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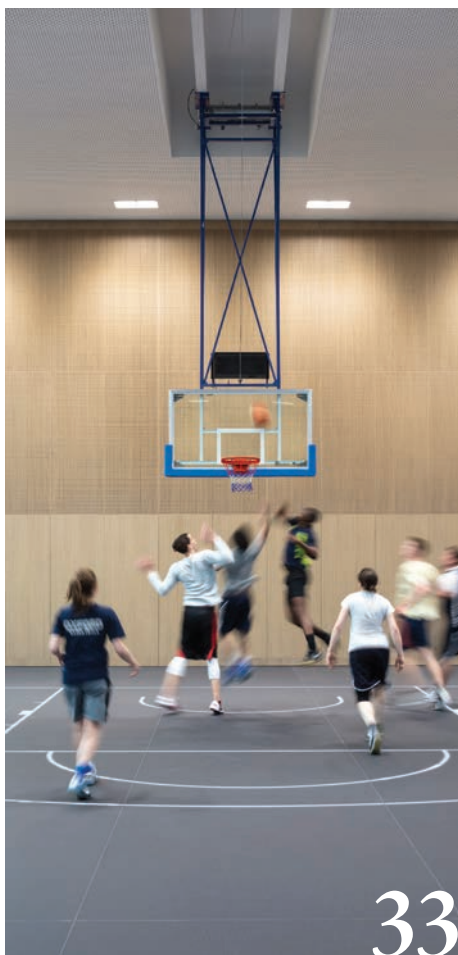
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FROM THE EDITOR



It's a fairly startling fact, but literally anyone can legally set themselves up as a housebuilder tomorrow, with no qualifications. GPs, who arguably only occasionally affect people's lives as fundamentally as people who build their homes, have to train for eight years. Architects, whose decisions do of course have qualitative impacts to a greater or lesser extent across the built environment, have a similar training gestation of around seven years.

The dwellings people live in fundamentally affect their health and safety. From how well they deal with moisture, overheating, or subtler factors like acoustic control – so many aspects can impact on the health of occupants. However, builders' contribution to this, not to mention whether a building is structurally sound, is largely unregulated, beyond Building Regulations compliance.

Although representing SME builders, The Federation of Master Builders (FMB) is taking a firm stand against this longstanding anomaly. It has long campaigned for higher (or any) quality standards for those who construct buildings, and for a quality bar to entering the industry to be erected. This organisation, which has successfully gained the attention of Ministers over the years, has now formed a powerful Task Force to create a mandatory (not a word often heard around housebuilding) licensing scheme for builders.

Alongside the FMB, the group also includes the Association of Consultancy and Engineering, the British Property Federation, the Chartered Institute of Building, Construction Products Association, Building Control, RICS, TrustMark, and Which? The body hopes to introduce legislation soon that will show this is far from just a talking shop.

At the initiative's launch, its chair Liz Peace said that "quality and professionalism is falling short. What we're trying to do is increase protection for the ordinary person who engages with the construction sector." According to FMB research, a third of homeowners are avoiding commissioning work completely due to worries about the quality of service they may receive.

The FMB, perhaps optimistically, believes most of the industry will welcome this new hurdle to jump over before they can begin selling their services. Liz Peace reckons that the key message is that "the good guys shouldn't be worrying, they will sail through the process and it'll actually make their lives easier."

However, it's true that the industry is facing a major shortage of SME building firms, as it continues to undershoot the 300,000 homes per year target. Bars to entry to the industry, even if well-intentioned regulation, need to be very carefully handled so they don't contribute to this problem.

The Public Accounts Committee's recent report on housing delivery was fairly stark on how the Government's ambitious targets were being hampered by local authorities failing to deliver housing plans, and that infrastructure delays were holding up developments. While many housebuilders are struggling to build the homes called for, whether the timing is ideal for an industry clean-up, overdue or not, is debatable.

James Parker

Editor

**ON THE COVER...**

The LocHal by CIVIC Architects is an adaptive reuse project which presents a 'new chapter' for public libraries, offering much more than just a repository for books to the city of Tilburg

For the full report on this project, go to page 42
Cover Image © Stijn Bollaert

LIBRARY

FaulknerBrowns appointed to fit out Nottingham Central Library

FaulknerBrowns Architects have been appointed by Nottingham City Council, following a competitive tender process, to design the internal fit-out of the city's new Central Library. Located in the new Broadmarsh Car Park building, the Council's ambition is for the new facility to include "the best children's library in the country."

FaulknerBrowns have an international reputation for innovation in library design. Their first library building built in 1963 – Jesmond Library in Newcastle upon Tyne – is now Grade II listed, "having influenced a generation of public libraries in the UK," said the firm. Since then the practice has continued to "push the building typology to meet the changing needs of society."

The practice's two most recent library buildings, Hebburn Central and The Word in South Shields, received national awards from the RIBA in 2016 and 2018 respectively. The Word "represents a real paradigm shift in the community library building typology," said FaulknerBrowns, adding that it's "a library for the 21st century, celebrating the dynamic relationship between people, books, traditional media and interactive technologies, in a truly inspiring environment."

The new announcement of a new library in Nottingham marks further progress in the major development of the city's Southside area. Contractors are on site at the Broadmarsh Car Park site, as well as work underway at intu Broadmarsh and Nottingham College's new Skills Hub taking shape.

Councillor Dave Trimble, portfolio holder for leisure and localities at Nottingham City Council said: "We have committed to building a new Central Library and the best children's library in the country, and to bring on architects with the track record of FaulknerBrowns is exciting for the city."

"The Word in South Shields is a fantastic building that has helped to regenerate the area and has brought more local people



Images © Hutton+Crow

into their library and more visitors from across the country, and we look forward to seeing the proposals they put forward for Nottingham."

Steve McIntyre, partner architect for FaulknerBrowns, said, "We are extremely

pleased to have this opportunity." He added: "We are excited by the Council's ambition to create a library for the future – a destination in the heart of Nottingham city centre to inspire visitors of all ages."



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CANADA

A 'piece of paradise'

Architectural practice Espace Vital has completed a new residence located in Potton, Canada. Perched up high near the edge of a steep slope, the contemporary dwelling creates a “contrast and a duality between opaque areas hidden from sight and living areas bathed in light,” the architects commented.

The practice said the project “is a perfect representation of Espace Vital’s trademarks with its minimalist design, balanced with warmth and its aerial roof overhang.”

Nested on a site overlooking Lake Memphrémagog, near Owl’s Head ski resort, this property represented the ideal location for the owners. The Montreal couple were looking for “a piece of paradise” near the mountains and the lake to enjoy winter activities during the cold season, as well as boating during warmer months. They wanted a house big enough to entertain friends and family while having all their living quarters on the same floor.

The architects commented that when they visited the site for the first time, they realised that the major challenge would be to design a layout in a relatively narrow strip of ground bordered by the cliff and the road.

“The footprint we could build the house in was not very big,” explained Paul Faucher, architect and associate at Espace Vital. “Furthermore, even if the road is not very busy, we wanted to design a curved driveway to maximise intimacy and create discovery when approaching the residence,” he adds. The concept is basically a two faced building with the street facade being opaque and the opposite facade being fully



transparent and in contact with nature. This maximises the “cocoon effect” which was desired by the owners.

The driveway gives access to the enclosed volumes of the garage and the main building enhancing the “surprise” effect. Upon entering, the large vestibule does not allow visitors to right away fully appreciate the layout, which is completely open towards the scenery. It is only once inside the main living spaces of the main floor that one discovers the spectacular views towards the forest and the lake.

Living on one level

The owners, who plan to occupy the house for their retirement, wanted all their main living areas accessible on the ground floor, without stairs – including the master bedroom – meaning their guests and family would have the lower level to themselves.

The architects imagined a house that takes advantage of the natural grade of the site, which allowed the owners to occupy the same level as the entrance. This floor houses the main living areas, as well as the master bedroom. All the spaces feature floor to ceiling windows. Also fully glazed because of the slope, the lower level houses two guest rooms, a full bathroom, a living room and a gym. Everywhere in the house, circulation is fluid, and avoiding long corridors optimises space. On the inside as well as on the outside, wood was favoured to bring warmth to the clean lines. “We chose pre-stained red cedar cladding to reduce maintenance and maximise durability. On

the inside, natural wood is also used for accents and on the ceiling, bringing a sense of continuity with the overhang and the terrace,” explained Paul Faucher. “Above all, in all the rooms, even in the bathrooms, the view is breath-taking.”

The clients were initially “seduced by a house featuring a huge suspended bay-window, like an observatory,” which they saw in Espace Vital’s portfolio. This prompted them to contact the firm to design their residence. “They wanted their own glass cube perched among the trees and to be able to enjoy and observe the natural environment,” added Paul Faucher. Annexed to the living room, this cube, along with the huge windows, gives the impression of space flowing from the inside to the outside.

Finally, in order to protect the rooms from direct summer sunlight, a large roof overhang was created towards the south and the west, and tapering off to the east, giving the building its dynamic and distinctive look, and providing shade for energy efficiency. By the same token, the large windows include triple glazing for enhanced insulation during winter and for minimising heat gains during summer.

In the end, considering a relatively limited budget, the optimisation of the layout and limiting the size of the rooms allowed the architects to design an elegant, contemporary and warm residence, one that is open to the natural environment. It offers the occupants an ideal and peaceful getaway for their weekend escapes as well as for their retirement.



Images © Stéphane Lemire

EVENTS

AWARDS

Architecture MasterPrize
14 October, Spain
www.architectureprize.com

EXHIBITIONS

Open House
21 - 22 September, London
www.openhouselondon.org.uk

SEMINARS

Passivhaus Course
17 July, Birmingham
www.architecture.com/whats-on

TRADE SHOWS

100% Design
18 - 21 September, London
www.100percentdesign.co.uk

Decorex International

6 - 9 October, London
www.decorx.com

Healthcare Estates

8 - 9 October, Manchester
www.healthcare-estates.com

WORKSHOP

RIBA Summer School - Artistic Responses to Architecture
22 - 26 July, London
www.architecture.com/whats-on

HOSPITALITY

Bankside vegan restaurant refurbished

Emrys Architects have finished the refurbishment of popular vegetarian and vegan restaurant, Tibits in Bankside, London. A full refurbishment of the ground floor of the Grade II Listed Victorian mansion block, and a new glass extension into the rear courtyard, “sets the scene for a unique, healthy dining experience,” said the architects.

Together with German-Swiss architect Oberholzer & Brüschweiler, Emrys were approached to re-think the look and feel of the restaurant while retaining key design elements of the existing brand. The result is “a vibrant and ambient space with a warm and lively palette of finishes,” located just a short walk from the Tate Modern.

The interior of the former retail unit was stripped back to the original brickwork to achieve the industrial character which is an intrinsic part of the brand. Colourful wallpapers, bespoke artwork, textured fabrics and soft lighting were then added to balance the industrial edge of the space and bring ambience to the restaurant.

The new garden extension into the existing rear courtyard of the building maximises space and accommodates the main seating area. Made primarily of glass, the structure allows maximum light to penetrate the space, giving the impression



© Alan Williams

of eating outside, and allowing a view of the tree tops and sky above.

Central to the floor plan is the restaurant’s iconic ‘food boat,’ featured in all Tibits restaurants, which displays the food buffet and acts as a focal point. A compact but efficiently designed kitchen is discretely located on the lower ground floor level. Customer toilets on this level are characterised by boldly decorated traditional cement tiles and a bespoke concrete trough style sink. A homely private dining room catering for larger parties is also located on the lower ground floor.

EDUCATION

Omagh school is county’s first Integrated Education Campus

TODD Architects have completed Omagh Integrated Primary & Nursery School. The £7m new build Omagh IPS, combined with the adjacent existing Drumragh College, forms the first Integrated Education Campus serving the Tyrone region. The new addition marks a major milestone for the school and local community, as they have been campaigning for this new building for 30 years.

The architects engaged with the school’s principal, teachers and parents to create the most effective, efficient, sustainable design to facilitate

flexible teaching needs and to suit its rural context.

The school comprises 14 classrooms for over 330 students. Located on a greenfield site on the outskirts of Omagh town, both primary and nursery school benefit from a new access road, cycle path, car and bus parking with dedicated drop-off provision. Teaching areas are complemented by generous hard and soft play areas with a central sheltered courtyard and associated landscaping.

Internally a resource area provides a key node point to each corner of the courtyard, with access to an



accompanying multipurpose hall and dining facilities.

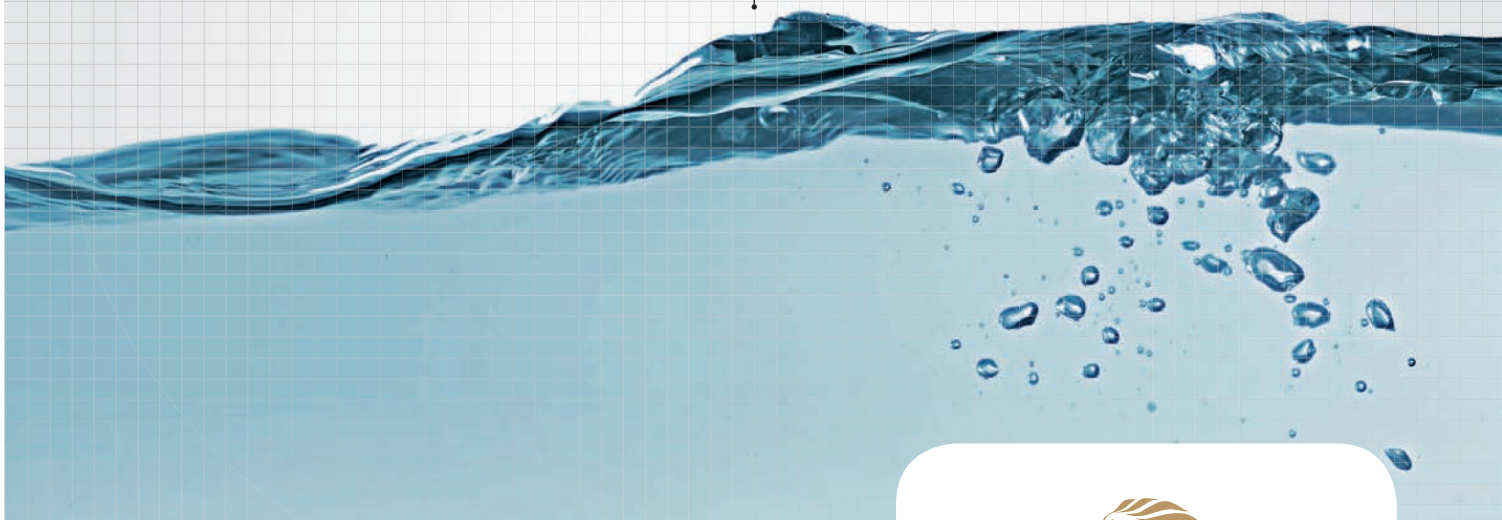
The new build addition comprises a single-storey pitched roof design which provides cross ventilation and dual aspect natural daylighting to classrooms. The multi-purpose hall and preschool resource rooms are expressed as higher volumes, given their variable purposes.

The inner landscaped courtyard offers a multi-use flexible space with low maintenance landscape features, which can offer class groups a sheltered external resource and learning area.

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BOOK

Challenging ideas on wellness

Inspired by talks on evidence-based design for wellbeing, 'Wellbeing in Interiors' by RIBA Publishing is the result of over a decade of research, "funnelled into a book that is both a philosophical guide and a practical reference for interior designers, architects and sustainability specialists," said RIBA.

Design and sustainability director of Grigoriou Interiors, Elina Grigoriou has "delved into the intrinsic value of what wellbeing actually is, how it comes to be, and how it can be influenced and perpetuated by designers."

Filling a gap in the current specialist book market, 'wellbeing' as a concept is "deconstructed to enable interior designers and project teams to better understand, and therefore deliver wellbeing to their clients, and implement specific decisions about sustainable design and materials on a day-to-day basis." Each section of the book ends by placing each issue into context, exploring how it is a part of sustainable design.

Designing with the end user in mind has "resurfaced in architectural digest to become a foremost consideration, with standards such as The Well Standard coming increasingly into discussion and becoming an objective for developers," said RIBA. Designers need to make buildings 'healthier'; sustainable places of wellbeing, with fewer stress factors.

However, as Edward Dixon, sustainability insights director at Landsec, noted, "A deep understanding of the user... cannot be achieved through simply adhering to the myriad standards and benchmarks concerning wellbeing in the built environment."

Though it challenges many preconceived ideas of good design from the past 20 years, the book is designed to be accessible. Split into five key parts, it is "highly illustrated," featuring "prompts" for designers to implement improvements with each chapter.



