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FROM THE EDITOR



One of the few issues that can unite the left and the right arms of the political spectrum, for different reasons, is the vexed question of where new houses should be built. A cohort of Labour MPs recently joined forces with some of their opposing counterparts to try and water down the Government's forthcoming, and highly controversial, planning Bill. Among other things, it introduces new 'growth' zones across the UK, freeing up development in often NIMBY-filled, traditionally Tory areas.

Showing the strength of feeling, Chesham and Amersham in leafy Buckinghamshire saw a shock defeat for the Conservatives by the Lib Dems. This turned a blue majority of 16,000-plus in the last Election into an 8,000 majority for Ed Davey's candidate, the party-defying HS2 opponent Sarah Green, who partly benefitted from a protest vote against the transport project. However, also keenly in the voters' sights were the Government's planning reforms, hoped to unlock the 300,000 homes target, but in the process causing a furore by potentially taking power to build away from planners, and communities.

There's little that those communities care about more than their 'back yard' suddenly changing shape, and a wide range of residents, not only in the 'Shires,' but across the UK, are up in arms. You wonder how many more constituencies will be ready to turn their backs on the MP they only recently supported, once the effects of a more open system start to bite?

Some believe that there is a wider factor, that the Tories' focus on preventing the previously red northern 'wall' of voters from being knocked down – manifested in the 'levelling up agenda' – means their voters in southern constituencies are feeling unloved. Those areas certainly won't be getting the investment others will, but they will be getting the homes, because it's where developers can sell.

Another objection of mutinous ex-Tory voters in Chesham and Amersham was that developers will prioritise higher-yield homes, not ones that first-time buyers can afford. But if the economic post-Covid factors take a downhill course and the four-bedroom homes don't sell, the result could be empty, well-appointed ghost towns on what were green fields.

Has the Government handed planning policy over to developers? Or will it have the courage to bring in a more robust approach to getting developers to build the right homes in the right areas, as it has on forcing them to begin development within 18 months of getting planning approved? The housebuilding sector, unsurprisingly, doesn't like the idea of allowing residents to have the final say one bit, and rolling back on the promises it has made will cause a major dust-up for the Government.

It's hammered by voters for loosening up planning, but when it tries to make builders build, it gets it in the neck from the industry. The bottom line is that nearly a million plots are sitting with planning but without a house on them. We were 74,000 behind the 300,000 homes a year target in 2020, but builders won't deliver if the conditions aren't right. The question is, how many voters can the Government afford to lose?

James Parker
Editor



ON THE COVER...

A gravity-defying cantilevered form soaring over Provence woodland, the Richard Rogers Drawing Gallery is the renowned architect's final project before his retirement

Cover image © James Reeve

For the full report on this project, go to page 42



COMMERCIAL & WORKPLACE

Morris+Company get go-ahead for Shoreditch 'warehouse workspace'

Morris+Company has secured a resolution to grant planning approval for a new “contemporary warehouse” for client Blue Coast Capital that will provide over 150,000 ft² of “prime Grade-A workspace” to London’s Shoreditch. Designed to “evolve with working patterns in the city for years to come,” said the practice, the development also includes 15,000 ft² of affordable workspace for “emerging enterprises and the creative industry.”

The project contains 2,500 ft² of retail and “makerspace” and over 11,000 ft² of external amenity space. The project is set to start on site in summer 2022 and to complete summer 2024. Situated adjacent to the Tea Building, the former warehouse for Liptons Tea, Morris+Company’s proposal is “a modern interpretation of Shoreditch’s robust warehouse typology,” said the architects. The scheme is made up of a “family” of four volumes, ranging from three to nine storeys, in response to the surrounding context.

The front facade of 30-32 Redchurch Street will be retained and carefully

incorporated into the proposed building which “stitches back into the wider conservation area.” The primary entrance will be on Bethnal Green Road, and an internal ground-level street will offer a “dynamic and fluid meeting hub that extends the streetscape into the building, fostering an ‘ecosystem’ for chance encounters between tenants and the general public.” The double-height gallery in the entrance will lead to predominantly glazed retail spaces (fashion, furniture, art and design in particular); “encouraging a wide variety of users to occupy and bring life to the space.”

Floors one to eight will house workspaces with generous ceiling heights and lightwells helping to create connectivity across the building. The floor plans will have “high levels of flexibility and adaptability to accommodate business growth,” as well as diverse working models. A series of planted external balconies, or loggias, will create an “open and permeable facade to support tenants’ wellbeing.” On the ninth floor a roof terrace and pavilion will provide a year-round multi-functional

event space for all tenants.

Morris+Company’s proposal will cater for more than 1,500 jobs across a mix of tenants, said the firm, in a building targeted for BREEAM Outstanding certification. It will deliver energy efficiency and renewable technologies, alongside a “site-wide net gain in biodiversity.” The project is also targeted to reach a Platinum WELL building standard, for healthy internal environments for its tenants. Facilities such as a cycle entrance and extensive cycle parking also encourage sustainable transport.

The scheme is “designed to conserve and enhance the rich architectural history of the four surrounding conservation areas,” said the architects. The materials have been carefully selected in a “sensitive palette of reddish pink brickwork and cream reconstituted stone, empathetic to the existing context.” The project explores further reinterpretations of the local vernacular, including “a vast range of variation in terms of brick bond, mortar joint type, decorative elements and colour banding.”

PASSIVHAUS DESIGN

Stride Treglown 900-bed Passivhaus student residence approved in Bristol

Plans for one of the world's largest student accommodation schemes designed to Passivhaus standards have been approved. The scheme for the University of the West of England (UWE Bristol) and designed by Stride Treglown, was given the go-ahead by South Gloucestershire Council.

The UWE Bristol scheme comprises 900 bedspaces over 26,000 m² in a mix of studio, four, six and eight-bed clusters. Once complete, the complex of buildings will operate at a 75% carbon reduction compared to the same size buildings of traditional design and construction.

Alongside the ambitious energy targets, the brief called for a design that responds to the existing student accommodation. The development will create a "variety of amenity spaces and green corridors, strengthening the connection between the buildings and nature," said the architects. Stride Treglown's architecture and landscape design teams worked to create a design solution that met the varied brief.

The scheme adheres to Passivhaus principles by being "shaped and orientated to gain maximum benefit from winter sun." Glazing levels to each elevation vary to balance the need to provide daylighting, ventilation and views with minimal heat loss and solar gain. Deep reveals, perforated



Images © Stride Treglown

panels and shading fins are employed to "balance the competing demands of the window design," said the practice.

Student comfort and wellbeing was a key goal for the project, focusing on air quality and use of natural finishes in interior spaces. Stride Treglown's interiors team integrated "innovative social and study spaces," plus laundry and cycling facilities into the design,

following "extensive" student consultation. These are arranged to ensure that every student is close to communal amenities which open into landscaped courtyards to encourage social interaction.

Landscape design, also by Stride Treglown, will lead to "major gains in biodiversity across the site" and provide landscaped courtyards, orchard-planting and green corridors – following national 'Building with Nature' standards, to which UWE Bristol researchers themselves contributed. Pedestrian connectivity across the site will be "dramatically improved" with an integrated cafe and study hub located on a new tree-lined boulevard.

This project "significantly addresses the university's commitment to address the challenges of climate change, and move towards its 2030 carbon targets, as well as its commitment to student wellbeing and experience at UWE Bristol," said Stride Treglown.

The scheme will start on site in 2021 with the first phase ready for occupation in September 2023 academic year. This is phase one of planned development that will deliver a total of over 2,250 new student beds on the Frenchay campus.



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AWARD

Adjaye receives 2021 Royal Gold Medal in online ceremony

Sir David Adjaye OBE has finally been given the 2021 Royal Gold Medal for Architecture in an online ceremony, after being announced as the recipient of the award in September 2020.

The medal was presented by Iain Walker, the British High Commissioner to Ghana, in a “virtual celebration” which saw Adjaye in Ghana linked with RIBA President Alan Jones in London, tributes from dignitaries around the world, and a global audience.

The Ghanaian-British architect has received international attention for an “exceptional body of work over 25 years,” said RIBA. Drawing on influences ranging from “contemporary art, music and science to African art forms and the civic life of cities,” his completed projects range from private houses, exhibitions and furniture design, through to major cultural buildings and city masterplans. From the start of his career Adjaye has combined practice with teaching in schools of architecture in the

UK and the US, including professorships at the universities of Harvard, Michigan, Pennsylvania and Princeton.

His practice, Adjaye Associates, was founded in 2000 and today has studios in Accra, London and New York, with projects across the world, including the Smithsonian National Museum of American History and Culture in Washington DC (completed 2017).

Adjaye was knighted in the 2017 New Year Honours, following an OBE in 2007. As a student, he won the 1993 RIBA Bronze Medal, and in 2006 his Idea Store Whitechapel was shortlisted for the RIBA Stirling Prize for the best building of the year. Adjaye has won RIBA International Awards for the Museum of Contemporary Art, Denver (2008) and the Francis Gregory Library and William O. Lockridge/Bellevue Library in Washington DC (both 2013).

The 2021 Royal Gold Medal selection committee, chaired by RIBA President Alan



© Francis Kokoroko

Jones, comprised architects Lesley Lokko, Dorte Mandrup, and Shelley McNamara (whose practice Grafton Architects won the 2020 Gold Medal), as well as structural engineer Professor Hanif Kara.

EDUCATION

BDP school restoration makes Scottish Design Awards shortlist

Ayr Grammar primary school, designed by BDP's Glasgow studio, has been shortlisted in the annual Scottish Design Awards. The sensitively restored historic building, located on the edge of the 17th century ‘Citadel’ of Ayr, is one of six buildings that made the shortlist in the ‘education building & project’ category.

The new education hub offers a nursery, a primary school, a Community Arts Centre, and a new home for the Ayrshire Archives and Registry which also houses the Ayrshire fine art collection. The full refurbishment was carried out following the move of Ayr Academy to the new

BDP-designed school at the Craigie Campus in Ayr in 2017.

Lindsey Mitchell, architect director at BDP Glasgow Studio said: “It is great to see a restoration project making the shortlist in this year’s Scottish Design Awards. Ayr Grammar Primary School is a great example of our approach to the restoration of historic buildings and how their reuse can be relevant to contemporary education, providing spaces that deliver both academic and social benefits to the wider community.”

The winners of the Scottish Design Awards will be announced in an online ceremony to be broadcast live on 15 July.



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RESEARCH & DEVELOPMENT

AHR's wellness-focused Liverpool scheme is anatomically inspired

AHR's £35m development The Spine, the new northern base of the Royal College of Physicians (RCP), has reached completion, comprising a major addition to the 'Knowledge Quarter' known as Paddington Village.

A 'biophilic' building designed to WELL Platinum, the scheme developed by Liverpool City Council and the RCP prioritises occupant health and wellbeing, is "on track to be one of the healthiest workspaces for mental health and physical wellbeing in the UK," said the architects. They added: "AHR and RCP's shared vision in creating a positive and healthy working environment, reducing stress and increasing creativity with the use of biophilia, was key in this innovative design."

AHR's design was strongly inspired by the human body with the distinctive facade "taking inspiration from human skin." The Voronoi pattern includes 23 million individual polygons applied in a frit pattern to the glazing of the building.

The Spine derives its name from the striking geometric staircase to the north of



the building, "inspired by the human vertebrae and visible from the outside, while the double height atrium represents

the lungs." The structure's exposed concrete columns reference the skeleton, moulded to reflect the trabecular system within human bones.

The glazed curtain wall system, incorporating timber, helps to provide a "unique connection to nature for the occupants," said the architects. In addition, they claim the exposure to natural light reduces blood pressure and stress, "while increasing happiness and significantly, circadian rhythms, which regulate sleep patterns."

As part of adhering to the principles of the WELL Standard, AHR introduced an "innovative" ventilation system, reportedly circulating higher levels of fresh air than typical commercial systems, with additional filtration to maintain high air quality levels throughout.

As well as office space and dedicated medical research areas, The Spine also includes conference, education, dining and exhibition space. The building is expected to be fully operational by September 2021.



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ASK THE ARCHITECT

Regular *ADF* contributor, and partner at Hawkins\Brown, Nigel Ostime answers our questions on the role of the architect, and what designers need to learn from other sectors when it comes to efficiency



Nigel Ostime of Hawkins\Brown

WHAT MADE YOU WANT TO BECOME AN ARCHITECT?

As a teenager trying to decide what to do with my life, like most people who want to become an architect I knew very little about what the job actually entails, but – presumably also like most people – had a vision of designing and realising beautiful, well-crafted buildings. I enjoyed drawing and I suppose at that time I thought it would be a rewarding and stable job. Well I was right about one of those!

In my first year a tutor told us (too late as we had already committed!) that architecture was no way to earn money. I think it went over our heads anyway to be honest. What he didn't say was that it is also part of an industry that suffers from the turmoil of a fluctuating economy. I have worked through two major recessions, both of which have had an impact on me. But no regrets.

WHAT DO YOU LIKE ABOUT IT MOST CURRENTLY?

My role at Hawkins\Brown allows me to pursue two particular interests. The first is enthusiasm for driving efficiency in the project process and making more time for the iterative design process where as architects we add the most value.

The second is in design for manufacture and assembly (DfMA) and digital

technology, both of which I promote through my work and through the organisations I am a member of. I am currently leading the development of a second edition of the RIBA's DfMA Overlay to the Plan of Work, which is due for publication in the autumn. And I am starting a group within the Offsite Alliance which aims to bring together architects and manufacturers of offsite products to better understand each other and find ways to promote modern methods of construction.

If our industry doesn't get to grips with these things, we are destined for hard times; I firmly believe this is mission critical.

WHAT IS THE HARDEST PART OF YOUR JOB?

I think architects always struggle with too much to do, in not enough time, and I am no exception to that. It stems from our innate enthusiasm and always wanting to push the boundaries.

WHAT ADVICE WOULD YOU GIVE TO ARCHITECTS STARTING OUT?

I am an advocate of the benefits of networking and of keeping on top of current affairs: who is doing what, and the big topics of the day. I can point to a number of rewarding outcomes from doing this, all totally unforeseen and unplanned but which would not have happened



EAST VILLAGE, STRATFORD

The Build to Rent project designed by Hawkins\Brown is being built by Mace (for clients Qatari Diar/Delancey and Get Living London) using the contractor's High Rise Solutions system, which combines digital technology with a new offsite manufacturing approach



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without being prepared to invest time and energy in keeping in touch, and putting people in touch with each other.

One by-product (paradoxically, it seems so long as it is not what you set out to do), is that new opportunities arise serendipitously that otherwise would not have.

HOW HAVE YOU ADJUSTED TO NEW WAYS OF WORKING SINCE THE PANDEMIC?

As one of the lucky ones with a spare room to use as my home office, it has been pretty easy really, although like everyone I've missed the company of colleagues. Working from home has been a catalyst for using technology to communicate and it has no doubt changed the way we work forever. We are starting to go back to the office but only part-time, and this looks likely to continue for the foreseeable future. The workplace is now focused on collaboration, with task-based activities taking place remotely. There are advantages and disadvantages, but the pandemic has no doubt brought about change more quickly. We may well have arrived at this place without Covid-19, but it would have taken much longer. The greatest changes in society happen as a result of turmoil of one sort or another, and this is one outcome of prolonged lockdown.

WHAT IS THE BIGGEST CHALLENGE OF CHAIRING THE RIBA CLIENT LIAISON GROUP?

I set up the Group seven years ago with a view to making the institute more outward facing, and to hear the views of clients on what our profession does well and where we need to improve. We've published some

interesting reports over the years, but the biggest challenge is persuading members to follow the very clear messages clients are sending out. The fact is architects (and no doubt other professionals) find it difficult to change and to find time to initiate change. We need to step back from the coal face and pause for reflection if we are to achieve the elusive continuous improvement that we see in the manufacturing industry, but not in ours.

WHAT IS YOUR PROUDEST PROFESSIONAL ACHIEVEMENT?

I have written nine books for the RIBA and I'm proud of what they have done to help students and practitioners in a very practical way. But my proudest achievement would be the buildings where I can legitimately lay claim to have been the author. There is a sweet spot in your career where you get to lead while still not being bogged down with practice management, and all those buildings derive from that time.

WHAT SINGLE TECHNOLOGY INNOVATION WOULD MAKE THE ARCHITECT'S JOB EASIER?

No one became an architect to write schedules and do the more prosaic pieces of work the job entails. Where architects really add value is in the creative design process, so whatever digital technologies take away the mundane and free our time for that are great in my book. This does to some extent mean accepting standardisation, which many architects are afraid of. But technology is essential to our future success.

Hawkins\Brown has developed a significant portfolio of digital design tools and plugins and we are now starting to

Architects find it difficult to change and to find time to initiate change – we need to step back from the coal face and pause for reflection

look at software as a service, something I didn't even know about a year ago. This is where our future lies as a profession and we must embrace it. The next big thing will be 'servitisation' (suppliers' shift in focus from manufacturing to providing services).

WHAT'S YOUR BIG SHORT-TERM GOAL?

I'm pretty passionate about persuading the architectural profession to embrace DfMA and adopt a manufacturing mindset. But these things start small and closer to home, so we are on a journey to broaden our knowledge of modern methods of construction within the practice and the necessary optioneering process that must happen at concept design stage (RIBA Stage 2) and make this 'business as usual.'

IS ARCHITECTURE SOMETIMES MORE ABOUT BEING A GOOD DIPLOMAT THAN BEING A GREAT DESIGNER?

You do learn over time that the best way of achieving your goals is through collaboration. I always try to listen carefully and be prepared to learn from others. ■

Nigel Ostime is a partner at Hawkins\Brown Architects

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SITE LINES

A home fit for the future

HLM Architects is raising its profile in the residential sector with a design concept showcased in a major Government design initiative to create ‘age-friendly’ and sustainable housing. Matthew Thomas explains more

Last year HLM Architects’ ‘Forever Home’ concept was one of six finalists for the RIBA-run Home of 2030 competition. This sought to find homes that are ‘age-friendly’ as well as having low environmental impact, supporting healthy living, and able to be delivered at a large scale to solve our housing shortage.

The competition was announced by Housing Minister Christopher Pincher in June 2020, and was based on four themes, including ‘age-friendly and inclusive living,’ ‘low environmental impact,’ ‘healthy living,’ and ‘deliverable and scalable.’

All entries are required to reflect the Government’s published response to the Future Homes Standard consultation, where new homes are expected to achieve a 31% reduction in carbon emissions from 2021.

To achieve these bold ambitions, HLM partnered with sustainability experts Daryl Fisher from sustainable building consultancy HLM Greenbuild, and Dan Beynon from multi-disciplinary engineering practice Hydrock. The team was

augmented by the Advanced Manufacturing Research Centre in Sheffield, and Mid Group, a cutting-edge offsite contractor.

The design proposals that emerged envisioned flexible, affordable, and sustainable ‘forever’ homes, providing great places to live and work. They support the development of stable communities where people can invest in their homes, which are able to expand and contract with the life changes of those who live in them. This approach promotes putting down roots in a place, developing social and community coherence.

Furthermore, the ‘forever home’ concept stimulates a circular economy through the use of modularised systems that enable homes to be adapted, with construction components able to be sold back into the ecosystem of supply chain parts for re-use. This means that homeowners can realise the value in their homes without ever moving – meaning the costs associated with moving house several times can be invested in the quality of the home instead.





