmate Fire, on info@checkmatefire.com.

01422 376436 www.checkmatefire.com

Iconic Lloyds building receives Advanced Fire Protection

A network of 10 MxPro 5 fire panels from systems leader, Advanced, have been installed to protect London's famous Lloyds Building.

Also known as the Inside-Out Building, the Lloyds Building is located in the City of London's main financial district and is a leading example of radical Bowellism architecture in which services for the building such as ducts and lifts are located on the exterior to maximise space in the interior. Built in 1986, the commercial office development became the youngest structure ever to obtain Grade I listing in 2011.

The state-of-the-art Advanced fire panels, which were installed as part of a phased upgrade to the fire system, cover all areas of the 14-storey building, include BMS integration for graphics and are linked to over 3200 Hochiki devices, including wireless devices installed within the building's towers.

Undertaking phase one, the design, installation and commissioning of the fire

panels and graphics system at the Lloyds Building, were Kent-based Pacific Security Systems Ltd.

As part of the work for phase two of the upgrade, a custom-built annunciator for sprinkler, wet riser and plant status control will be designed and manufactured by Advanced's AdSpecials department.

MxPro 5 is the fire industry's leading multiprotocol fire system solution and was recently certified by FM Approvals to the EN 54 standard. It offers four detector protocols and a completely open installer network, backed up by free training and support. MxPro 5 panels can be used in single-loop, single-panel format or easily configured into high-speed networks of up to 200 panels covering huge areas. Its ease of installation and configuration as well as its wide peripheral range make it customisable to almost any application.

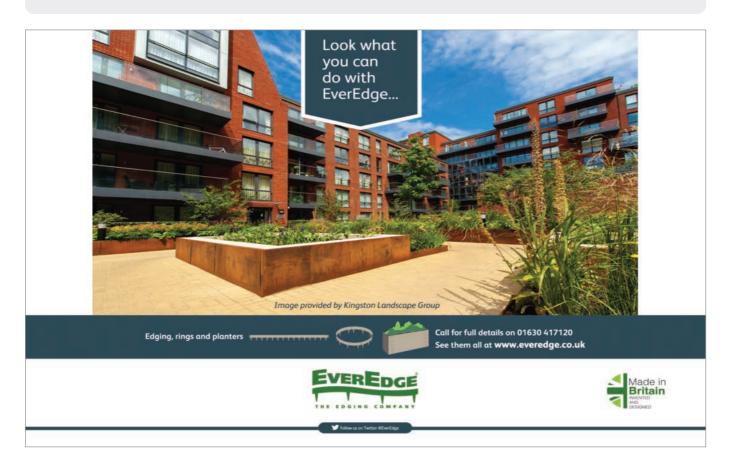
Advanced, owned by FTSE 100 company Halma PLC, protects all manner of



prestigious and high-profile sites across the globe, from London's Shard to Abu Dhabi International Airport and Las Vegas' Golden Nugget Casino.

Halma is a global group of life-saving technology companies with a clear purpose to grow a safer, cleaner, healthier future for everyone, every day.

0345 894 7000 uk.advancedco.com



UltraScape used at private residence



UltraScape premjoint jointing compound has been used to joint 65sqm of sandstone paving at a multi-million pound private residence in an exclusive residential area in Four Oaks, Sutton Coldfield as part of an enhancement project to the outdoor area.

UltraScape premjoint is the next generation in decorative, brush-in jointing solutions. Suitable for use with granite, porcelain and other premium quality natural stone, premjoint jointing compound was the obvious choice for completing this luxury refurbishment project. The homeowners were delighted with premjoint.