EDUCATION

AHR-designed engineering research facility completes

An AHR-designed advanced engineering research facility for Swansea University has reached completion. The Institute for Innovative Materials, Processing and Numerical Technologies (IMPACT) is part of the university's strategic expansion of the College of Engineering and, as a Centre of Excellence, will provide a unique colocation facility for academia-industry partnerships in ambitious research and development.

The "transformative" design combines laboratory and office space for top talent to partner up and conduct world-leading science in the fields of advanced engineering, modelling and materials.

IMPACT will seek to tackle "bold challenges" such as the generation of renewable technologies, creating novel materials, and delivering the "fourth industrial revolution" in manufacturing.

A living wall made up of 5,500 plants on the building's exterior "reflects the growth of knowledge through rich biodiversity for onlookers to enjoy," said the architects, as well as wildlife, with nest boxes for swifts, sparrows and bats. The design has utilised

renewable energy technologies wherever possible, with features including the integration of solar thermal collector technology into the facade "in a way that has not been implemented before," the architects added.

Gary Overton, director at architecture and building consultancy practice AHR, commented: "As a powerful, collaborative environment, we approached the design for IMPACT in a way that prioritised a multidisciplinary way of working throughout. The environment stimulates ingenuity by working with the people inside, embedding connectivity between core research areas so that the industry and academia feel like the spaces are encouraging them to work together as one. We're delighted with the result and especially excited to hear about the inspiring work that will be taking place at the facility."

The project follows the success of the neighbouring Computational Foundry building, also designed by AHR, which opened earlier this year. The two major new buildings at Swansea Bay Campus establish a global destination for research at the university.

AHR's expertise in higher education design has seen the practice recently shortlisted for the Education category in the 2019 BD Architect of the Year Awards.

IMPACT will seek to tackle 'bold challenges' such as the generation of renewable technologies

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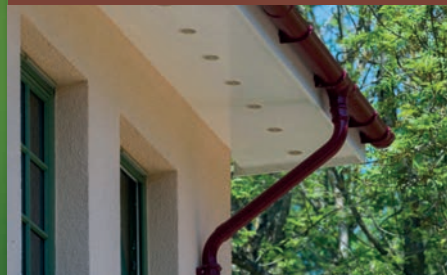
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DISRUPTOR

Scottish residential start-up aims to become the ‘Uber of architecture’

HOKO Design has taken its first steps in becoming the “Uber of architecture” after opening a debut office in Glasgow city centre and completing a successful recruitment programme, which has seen the start-up launch with a team of six.

Designer Danny Campbell has launched a company with a goal to “transform residential architecture in the UK by making it accessible to everyone.” The 28-year-old entrepreneur has ambitious growth plans and aims to make HOKO Scotland’s ‘go-to’ firm for residential architecture within its first year of trading. The start up has signed up to a new 600 ft² office in Bridgeton, and already has 15 projects on its books, a few weeks after launch.

By offering clients a free online automated consultation to build a “clear, transparent and immediate quote,” which includes all associated fees, including construction, HOKO said it has “transformed the project process while significantly reducing costs for both the client and the architect.”

Once a project is underway, clients can view live project updates, track and view drawings, and other special features. The use of latest industry developments, including virtual reality technology, will also be used to help homeowners visualise exactly what a finished project will look like, at no added cost.

Campbell said, “Residential architecture is dysfunctional, and the customer journey is impeded with risk and inconsistencies. Architects spend a vast amount of their billable time on admin, that’s not efficient, while the current system leaves homeowners feeling confused. We’ve built our company to tackle these problems.”

The company founder added: “We’ve identified a gap in the market. There’s a huge demand for residential architecture; because of changes to stamp duty, homeowners see the potential in adding value to their own property, rather than securing more space by moving. What we provide is a platform which makes it easier for architects to spend their time doing what they’re trained to do,



Danny Campbell

in a way that is transparent and efficient for our clients.” Campbell concluded: “Ultimately, we want to change how homeowners experience architecture, and how architects work. The current model is broken, and we want to fix it.”

The move comes at a time when architecture firms are taking inspiration from the finance and legal sectors by adopting the use of modern technology and methods to reduce admin time and place a higher value on their billable time.

Rather than dealing directly with architects, homeowners will liaise with ‘client buddies,’ increasing cost effectiveness by reducing architects’ billable hours. Meanwhile, an advanced CRM system, a close customer-client relationship, and a seamless client platform will streamline the process, making it more consumer orientated.

Although initially the business will operate in Glasgow and the surrounding areas, Campbell hopes to grow the client base to more than 250 in greater Glasgow alone, with plans to scale across Scotland.

SPORT & LEISURE

Fresh look for Norfolk leisure centre

Saunders Boston Architects have completed the £1.5m renovation of Long Stratton Leisure Centre in Norfolk. Working alongside Alliance Leisure and main contractor Etec Group, Saunders Boston designed the development to increase health and wellbeing in the local community by improving the existing facilities of the leisure centre and providing a variety of “exciting new additions.”

The renovation incorporates an 80-station gym, including a sprint track and fitness rig, two fitness studios, a four court sports halls, and a floodlit

3G artificial grass pitch, as well as new changing rooms and shower provisions.

Based on market knowledge and insight, Saunders Boston Architects designed the leisure centre to provide “much more than just a place for exercise” by incorporating a two-storey extension that features a new cafe, a soft play area and multi-purpose studio spaces. The combination of facilities ensures all members of the community have the opportunity to participate in an active lifestyle, while also being able to relax and socialise.

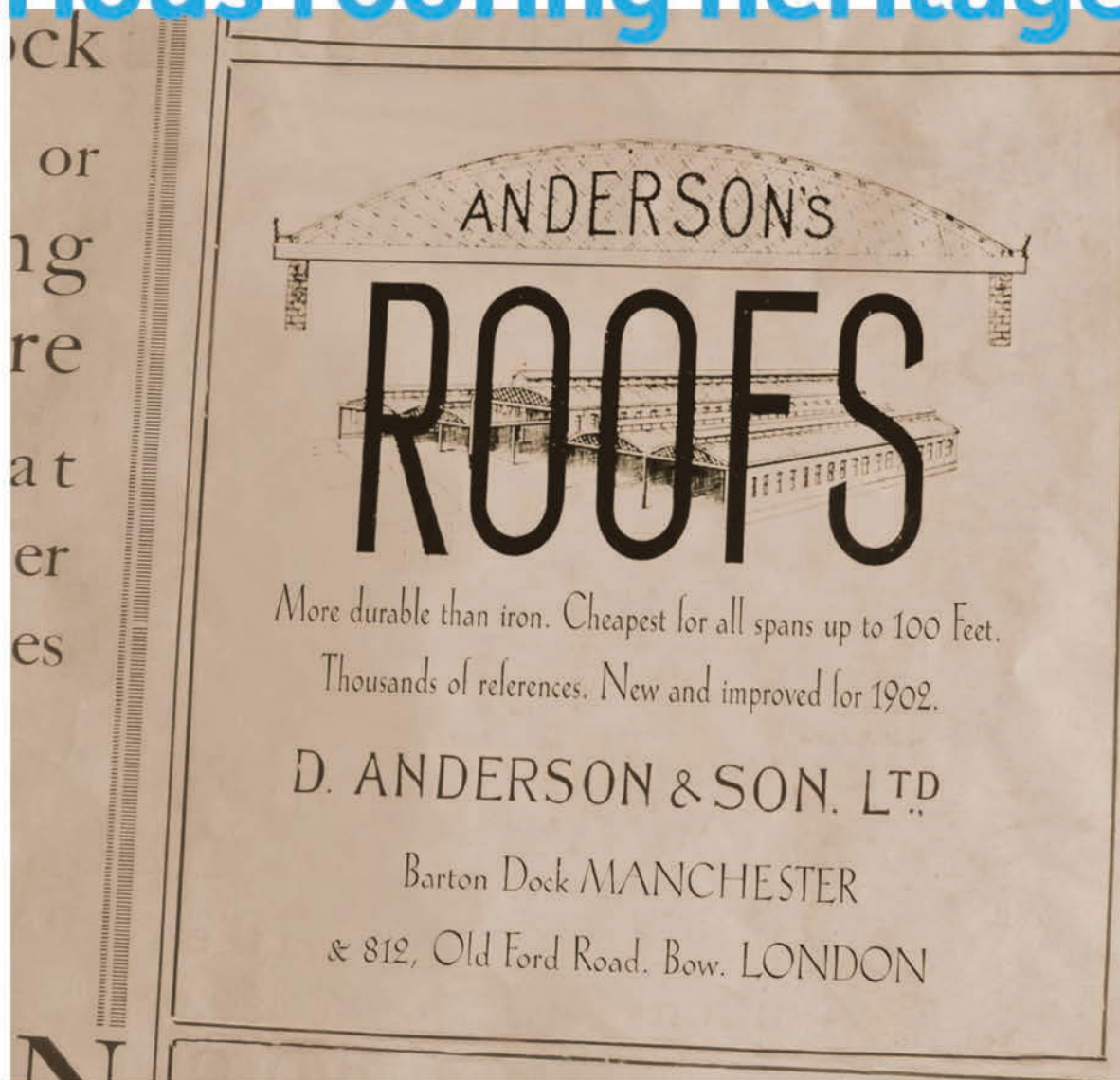
Nathan Swift, director at Saunders



Boston Architects, said, “Our design for the leisure centre has a community focus at its core; so seeing the work completed and in use is the most exciting and rewarding moment of the project – we can’t wait to see the benefit in the local community.”

The leisure centre was designed to not only improve existing facilities, but also meet the needs of new residents who will inhabit the 1,800 planned homes to be built in the village.

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RESIDENTIAL

Organisations back first National Housing Design Audit

With the drive to deliver more homes across the country, has come a “loud call for those developments to be of a high standard of design in order to deliver high quality, liveable and sustainable environments for residents,” from a range of organisations which are combining to back the what’s being hailed as the first national housing design audit.

The Place Alliance (UCL) has joined forces with the Campaign to Protect Rural England (CPRE), with support from the Home Builders Federation, Urban Design Group, Civic Voice, Academy of Urbanism, Design Council, UK Green Building Council, and Institute for Highways and Transportation, to produce the national housing design audit. The work is also supported by professional input from Arup, JTP, Spawforths and URBED and a “network of specially trained volunteers” across the country.

The audit will be a “systematic approach to assessing the design quality of the external residential environment,” said the Place Alliance/CPRE. The group said it will assess at least 100 large-scale developments across England and “provide enough data for comparisons to be made between regions and different approaches to the delivery of new housing.”

Using “broadly the same methodology as earlier housing design audits conducted between 2004 and 2007,” the intention is “to look back and see how the design of housing developments has changed over the last decade.” It will also provide a baseline against which to measure progress on place-making in new housing development going forward.

The audit will be completed in the autumn and will feed into the work of the Government’s Building Better, Building Beautiful Commission.



MIXED USE

Pilbrow & Partners wins Old Kent road regeneration

London Borough of Southwark has approved plans by architects Pilbrow & Partners for a mixed-use regeneration scheme on Old Kent Road, on behalf of Strathclyde Pension Fund. The proposal comprises 724 residential units – 35 per cent being affordable – across six buildings ranging from nine to 48 storeys, as well as a 195-room hotel, retail development and a cinema.

Fred Pilbrow, senior founding partner at Pilbrow & Partners, said, “Set adjacent to the future Bakerloo Line station and facing Burgess Park, the site is a natural heart to the new town centre proposed in the Southwark Area Action Plan. Our vision is to create a vibrant and inclusive urban quarter around a new public space, which

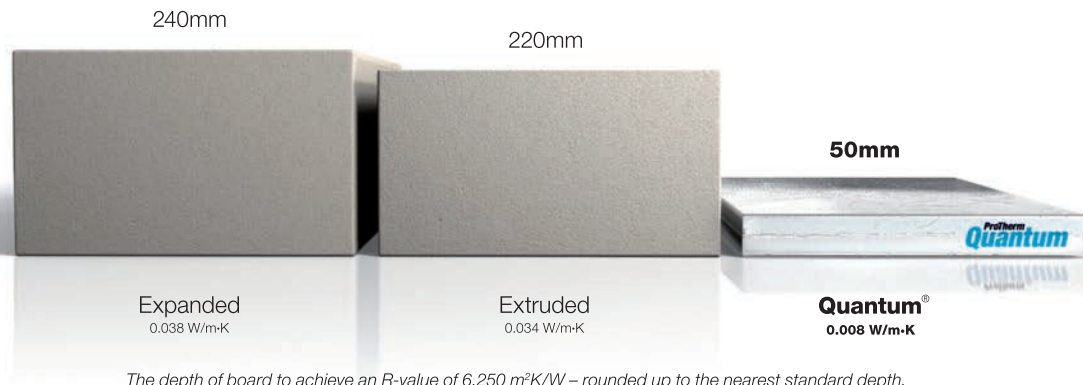
will act as the catalyst for the wider regeneration of the Old Kent Road. We are very pleased the scheme was approved unanimously by Southwark.”

The proposals “respond to the existing and emerging characteristics of one of London’s most dynamic districts,” said the architects. “Well-defined urban blocks underpin a robust and clear sequence of new public routes and spaces. This will greatly improve connectivity within the opportunity area, with the development becoming an important gateway between the station and the new public square at the heart of the neighbourhood.” They added: “These spaces are brought to life by the ground-floor frontages of the new buildings and will transform the currently unwelcoming pedestrian environment.”

A “vibrant polychromatic hotel facade” on the Old Kent Road forms a visual gateway to the new district, aiding wayfinding to the new underground station. A grand lobby, a cafe and co-working spaces at the ground floor create a welcoming entrance to the hotel. A roof level sky bar will have “panoramic” views of the adjacent park.

A vibrant polychromatic hotel facade on the Old Kent Road forms a visual gateway to the new district, aiding wayfinding to the new underground station

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CULTURAL BUILDINGS

Winning design revealed for Salford cultural hub

Flanagan Lawrence has unveiled its winning design for a scheme to transform Salford's Maxwell Hall for the University of Salford. The project will create a world-class music, conference and performance venue for both students and the wider community, while providing a landmark building along Salford Crescent and the A6 corridor.

Maxwell Hall is part of the ambitious £800m Salford Crescent Masterplan, jointly developed by the University of Salford and Salford City Council to "outline the vision for a new city district in the heart of Salford."

The redeveloped hall will "provide an ideal venue for industry collaboration in the cultural industries," said the architects. It will also provide an opportunity for students to work hands-on in event management, hospitality, front-of-house, sales and marketing, and customer care, as well as a wealth of roles associated with the production and delivery of cultural events including sound production, set design, performance and broadcasting.

The redevelopment of Maxwell Hall will add to a growing list of cultural assets in Salford, including successful arts venue Islington Mill, Sounds of the Other

City music festival, and the continued growth of the creative and digital sector at Salford Quays. Developing new cultural opportunities is at the heart of the Masterplan and the Salford Culture and Place Partnership – a collaboration between the University, The Lowry, the City Council and other partners – has been established to drive cultural activity and economic growth across the city.

Huw Williams, COO at the University of Salford said, "This is very exciting announcement for the university and the whole of the city. We are committed to create a vibrant space for the whole community."

"As the centrepiece of our campus and with its proximity to the A6, the Salford Crescent Masterplan has identified the need to retain and redevelop Maxwell Hall as a cultural and performance venue for both students and the general public, as well as creating new spaces for conferences, events, short courses and executive education."



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MIXED USE

Planning granted for industrial-inspired mixed use development in Southwark

SPPARC has won planning permission for its design for a new housing and mixed-use development on Verney Road in Southwark. The scheme will create a series of three buildings orientated along a lateral park on a brownfield site in the heart of the Old Kent Road Opportunity Area.

Positioned in what was once the industrial hinterland of the Grand Surrey Canal, which was home to sawmills and felt works amongst other trades, Verney Road will deliver 5,234 m² of flexible commercial floor space alongside 338 residential dwellings including affordable housing. The commercial space will provide independent co-working incubator spaces, with frontages that will be “visually permeable” to provide interest on the street and across the courtyards, said the architects.

The Verney Road scheme takes the form of three street-facing buildings which will provide coherence to an area which is currently quite fragmented. Layered to varied heights, the massing of the taller elements takes into consideration existing neighbouring buildings, particularly an 18-storey residential neighbour. This contextual response to the changing scales of the area, has resulted in three buildings between 16 and 22 storeys, layered by the commercial uses at a lower street level which fronts onto Verney Road. The taller elements line the lateral park.