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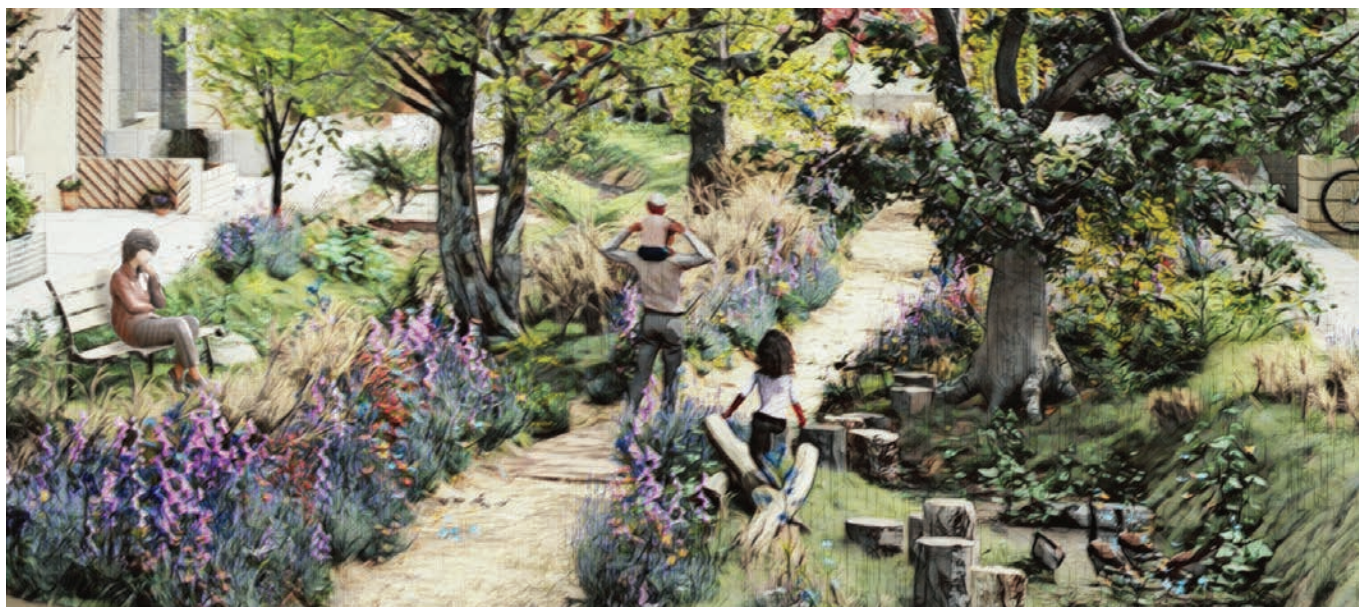
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The concept is particularly beneficial to housebuilders and developers as it enables them to select contractors and suppliers from a much wider pool. As well as making the tendering more competitive, it also serves to safeguard the supply chain 'ecosystem' by ensuring there is also a backup manufacturer or supplier should one become incapable.

As well as focusing on the building itself, the design proposals considered how homes and their owners/occupiers can develop stronger communities. Dense terraces with development space 'baked-in' to the proposals mean that space can be created for community use. It facilitates the creation of community building at the heart of the neighbourhood, by providing green space and by encouraging walking and cycling 'by design,' facilitating active streets and social interaction. As the world shifts towards more agile working, the ability to work from home or work in a flexible community workspace reduces the need for long commutes, therefore reducing carbon released from transport.

Fabric & tech

Reducing carbon emissions associated with homes while maintaining comfort and low running costs demands a focus on efficiency. HLM's 'forever home' focuses on a fabric first approach with excellent U-values for floors, walls and roofs, high quality triple-glazed windows, minimising thermal bridging and targeting airtightness rates that achieve Passivhaus standards.

To support excellent indoor air quality and minimise heat loss from the home, a highly efficient mechanical ventilation with heat recovery (MVHR) unit has been adopted, recovering approximately 90% of the heat from extracted air to heat the fresh supply air.

These key approaches are supplemented by 'gentle engineering'; air source heat pumps providing hot water and space heating that, when coupled to low temperature underfloor heating, allows the heat pump to operate at optimum efficiency. Flexibility within the manifold system also allows for additional rooms to be easily 'plugged-in' to the system as the home evolves with its owner.

Photovoltaic (PV) panels on each dwelling's roof provide what little energy is required to these super-efficient homes, reducing

The competition was based on four themes, including 'age-friendly and inclusive living,' 'low environmental impact,' 'healthy living,' and 'deliverable and scalable'

carbon and running costs for the homeowner. The PV area is calculated to balance the operational energy and carbon of the home with the option for homeowners to install additional PVs to generate electricity for an electric vehicle, for storage in batteries to balance demand spikes, or to sell as part of a 'micro grid.'

The design solution achieved ensures that systems are user friendly and easy to control. These simple controls can optionally be enhanced through smart home technology utilising sensors and controls to monitor temperature, humidity and CO₂; adjusting heating, ventilation and lighting to optimise user comfort and wellbeing, and minimise energy usage.

Care was paid to the carbon embodied in the materials proposed. It is important to understand how materials are produced, where they are produced, how they are transported and ultimately, how they are recycled or disposed of. To reduce embodied carbon to its lowest level we must focus on locally sourced natural materials wherever possible. The 'forever home' has been designed to allow the specification of materials, components and products which are designed to be recycled or reused; natural; low in embodied carbon, locally sourced, and/or high in recycled content.

Combining these strategies and modelling the performance of the 'forever home', HLM have determined that the kgCO₂e/m² achieved could be as little as 212. This far outstrips the RIBA 2030 target of 300.

The lifespan of these new homes will be far beyond that of your typical house – bringing a truly sustainable forever home closer to realisation.

Matthew Thomas is an associate at HLM Architects



CHOSEN TO PERFORM

Pilkington **Suncool™** 70/35 Solar Control Glass

Perfect for all aspects of residential glazing, Pilkington **Suncool™** 70/35 provides high light levels, superior protection from solar heat gain and thermal insulation; helping to 'future-proof' windows and doors to meet proposed new building regulations for overheating in new dwellings for England and Wales from 2022. It's definitely the smart choice.

To find out more, visit www.pilkington.co.uk/suncool

INTERNATIONAL FOCUS

Showcasing the latest projects from around the world – visit www.architectsdatafile.co.uk for full information



LAKHTA CENTER II, ST PETERSBURG KETTLE COLLECTIVE

Plans to build one of the world's tallest buildings have been announced by Scottish architect, Kettle Collective. Submitted by client Russian gas supplier Gazprom, the designs for Lakhta Center II in St Petersburg would make it the second highest skyscraper in the world at 703 metres, behind Dubai's 828 metre Burj Khalifa. The Lakhta tower will be located on the outskirts of St Petersburg and will stand alongside Europe's current tallest building, Gazprom's 462 metre Lakhta Centre. Kettle's design for Lakhta tower contains around 220,000 m² of accommodation over 150 floors. The top floor will be at approximately 590 metres, making it the highest occupied floor and viewing gallery in the world. A "vertical urban environment," it will be made up of eight segments of 16 floors with triple height atrium space levels and shared public facilities. Each section will include amenities and green space to cater for residents and visitors. The tower, which has been designed to complement the original tower, will house "pioneering multi-car lifts," powered by regenerating energy from the lift movement. It will include "requirements universally recognised as essential for the office of the future, accommodation and relaxation spaces fulfilling the 'live, work, and play' needed in a 21st century business centre," said the architects. Tony Kettle of Kettle Collective commented: "The new Lakhta Center will be a template of sustainable design for global high-rise projects. It will have the best-in-class low energy design and a mix of uses that will create a vertical atrium space with a vibrant centre as the heart for this new business district."



STATE/LAKE STATION REDESIGN, CHICAGO – SKIDMORE, OWINGS & MERRILL (SOM)

The City of Chicago, Chicago Department of Transportation, and Chicago Transit Authority have revealed preliminary designs for the city's elevated State/Lake Station and Red Line Connection, designed by SOM. The proposed station design includes a "sweeping" glass canopy," plus a new accessible "flyover connection bridge" and lifts to platforms, and "public realm enhancements" at street level. The glass canopy has a bird-friendly fritted pattern and will provide shading in the summer and protection from harsh Chicago winds in the winter, while allowing ample daylight into the station. The transparency and lightness of the structure "draws upon Chicago's history of structural innovation, from bascule bridges and early skyscrapers," said the architects.



RIVERFRONT JACKSONVILLE, FLORIDA SWA

International landscape architecture, planning, and urban design firm SWA Group have announced their design of the public outdoor spaces for Riverfront Jacksonville, a \$1.1bn, mixed-use master plan created by SouthEast Development Group. The vision for the public-private partnership will "transform the north bank of downtown," adding a cumulative 2.3 million ft² of new mixed-use programmes, connected by 15 acres of public parks and plazas along the river. An outdoor amphitheatre "anchors" one end of the park design, with a "ribbon-like teak canopy lending shade and visual interest." Open areas will be "accented with undulating pathways and the re-emergence of the ribbon overhead."



HEUVEL SHOPPING CENTRE, EINDHOVEN, THE NETHERLANDS MVRDV

MVRDV has developed a proposal to “radically transform Eindhoven's Heuvel shopping centre into a green cultural quarter.” The architects said the “quarter” will house shopping, culture, and recreation, with existing buildings “expanded and broken open” so that they better connect with the surrounding public spaces and cultural buildings of the city centre. Above the existing Muziekgebouw concert hall will be a stacked cultural building, under a “glass mountain,” said MVRDV, which visitors will be able to climb. “This will be an eye-catching landmark, and makes the quarter an important contribution to the densification and greening of central Eindhoven.” It also creates additional space for the concert venue, allowing it to adopt a broader programme. The ambition is to turn the concert hall into “a living room for the city during the day” and to draw greater numbers of Eindhoven residents.



THE ARK, MANHATTAN 3DELUXE

3deluxe has designed a corporate building with a natural ‘biotope’ (an area offering uniform environmental conditions for a specific range of flora and fauna) in Manhattan. The idea behind the building follows 3deluxe's ‘50/50 principle’ which states that “50% of every building project should be reserved for nature,” in this case a biotope on the roof that occupies the same surface area as the interior used by people. The building's simple “steep slope” shape has glazed facades, “not only to maintain a pleasant indoor ambience, but also to integrate as large a sensor-driven area as possible for intelligent technologies for energy recovery and consumption reduction,” said the architects. The rooftop biotope will become a “semi-public space, one that includes its surroundings,” said 3deluxe. The biotope will extend the overall living space, not only for people but also for birds, insects, as well as a variety of plants. At the same time, it will store rainwater and humidify the surroundings on hot days, absorb particulates, transform carbon dioxide into oxygen, and improve air quality. The roof garden will insulate the building's interior against the cold and heat, as well as cutting its energy consumption. “The building will be like a living organism and positively influence its surroundings in many ways,” said 3deluxe.



GOTHENBURG UNIVERSITY LIBRARY, SWEDEN – COBE

Danish architecture firm Cobe has won the prestigious international competition for a new university library in the heart of Sweden's second-largest city, Gothenburg. The new 16,000 m² university library will be located in the university area of Näckrosen, near to many of the city's cultural institutions and to the Faculties of Humanities and The Fine, Applied and Performing Arts. Cobe's winning design uses books as the “source of inspiration and point of departure” for the design. “Both the lightness and the gravity of a book is reflected in the subtle curvature of the building's volume and the vertical lines of its facade – much like the pages of a book just being opened,” said the firm. The volume rests on an open and transparent ground floor with expansive floor-to-ceiling windows. The designers' ambition is to allow the building to blend in with the surrounding park.

CPD FOCUS

The latest CPD courses, seminars and documents for architects

ROCKWOOL® SUPPORTS FIRE PROTECTION FOR STRUCTURAL STEEL WITH NEW CPD



Stone wool insulation manufacturer **ROCKWOOL** has launched a new CPD module to help design out risk for steel frame constructions. 'Passive Fire Protection for Structural Steel' has been developed to enhance industry knowledge on up-to-date regulations and examines how specifiers can maximise fire protection periods with carefully chosen insulation materials.

"There has been a great deal of focus on fire safety in high-rise buildings in the past few years. As structural steel is central to high-rise construction, not to mention a huge portion of low and medium rise developments, we believe it's more important than ever for designers to carefully consider passive fire protection options for structural steel members," said Coral Morgan, Product Manager – Fire Protection, ROCKWOOL UK. "Insulation might not always be a designer's first thought when it comes to fire protection, which is why we're aiming to help develop industry knowledge and encourage specifiers to think carefully about what different insulation solutions can offer." The 'Passive Fire Protection for Structural Steel' CPD gives an overview of structural steel and steel frame construction, key considerations to keep in mind when specifying passive fire protection for steel members, and up to date regulations, standards and testing protocols.

01656 862 621

www.rockwool.com/uk/pfp-cpd

OVERVIEW TO STRUCTURAL WATERPROOFING



Offered by structural waterproofing experts, **Triton Systems**, this online CPD seminar is ideal for those looking for a brief overview to what is a highly comprehensive subject. The 16-minute video, presented by a CSSW qualified, structural waterproofing specialist, covers the three types of structural waterproofing system (barrier, watertight concrete, and cavity drained) which are defined in the Code of Practice for protection of below ground structures against water from the ground (BS 8102:2009.) It provides valuable insights into system specification as well as good site practice.

01322 318830

www.tritonsystems.co.uk/overview-to-waterproofing-video

SPECIFYING HARDWOOD TIMBER DOORSETS CPD



Urban Front are now presenting CPD webinars via Zoom. The objective is to enthuse and inform architects about specifying hardwood internal and external doors, it also includes information about Passivhaus doors. Seminars last an hour and count for double points for architects and architectural assistants. The CPD is full of photographs showing a variety of specifications and settings and includes demonstrations.

Attendees will also have the opportunity to ask questions throughout the webinar. On completion, CPD certificates can be sent out via email.

01494 778 787

www.urbanfront.co.uk

CPD HELPS TO ENSURE CONFIDENCE WHEN SELECTING SLATE CLADDING



CUPA PIZARRAS has launched a new RIBA accredited Natural Slate Rainscreen Cladding System CPD. The session covers the production process and material characteristics, and the benefits of natural slate rainscreen cladding systems before going on to exploring the breadth of design possibilities. Natural slate provides a wealth of performance benefits. It is a non-combustible, and durable building material. The CPD also discusses the classification of slate and the fixing methods available to ensure confidence when specifying a product and system.

uk@cupapizarra.com

www.cupapizarra.com/uk/book-a-cpd

SPIRAL AND HELICAL STAIRCASE CPD WEBINARS



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

0330 123 2447

www.spiral.uk.com

GLAZING SYSTEMS SEMINAR FROM TWINFIX



The new seminar from **Twinfix** will be of particular use for those who specify glazed canopies and walkways, as well as general overhead glazing, including roof lights, across a number of sectors, education, industrial retail and rail. The seminar will enable specifiers to make more informed decisions about the products used in overhead glazing situations. The presentation in particular focuses on the benefits of non-fragile roof glazing and includes details on the recommended test for polycarbonate roofing assemblies, ACR[M]001:2014.

01925 811311

enquiries@twinfix.co.uk

WHY SPECIFYING THE RIGHT FLOOR IS CRITICAL



Architects and specifiers play a vital part when specifying the correct floor that is fit for purpose. Inspired by **Harlequin's** commitment to protecting the health and wellbeing of dancers and performers, our CPD explains why specifying the correct floor for dance and the performing arts is critical to the longevity of a performers career. Using comprehensive data and case studies, we outline the key considerations when specifying a performance floor, and look at the important contribution the floor makes to the performer health and safety.

01892 514 888

uk.harlequinfloors.com/en

Vent-Axia wins Industry Initiative Award



Vent-Axia is delighted to announce that it has been named as the winner of the 'Industry Initiative Award' at the prestigious Electrical Wholesaler Awards 2021. Lena Hebestreit, marketing manager at Vent-Axia said: "We have committed to making great efforts to help support the industry throughout the Covid-19 pandemic while raising awareness of the essential role of ventilation in mitigating virus transmission. We are thrilled to have this work recognised." Vent-Axia is committed to improving public health by improving indoor air quality (IAQ) through ventilation.

0344 856 0590 www.vent-axia.com

Princess Diana statue is in her favourite spot



Chilstone, makers of handcrafted architectural stone and garden ornaments in Royal Tunbridge Wells, are excited that the new statue of Princess Diana, commissioned by her sons is to reside in her favourite spot in the Sunken Garden at Kensington Palace, between two planters handmade by Chilstone. The statue was unveiled on what would have been her 60th birthday on 1st July. "It is amazing that our craftsmanship will flank the statue of the beloved People's Princess in such a beautiful memorial garden," said Steve Clark, general manager.

www.chilstone.com



Fresh start for Vicki

Vicki Hawkes knows what it's like to operate in a man's world. The new Area Sales Manager at Strand Hardware has worked in the construction and building products sector for 23 years and is delighted to be joining a company with a woman at the helm. "It was one of the things that most interested me about the job," she says referring to Strand's Managing Director Catherine Franks. "Although there are now many more women working in the industry, there are relatively few who are in leadership roles." Following furlough, Vicki is now back in her full-time role and is keen to highlight the benefits of Strand Hardware's quality products to distribution, architectural ironmongers and locksmiths. Her experience in this field will hopefully open new doors for Strand Hardware which offers an extensive range of panic hardware, finger protection devices and window openers. "I can see great possibilities working with the aluminium industry. Over the past three or four years, aluminium has become so popular as a versatile and durable alternative to wood and PVC fittings." Follow Strand Hardware on Twitter and LinkedIn for the latest news and info.

info@strandhardware.co.uk www.strandhardware.co.uk

CUBO ELEGANCE BY DESIGN

Our patio roof with sliding glass walls is as individual as you are

sunparadise

Sunparadise Systems Ltd

12 Newmarket Business Centre,
341 Exning Road,
Newmarket,
Suffolk CB8 0AT
Tel: 0870 067 8810

CUBO can be free standing as shown or attached to your building. Choices include with or without sliding glass walls. Extend evenings with optional integrated LED lighting. Call our specialist team now for more information.

sunparadise.com

How specifying Delta MS 500 Fire Retardant helps when designing for building compliance



Paying attention to waterproofing products which offer protection in event of fire is not the norm. We hardly think of water management and fire in the same thought, however the benefits of doing so are not quite as crazy as it sounds.

The demand for sustainable, cost efficient building methods and materials is constantly increasing, as is the demand for safer building materials. The waterproofing sector should embrace and support the goal of creating healthy and safe living environments throughout the lifecycle of products.



There are many different design challenges experienced when designing a suitable, maintainable and capable waterproofing system. From existing basements to multi-level basements, basements which will encompass high water tables at some stage during their service life.

With Delta MS 500 Fire Retardant membrane it is now possible to specify a Type C, Cavity Drainage Membrane that offers not only protection from water or vapour ingress but also protection in the event of fire.

The Delta Fire Retardant range has been manufactured with DELTASAFE, a new innovative fire-retardant property which enables our MS 500 membrane to achieve a Euroclass rating of B-S2, d0 in accordance with EN 13501-1:2018 meaning it is now possible to specify a Type C Cavity Drainage Membrane that meets Meeting building requirements of today, but also that of tomorrow, without having to radically alter specifications.

A Type C Cavity Drainage System is a maintainable basement waterproofing solution suitable for new-build basements, refurbishment and retrofit projects. The Type C System comprises of a Cavity Drain Membrane, Drainage system, Submersible Package Pump and Control System. This type

of system is designed to combat water ingress and can be used to habitable grades 1-3 in according to BS 8102:2009.