01827 254402 ultrascape@instarmac.co.uk

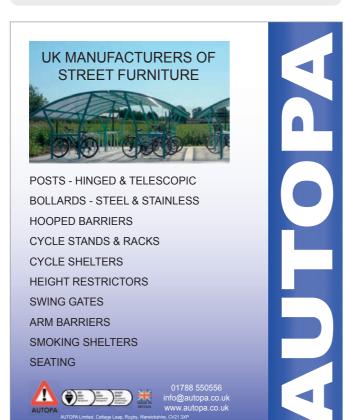
'Futureproof' Britain's oldest high street



All roads lead to Rome, as the saying goes, and that was certainly the plan for Britain's oldest High Street in Colchester, when the Romans settled in England in 43AD. Now these roads, and the paving alongside them, are being made 'futureproof' by Essex County Council, with the use of **Resiblock** Resiecco. Having been

used in High Streets throughout the UK, and even at Europe's longest pedestrian shopping area in Købmagergade, Copenhagen, Resiblock provide paving protection against large volumes of footfall traffic, cleaning regimes and staining from food, drinks and chewing gum.

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Green-tree roof garden substrate specified for BALI Award winning Roof Garden project

PROJECT DETAILS

Client: Dandara Living Landscape Contractor: Palmer Landscapes

Green-tree roof garden substrate was used in the award-winning scheme installed by Palmer Landscapes.

Leodis Square, Sweet Street, Leeds is a city centre development project, comprising four apartment blocks of up to 12 storeys high. The development is also home to two podium gardens; situated on the roofs of the on-site car parking, which form the courtyards for the apartments.

Palmer Landscapes is a commercial landscape contractor with 50 years' experience behind them. The Leodis Square project took two years to complete and won them a 2020 BALI Award in the category Roof Gardens/ Living Wall Installations – Residential Roof Garden or Podium Landscaping – under 250k.

Palmer Landscapes constructed and landscaped the central podium courtyard gardens to offer an outdoor area that fits with the aspirational design of the overall development. The landscape design for the shared courtyard space contains varied seating opportunities, planting and lawn areas where residents can sit back, relax and enjoy city life. Palmers have a long-standing relationship with Green-tech and turned to them for their landscaping materials. This complex project involved importing 550 m³ of Green-tree lightweight roof garden substrate, through narrow walkways up to the podium courtyard gardens. The Palmers team has a wealth of experience of transporting substrates onto elevated areas and they decided to blow the substrate utilising a specialist topsoil pumping wagon.

Adam Palmer of Palmer Landscapes comments,

"It was an innovative solution which required extensive planning and many trial runs. There were concerns over the quality of the planting material once it had been blown and we had disaster plans, should any machines breakdown. However, testing offsite and a great team behind us, helped us achieve the import of soil in 7 days."

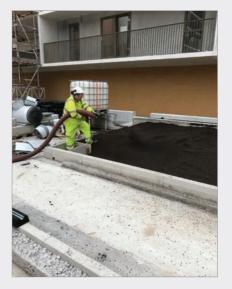
Green-tree roof garden substrate is lightweight and free-draining and was purpose mixed for this site. It is manufactured from an environmentally sustainable compost of recycled materials and lightweight aggregate.

The team worked closely with Palmers to coordinate timed, scheduled deliveries that adhered to tight city centre restrictions as well as requirements to keep a steady flow of substrate for the topsoil pumping wagon. The teams worked weekends and evenings to adhere to movement restrictions.

Adam continues,

"The Green-tree substrate was specifically selected for its green credentials, which





appealed to both the client and main contractor. We have used this substrate on other roof gardens and knew that it would offer quick establishment which was exactly what this site needed."

Green-tree substrate was delivered to the site on a grab wagon. The substrate was then transferred to a pumping wagon and over 100m of pipeline was used for the substrate transfer. Overall, it took seven days to complete the import of the substrate. Smaller planted areas, employed a conveyor method where the substrate was placed on the conveyor belt tipped over the walls and barrowed to site.

The imported substrate created mounded plant beds and large turfed areas to the central courtyards to create the social spaces between the four buildings.