The development creates open communal pathways through the site to the public spaces, which follow the route of the now vanished Grand Surrey Canal. This public realm is overlooked by projecting balconies that provide “texture and rhythm to the facades,” and enable community integration. Play spaces within the landscape will provide a range of stimulating environments specifically designed for different age groups. These will be housed in a green corridor between the buildings. Combined, the generous pedestrian walkways, courtyards, play areas and green lateral park support the wider regeneration objectives for the Old Kent Road Opportunity Area and will be open to both residents and the public.



The industrial heritage of the area provides “important influences” for the design of the scheme. The highly articulated facades of the three buildings appear to be formed of stacked blocks in the form of cantilevered balconies, inspired by the stacked lumber yards which once lined the Grand Surrey Canal nearby. In addition, the motif of timber formwork will be left exposed across the surface of external balconies as a “further reminder of the timber working that was once such a mainstay of local working life.” Masonry corners “define the street scene fronting Verney Road and take reference from the robust masonry warehousing that once dominated the area.” Further nods to the

industrial past are found in the detailing of the large format windows with vertical glazing bars and frames set within deep cast reveals.

In contrast to the historic buildings of the past, the proposal has been conceived to be an exemplar of energy efficient and sustainable design through its approach to facade detailing responding to orientation and the considered use of materials.

Trevor Morris, principal at SPPARC, said, “Working within the context of this extraordinary historic area of London has been a voyage of industrial discovery. We are very excited by the potential for this scheme to add enormously to the borough, both in terms of amenity, design intent and community cohesion.”



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MIXED USE

London resi/hotel/event venue approved

The proposed redevelopment of the Kensington Forum, a new landmark hotel, serviced apartment and conference scheme on Cromwell Road has been granted planning permission by the Mayor of London, Sadiq Khan.

Designed by architects SimpsonHaugh, the proposal will replace the existing 906 room hotel, recognised as a local eyesore, with an “exceptionally high-quality development, said developer Queensgate, providing “outstanding facilities including restaurants, bars, health spa and conference facilities, vital to supporting London’s continued role as a world city and major global destination for business events.”

Kensington Forum will also deliver “substantial public benefits for both the local and wider community.” It is hoped it will create over 800 employment opportunities and will include 62 “genuinely affordable” social rented homes, (reportedly worth £90m); it’s



thought to be the first private development in the capital to deliver 100 per cent ‘genuinely affordable’ homes). This means it meets a “clear and pressing need in the Royal Borough of Kensington and Chelsea,” commented Queensgate.

Alongside the hotel will be a new,

publicly accessible and “sensitively designed” 2,700 m² garden square which will be the only publicly accessible green space within a kilometre. A further £2.8m will be put towards public realm improvements around Gloucester Road station.

THE ANNEXE





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VIEW POINT

Dr Gavin Dunn of the Chartered Association of Building Engineers (CABE) looks at how the discipline of the ‘the golden thread’ from the Hackitt review is fundamental to ensuring building safety from design through construction to occupation

One of the key issues of the Hackitt review was the ‘golden thread’ of design, construction and occupation, and what happens to buildings once they are handed over. How do we minimise the gap between these phases and ensure we create buildings that meet client expectations and do what they are supposed to do in terms of operation?

The key point Hackitt makes is that the provision of critical technical information to future building users is essential to the safe and efficient ongoing operation of a building. Many decisions made at the construction and design stages fundamentally affect how buildings should be managed and more importantly, how they should be managed during an emergency.

The review also highlighted the complexity of both the construction and procurement processes, and correctly identified the ‘fragmentation’ within the industry. There is a lack of clarity on roles and responsibilities, and ambiguity over where responsibility lies. Those people who are involved at the beginning of a project, whether they are a local authority or a client, are not necessarily there at the end. Therefore, the people who are signing off conditions or substitutions may well be a new team and therefore not privy to the original safety strategy.

Information continuity

The original design intent, and the actual information on what has actually been built, is not ending up in the hands of the people who need it in the future in a useable way. It is often the case that building logbooks are not maintained and kept up-to-date. This issue is compounded further if the building changes hands over time, and the critical information needed by key stakeholders to manage an asset





In order to ensure and guarantee that this 'golden thread' of information is provided, there also needs to be an implicit thread of responsibility that hands over at every point in the lifecycle of a building – and clarity is needed on who is responsible for that critical safety information at every stage

efficiently and safely is getting lost. Even if it does exist, it is invariably not in a useable format or in the right person's hands. Ultimately, it's about information and the flow of information across the different stakeholders during the lifetime of a building. People need to be armed with the correct information about a built asset so they can make informed decisions about how to run and manage a building safely and efficiently.

A golden thread of responsibility

In order to ensure and guarantee that this 'golden thread' of information is provided, there also needs to be an implicit golden thread of responsibility that hands over at every point in the lifecycle of a building – and clarity is needed on who is responsible for that critical safety information at every stage. A named professional involved in the design phase will have responsibility to not only collate that information, but ensure it is documented correctly and handed over to the next responsible person, and ultimately the person managing the building.

There are three key roles, which we believe will be part of the regulatory process. These are the principal designer (or safety officer for the designer), principal contractor and building manager. Competency of these individuals will be closely monitored, defined and scrutinised and needs to encompass responsibility on the building owner also to ensure competent persons are appointed.

For every building there needs to be a

named individual who is responsible and accountable for this critical information and ensure it is not lost. Digital technology, i.e. Building Information Modelling (BIM) and blockchain have a key role to play in ensuring the information is correct, available to all future stakeholders and kept up-to-date and available in a format that can easily be used by multiple parties into the future. Ultimately the availability of this information will also likely be used to more precisely assign accountability in the future if things go wrong.

While we don't yet know what the new regulatory regime will be, it's likely these roles will need to be demonstrably competent, and that the use of UCAS certified individuals or members of Engineering Council approved bodies will be necessary.

As an engineering body representing technical specialists across buildings and becoming a member of the Engineering Council ourselves, CABE is well placed to support members who wish to undertake these roles. Competency was a clear theme of the review and something the industry has been quick to support. Buildings are inherently complex and sophisticated, which is why competency is needed throughout the whole design, build and operating process.

New chartered ground

The Engineering Council formally recognises building engineering as a discipline in its own right. It clearly defines chartered building engineers as

professionals that use engineering principles to apply technology, innovation and technical standards to buildings to ensure that they are safe, efficient and healthy places for people across its entire lifecycle. What better definition of the golden thread could there be?

The benefits of getting this right go way beyond simply fire safety. They also include broader health and safety, building performance, occupant comfort, wellbeing along with energy use, climate and environmental impacts, running costs and asset value.

The idea of the 'golden thread', or performance gap is just the latest incarnation of a set of issues that has plagued our industry. CABE was founded in 1925 by a group of professionals including Sir Edwin Lutyens, as the Incorporated Association of Architects and Surveyors (IAAS) to create a technical forum that brought together those professionals involved in the design (i.e. the architects) and those overseeing the construction and existing buildings (i.e. the surveyors) because it was felt the industry was too siloed, even back in 1925.

The Hackitt review should be seen as a turning point, and while there is still much to do as an industry, CABE and its members are uniquely placed to ensure change happens and can play a significant role in ensuring the golden thread of design intent is preserved, thus creating a better and safer built environment.

Dr Gavin Dunn is chief executive of Chartered Association of Building Engineers (CABE)

SITE LINES

The power to choose

An award-winning Passivhaus Plus in Buckinghamshire is being hailed as a game-changer in terms of showing how smart homes can function as green ‘power stations.’ Sarah Kassam of CIBSE explains the design behind the project

The winner of the residential category at this year’s CIBSE Building Performance Awards was also the UK’s first certified Passivhaus Plus project – meaning it also generates exportable amounts of energy. Designed by bere:architects, Lark Rise is a 175 m², detached, two-bedroom home situated on the edge of the Chiltern Hills in Buckinghamshire. It incorporates a large (12.4 kW peak) PV solar array combined with a 13.8 kWh battery energy store.

Two years of monitoring data show that the home generates twice the energy as it consumes in a year, and that it exports 10 times as much energy as it imports. The scheme’s energy performance is impressive, but what really makes the scheme notable is that it demonstrates the viability of the ‘buildings as a power station’ concept. Perhaps more significant is the fact that this 100 per cent electric house demonstrates that with the incorporation of a battery, smart homes have the potential to enable the UK grid to be fuelled entirely by renewable energy.

Design

First and foremost, Lark Rise is an ultra-low energy contemporary home. The architects orientated the house to face north-west to take advantage of the views, its north-westerly elevation is fully glazed, while the rear of the house is part-buried into the sloping site to minimise its building’s impact.

It being a Passivhaus, the architect took a fabric-first approach to the home’s design. This meant a highly insulated outer shell, resulting in a building that is comfortable all year round but which requires only a tiny fraction of the total energy used by a similar sized Building Regulations-compliant home (including for heating). An air source heat pump (ASHP) supplies heat for the underfloor heating and for domestic hot water.

The temperature in the house stays at 20-21 °C year round, with summer overheating is kept to a minimum (overheating >25 °C only 2.8 per cent of the time) using night time purge ventilation, high-performance glazing, and exposed thermal mass.



LARK RISE – ‘HOUSE AS POWER STATION’

Two years of monitoring data since the house was completed shows that it generates twice the energy it consumes in a year

Renewables

The building's PV array produces twice the amount of energy over the course of a year as the building will use. The electricity generated is initially used to meet demand from the house. Surplus electricity is then used to charge the 13.8 kWh battery and to boost operation of the ASHP to ensure the domestic hot water tank is fully charged. Only after the battery and hot water tank are fully charged will the system export surplus electricity to the grid – a solution that helps eliminate grid supply spikes from the PVs.

The battery ensures that for approximately eight months of the year, the building imports no energy from the grid, while for the four winter months the home imports a small amount of power. If all of the building's final energy demand were imported from the grid, the associated emissions would be 2,866 kgCO₂eq/a (based on the PHPP energy model). The inclusion of the PV array and battery reduces this by 98 per cent, to just 57.32 kgCO₂eq/a.

The energy supplied by the battery eliminates the critical energy gap that can occur in winter when the home's power demand is higher than the renewables can supply. By removing stress on the grid at times of peak demand, and by storing energy that can be supplied to the grid to help meet grid demand, the house complements today's grid but also, importantly, demonstrates the viability of a future grid powered by renewable energy.

An electric vehicle charging point is included in the scheme for a future electric vehicle. The controls will ensure that the car's battery too will be fully charged before electricity is exported. The car's battery could even be used as an additional energy store for the house and its occupant's needs, although this scenario has yet to be modelled.

20 years ago, accommodating renewables was not an issue because the UK's electricity grid was powered primarily by fossil fuels; the National Grid turned generating capacity on and off to meet demand. Last year 29 per cent of the UK's electricity generation was from renewables, such as wind turbines; it's a contribution that is growing. The problem for the grid is that renewables cannot be switched on and off, so energy demand needs to mirror energy supply.

Buildings such as Lark Rise, which incorporate battery storage harvest energy from the grid when it is plentiful and can sell it back to the grid at times of high demand, demonstrate how homes could be designed to work with a grid powered entirely by renewable energy

Conclusion

By incorporate battery storage and harvesting energy from the grid when it is plentiful, and selling it back to the grid at times of high demand, buildings such as Lark Rise demonstrate how homes could be designed to work with a grid powered entirely by renewable energy.

With its 12.4 kW PV array and 13 kWh battery, the house shows that if the concept is scaled up, then new and retrofit buildings like this will significantly reduce national peak energy demand. If peak energy demand can be reduced, then so too is the need for new power stations.

As the scheme's architect Justin Bere explained in the CIBSE Building Performance entry submission document, "The many billions of pounds saved on building, operating, fuelling and eventually decommissioning each power station can instead go into creating and converting more buildings like this, thereby producing more savings in power station expenditure and more low-carbon jobs – a really healthy feedback loop."

The CIBSE Building Performance Awards judges described the scheme as: "A ground breaking development which was used also to understand how building homes to this specification could be adopted more widely to challenge the need to fulfil energy demand through additional grid capacity."

Sara Kassam is head of sustainability development at CIBSE



STABLE ENVIRONMENT

The temperature in the highly-insulated house stays at around 20-21°C all year round



PRACTICE PROFILE

Maber Architects

After recently turning 35, well-established practice Maber decided to reinvent and ‘reboot’ itself, James Parker spoke to managing director Ian Harris to find out why

Maber Architects was founded by keen cricketer Colin Maber in Nottingham in 1983, and as MD Ian Harris tells *ADF*, specialisation was not the watchword ‘off the bat.’ “Like most fledgling practices, work was initially a mixed bag,” but over the next 15 years, a “steady backbone of commercial and industrial projects” saw the business grow to around 20 staff.

Maber initially imbued the practice with a “sportsman’s approach,” says Harris, stressing both the “importance of the team and the ethics of business.” The founder (who left the firm in 2005 to pursue a career as a developer) had an ethos combining “fair play, training, attention to performance, and competitive drive” – this characterised the firm’s first two decades, but “remains in the DNA of long-term employees,” says Harris.

He adds that in recent times the emphasis has shifted, the firm “turning its attention more deliberately to promoting and enabling design excellence, and the active pursuit of behaviours that encourage this.” Now a large practice consisting of five offices and 72 staff, the challenge is to ensure the benefits of that ethos are

Senior staff’s job title is much less important than the job they do looking after their team

understood and pursued across the piece. “As a much bigger business we have had to capture and record our ethos in a way that 20 years ago would have just been intuitively understood by everyone in our one office.” One key attempt has been a concise, easy to read document produced for staff called ‘A Common Purpose,’ setting out Maber’s vision, mission and practical goals.

The firm’s fast growth was sustained by the mid-90s residential boom, with multi-storey schemes followed by sports and industrial projects for clients including Trent Bridge and Rolls-Royce. The founder drove diversification in the firm’s offerings, and this was continued following a management buy out in the year of his departure. Landscape architects and interior



UNIVERSITY

Isaac Newton Building, University of Lincoln



NEW PRACTICE OFFICE

Maber’s new refurbished premises at Silver Arcade, Leicester



STUDENT ACCOMMODATION

Lumis student accommodation at Southgates, Leicester

designers were among the additions to a growing workforce; a sister company Maber Project Planning (offering QS as well as project management) was formed. In the past two decades the firm has seen a lot of activity in the education sector, across schools, colleges and universities, together with more work in historic and cultural buildings.

Although it has strengths in particular sectors, Harris says Maber has “always and quite deliberately been a general practice,” working with “as many different clients as possible.” He says the business’ resilience is proof of the success of this strategy: “This has enabled the practice to follow rising fortunes of different sectors, and avoiding the worst effects of downturns.” He cites the fact that despite the fact there have been several recessions in the last 35 years, only two redundancies have been made (in the early 90s).

The Nottingham HQ now has three teams – the Derby, Leicester and Birmingham counterparts each having one. The London branch is a ‘touchdown’ office, with “only a few staff regularly in and out of the workspace.” While teams are led by senior staff, “job title is much less important than the job they do looking after their team, and the projects and clients they are working with.”

Collaboration

A flexible, collaborative approach characterised by staff often working across teams – is evident, feeding into the company maxim of ‘One practice, multiple locations.’ If a new specialism is required on a particular project, says Harris, it tends to be provided by an experienced colleague, deployed alongside a team, and temporarily working in another office. While Nottingham has “the most noticeable sector split,” – industrial and commercial, residential and higher education projects – these are all delivered by staff at other offices too.

The founder Colin Maber initially wanted the firm to work as a co-operative, but, says Harris, a limited liability company turned out to be the order of the day, “to give employees more security of income.” The collaborative aspect persists throughout the work itself though, embodied in the six ‘values’ set in stone by the directors. These include “promoting challenge and accountability,” “expressing appreciation and valuing each other’s work,” “doing what we say we will, when we say,” and “treating each other respectfully and looking for the best in each other.”

The most noticeable practical change to the way the firm works is its move to “agile working”

Harris sums up the management approach to nurturing positive team working: “Focusing on the relationships as key to good working practice is sometimes hard to explain, but to keep on track we invite 360 degree reviews for the management team on how well we individually deliver against these values.”

Systems and software are of course fundamental to supporting this collaboration. “By making communication easier, more versatile and more useful, we promote more interaction, knowledge sharing and involvement,” says Harris. The firm employs Slack (“a kind of Facebook for business”), as well as Zoom video and voice conferencing, Trello (“project post-its on steroids”) and project knowledge hub Salesforce, as well as a custom-built technical info resource Knowledge Base. There is a full time BIM manager, looking after “workflows, processes and standards – not just software, but the real meaning of BIM!”

Starting again at 35

Despite the firm’s successes, with tough trading conditions as well as what Harris describes as a combination of “increasing competition, stop/start projects and decreasing profitability,” a reassessment of the business was called for. “We knew we had to dig deep into the habits and assumptions we had grown up with.”