The Delta Fire Retardant Type C Cavity Drainage System is the safest form of waterproofing system available, offering complete protection from water or water vapour and fire retardant protection.

Our Design and Build Philosophy is quality driven, working with architects and trades alike, putting at the forefront construction considerations to ensure buildability, functionality, and maintainability. The result of this single approach is a consistent, complete, and quality design that is hard to equal.

The success of any project is highly influenced by the team tasked with delivering it, let our Technical Team assist in your successful project. We don't wait for problems to arise and then work to solve them; we identify them in advance and solve them before they become a problem.

Whatever the needs of your project, you can rely on our Technical Team to ensure you get the right advice, support and practical help at exactly the right time to keep you ahead of the competition.

01992 523 523 info@deltamembranes.com

SALTO unveils newly redesigned website

SALTO Systems has launched a newly-redesigned website that offers detailed product information, enhanced industry vertical focus, and covers the latest technology and electronic advances for SALTO platforms, technology, and services.

The new site places a large emphasis on the visitor experience and provides a streamlined, modern design, improved functionality, and accessible resources to help support the informational needs of clients and prospects alike.

"We are thrilled to launch the new SALTO website and have been working hard to give our website an upgrade. We strongly feel that it aligns with our sustainable company vision of becoming the most technologically advanced access control provider that develops disruptive electronic smart locking solutions for any type of application all around the world," said Borja Ganzarain, brand, content and marketing at SALTO Systems.

The new saltosystems.com website offers a clean, modern design, with information that will be updated on a regular basis with news,



blog articles, business cases, new product launch updates and more. The newly-designed website offers detailed product information on the electronic lock products SALTO develops and manufactures as well as educational information about the robust

access control technology platforms that enable end users to experience the most advanced, secure, and convenient keyless smart access in the market.

01926 811979 www.saltosystems.com

GEZE wins NHS contract



GEZE UK has been successful in securing a five year contract in conjunction with NHS UK Property Services. The collaboration between NHS UK Property Services and GEZE UK is believed to be one of the largest contracts of its kind. Providing a service to more than 1,000 sites and 5,000 assets, GEZE UK is the industry choice to deliver a first class service to the NHS. The majority of sites provide regional healthcare and fall into one of the following categories: Health centres and GP surgeries; Hospitals and hospital-related properties; Offices. GEZE Service has recently launched a recruitment drive to provide the necessary support for a contract of this magnitude and is recruiting for Key Account Managers, Account Administrators and Service Technicians for automatic and industrial doors. Said service director Adam Presdee: "GEZE Service is delighted to be given the opportunity to work on such a prestigious project, we are confident that this contract will provide job security and opportunity for years to come". The total NHS Property Services portfolio consists of more than 3,000 sites – worth over £3billion.

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

50th Anniversary for Hörmann PORTAL



Hörmann's popular PORTAL journal celebrates its' 50th Anniversary issue having been first published in 2004, a year in which Norman Foster's famous Gherkin opened, Zaha Hadid became the first female recipient of the Pritzker Prize and the Summer Olympic Games were held in Athens. The past 17 years has seen the journal showcase and explore the latest trends and advancements in architecture from across Europe and the World. Published three times a year, PORTAL has featured inspirational projects by well-known architects and thought-provoking articles from leading voices from within the architectural world. The 50th edition looks back over the achievements and changes seen since 2004, together with a review of architecture in the Middle and Far East and examines the different roles of cultural buildings. David O'Mara, Marketing Manager at Hörmann UK comments: "There is no doubt that the world has changed radically since the first issue of PORTAL and that it represents a fantastic compendium of structure and technical development over the years. All back copies of the journal are available to view on the Hörmann UK website or are available as hardcopy by request."

01530 516868 www.hormann.co.uk/architects-service/portal-magazine

40 for 40 in Partnership with World Land Trust



The Commercial Business Unit of Topps Tiles Plc has announced the '40 for 40' initiative, donating 40 pence per square metre of every 40% recycled content tile, in partnership with World Land Trust. For every square metre of tiles with over 40% recycled content purchased from Parkside or Strata Tiles, the companies will donate 40 pence to World Land Trust, through the conservation charity's Buy an Acre programme that preserves crucial natural habitats. Available on 40 ranges with more than 40% recycled content, '40 for 40' is part of a range of initiatives to reduce environmental impact with a clear ambition for the Commercial Business Unit to be carbon neutral by 2022. Jonathan Barnard, CEO, World Land Trust, says: "We are very pleased to be working in partnership with Parkside and Strata to save threatened habitat through their 40 for 40 initiative and WLT's landmark Buy an Acre programme. Together we are taking positive action to protect the home of endangered wildlife and address climate change, and we are grateful for Parkside and Strata's support of WLT's conservation work".

0116 276 2532 www.parkside.co.uk

SIG Zinc & Copper becomes GB distributor for VMZINC



SIG Zinc & Copper is pleased to announce that they have entered into an agreement to become major GB distributors of the VMZINC range of rolled zinc roofing and cladding products. Zinc is among the most sustainable metals used in construction today and the VMZINC systems have been designed to complement a wide range of building materials and styles. Chosen for their sustainability and low maintenance requirements the VMZINC products offer exceptional quality and a choice of patinas and finishes suitable for almost any project. The range includes: Natural VMZINC which has a shiny metallic appearance when new and develops a patina over time; QUARTZ-ZINC offers an appearance and texture that does not change over time; ANTHRA-ZINC with its visible grain matches the colour of slate and can blend in well with photovoltaic panels; AZENGAR an engraved zinc which gives the product a matt heterogeneous and light aspect; PIGMENTO finishes offer a unique range of colours – blue, green, brown, red and grey plus two new additional colours- Storm Grey and Charcoal Blue – that enhance any building.

0330 123 1820 www.sigzincandcopper.co.uk

Lanes Group achieves global health and safety standard



National drainage and wastewater specialist Lanes Group plc has achieved ISO 45001, the world's first global ISO standard for occupational health and safety. The achievement means the company has successfully transitioned from the OHSAS 18001 standard. Lanes achieved ISO 45001:2018 during the Covid-19 lockdown which required the business to undergo 11 online audits, comprising of 23 days of remote site visits by teams of up to three auditors at a time. Members of the Lanes management team used their handheld smart mobile devices to stream live video footage of depots, offices and even work sites, to allow the auditors to view health and safety compliance and interview colleagues in a safe manner. The new ISO 45001 certification applies to all 40 of Lanes' operational sites, strategically located across the UK, including specialist divisions dedicated to utilities, rail and insurance. Lanes Operations Director Kevin Moon said: "Achieving the ISO 45001 standard across our entire operational network demonstrates our commitment to ensuring the highest standards of occupational health and safety for our workforce and those we work for and around."

0800 526 488 www.lanesfordrains.co.uk

ADF is now on LinkedIn

[LINKEDIN.COM/SHOWCASE/ARCHITECTS-DATAFILE-ADF](https://www.linkedin.com/showcase/architects-datafile-adf)

BATHROOMS, WASHROOMS, KITCHENS & CATERING SUPPLEMENT

adf



Comprehensive solutions for timber structures

Insulation is at the centre of sustainable energy and is extremely important to incorporate into renovation projects. wedi's wide range of products and system solutions provide a systemised insulation for wet areas, so there is no need to ensure compatibility of different brands or worry about security of the installation.

wedi's sub construction elements are not only 100% waterproof to the core, decoupling, but also have the best thermal conductivity of 0.036W/mK amongst tiling substrates and building boards on the UK market and can be either tiled directly onto or plastered. Unlike a moisture retardant plaster board, wedi needs no additional waterproofing or tanking, therefore reducing the number of steps in the installation process further reduces the risk of errors and leaks.

Popularity of walk-in-showers is on the rise, however, especially for suspended timber floors, it is imperative to evaluate between different brands in order to select the best solution. wedi is always at the cutting edge of innovation, offering two different solutions for creating stylish wetrooms on timber floors. Both the wedi Fundo Ligno and Fundo RioLigno shower elements fit and sit flush in the wooden flooring, without having to cut into floor joists or build up further floor height. With their outer edges of just 20 mm and 25 mm respectively, keeping safety at focus, both shower trays are fitted with a support plate on the underside reinforcing the area around the drain opening to provide unrivalled peace of mind within the moisture sensitive and ever moving timber floor. Uniquely, all wedi Fundo shower elements have a sealing set developed especially for the all-round sealing of their perimeters and a



360° dry-fit drain technology that offers reassurance of their use in/on wooden floors. Furthermore, to eliminate any possibility of failure, wedi offers drain-substructure elements for wooden floor installations to aid reliable support and accurate aligning of the drain.

Sufficient insulation of bathroom floor and wall surfaces is imperative. Coupling wedi Fundo shower solutions with wedi building boards and/or wedi Subliner Dry & Flex membranes, would not only result in a CE marked walk-in shower area but also would be awarded with a full wedi system guarantee. wedi building boards are famous for their suitability to be directly bonded onto timber or metal stud frames without the need for mechanical fixing and thus save time and offer further safety through elimination of laborious sealing measures over penetrations.

The wedi Subliner range, as a complement to wedi building boards, is renowned for its reliability in waterproofing and/or decoupling of bathroom walls and floors.

Arriving to the surface finish, to tackle condensation on bathroom surfaces and thus further protect against mould and fungi development, the standard wedi product range now includes seamless design surfaces that keep grout lines to the minimum thus promote hygiene around the bathroom. The brand new wedi Top Line boasts wall panelling (wedi Top Wall), pre-formed shower tray finishes (wedi Fundo Top) and pre-formed Top solutions for cladding of shower seats (wedi Sanoasa Top), niches (wedi Sanwell Top) and toilet cistern cladding for wall hung toilets (wedi I-Board Top). Every one of which is installed simply with the use of wedi 610 adhesive sealant. Their characteristics such as the antibacterial surface, warm feel and excellent slip resistance (R11) along with their natural feel makes them a perfect complement to use on top of wedi sub construction elements. Thanks to their low heat-conductivity, condensation is kept at bay on bathroom surfaces and thus the added value of precision engineered wedi solutions is further enhanced.

The whole bathroom fully sealed and insulated without any concern of compatibility. This is wedi – simple, safe and functional offering an unrivalled peace of mind.

0161 864 2336
www.wedi.de/en



PURE PUMPING POWER



We've combined our relentless pursuit of innovation with Zehnder's German engineering to bring some new, heavy-weight lifting stations to the commercial and industrial sector. They're available in one or two pump options and in single or three-phase specifications. So, it doesn't matter if it's a factory or an office block, **we've got the power you need to get the job done.**

Saniflo  SFA GROUP

Kinedo launches two new ranges



Shower brand Kinedo from Saniflo kicks off Spring with the launch of two new shower tray ranges and a new shower tray brochure, all available to retailers now. Saniflo Head of Marketing and Product Management, Ann Boardman, says: "The two new Kinedo shower tray

ranges offer a quality, versatile, designer product at an attractive price point. The Kinedo Kinerock Evo and Kineline bring a touch of elegance to any bathroom or wet room. They're low maintenance and safe, delivering a consistently superior showering experience."

020 8842 0033 www.saniflo.co.uk

Leto MEV HCS tackles high humidity



VORTICE has recently added to its popular range the Vort Leto MEV with the introduction of a humidity controlled mechanical extract unit – Vort Leto MEV HCS. While the unit has all the same great features and benefits of the other models in the range, it also comes equipped with a humidity

control function to boost the unit when the relative humidity is high. This ensures that humidity, which causes mould growth and mildew, is kept at bay. The Vort Leto MEV range is designed to keep indoor air quality fresh by creating a constant air path through the home and continually extracting from kitchens, bathrooms and utility rooms.

01283 492949 www.vortice.ltd.uk

Duravit launches D-Neo



D-Neo from Duravit is a complete bathroom collection of outstanding quality and sophisticated design. The range has been created to outlast short-lived trends and has been designed to suit the day-to-day living of any lifestyle. D-Neo is the first bathroom

range by Belgian designer Bertrand Lejoly and is testament to his extraordinary instinct for interior design. The ceramic elements include a lifetime guarantee and work in harmony with the high-quality furniture. The wide range of bathtub options and matching faucet range make it possible to customize any bathroom in ultimate style.

01908 286680 www.duravit.co.uk

Saint Moritz from Königstone sparkles



Königstone has brought the vision to life to the kitchen with the Saint Moritz quartz worktop. Saint Moritz is made up of over 90% Quartz; the quality and durability of this material make it the perfect choice for a kitchen worktop. The KönigQuartz range is available

in an impressive range of colour options designed to excite all kitchen schemes. The flecked surface of Saint Moritz is complemented by the high-gloss finish of KönigQuartz and the shine is easily maintained by very simple cleaning and care methods. The high scratch, stain and heat-resistance of quartz is even more reason to consider this for the kitchen.

info@konigstone.co.uk

Who are Lecico?



Lecico are one of the world's largest manufacturers of sanitaryware, exporting to over 50 countries worldwide. Lecico's factories employ more than 5,000 people and have the capacity to produce more than 6.2 million pieces of sanitaryware per year. Lecico has a dedicated team to

support the specification process for bathrooms and washroom products. Lecico can create full specifications from plans, supported with product proposals and data sheets and have BIM and CAD files available. Contact the specification support team for more.

estimating@lecico.co.uk

We are Dolphin



Dolphin Solutions takes pride in spearheading the commercial washroom solutions industry since 1999. With its expansive selection of innovative washroom products and accessories, Dolphin has earned a growing list of completely satisfied clients from architects, contractors, engineers and

commercial building owners. Creating beautiful, high-performance commercial washrooms with state-of-the-art technology, Dolphin Solutions is all about providing its clientele base with the complete, proper, and exemplary washroom experience that will keep them safe and protected from unnecessary health risks and complications.

www.dolphinsolutions.co.uk

SILGRANIT® – Beautiful, strong, clean



BLANCO's granite composite material, Silgranit®, is incredibly strong and made of up to 80% granite. It is not only durable but each of the ten stylish colours ensures the sink model stands out. BLANCO has developed an informative look book which demonstrates all the Silgranit attributes.

The engineered stone-like material is scratch-, heat-, impact-, light-, and acid-resistant so all Silgranit sinks are able to withstand high temperatures and do not discolour due to acid or light.

www.blanco.co.uk

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VitrA's plural adds stunning mid-century colours to the collection



Turning bathrooms into a social hub is the design philosophy behind Plural – the distinctive collection of mid-century inspired furniture, designer basins, along with a complementing WC.

In addition to White, Matt White, Matt Taupe, Matt Mink, and Matt Black, the monoblock basins, vanity basins, and bowls are now available in Matt Clay Beige, Matt Moss Green and Matt Terra Rossa.

Conceived by Milan-based American designer Terri Pecora, in collaboration with Design Studio VitrA, VitrA's Plural collection is inspired by the heritage of communal bathing spaces and rituals. Plural introduces the bathroom as a space for shared intimacy where people meet and reconnect with

themselves, close friends and family.

Terri Pecora explains the concept: Plural consists of a group of elements meant to be used together or separately and almost be in any home area. The colour palette and texture featured in the collection are not normally associated with a bathroom environment. Plural is very furniture orientated and aims at making the bathroom a versatile living space where one can spend time at their leisure.

Plural's design highlights include three innovative and technologically advanced waste solutions that conceal the untidy look of pipes, enabling washbasins to be fitted in any part of the room. Plural washbasins can be positioned away from the wall, even in the

centre of the room, allowing for complete design freedom. The wall-hung vertical mirror swings from side to side, allowing different people to use it. The striking Plural basins and vanity basins can be used without Plural furniture to create standout pieces.

Margaret Talbot, UK and European regional marketing manager for VitrA, explains: "Plural offers something unique in the market, in that it encourages people to see the bathroom as a social space. The new colours and finishes complement the furniture in the range beautifully. The updated Plural offer unlocks some fabulous design possibilities."

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LRWA launches Product Register for Liquid Roofing Systems

A free, online tool that enables users to quickly assess the suitability of liquid roofing systems has been launched by the Liquid Roofing and Waterproofing Association (LRWA).

Aimed at specifiers, distributors and contractors, the Product Register compiles information from third-party certifications, including agrément and European Technical Approval (ETA) certificates, into an easy-to-read format.

It allows the user to search for a preferred manufacturer via a drop-down list or a product name if known. Alternatively, if the user is unsure about which liquid roofing system to use, they can carry out a search using six filters, which will create a random list of potential products.

The filters include the material, for example, polyurethane; the type of roof that needs waterproofing such as inverted, pitched or a terrace; the level of foot traffic; the required lifespan of the roof area; what type

of substrate will be coated; and whether it is a new build or refurbishment project.

Every product in the Register is listed with key features and a link to further information such as approved applications, evidence of durability, and properties in relation to fire. There is also a function that allows different liquid systems to be compared.

Sarah Spink, CEO of the LRWA, said: "Selecting an inappropriate product can result in a project failing, so verifying the performance of a liquid is essential."

"The data in agrément and ETA certificates will confirm whether the system will meet specified requirements, but this information can be difficult to understand and one of our biggest concerns is that people don't read it properly. This can lead to inaccurate assumptions or a reliance on manufacturers' product claims, some of which can be misleading."

"The Product Register has been designed to overcome these issues. It brings verified



product data into one place, which is easy to search and navigate enabling anyone seeking to install or specify a liquid waterproofing solution to make an informed decision."

Available on the LRWA's website, the Product Register will be continually updated and contains the details of more than 80 liquid systems offered by the association's members.

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BUILDING
PROJECTS

MILL HILL HOUSE
LONDON

Georgian contemporary

A practice's debut new build scheme is a luxury house that tackled a sloping site and planning objections, with a sensitive blend of Georgian and slick modern architecture in north west London. James Parker reports



ELEVATING THE REAR

The clients gave the architects the freedom to explore ways to break up the rear elevation, and responding to neighbouring properties they created a staggered, highly contemporary form



Sitting among a smorgasbord of house design styles in suburban Mill Hill, north west London, is a striking new addition by architects RISE Design Studio. The house created for a family of four, in the prominent location of Wise Lane, is the practice's first new build. However, through collaboration and a careful design that's a hybrid of contemporary flair and more traditional English architecture, a smooth result has been achieved.

The substantial five-bedroom home's design combines a precisely-detailed, Georgian-inspired double-fronted facade with a more 'modern' staggered rear elevation. In this way RISE hoped to offer an architecturally sensitive while creative and sustainable result for the clients. The practice is now established in London, having completed many refurbishment projects, including in the commercial and education sectors, and jumped at the chance to step into the world of new build, high end residential.

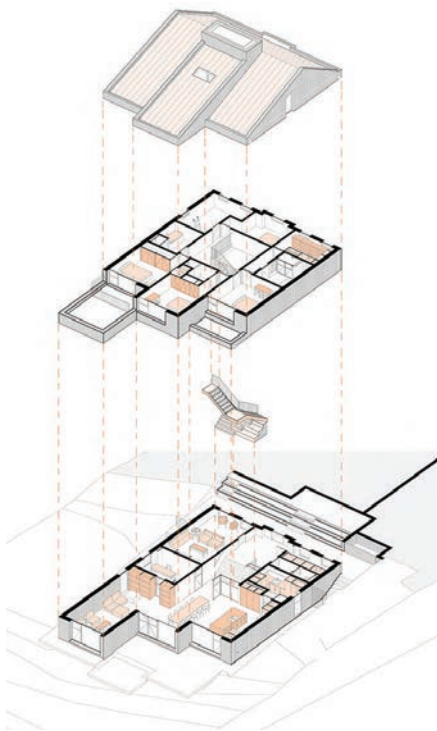
Clients, Soho developer Mr Lobb and partner, wanted a building with bright, open interiors which "balanced modern living with the traditional idea of a home," says Sean Ronnie Hill, director at RISE. He admits that "one of their main concerns was that we hadn't completed a new build," but adds that he "managed to

convince them that often renovations are a lot trickier!"