Mark Browne, Key Account Manager at Green-tech added,

"I have worked with Palmers for a long time and I was delighted to be involved in this project. We needed to work closely together to make sure the flow of substrate was constant and delivered exactly when they needed it. I am delighted that this project has won them a BALI award. It's a fabulous urban landscaping project that the Palmers team worked incredibly hard to deliver."

01423 332100 www.green-tech.co.uk

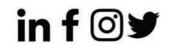


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POOKA CPD

New developments with Permeable Paving and SuDS

The trade association Interpave has published a new edition of 'Understanding Permeable Paving and SuDS', an essential introductory guide to all aspects of concrete block permeable paving for sustainable drainage systems (SuDS) – and much more. This comprehensive guide explores the latest innovations for new and retrofit paving, and potential with wider benefits for the urban environment.

Concrete block permeable paving is placed essential, uniquely as an multifunctional SuDS technique, providing an inherent drainage system that requires no additional land take for water storage. It combines proven engineering design solutions with water management replicating nature near the surface. Permeable paving can be used for direct infiltration of attenuated, treated water to the ground or conveyance to other SuDS or sewers. It should also cost less than conventional paving and piped drainage to install and maintain, as the guide demonstrates. The new edition then explains how to use straightforward flow controls to maximise storage and other capabilities of permeable paving, offering further cost savings.

And permeable paving is also very effective at removing pollution from surface water runoff, notably vehicle pollutants, identified in recent research as particularly harmful to our rivers. In fact, permeable paving provides a gradual supply of clean, treated water as an asset, supporting landscape (including trees), biodiversity, water harvesting and safe open SuDS features downstream. But the wider benefits of concrete block permeable paving are also discussed in the guide. It offers 'cool pavements' helping to reduce the urban heat island effect, making our cities more comfortable in summer, with evaporation of rainwater from the surface and within the paving. This enhances the already high albedo - or heat reflectance - offered by concrete block or flag paving generally.



One particular innovation covered in the latest edition of the guide is set to play a major role in the post-pandemic public realm. Retrofitting concrete block permeable paving as an overlay to existing streets offers a lowintervention technique to transform the public realm in response to the raft of recent active travel and open space initiatives.

To download edition 6 of Understanding Permeable Paving and SuDS, please visit www.paving.org.uk/home/permeable-paving

0116 232 5170 www.paving.org.uk

Wallbarn launches non-combustible MetalPad to satisfy new building standards



Wallbarn, a leading manufacturer of pedestal solutions for domestic and commercial suspended paving and decking projects, has developed what it believes is the UK's first non-combustible Class A1 metal pedestal designed specifically for high-rise balconies, terraces and flat roofs. MetalPad was developed in direct response to BS 8579: 2020 Guide to the Design of Balconies and Terraces, which has just been published and details how all building elements of balconies and terraces must be non-combustible. Previously, heavy-duty plastic pedestals systems had been deemed appropriate but the new standard makes clear this is no longer acceptable. The Wallbarn designed, developed and produced MetalPad Class A1 non-combustible fully adjustable pedestal system is the result of Wallbarn's R&D investment in to developing a BS 8579 compliant system. It offers specifiers, contractors, building owners, insurers and occupants peace of mind that the pedestals supporting paving and decking on balconies and terraces will not fail in the event of fire. MetalPad is non-combustible to BS EN 13501-1, made from 2mm thick galvanised steel and designed for exterior applications.

020 8916 2222 www.wallbarn.com

UltraScape launch a new paving system



UltraScape are delighted to present permabed, a new and unique permeable bedding mortar for paving installations. UltraScape perma-bed has been specifically designed with permeability in mind. Formulated to drain away any water migrating into the pavement

via cracks or damaged areas, perma-bed reduces water related pavement failures as rainwater will drain away naturally rather than sit on top of the stone, or worse, stay within the joint, freeze, expand and then break out. It is available in three beautiful colours – Cosmic Black, Storm Grey and Natural Cashmere.

01827 254402 ultrascape@instarmac.co.uk

Latest news, views and more

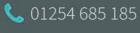


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