He even admits that “pockets of people were in a rut; not as engaged as they could be,” so the firm decided to emulate start-ups, and “try to harness the infectious energy and investment that they are defined by.” He enthuses about the merits of such firms, where “everyone is focused on a common goal, they jump between roles, and try out different things – they look for innovation, change and growth.” An away day last year helped gauge staff views on how teams could “challenge each other to do better.” Working groups – introduced to be a “creative engine room” now produce ideas presented bi-monthly to the whole management team.

The most noticeable practical change to the way the ‘rebooted’ firm works is its move to “agile working,” i.e. staff members being freed to work as flexibly as possible. Harris admits however that “this requires some cultural shift – people can be concerned they are disadvantaged when away from ‘their’ desk, and team leaders can be suspicious work isn’t getting done when people are not in the office.”

The new Leicester office, in a former Victorian shopping arcade, is a test bed for how Maber intends to run things in future – “moving past the anchors that hold you to a desk,” says Harris. “The ‘big’ monitors are scattered around, [and not on every desk], there are a variety of spaces to collaborate, withdraw and be quiet, or be noisy, or prepare food together.” Feedback is “universally positive,” he says.

Challenges remain, from the more practical (“too many people have their attention diluted by tasks that could be better distributed to a more specialist support team”), to the macro: “We face an uncertain period politically and economically.”

However, with growing amounts of work in the PRS and student residential markets in the Midlands, and busy BIM and landscape architecture teams, the firm remains on a strong footing, the MD asserts. “There is always more to do in the refinement how we work,” says Harris, “but we remain committed to challenging ourselves to stay fresh, hungry and creative.” ■

NEW ARRIVALS

Rounding up the latest movers and in-house appointments across the industry



(L-R) Jack Johnson, Matthew Johnson, Kenny McNaughton

THREE SENIOR APPOINTMENTS STUDIO RBA

Merseyside architectural practice Studio RBA (founded in July 2017) has announced three new appointments to the growing firm, with two directors and a technician bringing the team to 10 permanent staff. Jack Johnson, 32, joins as an architect director, having worked previously for A2 Architects; while Kenny McNaughton, also 32, is the firm's new managing director, joining from Dutch firm Koole to take on a split design and business management role. The third new recruit is architectural technologist Matthew Johnson, 22, who is seen as a rising star in the industry, joining from L7 Architects.

Adam Morgan, director of Studio RBA, said, "It's been a great couple of years for us, one that has seen us carve our niche in the sector, punching above our weight to successfully compete for some huge north west developments. It's important that a new business grows steadily and doesn't sit still, so when the chance came to add vital skills and experience to the group, we didn't hesitate."

Recent project wins like the 12-storey Eclipse development in Liverpool's Baltic Village has seen the firm's stock rise in the north west, allowing them to "bring in the best staff and work on more high-profile schemes." With our workload constantly increasing it feels like the right time to expand and make sure that the commissions our talented team are winning keep on coming." The firm said it has a reputation for "original design and efficiency, backed by a young team," and has over 140 projects under its belt.



RICHARD NAPIER AHR

Architecture and building consultancy practice AHR has welcomed Richard Napier to its Glasgow office, during a period of regional growth that has seen new leadership and a number of high-profile wins. With 30 years' experience, he is said to be a respected figure in Scottish architecture and previously worked for AHR between 2006 and 2016. Richard commented: "It feels excellent to be back in the AHR family and part of the Glasgow management team. AHR is a well-established and dynamic practice that has a stellar reputation and a distinct brand. This is a prolific time for the office, and I am looking forward to many future project opportunities."



ALEX HERBERT LDA DESIGN

Alex Herbert has joined LDA Design as its new head of planning to continue to grow the practice's planning offer in infrastructure, energy, major mixed-use development and regeneration. Alex is "highly experienced at taking extremely challenging, nationally significant projects through the planning system," the firm said. Most recently, he was major permissions strategy advisor for Horizon Nuclear Power on Wylfa Newydd. Alex said, "It feels great to be joining LDA Design at such an exciting time in the organisation's history. LDA Design has an incredibly experienced planning team and I'm hoping to draw on my experience to further expand the team's reach."



TWO SENIOR PROMOTIONS TURLEY

Planning and development consultancy Turley has appointed Angela Reeve as its new head of planning and promoted head of sustainability Colin Morrison to senior director. Reeve will lead Turley's Midlands planning team, which is involved in several high-profile projects including major regeneration sites such as Paradise and Port Loop, and Peddimore, which is "one of the most significant employment development opportunities in the UK," said the firm. Colin will continue to lead Turley's national sustainability and EIA services, operating across the UK with a team of expert consultants based in the Birmingham, Bristol, Leeds, London and Manchester offices.

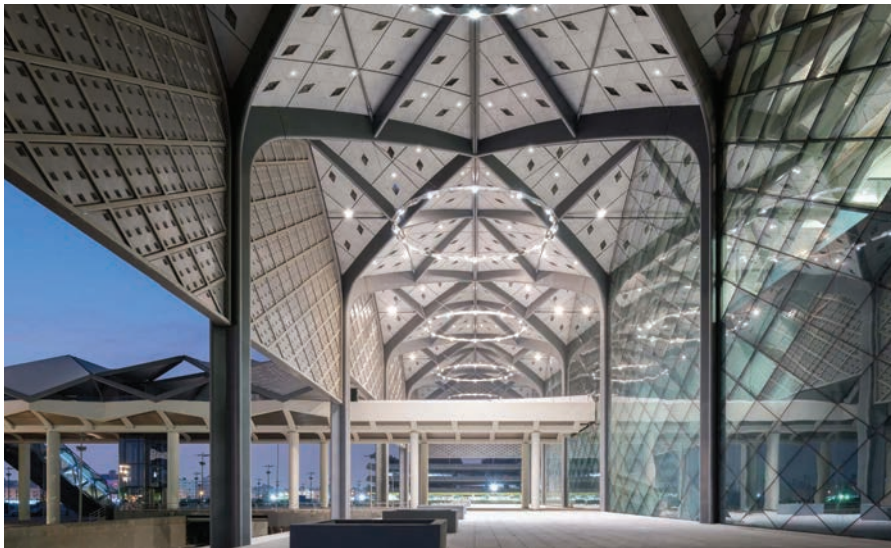
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ANDERMATT CONCERT HALL, SWITZERLAND STUDIO SEILERN ARCHITECTS

Designed by Studio Seilern Architects, the Andermatt Concert Hall in Switzerland is said to be the first major purpose-built concert hall in any Alpine ski village. The project transforms an existing underground space that was originally intended for conventions and events for nearby hotels. The architects proposed to lift a large section of the existing roof to double the effective acoustic volume up to 5,340 m³. Christina Seilern of Studio Seilern Architects, commented: "This has been a truly fascinating project, where the highest ambitions were set to create a facility aimed at attracting musicians of the highest calibre in this exceptional, light-filled space."



HARAMAIN HIGH SPEED RAILWAY, SAUDI ARABIA FOSTER + PARTNERS

The 450-kilometre high-speed rail link between the major Saudi Arabian cities of Makkah, Madinah, Jeddah and KAEC welcomed passengers for the holy festival of Eid for the first time. The four stations along the route – conceived as gateways to each city – are inspired by the ancient architectural traditions of the region and provide a shaded retreat from the sun while creating a new infrastructural spine for sustainable transport in Saudi Arabia. The stations are built using a modular approach, with design elements that are common to all stations along the route. The steel columns and arches form freestanding structural "trees" that are repeated on a square grid and connect to form a flexible vaulted roof, inspired by the colonnades found in many traditional buildings in the region. The vaults in each station are of a different colour, responding to the identity of the different cities.



NANSHAN TECHNOLOGY FINANCE CITY, CHINA FOSTER + PARTNERS

Nanshan Technology Finance City in Shenzhen has been completed, the masterplan and complex of buildings was designed by Foster + Partners to establish a new destination for the city and a new benchmark for sustainable architecture in China. The design creates an integrated mixed-use community – unified by a series of 'ribbons' that define the routes, landscape and buildings – bringing together offices, a hotel and a dynamic public realm, animated by shops, restaurants and a range of new civic spaces. The practice has also designed seven office towers within the masterplan that are a "striking new addition to the city's skyline."



KARLE TOWN CENTRE, BANGALORE UNSTUDIO

Designed by Unstudio, Karle Town Centre “emerges from Bangalore’s dense green canopy as a series of branded contemporary buildings that will define the city’s skyline.” The Karle Town Centre masterplan understands the importance of capturing the country’s broader personal identity. The inclusion of a grand central theatre, event square plazas, elevated retail stages and amphitheatre-style staircases creates a multitude of small and large meeting points with cultural significance. The Karle Town Centre masterplan focuses on the cultural perception of health, security, connectivity and scale, while respecting deeply rooted Indian traditions and beliefs. While security is highly prioritised, the design of the urban plan reflects an open and inviting campus.



NEW CITY, UZBEKISTAN BENOY

Benoy has released its masterplan for a new capital city immediately east of Tashkent, covering an area of 20,000 hectares. As a twin to the existing capital, the city has been designed to revitalise the Old City while bringing renewed strength, prosperity and identity to Uzbekistan. The citywide proposal has been designed to accommodate an approximate population of 2 million people. The city will have a number of ‘centres of gravity’ including a new government administrative district, a central business district, an island development sitting between ‘old’ and ‘new’, a trade district, and an airport district – with an extensive landscape network tying these altogether. Each neighbourhood will have a “unique character,” with social infrastructure, green space and public art at its centre.



MIXC SHENZHEN BAY, CHINA LEAD8

Lead8, the international firm of Architects, Masterplanners, Interior and Graphic Designers, have won Gold for MixC Shenzhen Bay at the International Council of Shopping Centres (ICSC) China Shopping Centre & Retailers Awards. Located in the heart of Shenzhen’s Houhai district, MixC Shenzhen Bay is an 80,000 m² high-end, lifestyle-oriented retail, dining and entertainment destination which anchors a wider mixed-use development which has become the new city headquarters for developer China Resources Land. MixC Shenzhen Bay brings together experiential retail spaces with first-of-its-kind entertainment and F&B, coupled with green parks, seamless transportation links and innovative design interventions. The design concept blends the interior and exterior, celebrating the natural landscape of the city’s bayside mangrove forests to deliver a modern and luxurious shopping and lifestyle destination for Shenzhen.

SPORTFIX® components installed at redeveloped UCC Mardyke Athletics Track

Excessive rain water has to be removed quickly and reliably from sports fields and competition areas. The SPORTFIX® drainage channels and other components offered by Hauraton comply with the latest standards and also meet IAAF requirements. It is essential sports facilities are designed and equipped to prevent serious injury to sports people if falls or accidents occur.



The University College Cork (UCC) has redeveloped their Mardyke Athletics Track in Cork City, Republic of Ireland. The new facility is part of a €10 million budget included a new synthetic eight lane, fully floodlit, running track built to the IAAF standard with an additional 3720 m² (40,000 ft²) added to the original arena. The arena now includes an indoor 60 metre running track, a performance analysis suite, two additional gym areas with over 140 additional pieces of the latest gym equipment and three additional fitness studios.

Hauraton SPORTFIX® drainage channels with aluminium finishing edges were installed around the perimeter of the IAAF, 400 metre track and along its straight. A steeple chase water jump kit was also installed plus Hauraton SPORTFIX® Sand traps and soft edging were installed around the long jump pit.

Tim Connolly, Managing Director of Hauraton Limited points out, “Our SPORT-



FIX® range offers products that not only meet the requirements of the IAAF for athletic tracks, there are drainage components for artificial turf playing fields, service channels and retractable shafts for cable management with drainage systems for grassed football fields”.

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Roofing with extremely long wooden elements for an indoor swimming pool

German architectural office Auer Weber designed the roof structure for the new indoor swimming pool at the Sports Centre Cents in Luxembourg. The ceiling was built using extremely long wooden elements, extending up to 23.75 metres. This enabled the long-spans and the attractive design of the roof. The key for making this possible was using fast, light and green Kerto LVL (laminated veneer lumber) products produced by Metsä Wood.

The suspended floating wooden ceiling was structured with slim ribs and an above average web height. The structural design and calculations were done by Knippers Helbig engineers and the implementation was carried out by the wood construction company Holzbau Amann. Use of Metsä Wood's Kerto® LVL Q-panels made the desired roof appearance and the structure possible.

The dimensions of the roof are impressive. The goal of the architecture was to create a wooden rib ceiling with deep cassettes with

long spans to create the large spatial volume. The dimensional stability of the Kerto LVL web was a great advantage here. The structure was produced using the Kerto LVL web with a height of 1.1 metres and a thickness of only 75 millimetres.

Hendrik Pfeffinger, the project manager at Holzbau Amann, explains “We went beyond standards for the ratio of thickness and the height of the beams, so special solutions had to be established which would on the one hand meet the requirements of Knippers Helbig, while conforming to the structural analyses and approvals in Luxembourg.” For the implementation of these slim dimensions, the Q-panels were virtually predestined for the job thanks to their high load-bearing capacity.

The wooden roof elements were prefabricated at Holzbau Amann's factory and delivered by extra-long trucks to the construction site. Although the elements are almost 24 metres in length, their installation



was quick and required only two carpenters on site. The end faces were finished off with end panels to finalise the appearance of the roof.

www.metsawood.com



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**BUILDING
PROJECTS**

**ACER NETHERCOTT SPORTS CENTRE
OXFORD**

Flexibility and agility

A new sports centre forms a key part of an ongoing masterplan at Oxford University's iconic Iffley Road Sports Complex, where Roger Bannister broke the four-minute mile. James Parker reports on a highly flexible space with an innovative glass floor



ABOVE RIGHT

The architects designed a “well mannered” exterior with pale brick and lime mortar to help the project harmonise with future phases

A new sports centre at Oxford University forms a sleek and high-tech milestone on a wider masterplan to redevelop a historic sports campus in the city. The Iffley Road Track is now world famous in athletics as the venue for Roger Bannister’s four-minute mile, recorded in 1954.

Therefore, the phased redevelopment of the Iffley Road Sports Complex not only had a prestigious and diligent client’s expectations to meet, but also the challenge of a location with wider cultural significance. Luckily architects FaulknerBrowns have significant experience in high-profile sports sector projects, including several with Oxford University over the years.

As with many such major sports complex redevelopments, the gestation has been long – beginning “around 2004 with high level masterplanning,” Ben Sykes, partner at FaulknerBrowns tells *ADF*. Sykes said that it was during this process that the architects “realised how finessed we were going to have to be in terms of our approach, because of the sensitivity of the site.”

The cornerstone of the whole scheme, and completed first phase, is the Acer Nethercott Sports Centre. This large hall is a major addition to the main sports building on the site, and is named after an Oxford rowing cox who twice won the Boat Race but died from a brain tumour, aged just 35. Adjoining the west flank of the complex, Phase 1 also includes a multi-purpose gym

and additional changing facilities, plus a refurbished cafe and reception.

Subsequent phases are to include a replacement grandstand building (which overlooks the running track and will now incorporate a cricket school), plus a gym and wellbeing centre, rowing training centre, and Phase 2 of the sports centre.

Masterplanning

There were some sensitive masterplanning challenges for the architects to consider in ensuring the process of adding a new sports hall minimised disruption to users. Sykes says it represented a “mini-masterplan,” itself phased in a way that would enable the complex to continue smooth running. “As we were building Phase 1, the rest of the building was being used; we had to keep the whole thing functioning.”

The new multi-purpose space gives the client ample flexibility for programming activities from dance and spinning classes to TRX training and weights. However for the designers it presented a challenge, being located in “a really complicated knuckle of the building” where the main reception and both dry and wet changing rooms for the centre’s pool are located.

A public access linking through to a track side access added further complicated the picture. The project team decided on using temporary portakabin-type changing rooms for the duration of Phase 1, which maintained operation and prevented the centre from having to close. In addition, a temporary reception and



© Diane Auckland

cafe were created while the existing ones were being refurbished.

The architects needed to bear in mind the potential future planned phases of redevelopment throughout all of this. As Sykes puts it, “There were kind of hidden lines in the current work so that when the next phase comes forward, we’re prepped for it.”

However, he adds that “it’s difficult to get the right balance in terms of the quality and resilience of the pieces that are going to be there for the long-term, but being quite circumspect on the areas that might only be there for a few years.”

A new hall

The brief from the client for the Sports Centre was for a hall that would accommodate four badminton courts (or a single basketball court) – this would double the capacity as the complex already includes a four-court hall. As FaulknerBrowns’ Sykes says, this extra capacity gives the client the “platform to deliver future phases of the masterplan” – there will be no need to close the building when the time comes for the refurbishment work to take place.