He says that renovation and extension of the existing 1970s-built house on the site would have been straightforward in terms of planning: "you could get an 8 metre extension through on prior approval, but it "would have made for a very large ground floor," and would not have been the best use of the site. He tells *ADF* that once the architects had "dissected what the clients were trying to achieve," and bearing in mind the zero rated VAT for new build – as the budget was not unlimited – "it seemed the best way forward was to demolish and build new."

Also, the existing building was thermally poor, and would have needed to be internally insulated throughout to bring it up to current standards. While refurbishment was possibly the most sustainable approach, the project's credentials were bolstered by the demolition contractors carefully segregating and removing the rubble for reuse.

When it came to the brief, the clients were "realistic and really grounded," says Hill. "They said they'd like something, but understood if they weren't able to get it." With two teenage daughters, they wanted this, their "forever home," to have "a couple of spare bedrooms" so that one could be a



home office. Events post completion in late 2019 transpired to make that extra space even more useful than they could have imagined. Says Ronnie, “When Covid happened, the client emailed saying they considered themselves extremely lucky to have this substantial house, and to be able to work from one of the bedrooms.”

Home front

The clients wanted the front to look more typical of traditional London architecture than the more experimental rear, and avoid the minimal ‘white box’ approach of some recent local additions. Ronnie explains that the couple also wanted the look of an archetypal home: “Jude went back to her childhood and remembered when she had drawn a house on a bit of paper; we engaged with her on the idea of ‘what does a house look like’.”

The designers, led by project architect María Lopez Mata undertook a study of Georgian architecture, “starting from proportions on the ground,” and created a “very ordered” front elevation. The large windows, equipped with solar control glass, feature detailing such as reveals that echo London Georgian properties, and the heritage inspiration enabled the designers to slightly conceal the pitched ‘black’ zinc roof behind the small parapet that runs around

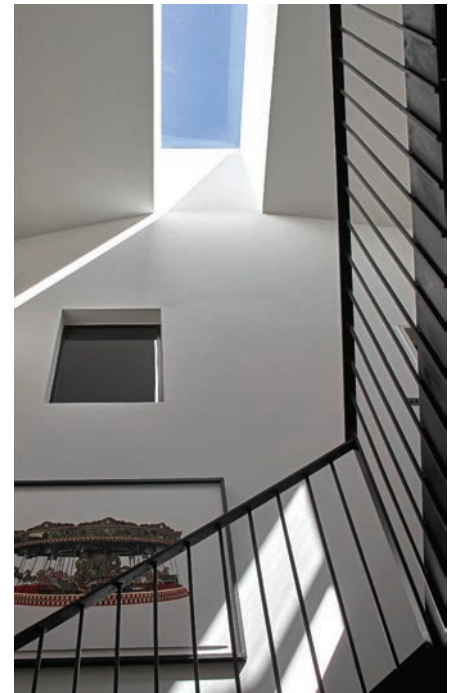
the entire roof. “This meant we had real cohesion the whole way around the elevations, relating front to back,” says Hill.

The leafy site posed a big challenge, having a steep front to back gradient, and the design addresses this by providing an entrance via an upper ground level, with a few steps down to a lower ground level once inside. The sloping driveway, which was precarious in winter, has been levelled off, and a new series of low steps edged with leafy garden beds welcomes visitors, aiding accessibility for the clients’ visiting parents, and meeting Part M requirements.

The central atrium is the key design feature of the house, topped by a skylight in a protruding lightwell that brings the space to a 10 metre height, and alleviates the relatively deep plan enhanced by the play of light through the day. Hill says it was “the most efficient way to create the heart of the house, and a drama that you’re not expecting when you first enter.”

Rear guard action

The clients “weren’t trying to push us on the space,” says Hill, meaning that they were happy to let the architects explore ways to enhance the living spaces by breaking up the volumes to the rear, and not simply fill in a certain section of the plot with accommodation. This



The central atrium is the house’s key design feature, with a skylight in a protruding lightwell





ATRIUM

The 10 metre-high central atrium alleviates the house's relatively deep plan, and provides a surprise feature as visitors enter

PROJECT FACTFILE

Architecture: RISE Design Studio
Project architect: María Lopez Mata
Contractor: GEB London
Structural engineer: Tyrone Bowen, CAR
Sustainability consultant: Enhabit
Lighting design: Kreon Belux
Sustainability consultant: Enhabit
Zinc roof specialist: RAC Roofing & Cladding
Specialist kitchen: RISE Design Studio + Liam Dryden
Rooflights: The Rooflight Company

would also enable the architects to relate the volumes to the differing positions of the two neighbouring properties, with one sitting further back in the plot than the other.

Hill explains: "We could have just drawn a line and filled in more areas, but they were happy for us to manipulate the back, and create this really contemporary response." Part of the reasoning was in trying to create a more human scale than the more monolithic front elevation, alongside the large window openings. "Breaking it up means people can relate to it a bit more than they would say an office block."

The resulting rear elevation extends the open living area via three 'fingers,' helping to delineate kitchen, dining and living spaces. A fortunate precedent was given by one neighbour having already extended, and daylighting issues for them were avoided, thanks to a lack of windows facing the property. In the garden, the

multi-level terrace descends to the lawn via steps constructed in a similar brick palette to the facades. The architects specified floor to ceiling windows and glazed doors rather than bifolds, due to their belief that "there are so many mechanisms in them that unless you go really high end, it's too easy for things to go wrong."

Planning & a hitch

While Hill says that gaining permission was helped by Barnet council being "pretty slick when it comes to planning," partly due to being part-private, part-public, meaning they're "more target-driven, less subjective," obstacles however came from another quarter. The neighbour to the west with the most set back house (which the new house's living space extends out to match), had misgivings about daylight and sunlight being compromised. He brought in the 'big guns,' hiring the ex-head of Barnet council to object to the proposal.

However the architects were able to deploy consultants Strutt and Parker, who they've used previously as planning consultants. Hill says that if the objectors had had their way, "it could have been a massive block, the planners would have made us draw a diagonal line for the rear elevation."

The resulting "fairly big compromise" made by the client meant that the master bedroom, ensuite, and walk-in wardrobe, all initially on the west side, extending over the living space, are now on the east flank. However, Hill is sanguine about this, saying it "might have actually benefited the overall architecture, made it more dramatic – we don't often say that about what planners do."

There are now three 'fingers' at first floor level too, albeit not extending out as far as on the ground level, but making for an interesting articulation. The middle finger, extending behind the atrium space, protrudes the furthest, a slight echo of the gentle protrusion of the entrance on the front elevation.

Layout

As a result of the site, the property is entered at the 'upper ground' level, containing two lounges, arranged either side of the tall, white atrium. This level sits about a metre higher than the lower ground level, meaning that you step down into the south-facing main living/dining space, with its striking zinc table and reclaimed Iroko timber worktop. Kitchen and utility are to the east, and a cosier wintertime lounge and

“tucked away” gym sit to the west.

The height of the atrium is surprising after the relatively familiarly-scaled exterior. It contains a dark, industrial open staircase and balustraded gallery leading to the bedrooms, which are on the first floor. This form contrasts with the white space, but visually ties in with the dark, Crittall-style frames of the glazed screen, and the other Crittall windows.

At the same time, says Hill, “what’s cool is that you’re almost at ceiling level height when looking down into the living spaces, framing these interesting views to the rear.” The screened vertical core as well as the level change means the living areas, despite being open plan, do feel distinctly separated from the rest of the house, enhancing privacy for the bedrooms upstairs, with only a minimal amount of connection. “They have one little window looking through from a walkway between the master and the ensuite – it’s like an enclosed private quarter, but they can look into the atrium.”

As well as their daughters’ bedrooms at the front of the house, – there are two to the rear, plus the master suite. Arriving at the right layout was “very collaborative,” says Hill, with “lots of backwards and forwards with the client.” The architects use ArchiCAD to provide 3D and VR-compatible walkthroughs; “We’re pushing clients to really engage with us to look at as many options as possible, to have it in VR helps a hell of a lot, to work out what a 2D drawing means in the space,” he says. “It saves so many discussions on site, the more detail we can have the better.”

The client chose not to go for substantial attic space, instead there’s a vaulted ceiling in the master bedroom and ensuite; “the floor area isn’t that large but the height adds a lot of drama.” In one of the girls’ bedrooms is a “Lion, the Witch and the Wardrobe moment,” where a wardrobe secretes a steep fixed stair leading to a secluded roof space; the only occupied area on the ‘second floor.’ Despite the seclusion, a window enables them to still see the entrance.

Sustainability

The house has been designed to maximise sustainability, with a full fill of Knauf Earthwool recycled mineral wool insulation in the 100 mm cavity behind the brick facades, the product having been recommended to the architects by non-profit group Green Register. Hill says that due to the major



impact of correct installation on building performance, builders “play a massive part in a house’s sustainability.”

Barnet Council requested ‘microgeneration,’ so a roof array of PVs was added. Says Hill, “we are always aiming for Passivhaus levels, but we haven’t got there yet.” He adds, “for clients, Passivhaus is a novelty, until more people start talking about it, it’s not on their priority list.” The house is equipped with MVHR, the plant housed in the ground



In one bedroom there's a 'Lion, the Witch and the Wardrobe' moment where a steep fixed stair leads to a secluded roof space

floor utility – there's an upstairs cupboard for the copious IT and cabling that serves the integrated lighting system and the house's media via suspended ceiling voids.

As well as offsetting the very airtight design, which is around maximum leakage of 0.4 h-1@ 50 Pa (Passivhaus is 0.6) the MVHR helps to remove cooking smells in the open plan living area. Hill says the team "did a crash course in terms of how to use the air-tightness tape," and "spent a long time getting the details right, working with consultants, different suppliers and the contractor."

Other design elements specified for high efficiency include the glazed screen, manufactured by Italian company Ottostumm with a thermally broken frame, making it "a bit chunkier than 1950s Crittall mullions," says Hill. The initial budget was forced to stretch slightly, with the build cost ending up around £1.1m, but this included all finishes, and sustainability features such as MVHR, PVs, air-tightness measures, and additional insulation.



Appearances

The architect reports that this striking, yet in some senses relatively conventional home hasn't caused any adverse responses from neighbours, as it "nestles well" in its site. This was assisted by the designers managing to retain a number of the mature trees at the front at the site. With the sintered Dutch brick (from BEA) having a reclaimed look, the exterior helps the building not only blend with neighbours, but also to feel it has existed for a considerable time – the client "didn't want this sparkling new thing," says Hill. The brick can be specified down to the ground, as it is F2 and can therefore withstand frost.

The ultimate purpose, to deliver a great 'forever' family home, has been achieved, and no doubt the Lobbs are very happy. Sean Ronnie Hill says that despite now living in a grand, but very sustainable home, they are "humble people," illustrated in particular by how they commented throughout the build that they "couldn't believe they were able to do this." ■

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THE RICHARD ROGERS DRAWING GALLERY
AIX-EN-PROVENCE

Drawn into nature

Richard Rogers' final project is the latest addition to an array of modern architecture at Château La Coste, near Aix-en-Provence. Jack Wooler reports on a gravity-defying cantilevered design that soars over its woodland setting

Along a historic Roman road that leads past Château La Coste in southern France, The Richard Rogers Drawing Gallery's cantilevered form projects through the woodlands. It's an architectural gesture that's both striking, featuring a bold orange steel structure, and delicate – barely impacting on the landscape around it in terms of its footprint.

The Rogers Stirk Harbour + Partners (RSHP)-designed project provides a 120 m² gallery space for the Château. It sits in a 500-acre area of outstanding natural beauty and already includes an art and architecture centre, wine estate, restaurants, and luxury hotel. The new gallery will host a variety of exhibitions within its unique housing.

The project takes the form of a timber panelled and steel-clad box inside an orange-painted, tubular steel 'cage,' cantilevering out 27 metres to a point 18 metres above the heavily wooded site. The structure proudly displays hand-finished welded joints, showing how they support the lightweight, 'extruded' gallery.

The project is the fruit of over a decade of conversations between the practice and client – and friend of Richard Rogers – Irish developer and hotelier Paddy McKillen, who owns the Château. This building is the renowned architect's last before his retirement, and joins the 'architectural walk' on McKillen's estate that features projects by other major architects including a gallery by Renzo Piano, a restaurant by Tadao Ando, and a 'wine cellar' by Jean Nouvel.

With a design aiming for minimum impact on its environment, the gallery barely connects to the ground, with just

four modest steel footings touching the earth – two pivot points at the edge of the hillside and two sets of four tension rods tying the building to the ground. The foundations are concrete, but the steel exoskeleton provides a flexible form responding to the forces as required.

The building envelope is both heavily insulated and projects beyond the glazed end facades to ensure that the internal environment can be sufficiently controlled to ensure flexibility for the likely range of artworks to be displayed.

The gallery itself forms an industrial sculpture in its own right.

A gap among the trees

The architects say that it was immediately clear to them where the project should sit, on their first visit to the site. Located off a dirt track, with limited vehicular access, the steep uncultivated woodland site offered a naturally formed gap among the trees through which the building could be 'launched.'

"As if by nature, here was this idyllic spot for a gallery," says Stephen Spence, lead architect, of his first impressions of the site. "All we had to do then was to design the most appropriate form for the location."

According to the architect, in the early stages the team looked at various options, largely focused on how to deal with the steeply sloping site in order to minimise any visual disruption. The other key constraint was avoiding the ancient Roman road, which the client and architects wanted to leave untouched.



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“The idea was that you would step off solid ground across a bridge into a building that floats among the trees, leaping off the side of the hill”



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“We looked at elevating the gallery above the road, but finally gravitated towards a design in which users would come along the track, and then step off solid ground across a bridge into a building that floats among the trees, leaping off the side of the hill,” he explains.

The design intention then necessitated a structural solution that would connect the gallery in as minimal a way as possible to the ground, avoiding a series of extended columns connecting it to the ground.

“There was a step by step analysis through a series of concept sketches, which was then presented to McKillen, who immediately bought into it,” says Spence. He says that McKillen would not entertain even a single column – “‘why compromise the design’ was the client’s clear steer.”

He adds: “By supporting the purity of the design, this allowed us to keep the magic of the site.”

Collaboration & unity

Through the high level of collaboration and unity with the client – the architects had his “full support from day one,” enthuses

Spence – the team were given “total freedom” to design whatever they deemed best for the site and the building’s function.

Other than small requests, such as the stipulation that the gallery be able to cater for changing, temporary exhibitions, and offer a certain size necessary to host them, the architect tells me that what the client sought most dearly – in order to match the multiple architectural works on the estate – was a building that was “a beautiful object in its own right.”

According to Spence, the biggest discussions with the client during this process were to do with the size and colour. Remembering an early conversation between himself, the client and Richard Rogers, he says: “We sat in Richard’s house one day, which is made up of two houses knocked together, and we measured the space – 12 metres.”

“McKillen decided on the size he wanted in a very simple way; for it to be twice the size of that room. That is how we came up with the 24 metres; we thought the 5 metre width and 4 metre height were appropriate for the overall proportions.”



When it came to the colour, the architects searched for a tone that would work with the changes the seasons bring to the site's landscapes, along with the variations of grapes in the wineries, and the overall wooded backdrop.

When shown what it would look like in the setting, the client agreed to the strong shade of orange for the structural steelwork. The practice has used it before, and was deemed to be sympathetic to the green landscape, while “bright and beautiful; a vibrant colour that's noticeable.”

Engineering & logistics

Once the size, colour and location had been chosen, the next challenge for the team was to design a building that not only lightly touched the ground, but which only used elements of a certain length, due to the site's constraints.

The cantilever itself required complex physics; the 27 metre projection was itself no small task, with the added constraint of the region's seismic activity. The building required “bridge type” engineering and

construction techniques to accommodate both of these factors, with flexible materials and cables at the entrance which allow the structure to contract and expand with the local climatic conditions.

Early on, because of these complexities, the team had hoped that the entire building could be prefabricated offsite, and lifted in as a complete element. The limited vehicle access meant that this was impossible, however.

Steel beams of six and eight metres were loaded onto a trailer and were brought to site by a tractor. Once on site, the team employed a spider crane at the bottom of the slope which lifted elements into place.

This construction process proved complex, with the team having to be very careful to avoid disturbing the trees on site, as well as overcoming the task of getting materials up the slope and working with them at a challenging angle.

To counteract this awkward location, the building was designed to be joined together on site by hand, and as such the team produced a “handcrafted” piece of architecture. All the nuts and bolts for





© James Reeve

In order to match the multiple architectural works on the estate, the client wanted a building that was “a beautiful object in its own right”

example were sized specifically for individual locations with access for fixing kept to a minimum.

To ensure this process was achieved as smoothly as possible, the team employed Bysteel in Portugal – who both the client and RSHP had worked with previously. Having fabricated the steelwork, to ensure no issues on site, they constructed a full scale mock up. Having been successfully erected, it was then dismantled, painted, packaged and transported to the Château. Construction was reportedly “fairly seamless,” which the architect attributes to the high level of preparation, and the hard work of Bysteel and the local construction team.

Environment for art

With the structural designs proving successful, the team moved onto the interior art space, which was optimised to be as flexible as possible – in part due to the changing nature of exhibitions.

The architects specified “standard” white walls, a simple white ceiling, and a uniform lighting grid which could be adapted to

“accommodate just about any potential exhibition configuration.”

Spence says the lighting can alter “significantly” to suit the installation; “the art may be on the walls, or it may be housed in the centre, so we ensured the lighting would be flexible enough to adapt and accommodate any scenario.”

One challenge here, however, according to Spence, was the difference in the lux levels between what was required internally and the natural daylight penetrating through the two end walls. To assuage this somewhat, the team incorporated a “buffer zone” overhang in the building envelope, which forms a transition between inside and out. This was the only real measure needed to control daylighting, says the architect. There are normal internal blinds, but no special devices on the exterior – “we didn’t want anything on the outside, given the exposed location,” he adds.

At the far end of this box, a terrace allows users to gain the views produced by the long cantilever. The fully-glazed opening doors leading to this terrace allow fresh air in where the art displayed allows



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for it. When this is not possible – due to changes in weather or restraints introduced by precious art pieces – the team designed a controlled environment for the works on show. This is serviced by a dedicated air system from a small plant room, which feeds air through at a low level, to then be extracted at high level.

Covid triumphs & tribulations

Despite the building now being completed, at the time of this interview the design team had been unable to see the finished result, with Spence only able to make it onto the building site once during the entire process because of Covid restrictions. Also sadly due to Covid, there would be no chance of an opening event either for the design team.

Where once not visiting the site might have been a significant barrier, however, the in-depth modelling of the project beforehand by the specialist engineer, Hasson Engineering Solutions (who produced the 3D Tekla model), and what Spence calls the “diligence of the Bysteel fabrication and construction teams” enabled the project to be

completed smoothly and “under careful watch” throughout.

“The modelling was a very good device for us to be able to control exactly both the production and construction onsite without the usual visits,” explains Spence. “We were getting updated photographs throughout, but there were very few surprises due to the level of thought and refinement that had gone into this model.”

“This worked heavily to our advantage in terms of Covid and the lockdown circumstances since,” he adds. “And this success is shown in the outcome – since completion, the response has been really positive, so the whole team are proud of what we have been able to produce.”