In common with many such projects in Oxford, funding for Phase 1 relied on bequests, and Sykes admits that “sometimes the benefactor has a very strong view about what the building should or shouldn’t have inside it.” He tells *ADF* however that the masterplan “has to be strong enough so it holds together, and that the planning consent has continuing value, but loose

enough to react to a changing world, whether in terms of funding, or sport.”

Because the redevelopment will span “a lot of years,” the architects wanted to achieve a “quite neutral” look externally, to help the phases “harmonise with each other over time.” As part of this, the simple rectangular form echoes other buildings on the site, clad in a “well mannered” pale brick with lime mortar, and no movement joints. “We’ve tried to set a standard for future phases,” says Sykes.

A glass floor

Despite the complexity and challenges of refurbishing and adding facilities within the existing building, the new sports centre is virtually a stand-alone achievement, uncompromised by anything around it. It is a truly state-of-the-art result for the client, featuring the UK’s first full LED-lit, sprung glass sports floor. This is just one key element of a neat and classy finish that’s also something of a surprise for users familiar with the multiple criss-crossing lines common to most sports hall floors.

Using this innovative laminated floor, produced by German firm ASB GlassFloor, court markings for a variety of different sports can be simply switched on or off, thanks to a maze of aluminium tracks under the black, etched glass panels; these contain white LED ribbons which illuminate to form the markings. These are arranged in a variety of configurations to form different courts and pitches and can be instantly switched over.

FLUSH

Flush glazing faces a central viewing area adjacent to the entrance, “like the back wall of a squash court”



© Diane Auckland



Alternatively they can be switched off entirely leaving a 'normal' floor allowing the space to be used for other functions such as events and exams.

As well as cycling between basketball, badminton, netball and volleyball, more esoteric sports (but potentially well used at Oxford) like futsal and korfbal are facilitated. In addition, offset or centred basketball court versions can be produced, as well as central 'show courts' for some sports leaving room to bring in seating around them for exhibition matches. The floor is supported by a further aluminium structure below, sitting on rubber packs.

The project team held discussions with national sporting governing bodies on the quality of this innovative floor system, to verify it was of a high enough standard to meet the requirements. These were led by senior project manager from Bidwells, David Jobbins, Jon Roycroft, who's director of sport at Oxford University, and Jennifer Makkreel, deputy head of capital projects at the university.

As part of helping reassure the university's estates department on the fitness for purpose of this highly unusual solution in the UK context, the architects engaged with the manufacturers ASB to make some tweaks in a few areas. This included working with them on the detailing to ensure that goalposts and netposts could be mounted safely in a glass floor. "They needed to have a certain robustness as every day people would be

inserting posts into sockets."

In addition, they challenged the firm to improve a degree of "line bleed" seen in floors they visited, making the line edges somewhat blurry. "It was a good discussion, we said we love it, the client loves it, but could this be better?"

With the floor being made of glass, in-depth performance questions were also naturally asked around slip resistance, and the impact feel for players – e.g. the height of bounce. "You wouldn't want one of Oxford teams coming and saying they didn't want to play here because it didn't play right, too slippery or too grippy." The panels' purpose-designed dimpled surface addresses any such concerns. While Sykes is very pleased with the installation, which has proven its fitness for purpose so far, he admits it "won't suit all situations."

Walls & screens

The walls are required to be flush up to a certain height, to provide the necessary 'rebound' performance required by various sport according to Sport England guidance. Therefore doors housing equipment such as netting are virtually invisible, and all sockets are carefully recessed into the walls.

Oak timber veneered plywood faces the entirety of the inner walls, not only offering the flush surface required at low level, but avoiding the need to detail blockwork and ensure a tidy surface further up for mounting netting and scoreboards. "Over several projects we've evolved a language of

The new sports hall is a truly state-of-the-art result for the client, featuring the UK's first full LED-lit, sprung glass sports floor

effectively carrying the line straight up,” says Sykes.

He adds: “Timber brings a richness and it’s quite cost effective.” It’s treated with a pale grey wash, to reduce some of the grain and give some more visual uniformity, useful for player visibility. With acoustics being a difficult challenge to get right in sports halls, the walls are perforated above the rebound area to provide lower reverberation.

Aside from the dominant materiality of wood and a dark glass floor, the other material in this precisely-crafted space is (contrastingly) transparent glass. The doors in and out are of glass, and flush glazing faces a central viewing area adjacent to the entrance “like the back wall of a squash court,” says Sykes. Above it is an open viewing gallery the same width.

Rather than have the traditional netting dividers common to sports halls, with their heavy canvas bottoms, at Acer Nethercott there are roll-up screens which disappear into the ceiling, and feel a “bit more permanent” when they are down. Once areas are divided, the LED markings will only mark out the required court within that space, avoiding the normal problem of lines continuing under a curtain, making it clear to users the spaces are not separated in a fully ‘designed’ way. Here, by contrast, each divided space “feels very sport-specific.”

Light & ventilation

The building is naturally ventilated, thanks to eight cowls on the roof providing passive stack effect ventilation to keep the interiors fresh, at a ratio of two stacks per badminton court. The building has underfloor heating.

A slightly unusual hybrid approach to lighting has been used, rather than relying on artificial lighting. However as Sykes says, there is a debate around using rooflights in sports halls, “because simply put, you’re better off without them in terms of controlling the light.”

As the client wanted to use the hall for other non-sport functions, they were seeking a warmer light quality, so wanted natural and artificial light to “work in tandem.” Sykes said natural light “adds quality and richness without detracting from the sporting endeavours inside.”

And, rather than the traditional approach of placing strips of rooflights between the badminton courts, across the hall, here there are two long rooflights down the side walls,



© Diane Auckland

which “wash the walls with light.”

The artificial LED lighting has presented “interesting challenges,” says Sykes. It is located in normal positions, but “because there’s less of it, there were some contrast issues which presented learning points.” He admits that with the space having far less visual clutter than normal, it is something of a victim of its own success, its qualities serving to heighten users’ perception of their environment.

Sykes explains why they are more likely to notice any small issues: “In a big, normal chaotic sports hall space, the roof and walls are busy, and everyone expects ‘normal’ performance. When it’s highly crafted and refined like this, people just become really attuned to the space.” However, he enthuses “that makes it a great learning project for us.” Luckily, with the lighting being LED, it only needed reprogramming to address the issues.

With Oxford University needing to seek fundraising to ensure future phases of the redevelopment meet the level of quality seen here, the client wanted the Sports Centre to be “innovative and inspiring.” It certainly seems to have succeeded on both counts, as “something that people want to invest in and be part of,” says Ben Sykes.

He concludes: “We like projects to be challenging in terms of the architecture and planning, and we like to find a client who’s interested and wants to innovate. This one has a bit of everything that we would want.” ■



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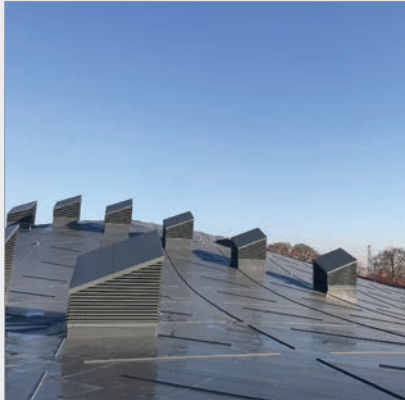
Sika Sarnafil helps realise architect's stunning 'tree canopy' roof design

An inspiring new sports facility, featuring a striking Sika Sarnafil single ply membrane roof, has just been completed at St. George's Weybridge, a Roman Catholic co-educational nursery, private day school and 6th form college in Surrey.

The exciting new architectural development has been built as part of the establishment's 150th anniversary celebrations and includes a premiership level hockey pitch and six-court sports hall, as well as a strength and conditioning suite, dance studio and flexible multi-use areas.

Transforming the existing, functionally simple sports hall, this now beautifully designed facility has a tree canopy-like roof structure draping over the building's internal spaces.

Designed by global architectural practice Scott Brownrigg, the roof needed to achieve 30m clear spans across the main hall and the design needed to be clever and sensitive to the



fact that the site's location sits within the green belt. It also required a flexible and durable waterproofing solution to ensure the building leaves a lasting legacy for future generations of Georgians.

Sarnafil worked closely with the architects and contractors to develop a specification

that not only had the correct U-value, but was also compatible with the Cross Laminated Timber roof build-up and ancillary roof mounted systems used, such as Photovoltaics, Latchways, a built-in gutter and upstands for roof openings.

Roofing contractor Malone Roofing was tasked with realising the architect's roof design. With both Malone and Scott Brownrigg having specified Sarnafil in the past, the entire team were confident that Sarnafil single ply was the right fit for this unique roof form.

The architect's vision was to create a contemporary building that would inspire students to achieve their very best. Thanks to an exceptional design, impeccable installation and Sika Sarnafil's robust guarantees, the team have been able to achieve just that, while also ensuring this timeless design will be protected and enjoyed for years to come.

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Knauf AMF makes a big splash at University's £31m Sports Centre

The £31m refurbishment of the University of Strathclyde's Sports Centre brings state-of-the-art training, fitness and wellbeing facilities to the campus enhancing the student experience. Optimum sound control was a design imperative for the new centre and so Knauf AMF Heradesign® and Thermatex Aquatec® were specified for the project.

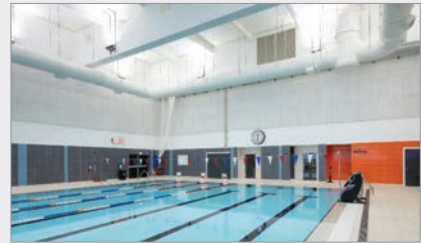
220 m² of white Heradesign® macro was installed on the walls around the impressive



six-lane 25m swimming pool. A further 1000m² of Thermatex Aquatec® formed the ceiling system in the adjoining changing, showering and circulation areas.

Gareth McKnight, Architect, Kennedy Fitzgerald & Associates said, "The biggest challenge was the pool hall as there are only a few systems that meet the anti-corrosive criteria necessary in areas with high humidity. Heradesign is one which is why we have worked with this product on several similar projects. Acoustic performance was also a critical factor in an area where there are a lot of hard harsh services. We worked with an acoustician to measure the reverberation times and Heradesign performed well. We were looking for a white tile, to compliment the interior colour scheme but the wood wool surface of Heradesign micro also brought texture, added depth and interest to the overall interior design."

Sound quality is not the only consideration in rooms with permanently high humidity,



such as swimming pools, humidity resistance demands are also placed on the ceiling. Due to its technologically advanced composition, Thermatex Aquatec resists humidity up to 100 per cent RH. This means it is dimensionally stable when exposed to high humidity and temperatures from 0-40°C. Aquatec also has outstanding sound absorption and an easy-clean surface providing an optimal solution for most hygiene requirements.

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McAvoy wins place on new framework



Crown Commercial Service (CCS) has awarded four lots on its new £500m Modular Building Solutions framework to The McAvoy Group. McAvoy has secured the opportunity to provide bespoke modular buildings and interim hire facilities with a particular focus on education

and healthcare. Commenting on this latest framework appointment, Eugene Lynch, Chief Executive of The McAvoy Group, said: "Long-term frameworks are very important to our business and are a major source of new contracts, helping us to continue to grow sustainably. We look forward to working with CCS over the next four years."

info@mcavoygroup.com

Largest ever education furniture contract



Deanestor, one of the UK's leading furniture and fit-out specialists, has been awarded its largest ever contract in the education sector. The £3m project is for the manufacture and supply of furniture, fittings and equipment for the new £55m Inverurie Community Campus – one of the largest school construction projects in Scotland. The contract is Deanestor's third school project for principal contractors, Robertson Construction. Commenting on the project, Iain Loud, Senior Design Manager at Robertson Construction, said: "Deanestor met all our requirements for quality, cost, experience and strong financial stability."

enquiries@deanestor.com

Lincoln students get confident with colour



Crown Paints marked the launch of the first Bell Decorating Academy with a morning of workshops for the students of Lincoln College. The workshops were hosted in the recently-opened Decorating Academy, which was created by Bell Decorating Group in partnership with Crown Paints, and took place on 3rd April 2019 at Lincoln College. Crown Paints' colour consultant, Jemma, said: "We are delighted to be supporting the Bell Decorating Academy at Lincoln College, and I very much enjoyed meeting the students and encouraging them to think about how to apply their knowledge of colour to real-world situations where they might be called on to advise their clients."

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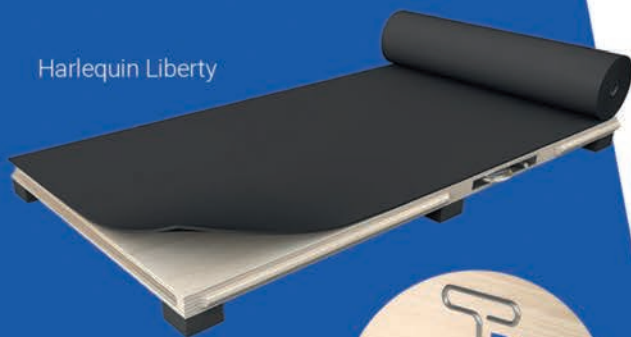


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BUILDING
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LOCHAL
TILBURG, NETHERLANDS

An open book

An adaptive reuse project in a former Netherlands train depot is being hailed as a sign of things to come for public libraries, with an open design that provides a lot more than just bookshelves. Jack Wooler reports



Located in Tilburg in the south of the Netherlands, an adaptive reuse project is presenting a new chapter in public libraries, offering much more than just the storage of books. The building reuses a former 1930s train servicing depot – referenced in the building's title, 'LocHal' – which is an abbreviation of 'locomotive hall.'

Project leads CIVIC Architects, in conjunction with a team of design companies and the Tilburg municipality, have paid homage to its historic use by weaving a locomotive theme throughout the building, and utilising rugged industrial materials – some new and some existing – left uncovered and "honest."

With such facilities having to re-evaluate their purpose in the modern age, and prove their value by not being 'just' a library, the LocHal hosts multiple programmes, including an 1,000+ seat event space and a range of dedicated 'learning labs.'

One of the main tenets of the project was that the library should be a place in which knowledge is "not only consumed, but produced," and as such the library is host to a variety of events and exhibitions, with partners such as the arts organisation Kunstloc, Brabant C and the coworking facilities of Seats2Meet facilitating much of this content.



LANDMARK

The largest building in the area, LocHal can be seen from across the city

A local landmark

Not far from the border with Belgium, Tilburg is Holland's sixth largest city. It is in one of the former Dutch Railways train maintenance yard's derelict locomotive sheds – located on the main train station site, and where trains would be serviced – that the LocHal library has found its home.

Being just 100 feet from the station, passers by on one of the country's major train routes heading towards Rotterdam, would be – and still are – able to see the monumental building, which is a landmark for local residents, though over the years it became uninhabited and run down. The highest and most massive building in the area, the huge shed can be seen from across the city.

Ingrid van der Heijden, partner at CIVIC Architects, says that when the project team first arrived, the entire maintenance yard “was kind of a hidden city, because you were not allowed to go in unless you worked there.”

Because of its high visibility, she says, “all the people in the city saw it and knew it,” everyone having “a father, brother or neighbour who worked in the area.” Most of the residents however had never actually been there themselves.

The local municipality bought the land in 2005. According to Ingrid, there were many plans to transform the area, including a variety of public, housing and commercial properties with a number of collaborators. However the global financial crisis in 2008 saw “the whole development of the area stopped.”

Eventually, the municipality decided to start developing the land by themselves – beginning with a new public library. Following a competition held in 2014, CIVIC architects started the design process in early 2015, the design team also including Braaksma & Roos architectenbureau, and Inside Outside (Petra Blaisse), with Mecanoo responsible for the fit out. Alongside this team, Arup was the technical consultant for all disciplines.

Imposing & inviting

Now, when walking from the station, visitors are presented with the still momentous, but revived building, described by the architects as “both imposing and inviting.”

LocHal has a footprint of 90 x 60 metres, and the building is 15 metres high. However its bulk is offset by a ‘porous’ glazed facade, which invites users in and



clearly displays its internal functions. Some of the glazing has been retained and restored, with plentiful daylighting provided by the large skylights spread across the former train shed's roof.

The rest of the structure is largely steel, much of which was existing, the additions blending with the local material palette of the industrial area. Ingrid van der Heijden says the restoration was integral to the design process, but it was 'light touch' where the original structure was concerned: "One of our goals was to touch the original building as little as possible – for that reason, we made sure that the new parts rarely touch the old."

There has been some refurbishment to the exterior to bring it up to date, and the remaining 50 per cent of roof space around the skylights is covered with solar panels. The electricity produced surpasses the project's needs, and the extra capacity goes to neighbouring buildings for their own use.

At night, the building's internal LEDs turn the library into what the architect describes as an "inviting beacon in the city centre."