While lamenting his inability to see the completed building, Spence is eagerly looking forward to a future visit: “I’m most excited to see the gallery when it is further ‘bedded’ into the landscape,” he concludes. “With social media, it’s also fascinating to see other people’s take on a project, and there’s always something in the views of others that makes you see a building in a new light.” ■

PROJECT FACTFILE

Architect: Rogers Stirk Harbour + Partners

Local architect: Demaria Architecture

Client: Château La Coste/Paddy McKillen

Structural engineer: Lang Engineering Consultancy

Project manager: Rainey + Best Steel Works: Bysteel

Building enclosure: Setanta Construction

Specialist engineering: Hasson Engineering Solutions

Local engineer: ATES

Internal fit out: SCEA Château La Coste, IDME France & ACM France

Completion date: November 2020

Gross internal floor area: 120 m²

Twinfix at Manchester Central Mosque

Manchester Central Mosque located in the Victoria Park district of Manchester began as two adjacent houses, then in 1971, the two houses were demolished, and a “new look” Mosque took its current form. Several expansions and modifications have taken place over the years, including the recent addition of three new canopies.

With its team of experts in the polycarbonate and roof glazing fields, Twinfix works on developing the best, newest and most cost-effective roof glazing products. A family business, Twinfix has been involved in the polycarbonate roof glazing market for nearly 30 years.

The Twinfix team was approached by Create It Studios Architects to design, manufacture and install three canopies: one free-standing mono-pitch canopy and two curved lean-to canopies, all spanning a total of 43 m².

The stunning canopies comprise of aluminium frames powder coated to RAL 8012 Red Brown, which is in keeping



with the aesthetics of the building. The roof-glazing system used is Twinfix's innovative, non-fragile Multi-Link-Panel system glazed with clear 6mm solid polycarbonate.

Saghir Hussain, Director at Create It Studio Architects, commented: “We have had three canopies installed by Twinfix at Didsbury Mosque, Manchester. The client's brief was to design and install three entrance canopies that reflected the design language of the Chapel building built in 1883, while being in keeping within the wider

conservation area. Design cues were taken from the building arched openings and geometrical stone patterns found on the building elevation. We have worked closely with the team at Twinfix to deliver this project. Twinfix managed to deliver the design intention as visualised by our architects and fulfilled the client's vision. It has been a pleasure working with Twinfix. The process from design to construction was easy, straightforward and very professional. We look forward to working with Twinfix on future projects and would highly recommend them.”

Polycarbonate glazing is an incredible product that does not crack, craze, or break during general use, making it an excellent light-weight alternative to glass. Vinyl was applied to the polycarbonate in a stunning white geometric pattern, complementing the design of these structures and turning these functional canopies in to elegant, covered area.

01925 811311 www.twinfix.co.uk



State of the art(efact) ventilation blends new and old

When the Natural History Museum decided to replace its famous ‘Dippy’ the diplodocus exhibit with a new star exhibit – a real-life skeleton of a blue whale – design & engineering expertise from Lancashire provided a solution to balance all the elements. Consulting engineers for the refurbishment of the 150 years-old Grade 1 listed Hintze Hall, SVM, utilised the expertise of leading air movement specialist, Gilberts. Gilberts manufactured and supplied 24no of a bespoke version of its Mistrale Model A natural ventilation units, with a further 42no standard WHF50 high performance louvres to provide the required levels of fresh air intake and exhaust. Gilberts’ core Mistrale 50 Model A cassette is deliberately lightweight and slimline, to be beaded discreetly into window or wall.

01253 766911 info@gilbertsblackpool.com

Community assets protected by StructureCare



The Middlesbrough Institute of Modern Art's (MIMA) mission to bring the wider community under one roof has taken a step forward by ensuring that the roof remains waterproof and able to withstand the often harsh North-East weather. “StructureCare was appointed via an open tender undertaken by Teesside University, evaluated on both quality and price”, explained the University's Project Manager, Ian Atkinson. StructureCare provided an alternative system for consideration by the University. After evaluation, the University deemed the alternative system to be suitable to ensure the continued protection of the MIMA Building.

www.structurecare.com

Vandersanden at award-winning church



Hand-formed Crème bricks from high quality manufacturer, Vandersanden, are core to the design vision behind Westbourne Park Baptist Church, a recently completed mixed-use development in West London, designed by award-winning architects, Allies and Morrison. Richard White, Associate at Allies and Morrison said: “This hand-formed cream-coloured brick helps elevate the status of the design, forming a consistent and restrained material and colour palette of brick, steel, aluminium and glass that sits harmoniously with the stucco of the adjacent villas.

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Darussalam Centre creates adaptable space



Style was commissioned to install nine Stylefold 120 moveable walls in the Sisters of Prayer Hall within the Darussalam Centre, Southall. A busy facility that is used for a multitude of different activities and gatherings every day, the newly adaptable space ensures the Centre is fully utilised at all times. With the moveable walls forming a grid throughout the vast, open-plan area, staff and visitors can now create an extensive range of large and smaller room configurations as required. Style is a multi-award winning market leader in moveable partitioning walls and works with all requirements and budgets, from small community centres to vast conferencing venues. The Darussalam Centre provides a platform for all Muslims to practically apply Islamic principles and work together for the community's advancement through the provision of social, educational, and religious services, as well as outreach programs to build bridges of mutual understanding with other communities. Style is the exclusive UK partner to Dorma Hüppe, Skyfold and SWG moveable wall systems and offers a complete range of manual, semi-automatic and fully automatic solutions across a wide range of market sectors.

www.style-partitions.co.uk

Protech Radon 400 added to portfolio



Radon protection has become a hot topic for the industry. Experience has led to a more robust approach to assessment and mitigation in recent years. In response, the **A. Proctor Group Ltd** has unveiled their latest ground gas protection membrane: Protech Radon 400. This membrane

is reinforced to resist stretching and elongation, and can be used with both solid and suspended ground floor applications. Protech Radon 400 is extremely robust but remains flexible and easy to handle, even at very low temperatures. The membrane junctions can be taped or welded and, at just over 0.4 mm thick, makes detailing quick and easy.

01250 872261 www.proctorgroup.com

Service Sealing Solutions Ltd



Service Sealing Solutions Ltd are the sole UK distributor of DOYMA products. Wherever services are installed through walls, ceilings or floors, penetrating water may cause damage to buildings. Lack of attention to the points of entry of pipes and cables into the building can have serious results and high repair costs. Service sealing systems ensure professional and perfect pipe sealing, thus presenting excellent

preventative measures against structural damage. Service Sealing Solutions supply the full range of products to suit all situations.

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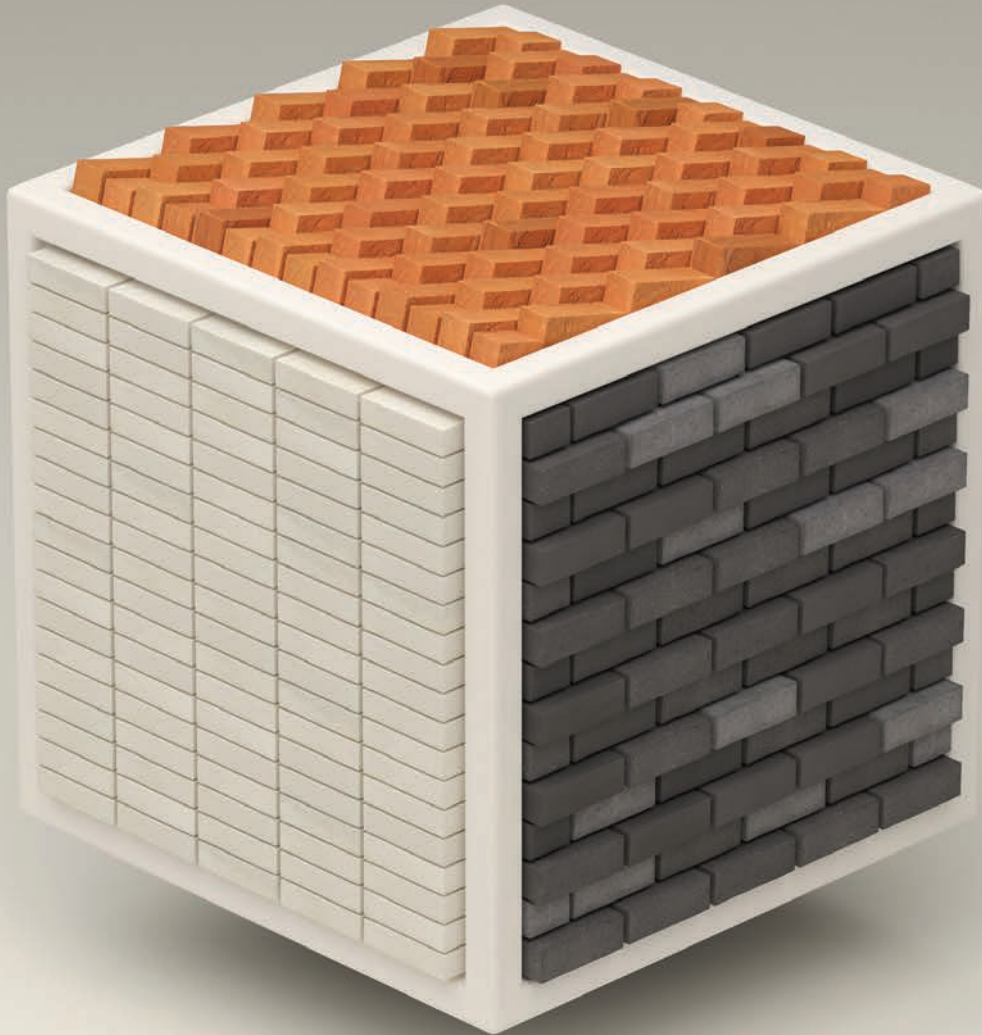
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The Brick Development Association is the national authority on clay bricks and pavers. Our membership accounts for almost 100% of the sector's productivity here in the UK. Our role is to communicate the collective interests of our members and to ensure their products remain the material of choice in the UK's built environment.

The Brick Development Association, The Building Centre, 26 Store Street, London, WC1E 7BT
brick@brick.org.uk 020 7323 7030 www.brick.org.uk

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Hidden benefits

Using basements to maximise space without expanding a building's footprint is increasingly popular, but keeping groundwater out can be difficult, and remediation costly. James Berry of the Property Care Association looks at the options

Although hidden away, structural waterproofing can be particularly sensitive to failures, largely due to poor workmanship, the inappropriate use of materials, or simple bad design. As a result, a range of factors need to be carefully considered when undertaking such works, to ensure a positive outcome.

Architects often approach our organisation – the Property Care Association (PCA), which represents the UK's structural waterproofing sector – for advice. There are some key considerations when designing a water-tight basement, as follows.

First steps

It's important to get help right from the start. Ideally, a design team will include a geotechnical specialist and a waterproofing specialist, and I would advise that both are engaged at the earliest possible stage. These specialists can give key advice on the ground conditions and in assessing the site.

It's important that the geology, hydrogeology, and topography as well as the external drainage options and groundwater conditions of a site, are carefully considered. The type of soil and the water table also need to be evaluated, as well as any ground gas concerns.

There are a number of resources available to architects. BS 8102:2009 Code of Practice for Below Ground Structures Against Water from the Ground is considered the 'waterproofer's bible.'

Other useful documents include the Construction Industry Research and Information Association 139 and 140 Water Resisting Basements, as well as the PCA Code of Practice for Waterproofing of Existing Below Ground Structures.

Waterproofing options

Understanding the target grade of the environment is key to choosing a suitable waterproofing system. BS 8102: 2009 details three grades, each providing a



different level of dryness. Examples of a grade 1 structure include a car park and plant room without electrical equipment, where it's considered tolerable to have some seepage and damp areas. No water penetration is acceptable for grade 2 structures, and for damp areas that are tolerable, ventilation might be required. Similarly, grade 3 accepts no water penetration, but this performance level also specifies ventilation, dehumidification or air conditioning as necessary and appropriate to the intended use.

The target grade and site conditions inform which of the resulting three waterproofing systems, (Type A, B or C) is most suitable. In some cases, a combination of systems will be appropriate.

Type A, usually referred to as 'barrier protection,' is a structure with no integral protection against water penetration.

Understanding the target dryness grade of the environment is key to choosing a suitable waterproofing system



It relies totally on a waterproofing membrane to keep water out. Type A forms of waterproofing may be applied internally or to the outside of the structure or, in some cases, sandwiched between two skins of masonry or concrete.

Type B are structures built with a water-resistant shell, usually constructed out of reinforced concrete to an appropriate design code (which gives guidance in the grade of concrete to be used and spacing of the reinforcing steel). Special additives may also be used.

Type C or 'drained cavity' systems rely on a drained cavity within the basement structure. There is a permanent reliance on the cavity to collect groundwater that enters through the fabric of the structure. The drainage system directs the water to a drain or sump, where it can be removed from the building by gravity or pumping.

Contingencies & contractors

First and foremost, the construction teams applying, installing and building the underground space must be fully aware of the critical nature of what they are doing, the importance of accuracy, and the implications of any defects and errors.

Contingency planning for any localised defects must also be included as part of the overall water-resisting design for the structure. If feasible repair is not possible, then it may be required to look at what remedial measures may be available in respect to the risk posed by groundwater.

It is, therefore, essential to engage contractors with the necessary expertise in this complex, highly skilled aspect of construction. The PCA can signpost architects to members with the qualifications and experience to ensure their project is a success. The association oversees the industry-recognised qualification of Certificated Surveyor in Structural Waterproofing (CSSW), attained by professionals in the sector.

The PCA also has a register of waterproofing design specialists who have signed-up to annual CPDs, and are able to provide standalone design services. Along with a geotechnical specialist, they make up the core components of a waterproofing design team.

James Berry is the technical manager of national trade body the Property Care Association (PCA)

Service Sealing Solutions Ltd – suppliers of DOYMA products



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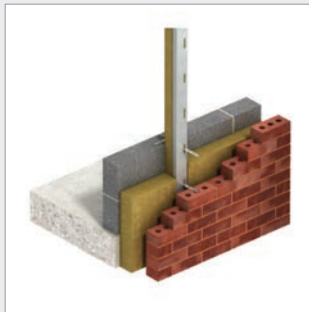
EJOT launches next generation BA Plus through-bolt range



Fastening technology specialist EJOT has upgraded its range of ETA-approved through-bolts – also known as anchor bolts or wedge anchors – with the launch of its new BA Plus range of Option 1 anchors, suitable for both cracked and non-cracked concrete applications. The EJOT BA Plus range is a new generation of higher performing through-bolts which builds on the strengths of its established BA range to deliver additional benefits and new application potential. In addition to concrete, these torque-controlled expansion anchors are also suitable for installation in other hard base materials including natural stone. The design of BA Plus allows the required installation torque to be achieved with 30-50% fewer revolutions than previously, and new M8 and M10 through-bolts can now be used for anchoring in to concrete which is up to 20mm thinner. The risk of on-site errors is minimised with a setting depth clearly marked to the thread and anchor length letter coding marked on every bolt head. The BA Plus range is complemented by EJOT's range of through-bolts for Option 7 non-cracked concrete applications, BA-C NC, which provides a class-leading anchor for many other applications.

01977 687040 www.ejot.co.uk

Leviat launch new thermally efficient Ancon windpost



Leviat, world leader in connecting, fixing, lifting and anchoring technology for the construction industry, has launched a revolutionary new thermally efficient Ancon windpost designed to minimise thermal bridging in masonry cavity walls. The patented Thermal Windpost (TWP2) offers up to an impressive 70% reduction in thermal transmission through the span of the windpost. This guarantees it meets the BRE level for thermal performance provided in BR 443 as a minimum and offers opportunities for more stringent thermal specifications to be met. The Thermal Windpost features integral mineral fibre insulation to ensure continuity of insulation in the cavity, and its innovative design means the windpost sits level with the outside face of partial-fill insulation so it can be taped to further reduce thermal heat loss. This provides the benefit of eliminating time-consuming cutting of insulation to fit behind/around the windpost, increasing the overall speed and consistency of installation. Leviat's Lisa Sherburne-Kilby, UK commercial operations director (Masonry) said: "The new thermally efficient Ancon Thermal Windpost TWP2 is a game changer and a fantastic addition to our range."

0114 275 5224 www.ancon.co.uk/thermal-windpost

Materials Matter, BIM Version 4: A decade of the most advanced BIM Brick files



Responding rapidly on the Government's Construction Strategy published in May 2011, Michelmersh responded with its first range of clay product files and was the first brick manufacturer to introduce Building Information Modelling (BIM) files in the UK, years before the competition. A decade on and Michelmersh is now delighted to release BIM Version 4 (V4), its most advanced files yet. It is the only manufacturer to include Revit 2021 files to take advantage of the newest release capabilities, including its advanced rendering features, enabling customers to download the highest resolution brick walls on the market. BIM V4 is also offered in a 2018 Revit version to ensure designers and contractors using previous releases of the software can also continue to benefit from Michelmersh's BIM files. It is also the first manufacturer to provide its files in seven different formats to grant true interoperability amongst the BIM world. Frank Hanna, Joint Chief Executive Officer of Michelmersh, proudly states: "Our latest upgrade epitomises the Group's drive for innovation and sustainability." Watch new BIM animation 'Materials Matter' today: <https://youtu.be/4feyCSRzbp8>

www.mbhplc.co.uk

Senior's curtain call at famous theatre



With slim sightlines and enhanced thermal performance, Senior Architectural Systems' SF52 aluminium curtain wall system has been put centre stage to create the modern new facade of the historic Octagon Theatre in Bolton, Greater Manchester. The new-look theatre features Senior's SF52 aluminium curtain walling which has been seamlessly integrated with the company's SPW501 aluminium commercial doors and SPW600 aluminium windows. Offering enhanced thermal performance, Senior's popular SF52 aluminium curtain wall can help contribute to a scheme's energy-efficiency.

01709 772600 www.seniorarchitecturalsystems.co.uk

Keeping up appearances



Marley Alutec has contributed to the successful delivery of a stunning new build property – while restoring a developer's faith in the aluminium eaves industry. Andy Heath, a Director at RHB Construction commented: "I was hesitant to work with aluminium as a previous experience with another supplier hadn't been a positive one. From the onset Marley Alutec took a hands-on approach to the project, getting up on the scaffolding to discuss the options and set a specification which was fit for purpose and, most importantly, installable with minimum fuss."

01234 359438 www.marleyalutec.co.uk

Veka's WinDoPlan software is now available to architects & specifiers

VEKA plc, one of the UK's leading PVCu window systems companies, has launched WinDoPlan to Architects and Specifiers.

WinDoPlan is a digital planning and tendering tool for all processes related to Window & Door specification including calculation and evaluation. Eighteen months in the making, the software is exclusive to VEKA, and is a platform for virtual collaborative working providing architects and specifiers with an entire technical process online.

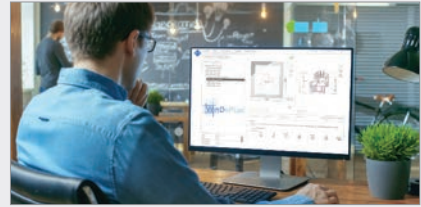
The first of its kind, WinDoPlan has been designed to give quick access to live technical information, 24/7. The software can also be used as a sophisticated virtual presentation tool in demonstrations and pitches, particularly helpful in the current climate when face to face meetings are not possible.