An indoor public square

Stepping inside, the structure's grand scale has been fully exploited. Instead of following the path of many large scale projects, splitting the space up into separate modules – usually for heating efficiency – here visitors are presented with expansive views right up to the skylights, diagonally across the building past the many programmes within the library, and back out through the wide-set glazing of the building's facades.

"The first time we entered the building, we fell in love with the spatial effect of the hall, and the way that when moving around it you are really part of the atmosphere – so we tried to keep it this way," Ingrid says.

She adds: "We immediately decided we wanted to have an open design, which was not like the initial plan the municipality presented to us."

The entrance hall functions as a "public square," intended to emulate outdoor shared spaces inside, and provide a welcome and bustling atmosphere for users – with the library's quieter functions located further from the entrance.

As users pass into this hall, they are surrounded by solid materials reminiscent of the building's original form, with glass and oak complementing the rigid black steel and concrete. This material palette was chosen by the architects as part of the recurring theme of "honesty," which determined the building's architectural language.

Past a coffee kiosk is a large exhibition area. Continuing the references to the building's former use, here are placed three large tables made from a train's undercarriage, standing on the original tracks. These can either be used as work or resting spaces, or pushed together to create a stage or a catwalk.

Several staircases lead up through the open space to the upper two levels. This "landscape of stairs," as Ingrid puts it, doubles up as seating for the 1,000 plus event space and overlooks the three podia, lit warmly with plentiful LEDs in order to invoke an air of the theatre.

The entrance hall functions as a 'public square' intended to emulate outdoor shared spaces inside





The staircases pass by the many areas dedicated to reading, featuring innovative furniture and shelves. One is a dedicated children's library that draws design inspiration from De Efteling, a fairy-tale theme park near Tilburg; giant storybooks and bookcases in the form of coloured pencils and rulers are placed throughout this area for the young visitors to experience and interact with.

The galleries on the first floor allow visitors to browse the huge range of books hosted by the library, or perhaps visit one of the more quiet reading areas.

Around these functions, and distributed across the building are what have been termed 'labs' – rooms dedicated to a specific area of knowledge. These include a Food Lab, a World Lab, a DigiLab and a Heritage Lab.

Alongside the labs, there is a concert hall known as 'the glass hall,' part of the coworking domain within the building run by Seats2Meet. This space is in the form of a large glass cube, which was reportedly part of the concert hall in Amsterdam's Beurs van Berlage building.

On the third floor is a balcony, offering panoramic views over the city. While it was not rented out at the time of this interview, Ingrid expects the extra space by the balcony to be inhabited by a restaurant or similar facility.

Open house

Realising the unenclosed nature of the library has been a fundamental part of the practice's design process, and the theme permeates the entire building.

One of the most prominent features of this is the long sight lines available to users from a large portion of the building, ranging diagonally across the interior landscape.

This effect was achieved in part by the architects capitalising on the building's existing strength, with the team able to greatly minimise the amount of new structural elements. As van der Heijden says, "if the steel was strong enough to lift trains, then it's strong enough to lift part of a building."

Just two rows of columns were needed to supplement the existing riveted ones. Even these elements aid the openness of the space, hiding services for air, heating, water, lights and electricity underneath.

In terms of heating a largely 'open' building, the practice worked with Arup to develop a system consisting of five "climate zones."

“The whole idea of the zones was to heat the people and not the building,” explains the architect. “For instance, all the new meeting rooms are climate controlled, as you would expect in a new building, but there is also a large part of the volume that is not directly heated.”

This means that the temperature inside can range between 15 and 32 degrees, depending on the weather outside. “If you enter a public space and it is cold outside, you’ll have your coat or your scarf with you, and keep it on as long as you move around,” she explains. “But, the moment you find a place to rest or study, there are local measures to heat or cool you depending on the time of year.”

Where there are heated areas, the extra warmth produced for these rooms in turn mitigates the hall temperature slightly. “So it’s not that the hall itself has no climate control – it has some, but just not that much,” says Ingrid. “It’s more from the over-capacities and some basic heating around the cafe, for example.”

This smart use of selective heating means that the majority of the building can function as one large space, without the heavy costs that heating such a space would entail. Also, adding a green supplement to this heating, an aquifer thermal energy storage (ATES) system pipes warm water from underground.

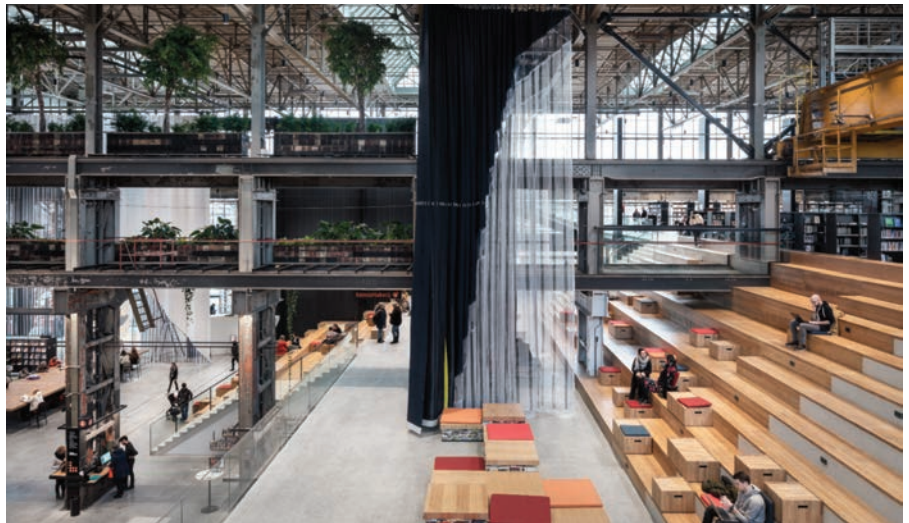
Textile screening

With such a large programme included in the building, it was essential that the staff at the library be able to section off parts of the space. This is achieved by using another one of the most prominent internal design features of the library – a set of ceiling height, mechanised textile screens.

“It started as a strategy to be able to win the competition,” says Ingrid, i.e. one which referenced Tilburg’s well-known former textile industry. The screens were actually created in the city’s textile museum, a short distance away from the library, to a design by Inside Outside.

“From the start it was clear that we would do something with textiles,” Ingrid details. “We ended up with six large panels, with a set of three prints so that left and right they are all the same size and configuration.”

These striking screens offer up a range of functional possibilities, visually as well as acoustically screening off sections of the library. For example, they can separate the Seats2Meet area from the higher library



floors, or run across one of the staircases to create a small, semi-private auditorium.

Motorised, they are able to move according to programmed settings, which often intrigues users, as Ingrid confirms: “When I’m in LocHal and the textiles are moving, I always see people taking photos or making little films because it’s really impressive; it adds something soft to all the steel, concrete and glass in the environment.”

The next big thing

Now completed, the building has proved to be widely successful. “It’s almost moving to see how people use the building,” Ingrid comments. “As a designer, you can think of ways that ‘maybe it can work like this,’ or try to convince people it can – to actually see that it’s used in the way you envisioned, that is really, really great.”

The project wasn’t without its challenges however, with the design process taking a year more than the municipality had hoped for. “Because it’s an old building,” she reasons, “you don’t know a lot of stuff when you start designing.”

Concluding, Ingrid considers the building’s place as what some have dubbed the ‘next big thing’ in public libraries. “Libraries are having to think about their reason to be, and so they are changing their role in society,” she says.

“Of course, libraries have been much more than just a keeper of books for a long time already – they are about meeting, debating, and producing,” and, perhaps most important of all, “they seem to be one of the last public places in a city where you don’t have pay to be or to spend time.” ■

MATERIALS

Users are surrounded by a material palette referencing the building’s original nature – a mix of glass and oak, black steel and concrete
All images © Stijn Bollaert

PROJECT DETAILS

Steel structures: Klein Poelhuis
Steel window systems manufacturer: Jansen ODS
Steel window systems assembly: Facadis Gevelbouw
Steel handrails: Jonkers Bouwmetaal
Precast concrete: Mombarg Beton
Rooflights: JetBik
Wooden indoor window framing: SolarLux
Steel indoor framing manufacturer: Jansen ODS
Steel indoor framing assembly: Staalbouw ter Huurne
Glass interior walls: Vitriwand
Movable interior panels: Breedveld Paneelwanden
Interior contracting: Gieskes

University campus gets a facelift



The merger of two educational institutions involved an extensive building project with conversions of existing buildings and the construction of a new one.

The newly constructed 'Building B' is clad with approximately 1,800 m² of perforated corten, manufactured and supplied by RMIG. The new building with its eye-catching facade gives the university an architectural identity and visibility in the streetscape and at the same time provide shade from the sun. The raw surface of the corten steel facade fits in well with the raw and edgy part of the city where the university is located.

01925 839610 www.city-emotion.com



TECHNICAL CHARACTERISTICS

Raw material: Corten
Pattern: R8T10
Thickness: 2.0 mm
Finishing operations: Bending

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University, Copenhagen, Denmark
Architects: KANT arkitekter

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“This is your captain speaking” – can you hear me?

Sitting at the end of Stansted Airport runway, is a new College which opened its doors for its first intake of students in September 2018. A relationship was developed with Manchester Airport Group over a period of 5 years to secure the acre of land and get their buy-in for the proposed college. Funds were raised via a joint venture to build the college; two separate £3.5million grants from the South East Local Enterprise Partnership (SELEP) Local Growth Fund and Essex County Council, as well as a £300,000 grant by Uttlesford District Council and a £50,000 funding contribution from the Savoy Trust.

Stansted Airport College is the first on-site education facility of its kind at any major UK airport, designed by Pascall+Watson and built by Willmott Dixon. Courses on offer for the students, looking for a career in the aviation and related industries include; aviation operations and cabin crew, engineering and aircraft maintenance,



hospitality and events management, pre-apprenticeships, apprenticeships and work transition courses.

Acoustic consultant Cole Jarman Associates was employed to make recommendations, to create a quiet and comfortable learning environment.

Selectaglaze was approached to help provide a solution with secondary glazing. Acoustic tests have shown that Selectaglaze secondary glazing can provide a 45dB reduction if set 200mm from a single glazed

primary window with 6mm glass. Based on this, if used in conjunction with high performance primary windows, then the dB rating requirements would be met.

Selectaglaze went onto install 32 units across the site with their Series 10 2 and 3 pane horizontal sliders and a Series 41 casement door. All were installed with a cavity of 200mm and tightly sealed.

Not only have the staff and students already seen the enormous acoustic benefit of the secondary glazing, but they should also gain from thermal insulation it provides and the added security. The roar of the overhead planes has been silenced, creating a quiet and conducive space for teaching and studying.

Established in 1966 and Royal Warrant Holder since 2004, Selectaglaze has a wealth of experience working on many building types, from new build to Grade I Listed buildings.

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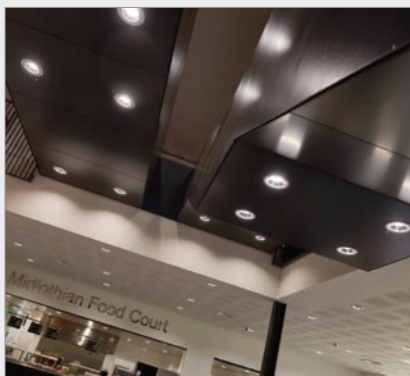
for more information call 0113 279 5854 or email sallyann@yeomanshield.com

Luceco, McCann Electrical and Ameresco partner to relight Edinburgh College

Luceco has recently supplied an energy saving LED lighting upgrade to several campuses at Edinburgh College including Sighthill, Milton Road, Granton, and Midlothian. To date there have been over 6000 energy saving LED luminaires installed through a partnership with Ameresco, Luceco and McCann Electrical.

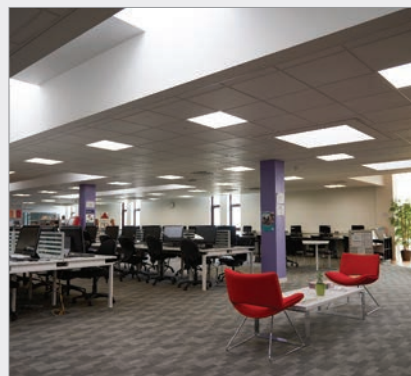
Ameresco is a leading renewable energy and energy efficiency company offering ESPC-funded energy solutions for public and private organisations. ESPC (Energy Saving Performance Contract) is a third-party financing mechanism that allows building owners to fund energy-saving upgrades through savings made from future utility bills. Ameresco chose Luceco as their preferred lighting manufacturer for Edinburgh College.

Platinum LED Downlights were installed in the sports and health facilities at Milton Road along with open plan communal spaces such as cafeterias and foyers, offering possible running cost savings of up to 80 per cent.



LuxPanel luminaires were installed into seminar rooms and lecture theatres, high efficiency Backlit LuxPanels boasts a market leading efficacy of 152 Lm/cW, providing non-obtrusive but effective lighting in high traffic areas and improved glare control.

Edinburgh College is committed to a more energy efficient and cost-effective future



throughout their estate, LED lighting from Luceco being a contributing factor, as well as maintenance on lighting provision being substantially reduced due to the elimination of re-lamping of old luminaires.

01952 238 100
www.luceco.com

Technal specified for Newcastle student living development

Specified for their long-term durability and visual impact advanced aluminium window, curtain walling and door systems, from the Technal brand, have been installed at The Shield, a high-end student accommodation development close to Newcastle city centre on Stoddart Street. Technal is a part of the Hydro Group, a world leader in the building systems sector.

Designed by xsitearchitecture, and developed and constructed by BAM, the building features a refined palette of external materials to animate the facade. These include brick, aluminium, bronze coloured cladding and standing seam, in a range of natural colours.

Punctuating the visual mass of the three blocks, Technal's FY Visible 65mm windows make a significant aesthetic impact. Installed in a vertical configuration to contrast with the cladding's horizontal line, side hung open out windows were mainly used across the project, with some top hung open out vents



also featured – all fitted with stylish standard Technal-exclusive hardware including locking handles and releasable restrictors.

To achieve optimum U-value in this instance, approximately 70 per cent of the windows on the building included spandrel glass, a ceramic toughened glass with foil-backed insulation to surface 4 of the unit. Each configuration was carefully designed to avoid disrupting outward views.

At ground floor level to ensure maximum security, any fixed light or fixed light with vent windows had to be Secured by Design

and, as a result, were fitted with security clips. Also, due to their size, some corner windows high up on the building used reinforced mullions.

Technal's MX Visible Grid curtain walling system was also specified for this project for its durability and design flexibility.

The PY 55 doors were specified for their exceptional level of quality and are ideal for high traffic applications, helping to provide excellent security for busy buildings like this one. All of the systems have been finished in a contrasting black powder coating.

One of the reasons the products were used is that they not only create a stunning facade, but are also energy efficient, and met the low U values required of the building. Technal's products are always specified due to their high quality – the FY 65 windows have zero snags, which is a testament to the robustness of the system.

01924 232323 www.technal.com/en/uk

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TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



In two RIBA assessed seminars, Comar outlines: 'Stand & Deliver: a Study of Curtain Walling' – the design of curtain walling, it's properties and how it is used by specifiers. This seminar aims to offer an understanding of the points of Hill in the NBS specification system, and how best to make use of it. 'Designing Functions & Reliability into Entrances' – the issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes. 020 685 9685 www.comar-alu.co.uk

SPECIFYING HARDWOOD TIMBER EXTERNAL DOORSETS



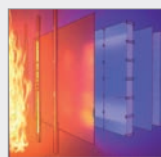
A RIBA CPD seminar entitled *Specifying Hardwood Timber External Doorsets*, from Urban Front, has recently been updated and is available to architects and construction professionals. Learning aims include information on fitting into Architectural Glass, challenges with maintenance, accessibility, door security, design features, and various regulations that must be met. The CPD is very visual and offers various opportunities to handle samples and lasts approximately 45 minutes plus questions. 01494778787 www.urbanfront.com

FREE FIRE AND SMOKE CURTAIN CPD SEMINARS FROM COOPERS FIRE



Coopers Fire offers a range of free Continuing Professional Development (CPD) seminars. Approved by the Royal Institute of British Architects (RIBA), the seminars aim to educate the fire protection industry and wider building industry about application of fire and smoke curtains in buildings. Aimed at construction industry professionals such as Architects, Building Control Officers, Building Engineers, Specifiers and the Fire and Rescue Service, the seminars provide an excellent overview of the benefits of specifying such products. 02392 454 405 www.coopersfire.com

Fireshield® – Awarded BBA Certification



The A. Proctor Group is delighted to announce that its Fireshield® vapour permeable membrane has been awarded a British Board of Agrément Certificate. Fireshield is the culmination of leading research to produce a vapour permeable membrane with a fire proof surface, which is designed specifically to improve the fire protection behind cladding. The BBA Certificate confirms that Fireshield has enhanced performance in relation to reaction to fire classification, will reduce the risk of interstitial condensation, and will have a life equal to that of the building in which it is installed.