Providing 3D rotations of profiles and cross section views, WinDoPlan also calculates U-Values and isothermal histories, providing

a comparison of planned elements with accreditation results and likely geographical weather conditions. The completed specification can be output in one of several formats, (dwg, dxf, docx, pdf) and the BIM interface also makes data exchange among all project partners easier.

WinDoPlan has been developed by one of the VEKA Group companies; Digital Building Solutions in Germany and has already been well received across Europe and Russia. Tailoring the system for the UK market has seen an additional investment of €80,000 to create the most sophisticated and comprehensive version in the world.

Permission to access WinDoPlan can be granted by visiting veka.co.uk. The company has produced a comprehensive training manual, a library of simple training videos to help get users up and running, and cascade training to refer to in the future. VEKA's Technical team will also be available to assist with the platform.



VEKA plc Marketing Director Dawn Stockell adds, "WinDoPlan has already been very well received by our fabricators and we are delighted to now offer access to Architects and Specifiers. The development of this software means that commercial teams can work collaboratively and can access live and accurate information when, where and how they need it, which could make the difference between winning or losing a pitch. The impressive 3D images add a new dimension to virtual presentations which is particularly important in the current climate. At VEKA, we are committed to investing in digital tools to offer a greater level of support to make our customers' life easier"

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RAISING THE STANDARDS IN LIGHTWEIGHT ROOFING

New arrivals

Making an entrance has changed – door materials have developed far beyond traditional options to offer composite alternatives which provide a wide choice of styles as well as practicality. Chantel Roach of Distinction Doors explains all

PVCu panel doors, alongside timber doors, dominated the UK domestic entrance door market from the mid-1970s to the mid-1990s. But new legislation brought in to satisfy social housing requirements challenged both the PVCu and timber door markets, as they struggled to meet the demands. Composite door manufacturers and suppliers spotted this opportunity, and ran with it.

The doors already ticked a lot of boxes, but more importantly, there was the freedom to develop and enhance performance, making composite doors a popular choice for architects and specifiers.

Today, composite doors have close to 50% share of the UK entrance door market (source: D&G Consulting 2020). Arriving in the UK around 25 years ago, changing styles, glazing options and colours have seen these modern entrance doors keep pace with trends, responding to demands of architects and homeowners alike.

Composite doors consist of a 'skin,' which can be of GRP (glass reinforced polyester), ABS, steel, PVC and other materials, around a void filled with an insulating material. The term 'composite doors' also covers entrance doors manufactured from an engineered timber core with bonded skins.

Colour options

Prior to the arrival of the composite door, choice was limited. Glazing and hardware options were often the only way of injecting style and individuality into an entrance door. Yes, timber doors could be enhanced with a lick of paint, but PVC panel doors were ordinarily white, with colour palettes limited to traditional shades of red, blue, green and black.

Today, composite door suppliers offer a kaleidoscope of colours, including vibrant shades such as Signal Violet and Colza Yellow alongside muted tones like Mouse Grey and Pastel Blue. In fact, some suppliers can paint a door in any RAL



colour, with colour matched glazing cassette. And don't forget, the joy of a composite door is the option to have dual-colour – one shade for the external face and another for the internal. In fact, the options are endless.

Stylish security

Colour and style are perhaps the most widely promoted strengths of the composite door – it lends itself to an extensive range of designs compared to other door materials, which can be limited in both design flair and dimensions. This has meant the door has extended its reach far beyond new build developments to the extensive replacement door market, with styles to suit both modern and traditional homes.

Yet, style doesn't mean compromising on performance. As the composite door market has expanded and stabilised over the past two decades, proven performance has become a critical factor in the specification



Today, composite doors have close to a 50% share of the entrance door market in the UK



A weighted noise reduction of 31 dB is possible with composite doors, keeping outside noise to a minimum for residents

and procurement process. For example, the door leaf and glazing system are major components when part of a door set and have a proven ability to achieve PAS24:2016, the industry's enhanced security standard. This is a prerequisite in attaining Secured by Design accreditation (the police initiative to protect properties and clients against unlawful intrusion).

Being granted Secured by Design (SBD) status means stockists and distributors can support SBD-approved door fabricators in manufacturing the 'ultimate enhanced security doorset.'

Solid performance

Composite doors offer a robust alternative to PVC panel doors, designed with a solidity that not only feels secure but is secure. In addition, a weighted noise reduction (Rw) of 31 decibels is possible, keeping outside noise to a minimum – ideal for those specifying for buildings of multiple occupancy.

If a GRP skin is specified, this too adds to the door's durability. The high-impact resistant glass-reinforced polyester is designed to offer exceptional endurance, and will maintain a pristine appearance.

Thermal performance

Alongside maintenance and security, energy efficiency has long been associated with composite doors. They are renowned for their thermal performance, assisting in reducing energy bills. With most GRP composite door sets being energy rated A-C, specifiers are not limited when selecting for energy conscious clients.

The future is here

With the evolution of smart technology, it's no surprise that fabricators and installers of this most modern type of entrance doors are embracing the future of hardware and entrance systems. This ranges from keyless door locks which allow users to unlock and lock the door, wherever they may be, to smart locks controlled by smartphones and other Bluetooth devices. Then there is the instinctive collaboration between security experts and virtual assistant AI technology.

With enduring demand and reputed evolution, the future of the composite entrance door market is secure!

Chantel Roach is commercial director at Distinction Doors



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Balancing a vision for the future with a sustainable environment

Verde House is just one element in Croydon's £3.5billion Vision 2020 regeneration to become the hub of living, retailing, culture and business in the South East. With input from Eco Green Roofs, Ltd (EGR), it is balancing highly urbanised living with an environment that engenders safe health & wellbeing.

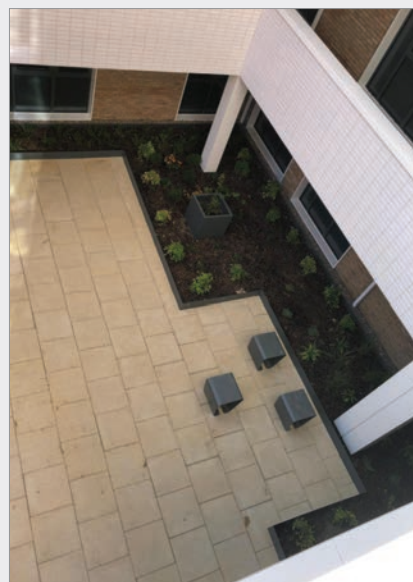
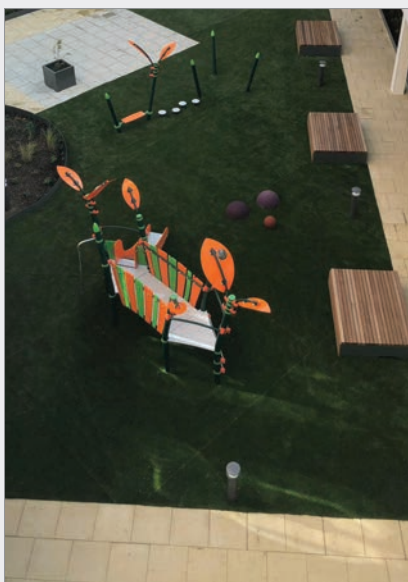
Developed by Skillcrown for Optivo, Verde House in Cairo Road is in the heart of the suburb's old town. Encircled by the local tramline and bisected by the six-lane A-road to the south coast, the £25m, 15-storey tower is still bringing a touch of green for residents through a smart podium solution to provide a community recreational space.

To meet planning conditions, the 1st and 4th floors feature a podium roof with grass area for recreational use, and further landscaping on the 14th floor, all of which encompassed hard landscaping. For design continuity, apartments with balconies have their external area paved with the same aesthetic finish. The project was delivered by EGR in partnership with roofing and waterproofing contractor Mid Kent Roofing, part of the Avonside Group.

EGR had to value engineer the architect-designed scheme to achieve the best end result that met the planning conditions, balanced with Health & Safety considerations-achieved during a strict and robust working environment as the project was delivered during Covid-19 pandemic.

The main communal amenity spaces needed to meet the needs of both adults and children whilst minimising maintenance. EGR constructed a base of appropriate drainage boards and fleece over the insulated roof, overlaid with paving, planters and artificial grass to achieve the low maintenance requirement. Bespoke powder coated steel planters completed the project.

It was a condition of the planning for Verde House that, being part of the Old Town Masterplan, there was provision for an improved public realm, with hard and soft landscaping. This is intended to help fulfil the human health & wellbeing criterion of a "better living environment with enriched urban spaces to improve mental and physical wellbeing" (https://new.croydon.gov.uk/sites/default/files/Planning/Masterplans/Old_Town_Masterplan_Sustainability_Appraisal.pdf)



Commented Steve Cayford of Mid Kent Roofing: "We have a proven relationship with Eco Green Roofs. We know we can rely on them to work in partnership with all involved to deliver the best solution that balances the vision for the scheme aesthetics with the practicalities of construction and ongoing maintenance and management."

Added Remzi Ahmed, Construction Director at Skillcrown: "It was a planning condition of the construction scheme that it improved the public realm with hard and

soft landscaping, to engender health & wellbeing for residents. We have been impressed with Eco Green Roofs' expertise, and its single source of responsibility approach from design to install and aftercare. The EGR team took a very specific brief and added value to it, ensuring an aesthetic and compliant solution."

Project in mind to include a recreational podium solution? Please contact Eco Green Roofs for advice and support.

info@egr.co.uk www.egr.co.uk



Garador introduces new FGS 820 Front Door

Garador's FrontGuard front door range offers excellent security and thermal insulation, offering a great solution for all types of properties. Now Garador has added a new model to its extensive collection of front doors, in the form of the FrontGuard FGS 820.

This new door model is designed to minimise heat loss and incorporates four large windows to allow natural light to flow in through the doorway. The windows are all triple glazed and the door leaf is 65mm thick, filled with dense polyurethane insulating foam. This FGS 820 comes in a selection of standard and custom door sizes up to 2250mm high and delivers u-values down to 0.95 W/m²k. The FGS 820, along with all Garador's front doors, also offers high levels of security, with 5-point locking and RC2 security equipment. The door is available in 26 different colour finishes and has many shades designed to complement Garador's existing garage door range.

01935 443722 www.garador.co.uk

Manhattan apartments warm to Wraptite®

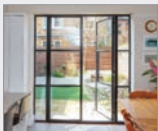


An exciting project to create a seven-story modular building featuring a series of modern New York apartments has been fitted out with the high-performing Wraptite® airtight membrane. The superior airtightness performance of Wraptite from the A. Proctor Group is an ideal

solution for offsite developments, delivering huge benefits to the combination of in-factory manufacture and on-site construction. The installation of Wraptite was a rapid process due to its advanced, easy to apply self-adhesive design and ensured complete water tightness during all phases of manufacturing and the final installation on-site.

01250 872261 www.proctorgroup.com

SWA launches associate member option



Steel Window Association has recently launched a three-tier system for the industry's manufacturing membership and, as a further refinement to the new structure, an "associate member" package has been developed. Designed for suppliers to the steel window and door industry in the UK, an associate

membership, which costs £1200 pa, comprises a listing on the SWA website with contact details and links to the individual websites. In addition, companies can issue product information to SWA members via the association's Secretariat and have access to comprehensive information on product and market development.

www.steel-window-association.co.uk

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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

Senior's artful display at university



Senior Architectural Systems have helped create a warm and welcoming accommodation scheme for the students of Arts University Bournemouth. Senior's patented low U-value PURE® aluminium windows and PURE® SLIDE aluminium doors have been installed alongside the

thermally-efficient SF52 aluminium curtain wall system, with the scheme achieving a 'Very Good' BREEM rating. The project also features Senior's thermally-broken SPW500 aluminium commercial doors and SPW600 aluminium windows.

01709 772600 www.seniorarchitecturalsystems.co.uk

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JACKON is 'future homes' ready!

The Government's new Future Homes Standard is set to be a key part of the construction industry's framework going forward, underpinning the planned green recovery of the housebuilding market in particular.

With new cuts in emissions of up to 80% required and a 'fabric first' approach, the Standard will be the guiding principle of new housebuilding in the future.

It will become a requirement for housebuilders to build well-insulated homes, in which on-site renewable energy sources cannot be used to offset inadequate insulation

at the construction phase. The Government is proposing target u-values of 0.15 for external walls and 0.11 for floors from 2025.

JACKON is ready for these changes and is in fact arguing for them to be even more rigorous. The new targets are not a problem, since JACKON's THERMOMUR 350 Super range - currently the company's best-selling range in the UK - already achieves 0.15 for walls with no added materials, and the JACKODUR ATLAS system can be designed to achieve 0.11.

JACKON brings its 60 years' expertise in EPS (moulded expanded polystyrene) and XPS (extruded polystyrene) manufacturing to this market. It has two complementary systems, JACKODUR ATLAS which uses XPS (extruded polystyrene) to create an insulated floor slab and THERMOMUR ICF which uses EPS (moulded expanded polystyrene) to create the formwork.

ICF is a modern construction method, which is widely used in Europe and North America, but is still relatively new in the UK. It integrates insulation materials into the concrete formwork, totally revolutionising



the way a house is constructed.

As well as being easier and quicker to build, an ICF house provides massive advantages during the life of a building. These include: dramatically improved insulation and air tightness leading to reduced expenditure on heating or cooling; excellent acoustic performance; fire resistance; enhanced resilience to flood, extreme weather and seismic activity; rot and vermin resistance; versatility with regard to remodelling; minimal maintenance requirement; mortgage, insurance and planning acceptance.

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Insulation may be hidden after the project is complete, but its role in supporting heat, air and moisture movement and providing thermal comfort to building occupants is essential.

Spacetherm is an ultra-thin high-performance aerogel insulation that is perfect for refurbishment projects. Available as a flexible blanket and a variety of laminated board options, Spacetherm provides the maximum amount of thermal improvement in a minimum amount of space. Spacetherm SLENTEX® A2 has a fire rating of Class A2, s1-d0 making it the thinnest A2 insulation product available on the market.

Specify responsibly:

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Air leakage. It doesn't matter how low your U-values are if there are draughts

Icynene H2 Foam Lite spray applied insulation from Huntsman Building Solutions



Over 60% of UK housing stock was built pre 1960's when little thought was given to heat loss prevention



Paddy Leighton of Huntsman Building Solutions-Icynene, Spray applied insulation, explains why minimising air leakage must go hand in hand with better insulation.

Better insulation of domestic households is seen as one of the most important ways of reducing carbon emissions and slowing the effects of climate change.

A recent environmental audit select committee report says that 19 million UK homes are poorly insulated that unless urgent action is taken to improve energy efficiency of homes, the UK will fail to meet its climate targets.

Unfortunately, as over 60% of our current housing stock built pre-1960 when little thought was given to heat-loss prevention, the challenge is significant.

Overall, roughly 20% of UK carbon emissions are generated through heating, hot water and cooking in domestic properties. Even more troubling was the fact that in 2017, emissions from buildings actually rose by 1% over those of the previous year.

Basic principles

If we go back to basic principles; heat loss in a building occurs through a combination of four processes: conduction, convection, radiation and mass transfer. The colder the

outside temperature, the warmer the inside, and the worse the thermal insulation of the building envelope, the greater the heat loss will be.

In the UK, the construction industry focusses primarily on U values – sometimes referred to as heat transfer coefficients – as a measure of conductive heat loss. These are used to measure how effective elements of a building's fabric are at insulating against heat loss. The lower the U-value of an element of a building's fabric, the more slowly heat is able to transmit through it, and so the better it performs as an insulator.

Very broadly, the lower the U-value, the less energy is required to maintain comfortable conditions inside the building.

Unfortunately, measuring the thermal efficiency of a structure by U-value alone fails to take into account of heat loss through air leakage. If you spend any time in high mountain environments you quickly realise that it is the wind that strips the heat from your body. And it is the same in buildings. It doesn't matter what your U-value is if there are draughts.

Traditional forms of insulation are relatively inefficient in preventing air leakage through draughts. They can't completely fill the complex voids in roof structures or seal the interface between the insulation and the

building components. They can also struggle to cope with small structural movements which can lead to air gaps.

When 40% of a building's heat loss caused by air leakage, an insulation system that works to prevent air leakage – effectively creating a “sealed box” environment, is essential to minimise heat loss.



Spray applied insulation effectively seals the complex voids in a building structure

Better insulation of domestic households is an important way of reducing carbon emissions



Spray applied, open cell insulation

Breathable, open cell spray applied foams are highly efficient insulators against both conductive and convective heat loss as they control air movement and eliminate air leakage. Spray applied foam insulation is also extremely flexible; it moves with the structure, maintaining its insulative properties for the lifespan of the building.

Spray applied foam insulations such as HBS-Icynene Foam Lite are open cell materials which have 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 heritage-type buildings.

Control of air quality.

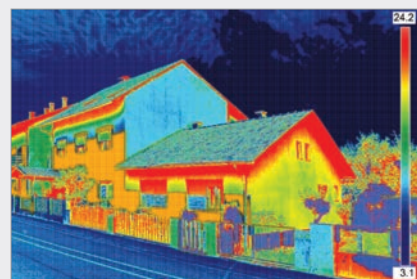
Heat loss through mass transfer is more complex and relates to how much moisture is held in the air (humidity). The more there

is, the more energy it takes to heat it, so to feel warm, damp buildings need more energy than dryer ones.

To control humidity, you need to be able to control the air movement and you can only do this if the building is relatively airtight. Spray foam insulation does this effectively and quickly by sealing air gaps, enabling controlled ventilation and mechanical heat recovery systems to perform efficiently.

A holistic approach to heat loss mitigation

High performance insulation, effective control of air movement and air quality, in combination with low carbon heating are interconnected elements that need to be addressed as-one in the design of new-build housing to ensure heat loss mitigation. Until Building Regulations take a holistic view of this complex picture, the industry will continue to build housing that perform well in one respect but fail in others



Heat loss occurs through a combination of conduction, convection, radiation and mass transfer

From a wider perspective, bringing the UK's legacy of pre-1960's, poorly insulated housing stock up to a sufficiently high performance is a whole different ball-game, one that needs urgent attention at the highest level.

infouk@huntsmanbuilds.com
www.huntsmanbuildingsolutions.co.uk

Taking the long view

Simon Storer of the Insulation Manufacturers Association (IMA), explains why a fabric-first approach to design, combined with a long-term outlook, is the way forward to improve future building performance and cut emissions



It would be scandalous if homes being built today become the homes in 2050 that need to be retrofitted

Building for the future, with legacy in mind, is a major challenge for all architects. Faced with the ambitious net zero target for 2050, the sensible approach is to make the right choices that not only meet but exceed future standards, while not compromising on materials.

The role of PIR and PUR insulation in achieving energy efficient buildings and a sustainable future cannot not be underplayed. Good insulation is essential if homes and buildings in the UK are to become more energy efficient and sustainable, and offset some of the increasing energy costs and climate change conditions. The fabric-first approach to energy efficiency prioritises insulation within the building envelope, significantly restricting air leakage, which in turn prevents heat loss.

Using PIR insulation with high thermal efficiency will make a big difference between a building's performance success or

failure, and is one of the simplest and most cost-effective ways to reduce energy demand and cut CO₂. The thermal performance of a building envelope makes a significant contribution to reducing the overall building energy usage – so tighter U-values in walls, floors and roofs will help to deliver the standards required.

With lambda values as low as 0.021 W/mK, PIR insulation is available as boards, blocks and composite panels, and PUR as spray and cavity injected insulation. Performance can be achieved with products that are thinner than many other commonly used insulants. In short, designers can achieve the highest insulation values from the minimum thickness of material, which in turn maximises floor space. PIR insulation products are widely used on residential, commercial and refurbishment projects because of their exceptional insulating properties, high strength and light weight.