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BAL strengthens sales and support team



BAL have bolstered their specification team with two new hires. Mark Lambourn joins the team as Specification Manager covering the Midlands and Wales. He has extensive experience in the construction sector working with architects, house/modular builders, contractors and building owners to deliver high quality specifications. Also joining BAL is Richard Milligan who will work as Specification Manager for the North of England. Mark and Richard will work with architects, designers and specifiers supporting them on M40/M20 specifications, providing project support and delivering BAL's suite of RIBA-approved CPDs.

01782 591100 www.bal-adhesives.com/specifiers



T Gunning re-appointed to Goldsmiths

T Gunning, a Chartered Building Company, has been re-appointed to the framework of Goldsmiths University of London to support the university in the delivery of internal/external refurbishment projects. The company has completed a number of significant projects over the last five years including the complete refurbishment of two floors of the Education Building and the remodelling and refurbishment of the University's Student Union offices. It has also completed works at the Rutherford Building, the basement of Deptford Town Hall, and the Laurie Grove Baths. Tom Gunning, Managing Director, said he was delighted to have been re-appointed to the framework: "The announcement confirms our expertise and proven track record working in challenging environments, and we look forward to delivering the same high-class standards the university has come to expect."

020 8593 8916 www.tgunning.co.uk

The Dunes' Sika Sarnafil clad roof shines in roofing awards' single ply category

Single ply roofing manufacturer Sika Sarnafil and South West roofing contractor Progressive Systems Ltd are celebrating following a win at the Roofing Awards 2019.

The roof of the Dunes – a stunning new beachfront development in Perranporth, Cornwall – came out on top in the Single Ply Roofing category, which was sponsored by EJOT UK.

Hosted by the National Federation of Roofing Contractors (NFRC), TV host Sarah Beeny announced winners at a ceremony on 10th May 2019 at the InterContinental London – The O2.

The awards celebrate the very best in the industry across all roofing disciplines, recognising outstanding workmanship, problem solving, environmental qualities and contribution to the built environment.

Progressive's impressive work on The Dunes, which was completed in August 2018, secured their place as one of



13 category winners.

The Dunes project also triumphed at the annual RICS Awards 2019: South West, supported by headline sponsor Sika. Coming out top in the Residential Property category, winners were announced at a ceremony on 22nd May 2019 at Bristol Marriott Hotel. The development was labelled exceptional by judges, who were impressed by the project's innovative design, high quality construction and consideration for sustainability.

Working on a site just 10 short metres from the beach, Progressive was tasked with installing a long-lasting roofing system robust enough to withstand the South coast's often

extreme wind and rain, while matching the luxury aesthetic of the build.

Having suggested Sika Sarnafil's single ply membrane to the architect Stride Treglown, the team worked closely with Sika Sarnafil and the main contractor Acorn Blue to ensure a high-quality and cost-effective finish.

Wind uplift calculations were provided by Sika Sarnafil to the contractors, which suggested the product be mechanically fixed to ensure the roof was able to resist the formidable weather. With a combination of Sarnafil's S327 18 EL Lead Grey single ply membrane, plus Sarnavap vapour control and SarnaTherm insulation, the outcome was a robust roof that met the requirements of the project.

The skilled workmanship and clever design saw the roof secure a 20-year guarantee, which covered all Sika Sarnafil products used in the installation.

01707 394444 gbr.sika.com

Panasonic announces winners of awards



Panasonic has announced the winners of its 3rd PRO Awards. The bi-annual awards celebrate stand-out Panasonic installations across Europe that demonstrate excellence in design, specification and installation. The four PRO Award winners are: Best Residential

Project – Climamarket Efendulov LTD for Varna Wave, Bulgaria; Best Retail Project – Tech Refrigeration & Air Conditioning for Victoria's Secret Dublin, Ireland; Best Commercial Project – Fernando Oliván Avilés for Citroën Aramóvil Zaragoza, Spain and; Best Hospitality Project – Terundar for Hotel Lavida, Spain.

www.aircon.panasonic.eu

Tata Steel leads the way



Tata Steel is delighted to announce that it has become the world's first steel company to be approved to operate an Environmental Product Declaration Programme, helping to deliver clear reporting of its steel-based products and reinforcing the sustainability

of steel through the life-cycle. As a result, Tata Steel is now able to provide the market with third-party verified, product-specific EPDs for both its own construction products and the construction systems they become part of, in an effort to demonstrate the sustainability credentials of steel-based products.

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BakerHicks create new role to expand civil engineering capabilities



A drive to develop new workstreams and expand the Civil & Structural Engineering team at BakerHicks, the multi-disciplinary design and engineering business, has led to the appointment of Nick Wood to the newly-created role of associate director for Civil Engineering. Nick, a Chartered Civil Engineer with more than 25 years' experience in site development infrastructure projects, has joined BakerHicks specifically to lend his civils' experience to their Civil & Structural team, supporting the company's growth plans. He will work with Andy Gotts, BakerHicks' Civil & Structural director, in business development, alongside identifying further improvements to current processes, providing technical oversight and reviewing ongoing projects. A passionate advocate of apprenticeships and employee learning and development, he will similarly support the upskilling of existing and future teams in line with best-practice Continuing Professional Development (CPD) in Civil Engineering. Nick has worked across a wide range of sectors and markets, including Renewables, Housing, Waste, Industry, Commercial and Defence for both public and private clients.

01926 567800 www.bakerhicks.com

Delta Membrane Systems Limited expands its Waterproofing Systems with BDA Certified DualProof

Delta Membrane Systems Limited is delighted to announce Dualproof has been certified by KIWA (European Institution for Testing, Inspection and Certification).

The BDA Agrément® process is designed to underpin the ‘fitness for purpose’ of products destined for the European construction market. Products are examined and rigorously tested following precise installation instructions.

It is one of the UK’s major authorities recognised by building control, government departments, architects, local authorities, specifiers and industry insurers.

DualProof is a Type A waterproofing pre-applied, sealed two layer highly flexible PVC membrane laminated with a nonwoven PP-fleece, composite waterproofing membrane which forms a permanent mechanical bond with freshly poured concrete preventing the tracking of water between the waterproofing membrane and the concrete sub-structure.

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Quality assurances

The BDA Agrément strengthens Delta’s DualProof brand. BDA Agréments are a mark of excellence, ensuring products are safe, high quality, reliable and regulatory compliant. Products are examined and rigorously tested following precise installation instructions. Agréments confirm the compliance and durability of DualProof under the specified method of installation. The BDA Agrément® process considers:

- European product standards, relevant codes of practice and test reports
- Independently verified product characteristics



- Factory production control
- Annual verification procedures
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BALCON system now LABC registered



J & P BALCON is recognised as a premier insulated connection system for steel balconies. Acclaimed for easy adjustment of balcony positioning, the product has recently achieved LABC recognition, and has developed improved thermal data combined with higher load resistances. Easily installed to the concrete formwork, rigid bolted balcony connections and Part L insulation requirements are simply and accurately achieved. For more information contact J & P Building Systems Ltd.

www.jp-uk.com

A guide to CaberWood MDF



Norbord has released a guide to help tradespeople know which product from its CaberWood MDF range is the most suitable for their project. The flowchart asks simple questions and the answers to these directs the user to one of the five products in the CaberWood MDF range. This includes CaberWood MDF Pro, which is suitable for straightforward machine and surface finishing; CaberWood MDF Pro MR, a moisture resistant panel ideal for application in humid interiors; CaberWood MDF Trade, a lighter board; CaberWood MDF Trade MR, the benefits of the lighter board with added moisture resistance; or CaberWood MDF Industrial, a high-performing, deep-routing panel.

www.norbord.co.uk

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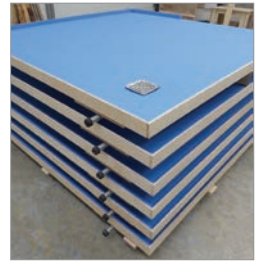


Established in Mantova Italy by Franco Novellini in 1966, the **Novellini group** is still family owned. The company now has 27 subsidiaries worldwide, eight production sites and manufactures one million shower enclosures every year. Their aim is to improve the lives of everyone in the world in search of excellence for their homes and families. Novellini group's vision is to be the reference point for excellence in bathroom furnishings and the most innovative company.



Hygienic and hypo-allergenic surfacing materials have recently become key concerns for kitchen designers, spurred on by an increasing awareness of allergies.

Earlier this year, **Neolith's** Calacatta C01 pattern in silk finish was specified for an Italian cookery school. The material's waterproof, anti-scratch and high resistance qualities mean it is easy to clean without leaving residue of potentially harmful foodstuffs.



On The Level is one of the UK's leading manufacturers of wet room floor systems. OTL's increasing popularity within the offsite industry as well as end users is due to its ability to produce completely bespoke wet room formers, delivered within seven working days. This bespoke service allows clients to specify almost any size, any shape, and move the waste position to suit floor and joist configurations.

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Neolith UK Showroom: Business Design Center, 52 Upper Street, London | Neolith Warehouse: Lovet House, Lovet Rd, Harlow CM19 5TB



Customised design 'off the shelf' with aesthetic, practical solutions

Modern bathrooms, showers and even en-suites consist of much more than just a shower tray, bathtub and sanitary ware. In bathroom planning, there is an ever increasing demand for customised design without a compromise on floor space.

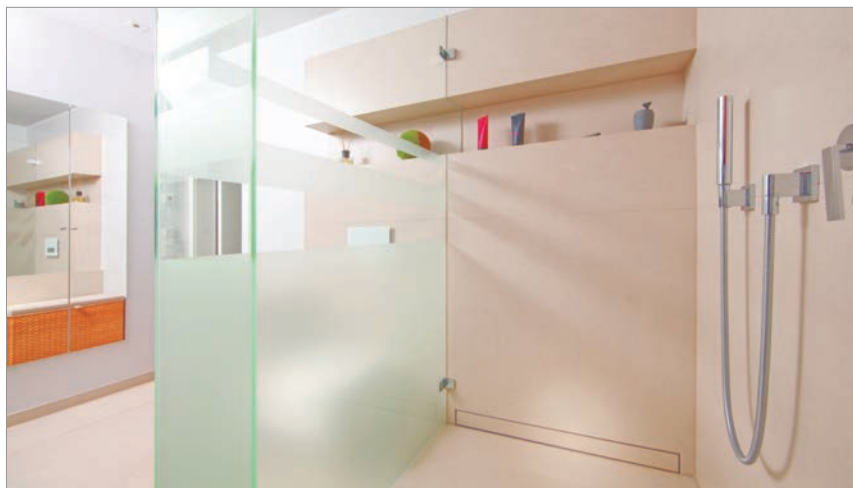
Most people dream of having a vast, spacious bathroom and whilst there is always room on the drawing board in new build projects, space is a common dilemma in refurbishment projects.

To make a bathroom live up to its full potential, the wedi system offers endless possibilities in designing a bathroom with aesthetic, practical and functional elements. Thanks to their modular design, wedi elements can be combined in countless variations resulting in a customised design without the need for bespoke production.

A walk-in shower is a hygienic, easy-maintenance and stylish solution that provides easy access for the whole family and gives the illusion of greater space. A vast range of wedi Fundo shower trays, whether it be a complete solution including integrated drainage or a classic solution where appropriate drainage may be chosen by the client, are available with either point or linear drainage. Special, designer showers – quadrant, round or shell shaped with matching walls – can also be found in the standard product range.

Floor-level showers are most often created with the use of a simple partition. On top of the already existing customised approach (50-100mm wedi building boards) wedi now offers a practical 2in1 solution – robust Sanwell Wall elements in XL and XXL formats with integrated storage are ideal for use as free-standing walls. These wall elements are not only waterproof to the core but are also fully customisable: both their height and width are easy to adjust to required dimensions and the size of the integrated niche can also be modified to suit.

People who swap their baths for a shower often miss the relaxation it offers. Whether it be a standing/floating bench or a compact corner seat, the wedi Sanoasa seating range does not only provide a comfortable and relaxing showering experience but also creates an inviting atmosphere of wellbeing.



Furthermore, thanks to the clever construction of these elements they can be individually customised on site.

It is an understatement, that in tight bathrooms, balancing a need for storage with a desire for space is rather difficult. Pre-fabricated elements within the Mensolo L & U and Sanwell Niche ranges provide robust, tailor-made storage solutions in the bath or shower whilst maximising the floor space.

Having a bath usually comes with compromise on floor space thus on storage. A visually pleasing bath cladding with integrated storage can provide an elegant, clever solution and with the aid of wedi building boards any design is easy and straightforward to build. The wedi building board is the perfect medium to create custom designed bathroom furniture. Floating furniture such as a floating washstand or vanity unit does not only provide a good size storage but also make the space appear more open.

The easiest way to give a room a spacious look however, is the perfect balance of white and textured surfaces. With the use of wedi's most recent innovation the bathroom becomes a statement of quality and cleanliness. The Top series – as a perfect alternative to traditional tiling – does not only offer a contemporary shower/bathroom area in which no grout lines break the design but further enhance the insulation properties of wedi's eco-friendly, A+ labelled elements. Thanks to the perfect blend of high-quality components these surfaces are non-slip, antibacterial and warm to the touch so clients can truly appreciate the feel of the bathroom.

wedi is the perfect choice when looking for a versatile medium with superior quality and unrivalled system safety allowing for stylish, practical solutions that are customisable and straightforward to install.

0161 864 2336 www.wedi.co.uk

Dallmer's new Individual shower channels



In response to the growing demand for level-access showers, **Dallmer** has added two more new flush-in-floor shower channels to its DallFlex system, bringing the number of Dallmer shower channels that can be combined with a single drain body to an impressive nine! CeraFloor Individual is the elegant shower channel that boasts outstanding design. The shower channel comes in a length of 1,500 mm and can be shortened to suit the specific shower area. CeraFrame Individual is a compact, short shower channel. The only thing you can see is a discreet 300 x 50 mm rectangle. The short shower channel is the perfect frame for a minimalist cover plate.

01787 248244 www.dallmer.com

Kaldewei Meisterstück Centro Duo



Kaldewei Meisterstück Centro Duo bath with two-sided panelling maximises space with a single rounded corner on either the right or the left – perfectly designed for corner installation. Made from Kaldewei's superior steel enamel with easy-clean finish, its minimalist lines and timeless elegance is rounded off by an enamelled waste cover and a discreet overflow. Furthermore, thanks to the integrated enamelled panelling, the sides of the bath do not need to be tiled, saving both time and money. All Kaldewei bathroom solutions are 100 per cent recyclable and are supplied with a 30 year guarantee.

01480 498053 www.kaldewei.co.uk

Offering high quality innovative washrooms



Washroom Washroom – a leading provider of high specification toilet and shower cubicles, vanities, lockers and benching – has designed, manufactured and installed numerous high quality innovative washrooms for the commercial, health, leisure, education, and public sectors on time and to budget over the last two decades. Together with its bespoke in-house joinery division, Cre8 Joinery Solutions, Washroom offers an off-site service including full-size or scaled mock-ups and the same in-house team carries out installations on-site, supporting clients from design and manufacture to delivery and installation.

www.washroom.co.uk

Stylish range of modern bathroom solutions



For many years **Lecico** has been renowned for its market leading range of Atlas commercial sanitaryware. Until now, Lecico has been less known for its domestic bathroom range – but with Head Designer Kevin Nash, the company has applied its global expertise in producing over 5 million pieces of sanitaryware to an innovative and stylish range of modern bathroom solutions. The new Designer Series consists of 7 families of bathroom to suit all tastes and budgets, from contemporary to classic.

www.lecico.co.uk

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DELABIE offers a complete range of products specifically designed for intensive use in the education sector. The **DELABIE** range combines design, water savings, hygiene and durability.

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TEMPOMIX 3
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Liquid soap dispenser
with soft-touch operation



More information at delabie.co.uk





New for 2019 – The Kinedo Fast 2000

Designed to appeal to the contracts sector, a new range of Kinedo shower enclosures has been added to the portfolio of showering products by **Saniflo**. Fast 2000, named as such because of the 2000mm high profiles and the rapidity of installation, is a collection of enclosures designed to suit every size and shape of bathroom. Offering exceptional value for money, the collection includes Pivot doors: 700-1200mm; Sliding doors: 1000-1700mm; Corner entry sliding doors: 700-1200mm; Quads with sliding doors: 800 or 900mm; Fixed panels: 700-900mm. As is synonymous with the Kinedo range the Fast 2000 is quick and easy to install and manufactured using quality components throughout. Interlocking aluminium profiles ensure the frame is very simple to assemble while easy release rollers can be fixed to the door profiles without any tools.