'Build back better'

While many more affordable homes need to be built to an overall higher performance level to reduce costs and emissions, all homes need to be finished to a much better build quality. We must reduce or better still eliminate the performance gap between design performance and what is built.

This is why competency in installation is vital, because when a high performing product such as PIR/PUR is not installed correctly, the thermal performance will not be maximised, and the full benefits not realised. Contractors need to make sure that not only the levels of site supervision are of a good standard, but the manufacturer's installation instructions are followed to avoid issues around potential cold thermal bridges and awkward details. Once the high-quality building fabric has been completed, there should be no need to worry about it over the life of the building.



Getting it right first time

If the housing stock is to meet long-term performance standards, then we must have more thermally-efficient building envelopes, which in turn will result in improved comfort for occupants. Getting the fabric of the building properly insulated should always be the starting point. It is a fundamental step towards achieving the net-zero target as well as compliance with the energy performance requirements of the revised Building Regulations Part L.

By considering the fabric from the outset of a project, it is estimated to cost just one-fifth of the total cost of retrofitting to the same quality and standard at a later date. Homes should be built that solve today's challenges and provide long term solutions, as it would be scandalous if homes being built today become the homes in 2050 that need to be retrofitted.

Changes to Part L

Within the new Part L requirements of the Building Regulations, all new homes will be expected to produce 31% less carbon emissions through a combination of fabric improvements, low carbon heating technologies and PV panels. This is the first step, but by 2025, new housing will be expected to produce 75-80% less carbon emissions compared to current standards.

Achieving higher Fabric Energy Efficiency Standards (FEES) in specifications will be crucial for housebuilders in order to pass SAP and comply with Part L. Looking ahead to the Future Homes Standard in 2025, boilers might be replaced with air source heat pumps or some other low carbon technology, but the fabric targets of the building are expected to remain. To reiterate, getting the fabric right in the first instance is not only a sustainable approach but also a tried-and-tested way of limiting heat loss within the building.

When we emerge from Covid-19, the enormous challenge of achieving a net-zero carbon-built environment must be woven into what many are now saying must be a 'green economic recovery.' Good insulation clearly has a role to play, and by taking the fabric-first approach, specifiers will be taking the direct route to achieving the net-zero target.

Simon Storer is chief executive of the Insulation Manufacturers Association (IMA)

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Knauf Insulation U-value calculator saves architects time

Architects and specifiers can calculate U-values quickly and more accurately with Knauf Insulation's online U-value calculator which now features even more applications to help save architects and specifiers time.

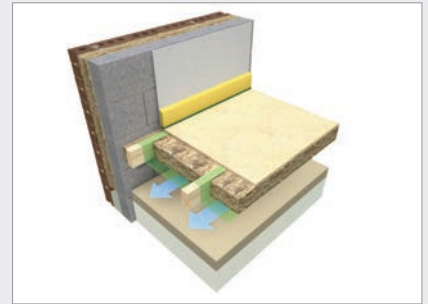
The tool speeds up calculations by allowing users to choose from a range of typical build-ups as well as inputting full specifications. In response to demand, Knauf Insulation has added build-ups for twin leaf steel frame partitions and suspended timber ground floors. The existing roof build-ups



have also been refined so they can be adjusted to accurately reflect whether the construction has 400 mm or 600 mm centres.

"We know that when you're doing multiple calculations, as architects and specifiers do for housing developments, for example, the minutes saved by using the pre-programmed build-ups quickly add up," said Matt Prowse, director (Specification & Housing) at Knauf Insulation. "So, we've listened to architects and specifiers and expanded the range of typical build-ups to include more of the calculations they do regularly. The new build-ups for twin leaf steel frame partitions are particularly useful when calculating the heat loss between a flat or apartment and an unheated corridor."

"Accuracy is also important, but most online tools calculate U-values for roof and floor applications using default figures based on typical dimensions of the timber elements. Because they can choose between 400 mm or 600 mm centres, architects and specifiers can



be confident the U-value calculations are correct because they are representative of the actual construction."

All calculations are performed in line with BS EN ISO 6946 and 13370. The tool recommends the most suitable Knauf Insulation Glass or Rock Mineral Wool product for the chosen application. Users can then download detailed calculations, BIM files, and product data, or send a copy of their calculation to their email address.

01744 766 666

www.knaufinsulation.co.uk/uvalue-calculator



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Nanoe™ X safeguards dental patients



A network of 27 dental practices operating mainly in Yorkshire and the North East has started a programme to install Panasonic's nanoe™ X technology to enhance protection for patients and staff whenever new air-conditioning units are required or where units need to be replaced. Recent, independent testing shows that nanoe™ X can inhibit certain types of bacteria and viruses, including SARS CoV-2, meaning the system can help protect patients and staff alike whilst in the dentist practice.

01344 853 393 www.aircon.panasonic.eu

ESi launches latest 6 Series heating controls



ESi Controls has launched its new, top of the range, 6 Series WiFi Programmable Room Thermostat, offering the latest in heating control for homes and commercial premises. Fully OpenTherm compatible, this new range of controls allows full control via the room thermostat or via a mobile phone or tablet, with a range of features to impress even the most demanding specifier, installer or homeowner. It includes Optimum Start/Stop, Domestic Hot Water setpoint, Hot Water time and temperature control when working in conjunction with a wireless cylinder thermostat, full 7 day, 5/2 day or 24 hour programming options, a boost facility, a helpful Holiday Mode and is an ERP Class 5 Product.

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AET helps a redeveloped 1950's office



The 20 Red Lion Street redevelopment of a 1950's office building in the heart of Holborn, included an extension to the roof, an extension to the office plate to the rear, and an extensive internal reconfiguration. Using AET's underfloor air conditioning system has allowed the project team to maximise floor to ceiling heights, natural light, and the adaptability of the office space. AET's CAM-C system was specified to serve the newly built floor. To ensure floor to ceiling heights were maximised, AET's unique slim line Fantiles™ were installed within a raised access floor. The newly built sections have received an 'Excellent' BREEAM rating.

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Colour and character with CTD



CTD Architectural Tiles' unrivalled collection offers professionals endless colour and pattern options, enabling projects to come to life through vivid, eye-catching design. A brick shaped tile with a delicate faux crackle glaze, Borgo will bring colourful charm to walls in any commercial setting. Bringing a fun, modern design twist to commercial spaces, Trivial offers the opportunity to create truly original feature walls. Inspired by the unmistakable Art Déco style, Gatsby combines elegant designs with a modern colour palette to create stunning wall features within residential and commercial spaces.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

Quadrant floors the first UK EV forecourt



Quadrant has recently completed a unique project where its eco-friendly cork flooring was installed in the UK's first electric vehicle forecourt, designed by Bisset Adams and built by GRIDSERVE. The Electric Forecourt® near Braintree in Essex is powered by net-zero carbon energy and allows 36 electric vehicles (EVs) to be charged at any one time, each at its own maximum capacity. To build a ground-breaking and environmentally sensitive development like this, you have to go above and beyond. The Corkform flooring from Quadrant's Climate+ Collection is a sustainable and responsible choice for this innovative facility.

01622 719090 www.quadmod.com



Norcros assists with Cineworld project

Norcros Adhesives has been involved in an exciting project to replace the floor at a popular branch of Cineworld. The substrate of the existing tiled floor was an anhydrite screed, which had not been allowed to dry out properly prior to the laying of tiles and as a result these had failed to adhere properly, which was beginning to cause problems. It was a £60,000 project for commercial interior specialists Bentley Rowe, who needed to completely strip out and re-tile the foyer area at the cinema. "This was a very satisfying project for us to be involved with," says Nick Bratt, national specification manager at Norcros Adhesives. "By using Norcros Adhesive products we were able to overcome the issues that the customer was experiencing with the previous floor – and the end result looks superb. As a result of excellent collaboration with Bentley Rowe, the project was completed on time and within budget."

01782 524 140 www.norcros-adhesives.com

F. Ball trends in London office refurbishment



Providing for the demand for industrial-chic office interiors, F. Ball and Co. Ltd.'s Stopgap 800 Wearcoat has helped to create a stripped-back warehouse feel with a visually striking floor finish for Expressway, a unique London workspace.

A self-levelling floor compound for upgrading and renovating new and existing internal floors in light to heavy-duty applications, Stopgap 800 Wearcoat is designed to deliver a standalone wearing surface in industrial settings where floorcoverings are not required to be installed. It is also popular for domestic and commercial projects because of its eye-catching, natural appearance.

01538 361 633 www.f-ball.co.uk

Tessera Perspective: Rich. Luxurious. Design.



Manufactured using cut and loop technology, the tip-sheared aesthetic of Forbo Flooring Systems' new high-end Tessera Perspective carpet tile collection delivers a feeling of luxury, making it the ideal solution for workspaces where a stylish, contemporary design is desired. Tessera

Perspective collection features a delicate lattice weave design that has been developed through the use of two different, yet tonally similar, yarns. This blend of surface textures creates a rich and opulent all-over visual, which subtly changes from differing perspectives. Tessera Perspective contains an impressive 65% recycled content by weight.

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

New, on-trend, wood-look options



Altro has introduced new shades for its Altro Wood™ adhesive-free and Altro Wood safety flooring ranges. The new, on-trend, wood-look options, from cool grey hues through to warming and natural tones, provide flexibility when specifying or designing application areas which require differing technical performance. Altro Wood adhesive-free creates maximum impact with minimum downtime. It can be welded and

walked on the same day, and at the end of its life can be removed easily, allowing it to be reused or recycled.

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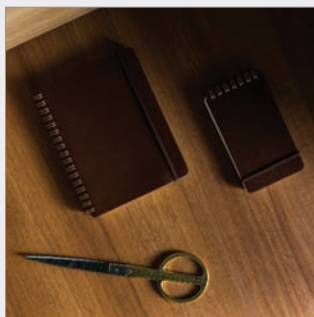


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monthly CPD Focus and fortnightly ADF Newsletter offer updates on products, services, events, and learning opportunities available from a wide variety of manufacturers and suppliers.

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UNILIN Panels enters a Classic State of Mind



MOODS are the latest inspiration for designers from UNILIN Panels. Giving a broad playing field to fuel creativity, MOODS is a series of collaborative projects between UNILIN Panels and design studios. In the third of the series, Ghent-based Studio Woot Woot, delivers CLASSIC STATE OF MIND, a palette in-tune with the sophisticated reserve of large corporations, law practices and architecture firms. UNILIN Evola provides the surface finishes to update the stately and staid for an interior with an effortless, timeless character. Colours of black and cognac combined in clean lines exude certainty and dependability, and with the addition of soft pink and gold accessories these spaces take on a more empathetic and sensitive manner. CLASSIC STATE OF MIND defines five finishes in the UNILIN collection: the authentic coloured MDF of Fibrilux in Black Super Matt, Mercury Grey and Meteor Grey, as well as Lorenzo Walnut Medium Brown and Brushed Gold from UNILIN Evola. UNILIN Evola finishes are durable and easy to maintain and can be used to bring the mood to work surfaces, walls, doors, desktops, panels and much more.

info.panels@unilin.com www.unilinpanels.com

New product from Quantum Flooring Solutions: Recessed Stair Nosing



Quantum Flooring Solutions is excited to announce the launch of its new recessed heavy duty stair nosing. This high performance profile has been developed to be fitted on staircases for commercial and public buildings where a recessed stair nosing is required. Quantum's highly durable new stair nosing is specifically designed for venues with high levels of foot traffic. It incorporates a low slip-potential tread, along with grooves in the metal at the front and back of the stair nosing, helping to ensure the safe movement of people in both dry and wet conditions. This makes it ideal for projects such as stadiums, university campuses or transport infrastructure. The new stair nosing can be fitted with Quantum's EcoGlo photoluminescent tread, making it excellent for installation in low-light or outside areas. It has been designed to adhere to all relevant guidelines in the Equality Act (formerly the DDA) and Building Regulations best practice. The profile is also compatible with Quantum's Plus-Tread material, for extra grip and safety. This heavy duty stair nosing from Quantum can be affixed to most types of recessed staircases.

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Back to the roots of flooring

Clay and Clay Create are new styles in the Rudiments random lay carpet tile collection from IVC Commercial that takes interiors on a journey through the cultural significance of traditional flooring materials.

Featuring Jute, Teak, Basalt and the brand-new Clay and Clay Create, Rudiments is a unique carpet tile and plank collection from IVC Commercial.

All carpet tiles in Rudiments are made from solution-dyed nylon for hassle-free performance, meaning that designers can focus on the job in hand, delivering inspirational spaces that support the productivity and wellbeing of their users.

Sharing a similar design, Clay and Clay Create carpet planks are made to work together. With the all-over look of Clay adding texture across large areas and Clay Create's ability to explore colour combinations that mark out activity or transition from one area to the next, it's a combination that makes powerful flooring layouts possible. The new 25 x 100cm plank format also means a perfect match to Rudiments carpet tiles, for even

more creativity.

The Clay carpet plank is inspired by mankind's crafting of the world's oldest known ceramic material, hand-shaped into the rudimentary building blocks that have protected us for centuries. Adding organic structure to projects, it's presented in a selection of 12 colours from the Rudiments palette. In a random lay plank made to work easily with all Rudiments styles, Clay brings new ways of breaking up spaces.

With Clay Create, designs can embrace colour transitions that take on a playful element with a random lay pattern that echoes the material's artistic side. Adding colourful combinations that move us from one hue to the next, the design mirrors the possibilities of new forms that clay stimulates. In 12 energising colourways, Clay Create can be used to explore changing modes of activity, direction and transition.

Rooted in ancient and timeworn stone blocks, Basalt is a random lay carpet tile that adds bold texture. Creating a random organic pattern well-suited to large areas, the rise and fall of Basalt's structure is available in all 12



colours of the Rudiments carpet tile collection.

The coarsely spun plant threads of woven hessian are the muse for Jute, a subtle and undeniably elegant look for schemes with a sophisticated materials palette. Available in all 12 colourways of the Rudiments collection that blend functional colours with complementing trend hues, this design brings a relaxed harmony to commercial projects.

For Teak, IVC Commercial has explored our innate connection with wood, creating a random lay carpet tile with a structured look and a casual touch for endless mix and match possibilities. Echoing the light and shade thrown by oiled blocks arranged in arbitrary geometric patterns, the carpet tile offers a structured yet casual aesthetic across open spaces in all 12 Rudiments colourways.

01332 851 500 www.ivc-commercial.com

Wandsworth's Bronze is a Real Delight



Delight carpet tiles from **modulyss** have been used in the communal areas of Bronze, a high-end residential development in Wandsworth, London. Choosing Dawn and Gleam from the Delight collection by modulyss for the communal areas of Wandsworth's Bronze Building, Jigsaw Interior Architecture are proving that carpet tiles don't just belong in offices. Some 700 m² of modulyss carpet tiles have been installed throughout communal areas and corridors, with the bronze colourways contrasting the white walls and reflecting the building's bronze-clad facade. Dawn in 82B was selected for the majority of flooring used in communal areas. Made from 100% regenerated ECONYL® nylon, Dawn delivers a high-performance floor that's comfortable, durable and easy to look after. The carpet tile is joined by Gleam in 306, used as an accent in the lift lobby to create a luxury feel. Surrounded by a ceramic tile border, the carpet tile is also made with ECONYL® and blends dull and glossy yarns for a chic mood. Nathalie Serdons, associate director London, Jigsaw Interior Architecture explains: "I'd certainly use these carpet tiles again. The scheme has been complemented by carefully selected art pieces on the walls for a look that's fitting of this high-end residential development."

0800 096 2702 www.modulyss.com

Sliding doors framed in style with Brooklyn



Available in a sophisticated matte black finish, the CRL Brooklyn frame system brings style and timeless elegance to sliding glass door partitioning for domestic and commercial use. In the domestic setting, CRL Brooklyn taps into the move towards open-plan living, acting as a practical partition between kitchen and living areas, for example, while ensuring that natural light can flow throughout. In commercial situations, the sliding door system is ideal for use in any environment where partitioning is required, providing an effective, simple to install and easy to use solution in locations where maintaining a sense of space is crucial. From a style point of view, the minimalist style of the matte black door frame has been developed within classic lines to complement a wide range of interior styles. CRL Brooklyn has many practical qualities, not least ease of installation. The system is suitable for dropped ceiling and fixed ceiling applications and allows for a vertical adjustment of +/- 3 mm. It even gives the option to install bi-parting doors with the use of an extra set of clamps. CRL Brooklyn has an enhanced double soft-close system, making it as smooth in operation as it is in appearance.

01706 863600 www.crlaurence.co.uk

Leading the field

SIMONSWERK is a leading hinge manufacturer with a history spanning more than 130 years in the manufacture of high quality brass, aluminium and stainless steel hinges for doors and windows. SIMONSWERK UK provides the architectural ironmongery and builders hardware industries with a combined supply source for over 4,000 catalogue items backed



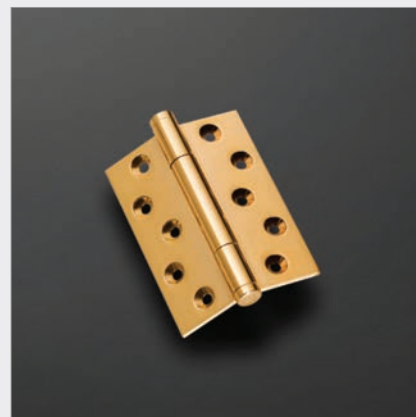
by their award winning customer service. The online ProductSelector function takes all the headaches out of selecting the right hinge guiding specifiers by a simple series of questions to home in on the correct hinge.

TECTUS Hinges - Concealed Perfection

TECTUS hinge systems offer an extensive range, multi award winning iconic design and precise engineered functionality. These fully concealed hinges allow for three dimensional adjustments for perfect door alignment, contain maintenance free bearings and present a flush fitting clean line design. Created for safety, with minimum pivot gaps to prevent finger injury, they are available in an unrivalled range of finishes and sizes carrying 40 kg to 300 kg door weights.

TRITECH Hinges - Strength & Elegance

The attractive solid brass TRITECH hinge with concealed bearings has quickly become



the hinge of choice for Architectural Specifiers. They offer a future proof 'fit and forget' product with a 25 year performance guarantee. TRITECH is suitable for heavy flush doors, is maintenance free, with a weight carrying capacity of 160 kg – Grade 14, and are available with CE marked 60 or 30 minute fire rated options and an extensive selection of 14 designer finials, seven standard finishes and 5 PVD finishes.

0121 522 2848 www.simonswerk.co.uk

Hunter Douglas at London Bridge Station



One of London's main railway stations, which underwent a £700 million redevelopment, features a blast-resistant ceiling from **Hunter Douglas Architectural**. It was specified to supply 300 m² of folded steel panel ceilings for the Kent Link escalator areas on two

levels. The scheme enabled the global architectural products provider to showcase its flat sheet steel – both perforated for acoustics with standard non-woven fleece on the rear of the panels and non-perforated – in conjunction with the Safety Loop installation system.

01604 648229 www.hunterdouglas.co.uk

StoVentec Glass creates striking appearance



Alex Wroe Photography

A major new UK centre for health-focused scientific excellence in Hull features a striking interior design created with the use of materials provided by **Sto**. RB's £105m Science and Innovation Centre has been constructed with the StoVentec Glass system used inside the building. StoVentec Glass reflects the natural light entering via the roof skylights to create an airy and open environment, while also contrasting visually with the exposed brickwork featured in this area. StoVentec Glass is supported by full BBA certification, and carries a wide range of impact and blast test approvals.

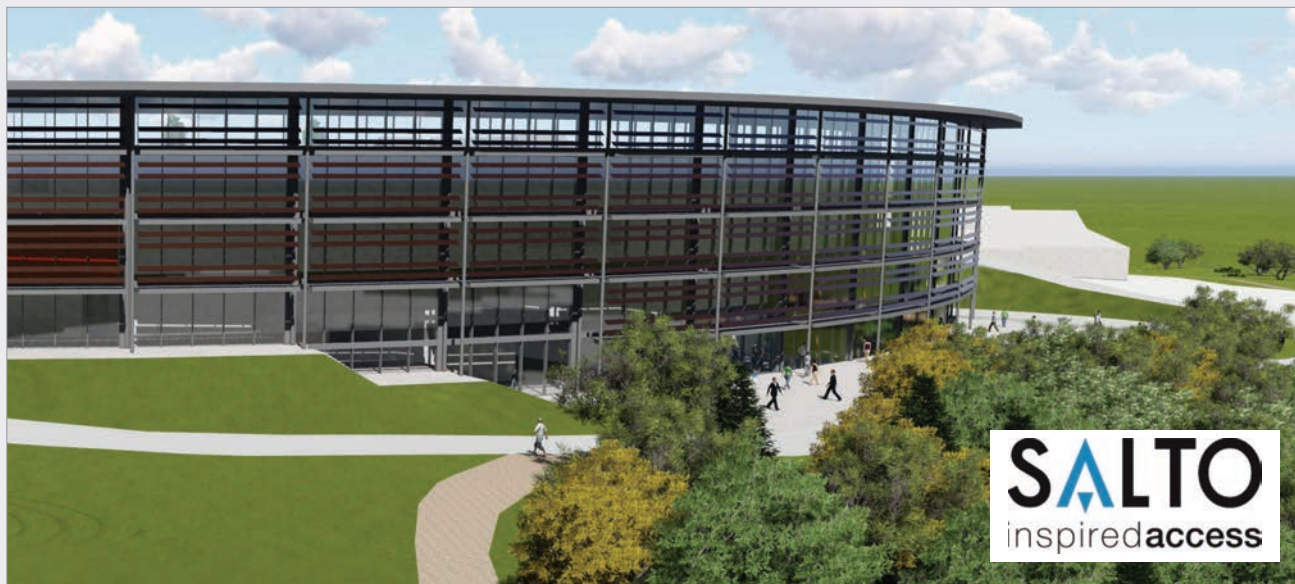
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Irish college selects SALTO to secure its new campus



South West College, the largest Further Education College in Northern Ireland, has selected SALTO and its partner company Doorways Architectural to provide the access control solution for its new multi-million-pound Erne Campus.

Located in the communities of Tyrone and Fermanagh in Northern Ireland, the College is physically represented at campuses in Cooks town, Dungannon, Enniskillen and Omagh. It employs over 900 full-time and part-time staff servicing around 18,000 enrolments and, with a turnover of £41m, makes a major contribution to the local and regional economy.

The new campus, which is situated on the site of the former Erne hospital in Enniskillen will open its doors to students and staff later this year having been delayed due to Covid-19, and will deliver additional first class facilities and accommodation for students and staff at South West College.

It will see the delivery of the first educational building worldwide to achieve the highest international standard in environmental construction – Passive House Premium. The application of the passive house standard is still quite new in the UK and in particular Northern Ireland ranking it alongside prestigious buildings such as the Apple Campus 2 in terms of sustainable innovation and design, and it

is also designed to achieve a BREEAM outstanding rating, confirming the college's commitment towards sustainability.

What did they need?

To ensure the safety and security of its students, staff and visitors the college needed a modern access wire free control solution that was future proof to allow for any future expansion and provide full control over who could access what, where and when. In addition, any proposed solution had to be easy to install, simple to operate, be able to grant access rights instantly and revoke them in real-time if and when required and provide full audit trail functionality.

To meet this brief Tracey brothers Ltd, the main contractors constructing the new campus, commissioned SALTO partner Doorways to supply and install the new access control system.

Solution and benefits

Robert McNeill, Doorways sales manager, comments: "Having made the decision to standardise access control on the SALTO solution, installation got underway with some 100 plus doors being secured. Product fitted includes SALTO XS4 One handle sets, mortise locks with projecting latches, strike plates, and simple to use SALTO BLUEnet software."

"This provides high level real-time access control throughout the campus allowing system administrators to manage doors and user keys in just a few easy steps, and in real-time. A SALTO Virtual Network (SVN) was also installed which provides the flexibility for the campus's access control system to grow as required."

Controlling access plays an important role in the security of any educational building and SALTO's innovative, wire-free technology allows stand-alone electronic locks to read, receive and write information via their operating smart cards. And, at a later date if the client chooses, they can also incorporate the use of JustIN Mobile technology making it easy and secure to incorporate smart phones as a part of their on-campus access control solution.

A spokesperson for South West College said: "Security is of paramount importance for all our students and staff. Doorways and SALTO understood our requirements to be successful – secure and safe. We needed a system where our new campus buildings felt safe but where our students have a sense of freedom – and our new SALTO technology provides that."

01926 811979
www.saltosystems.com/en-gb

New acoustic, smoke & fire seal brochure from Lorient

Lorient – a leading manufacturer of high-performance sealing systems is proud to unveil the latest edition of its popular: Acoustic, Smoke & Fire seals for Door Assemblies brochure. Founded in 1979, Lorient was responsible for introducing intumescent technology for fire doors to the UK & this new brochure showcases its extensive product portfolio of intumescent seals.

Gaps around the four sides of a fire door leaf are essential – it's the only way the door can open and close. But these gaps create a point of weakness, where fire can take hold and destroy the door, and lethal smoke can pass through. Intumescent fire & smoke seals are designed to expand when exposed to heat and fill the gaps between the door leaf and frame; preventing the passage of smoke and fire to other parts or compartments of the building. This allows more time for people to escape – reducing the number of deaths and property damage.

The new Acoustic, Smoke & Fire Seals for Door Assemblies brochure features a wide



range of intumescent seals and details their technical performance in a structured, clear format. Many of Lorient's door seals are multi-functional and can provide the highest standard of protection against sound (Approved Document E); smoke at all temperatures and fire (Approved Document B); while offering low frictional resistance for ease of door operation (Approved Document M). Finishing touches can make all the difference, at Lorient you have a choice of standard

colours and a range of beautiful woodgrain finishes to complement any project.

Highlights from the new digital brochure include interactive buttons that link directly to acoustic test reports, product certification, NBS Source; new FD30 and FD60 product applications; a product selector to help choose the right seals; FAQs and much more.

01626 834252
www.lorientuk.com

Yeoman Shield Anti-Ligature Guardian Handrails installed at mental health accommodation



Yeoman Shield recently supplied and installed a handrail system in an NHS Trust's seven mental health accommodation units. With a requirement for a handrail that was also sensitive to the nature of service users, an Anti-Ligature Guardian Handrail was chosen from the Yeoman Shield range to be fitted to corridor and passage way walls, offering both support as a handrail for those who may require it as well as a form of protection from impact damage to walls from footfall and wheeled equipment. Using a continuous fixing bracket running the full length of the handrail installation eliminates points where ligatures can be attached. Close fitting wall return ends ensures complete enclosure of all mechanical parts of the rail. Supplied in Red, the contrasting colour not only add to the interior decor but can assist in wayfinding. Manufactured from a rigid PVCu material Yeoman Shield's Guardian Handrail products do not promote the growth of mould or viruses and are easy to clean, being impervious to commercial cleaners. For more information on Yeoman Shield products suitable for mental health environments, please visit the website.

013 279 5854 www.yeomanshield.com

Temple Meads roof refurbishment work protected by FIREFLY™ fire barrier



A three year £24 million programme of works to repair and repaint the roof structure to Bristol Temple Meads railway station is featuring the use of the ZEUS Horizontal fire barrier system from TBA FIREFLY™: employed to enclose a series of shallow arch scaffold beams or 'cassettes' that span the tracks, thereby protecting the workforce from any potential train fire as they use the access deck above. These cassettes were assembled and installed by Network Scaffolding, a specialist division of main contractor, Taziker, before being wrapped and fire-protected using the ZEUS Horizontal: offering significant logistical as well as cost advantages over alternative solutions. FIREFLY™ ZEUS Horizontal 60:30 is able to offer 30 minutes' insulation and a full one hour's integrity in a variety of applications. Third Party certified by IFCC (certificate No 1532) Zeus Horizontal comprises a flexible fabric which is chemically treated to optimise its thermal properties and prevent the spread of fire. While it was actually developed to create compartmentation within hidden areas of buildings, such as roof spaces and floor voids, the system is also ideally suited for protecting the underside and vertical sides to the scaffold cassettes.

01706 758817 www.tbafirefly.com

Advanced lights the way at University of Bristol

The University of Bristol's emergency lighting upgrade continues with the installation of a further ten LuxIntelligent emergency light testing panels from fire and life safety system manufacturer, Advanced. The new equipment will be installed alongside 21 existing LuxIntelligent panels linked to around 4,500 light fittings, to ensure ongoing compliance with the BS 5266-1 code of practice for the emergency lighting of premises.

The LuxIntelligent panels will continue to be retrofitted across a range of university buildings, including seven halls of residences, using existing cabling. The ease with which LuxIntelligent can be used to replace outdated emergency lighting on existing sites allows significant time and cost savings to be achieved.

A variety of LED luminaires have been chosen from the wide LuxIntelligent range, to protect buildings with very different lighting requirements. They include downlighters, spotlights, exit signs and bulkhead lighting that complement equipment already installed



in the historic Victoria Rooms, the Wills Hall halls of residence as well as operating theatres and abattoirs in the veterinary college campus.

Matt Jones, emergency lighting business manager at Advanced, said: "It's fantastic to see our emergency light testing systems standing the test of time and being chosen for this major upgrade at the University of Bristol. We look forward to continuing to support the University as their future emergency lighting requirements grow."

LuxIntelligent from Advanced is an addressable, automatic emergency lighting test system, that shows all emergency lights are compliant and functioning, with no engineer involvement required. Each panel has up to four loops each, supporting 249 luminaires, and can be easily networked to work with existing wiring and luminaires, keeping installation costs to a minimum. The system also offers optional cloud monitoring and system management via mobile and web apps.

LuxIntelligent can be used with EasySafe, Advanced's latest range of addressable, low-voltage emergency luminaires and exit signs. Powered directly from the LuxIntelligent panel, EasySafe devices need no local power supply and are compatible with any existing LuxIntelligent luminaires and exit signs, enabling the easy installation of devices onto existing wiring to form one intelligent emergency lighting system.

0345 894 7000
www.luxintelligent.com

Firestopping solutions start with Sika



Sika's comprehensive range of passive fire protection solutions can restore the fire resistance of walls and floors disrupted by linear seals, cavity barriers or penetration services, helping to contain and control the spread of fire. Sika can also provide detailed

technical evaluations for more complicated joint specifications. Fully compliant with both national and international standards including EN 1366 and EN 13501, Sika's extensive range comprises fire-resistant sealants, coatings, wraps, collars, fire boards, compounds and ablative pads for both linear and penetration seals.

01772 259 781 www.sika.co.uk/passivefire

Superior pools from Bakewell Pools



Fibreglass pools are now firmly established within the swimming pool industry and it's not difficult to see why. Installation can be carried out by your builder and completed within a fraction of the time and cost of a concrete or liner pool. Bakewell Pools' range of superior

fibreglass pools are a one-piece reinforced construction with options for internal corner steps and automatic cover chambers. Insulation is now available to help with Building Regulations. Bakewell Pools is a family business that has been supplying fibreglass pools for 20+ years. Please check Bakewell Pools' website and visit its showroom.

01865 735205 www.bakewellpools.co.uk

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AG has reinforced its position as a market leader in sustainable construction by switching to bio-LPG energy resulting in a carbon saving of 70%. AG has one of the lowest carbon footprints in the industry and is committed to reducing the

environmental impact of its operations. AG switched to bio-LPG from the industry-standard LPG leading to the huge carbon saving. This is the latest in a series of sustainability initiatives which includes a longstanding dedication to producing a significant amount of their product range using recycled aggregates alongside locally quarried materials. If you would like to learn more about AG's products, please email marketing@ag.uk.com.

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nation's favourite pavers for patios and pathways. So, why not reduce that minimal maintenance to virtually nothing with a simplistic application of Resiblock Porcelain and Vitrified paving sealer?

www.resiblock.com

Poolside wellness

Steve Nelson of Certikin dives into one of the most crucial aspects of pool design that architects need to get right to make sure the environment is ideal for clients – the plant room

If you were planning on purchasing a sports car, the first thing you might notice is the colour, the styling and how great it looks overall. It may be a head turner, but what if the engine was not a suitable match? A car that looks fantastic, but has an engine that does not perform to expectations will not sell well, and will garner bad press and ultimately damage the company.

The same can be said for a swimming pool. You can design the most beautiful pool in the world, but if you do not size the plant room equipment correctly, you will end up with a pool that is cold and an environment which is hot and humid, making it feel uncomfortable. Or even worse, one that does not filter properly, which could result in the users getting ill.

The plant room and associated equipment are the pool's 'engine,' and are therefore crucial to its successful running. Starting with the basics – the flow and return fittings which take the water to and from the pool for filtering are available in a wide range of colours and finishes. However, it is important that you have the correct number to circulate the water in a timely manner, ensuring it remains warm and chemically treated.

Then take the pump and filter, the beating heart of the plant room. These must be specified to both the correct size and power to suit the type of pool you are building. They also need to be able to cope with the capacity of bathers whilst pumping the water to and from the pool. It is not just the case that one size fits all, and you need to ensure both the pump and filter are sized correctly, otherwise everything else will fail.

No one wants to swim in a cold swimming pool, therefore the next important piece of the project to consider is the heating. As well as whether the pool is indoor or outdoor, key questions are whether it is for summer or year-round use – what water temperature does the client want? There are a lot of factors, but it is



A residential training pool by Whitewaters

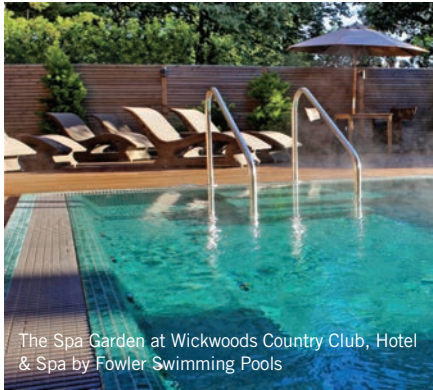
very important to get the answers to deliver the right solution.

For example, take an indoor pool with air handling to control the water and the wet humid environment. Specify this incorrectly, and you end up with windows steamed up and water running down the walls. Get it right and it will be a climate-controlled environment that is efficient and a pleasant place to enjoy the pool. For outdoor pools, size the heating wrong and you may never get the pool to the desired temperature, and will have very disappointed clients.

Sanitisation

When it comes to water sanitisation and the chemical balance of the pool, we all remember the old public baths or leisure centres where you would be hit with that

If you do not size the plant room equipment correctly you will end up with a pool that is cold and an environment which is hot and humid



intense smell of chemicals as you walked in. You want to avoid this, so how do we treat the water? The options are varied; do we use chlorine with constant monitoring and dosing, so the pool is always in the correct parameters. Alternatively, do you want to use salt to generate the chlorine? Or how about UV, Ozone or one of the many other methods available? There are so many choices but again it is so easy to select the wrong option and end up with a system that is not right for the pool.

Cover & maintenance

You need to carefully consider the clients' needs in terms of the cover – for an indoor pool do they want a slatted cover with its sleek looks? Alternatively, an outdoor pool is an automatic safety cover required for peace of mind that the pool is secure and cannot be accessed by children or pets when not in use?

Once you have tackled all these important choices, it is equally key to consider how the pool will be maintained. A swimming pool is an aspirational product for spending quality time at home. After designing the most fantastic pool environment, you don't want to ask clients

to spend two hours a week looking after it when the whole idea is to spend more time as a family enjoying it. Options to consider here are automation of the heating system, chemical treatment, and cleaning of the pool: all key factors to look at when designing for minimal maintenance.

It's advisable to look at those products that are tried and tested in the marketplace, and have survived the test of time and continue to constantly perform. This also applies if the client wants to enhance their pool space with the addition of a sauna, steam room or spa. The same criteria need to be considered as no one wants to sit in a cold sauna, a steam room with no steam or a spa without jets or bubbles.

Going back to the sports car analogy, from that first moment you saw it in the garage, to getting in for that first exhilarating drive, you want the whole experience to meet every expectation. The same aspiration is true for a swimming pool. From the first sight to that initial dive into the water, you just want it all to feel right.

Steve Nelson is commercial and international manager at Certikin

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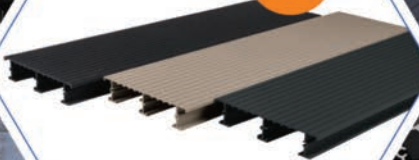
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Green-tech provides irrigation solution for rooftop planting scheme in London



80 Charlotte Street, in the exclusive Fitzrovia district of London is a mixed-use development featuring an impressive line-up of greening measures, all helping to achieve Carbon Net Zero status.

Having the kudos of being London's first all-electric building, 80 Charlotte Street is rated BREEAM 2014 Excellent and is on track to achieve LEED 2009 Gold, meaning that this cutting-edge building is expected to consume 25% less energy and generate 34% lower greenhouse gas emissions than the average commercial building. This impressive green performance is achieved while retaining much of the existing structure and facades and combining it with new.

One of the main goals for the building's designers, MAKE Architects, was to engender a strong sense of wellbeing for the office workers, residents and public that use it. As part of this commitment, the design allowed the inclusion of numerous roof terraces, both private and shared for the offices and residents, offering dramatic views over Fitzrovia including the BT Tower.

Green-tech were contacted by Barton

Willmore landscape architects, with whom they have a long working relationship going back nearly ten years, to quote for irrigation for the many planters that were required on two of the external terraces; part of a design developed by Piercy & Company Architects for a specific high-end tenant fit-out.

The most effective solution was to use Green-tech's Mona tank system. This subterranean reservoir system irrigates the soil through capillary action, reducing watering frequency whilst at the same time, aerating the soil.

With sizes from three to 24 litres, the Mona tanks can either be used individually or linked together in line, for beds and longer runs.

Each tank has two capillary legs that are back-filled with soil and reach down into the water inside the reservoir. Once filled via the filler pipe the tanks act as a reservoir, supplying water to the rooting soil via capillary action. As the water is taken up, the empty space is replaced by air through the filler pipe, acting as both irrigation and aeration. If the surrounding soil is damp, the tanks do nothing and the water is stored

– once the soil dries out, the water is taken up by capillary action into the soil, keeping it moist.

Over 200 tanks were supplied to the Landscape Contractors, Oasis Plants for the terrace planters, ensuring that the plants are kept well irrigated all year round.

Commenting on landscape supplier Green-tech a spokesperson from Barton Willmore Landscape Architects says: "We have worked with Green-tech for many years now, and they can always be relied on not only to help out at the front end with specification and cost proposals, but also provide a reliable service when it comes to supply."

Green-tech's specification advisor Alasdair Innes adds: "We have a great relationship with Barton Willmore, and it is particularly exciting to be involved on a project with such impressive green credentials. The Mona tanks do their job so well, I have no doubt that they will keep the terraces green and healthy for many years to come."

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www.green-tech.co.uk

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