020 8842 0033 www.kinedo.co.uk

CCL Wetrooms launch Tilesure Membrane



CCL Wetrooms have launched Tilesure, a new Butyl Waterproofing and Decoupling Membrane, suitable for waterproofing wetrooms on timber and solid floors. Tilesure is an evolution of the market leading RIW Tilesafe bitumen-based membrane. Tilesure is a 1.4mm self-adhesive membrane with decoupling properties of 12mm, ensuring that any movement in the floor substrate is accommodated, preventing the grout and floor tiles from cracking. Tilesure is quick and easy to apply, is compatible with silicone sealants and creates a secure waterproof barrier that is guaranteed to remain waterproof for the life of the wetroom tiles.

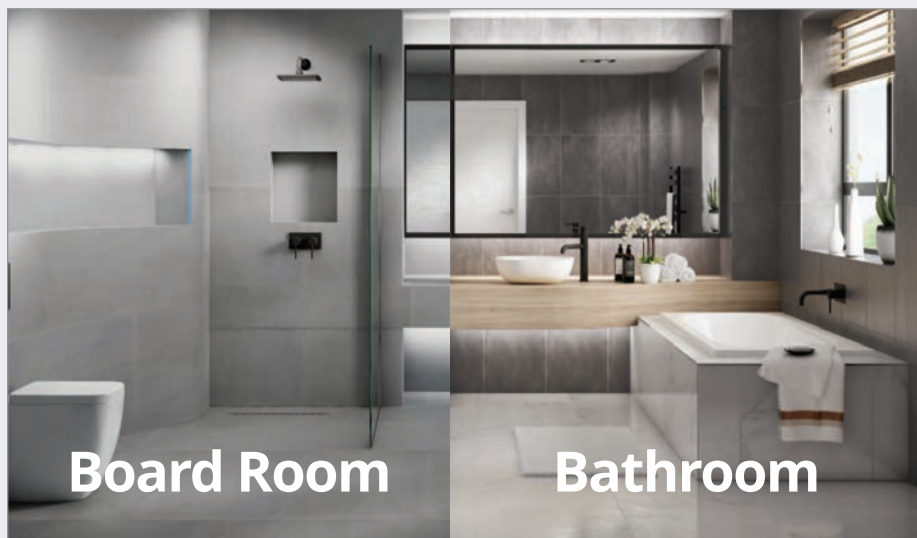
0844 327 6002 www.ccl-wetrooms.co.uk/waterproofing

Pure and simple



AlphaChem Pure Anti Mould Silicone is a superior quality silicone designed specifically for sanitary sealing and areas of high humidity. Black mould growth is a common occurrence in areas such as these, with condensation being the main cause. To help keep the black mould at bay Pure Silicone has far higher levels of anti-fungal additive than conventional sanitary silicones, which are introduced during the manufacturing process, enabling the product to come with a 10-year guarantee. Pure Anti Mould Silicone is available in only the most popular colours: white, clear and ivory and is part of the AlphaChem range of products available from Cromar.

01977 663133 www.cromar.uk.com



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Considerations for Hand Dryer Selection

Hand dryers are an increasingly common solution to replace or complement paper towels. They eliminate paper towel waste completely, along with the need to manage paper towel inventory. In fact, hand dryers can result in 95 percent cost savings compared to paper towel systems.

An authentically sustainable approach to design requires close attention to all resources used in the restroom. For example, while hand dryers dramatically reduce waste, some can be culprits of high electrical costs.

In recent years, evolving consumer preferences have driven demand for hand dryers with quicker dry times. Thus, high speed hand dryers, also known as jet dryers, have increased in popularity. However, many high speed hand dryers run on a high wattages and/or voltages, in addition to high noise levels. Over time, this can lead to higher energy bills.

However, newer innovations can satisfy the desire for a quick, thorough hand-dry without the high energy costs. Bobrick's new B-7125 InstaDry™ Surface-Mounted Hand

Dryer features an industry-best power rating of 200 watts, or 0.2 kilowatts. When motor life is a consideration, InstaDry also has a longer life expectancy – as much as 7,500 hours, or 10 years in high-traffic environments. This leads to reduced replacement cycles and further savings for the owner.

To ensure optimal use of hand dryers, it's essential to take a holistic approach to product selection. Before specifying a hand dryer, a number of other factors should be considered.

Many hand dryers have an institutional aesthetic; recessed or semi-recessed stainless steel units can elevate design. Excess noise can negatively impact the patron experience; researching noise levels can ensure appropriate acoustics for the project.

Other models may feature more unique design elements. Bobrick's B-3725 Accessible Recessed Hand Dryer features an oversized drying alcove that catches and absorbs water, thereby reducing maintenance while improving hygiene.

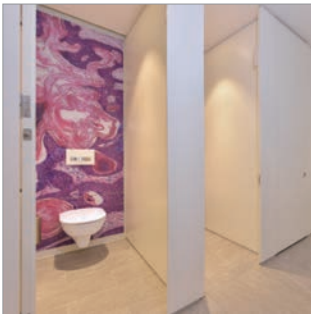
Although sustainability certifications and



standards used throughout the world are typically the focus of green washrooms, they often do not address many operational issues – approaching product selection with these issues in mind can ensure authentic, long-term sustainability.

020 8366 1771 www.bobrick.co.uk

Making a splash at the Royal College of Pathologists



In one of their most eye-catching projects to date, **Maxwood** installed digitally-printed glass Maxwall duct panels and white, flush-fronted Maranté cubicles in this important centre of medical research. The images are enhanced microscopic images chosen from a selection submitted by college members in a competition, with over 20 images being used across the nine floors. Joel Owen, Design Manager, Maxwood Washrooms said: "Surprisingly, the most challenging detail on this project was the vanity bin configuration. We had to design several variations of the same bracket to support our Corian® Xeista vanity tops, to avoid pipework and then incorporate a bin design around these. The final solution was created by fixing lift-out bins to the rear of the vanity panels, which were bottom hinged for access." Hannah Fothergill, Associate, Bennetts Associates commented: "The resourceful Maxwood attitude to sourcing unusual glass for IPS was great and we welcomed the attention to detail taken to make the bin chutes work in the vanity units. Good attention to detail and efficient process of producing and signing off drawings. High quality product and high quality people!"

020 3657 7615 www.maxwoodwashrooms.com

A new sales brochure presents the Cistermiser infrared urinal control valve



Cistermiser's IRC® infrared urinal flushing control valve is fully detailed in an informative new sales brochure, designed for ease of use by specifiers, installers and merchant counter staff. Fitted together with a robust and proven brass-bodied solenoid valve assembly, the IRC® sensor now features a compact body shape, an economy mode option to provide even greater water savings, a new-style mounting bracket for recessed installations and an improved design which allows clients to replace batteries in convenient fashion by simply removing the front fascia to access the battery compartment. The IRC® employs motion-sensing infrared to automatically control the flushing of cistern-fed urinals, minimise water wastage and ensure compliance with Water Regulations. When the PIR sensor detects movement, the solenoid valve is activated, allowing water into the cistern. The IRC® is WRAS approved and designed with practicality in mind. Communicative green, amber or red LED status alerts guide installers and end users to ensure ease of commissioning, testing and confirmation of water-saving operating mode.

0118 969 1611 www.cistermiser.co.uk



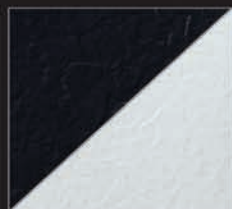
NOVOSOLID

The next generation of shower trays

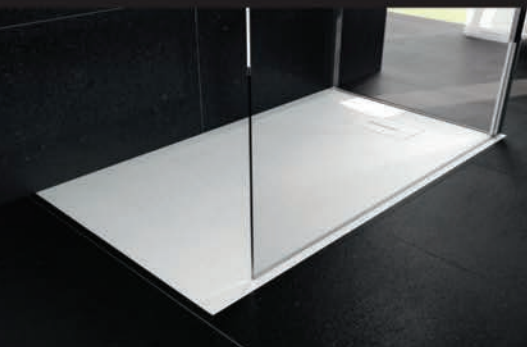
"Taking trays to a new level"

NOVOSOLID is more than just a tray. It is a new design from the ground up. Considering space, wellbeing, materials and your needs, the Novosolid fits perfectly into the modern lifestyle.

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Discover the
Black & White
video collection



Novellini UK offers a full range of bathroom products including bespoke shower enclosures, wet rooms, steam rooms, whirlpools and much more, why not visit our website for more details

www.novellini.co.uk
☎ 01727 229922

Happy D.2 Plus



Happy D.2 Plus is a new and exciting Duravit collaboration with Sieger design. Inspired by the archetypal open oval format of the original Happy D design classic, the new series introduces light and dark colour variants and includes; bath tubs, curvaceous above the counter wash bowls, consoles and matching semi tall cabinets. Circular mirrors include a sensor switch to enable dimmable lighting and optional heating bringing a chic energy to the washing area.

01908 286680 www.duravit.co.uk

Königstone's new website wows



Königstone has launched a new easy-to-browse website so that designers, retailers, installers and consumers can explore different materials and colours for the finishing touch to the new scheme. The new website highlights the benefits

of the materials in Königstone's worktop portfolios, Königquartz and Könignaturals. Königquartz is available in 28 colours; Könignaturals offers 23. As well as featuring a customer resources section which includes a handy guide on how to clean and maintain Königstone surfaces, visitors to the site can also keep up to date with Königstone's new materials and find inspiration through the social media activity.

info@konigstone.co.uk

Latest news, views and more



If you like to be kept informed of all the latest news, views, and promotions for the architectural community, the ADF email newsletters can offer you regular updates straight to your inbox. The weekly Editor's Choice newsletter includes top news stories curated by the ADF editorial team, while the

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.

www.subscribepage.com/adf

Turn to the toilet to achieve best practice



Public venues can increase their appeal to potential customers by up to 20 per cent, just by changing the toilet. The shower/wash dry toilet also makes a WC facility more user-appropriate for people with invisible issues, who may not even be registered disabled, such as various muscular and mobility issues, continence etc. Closomat's Palma Vita shower toilet looks like, and can be used as a conventional WC, thereby addressing the requirement of most people. Its integrated douching and drying, selected as required, give people who do struggle the peace of mind that they leave the washroom properly clean, dry, and odour-free.

0161 969 1199 www.closomat.co.uk

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- 2. Infrared Urinal Flush Control (IRC®)** – manages supply of water to a urinal cistern (PIR) to provide water only when it is needed.
- 3. Hydraulic Valve Urinal Flushing** – patented mechanism prevents water waste and enables hygiene flush option for period of non-use. Fit and forget, quality and reliability.
- 4. Direct Flush** – Infrared Sensor controlled urinal valve – automatically flushes urinals after use, ensuring the highest level of water with minimum volume of water.
- 5. Easyflush Direct** – no touch sensor-activated toilet flushing technology.

To find out more about our products or to register your interest please contact:

Cistermiser Ltd & Keraflo Ltd, Unit 1, Woodley Park Estate, 59-69 Reading Road, Woodley, Berkshire RG5 3AN.
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100% waterproof
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Energy efficient
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Unrivalled system safety
Superior quality



Stylish, practical solutions that are customisable and straightforward to install.



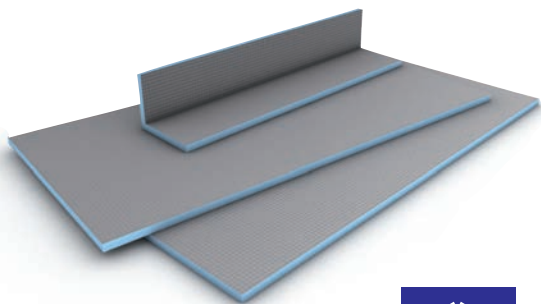
Versatile elements with
modular design



Combinable in
countless variations



Customised design without the need for bespoke production.



INDUSTRY
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The ideal background for wetroom construction

Manufactured with an extruded polystyrene foam core and a special coating on both sides, JACKOBOARD® construction boards form an ideal base for tiling in wetrooms. The surfaces of the JACKOBOARD® system provide an extremely strong bond and can be used on virtually any substrate. The boards are moisture resistant, waterproof, thermally insulating, lightweight and very strong.

JACKOBOARD® high performance construction boards provide the flexibility to meet modern requirements in wetroom design. Recent changes in British Standards for tiling require the wider use of more appropriate materials for construction, and for receiving tiles in water sensitive and wet areas. This has increased the demand for the JACKOBOARD® range in new build applications as well as in renovation works.

JACKOBOARD® products including CANTO angled elements, WABO bath panels and FLEXO boards allow the bathroom

designer to create customised dream bathrooms. The JACKOBOARD® range can form the basis for a tiled finish, as well as wallpaper, paint or plaster. So any bathroom can be designed with its own individual style.

Due to their robust core made of extruded polystyrene foam (XPS), the JACKOBOARD® PLANO construction boards and the wider product range are all lightweight and waterproof – a key benefit for bathroom new build and renovation.

JACKOBOARD® also makes installation simple and easy; the construction boards, FLEXO boards, bath panels and angle elements can be trimmed to the desired dimensions easily with standard tools. Another key benefit of the construction boards is that their excellent insulation values make them ideal for thermal insulation.

High performance, high quality drain kits, in both linear and point drain styles, are available alongside many variations of shower tray sizes and shapes.



JACKOBOARD®



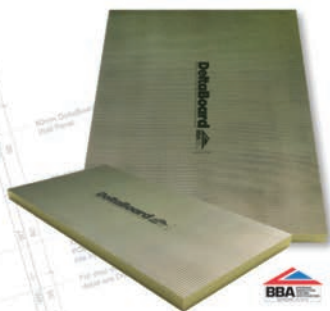
01204 221089 www.jackon-insulation.co.uk

DeltaBoard

High Performance Construction Boards

DeltaBoard is a multi-purpose lightweight construction board, designed for the application of all tile types, cement based screeds and synthetic renders. DeltaBoard is manufactured using high density extruded polystyrene which provides excellent insulating properties. The extruded polystyrene core has a factory applied reinforced cement coating which provides excellent impact strength, sound reduction and fire resistance making them ideal for construction.

DeltaBoard is easy to use and can be fixed using cement based flexible tile adhesive – solvent based or ready mixed adhesives MUST NOT be used. Alternatively DeltaBoard can be fixed using dowels and washers.



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DeltaTray

High Performance Shower Tray Formers

DeltaTrays are lightweight, waterproof, robust shower tray formers manufactured using high density XPS as its core element with a factory applied reinforced cementitious coating that creates an impact resistant ready to tile surface. DeltaTrays provide the perfect solution for the creation of "walk-in" level access shower areas and modern wetroom environments.

DeltaTray Thames and DeltaTray Trent are available in a extensive range of sizes. Increased resistance to point loading enables the use of mosaic tiles as small as 20mm x 20mm. Increased flow capacity and undertile drainage makes the Thames and Trent range the perfect solution to suit the most demanding wetroom project.





Watertight basement solutions

Alex Burman of Sika discusses the key guidance, and technology options, for specifiers looking to achieve watertight concrete basement constructions

When beginning a basement construction or renovation, the waterproofing standard of BS 8102:2009 is key. It recommends and provides guidance on methods of dealing with and preventing the entry of water from surrounding ground into below-ground structures.

Waterproofing systems are categorised into three types:

- Type A – waterproofing barriers
- Type B – watertight concrete
- Type C – water management systems.

For habitable areas, such as residential basements or areas containing plant or other technology, a high degree of

waterproofing is required. A structure such as a below ground car park where some seepage and damp areas are tolerable, requires a less onerous system.

Type B watertight concrete and admixtures

In modern constructions, concrete is the material of choice in basement structures, thanks to its proven durability and strength. Regular reinforced concrete designed to BS EN 1992 still allows limited crack widths to form, even though concrete appears to be a solid material. Microscopic capillaries are left behind by excess water (aiding workability when the concrete is wet).

Defects can occur in any waterproofing system, but the risk can be minimised through design, planning and a waterproofing specialist



By reducing the amount of mixing water, the quantity of capillaries can be reduced. To achieve a workable consistency with less water, adding a 'superplasticiser' into the mix as well as capillary blocking admixtures will allow a lower water/cement ratio and waterproofing of the remaining paths for water.

The hydrophobic pore blocking technology method blends a watertight concrete powder with a liquid admixture, creating a polymer barrier inside pores during the hydration process. The hydrophobic layer that is created within the capillaries performs well when there is variable water pressure, common in below-ground and basement construction.

Alternatively, the crystalline technology method creates a non-soluble crystalline structure in unwanted capillaries. This structure is produced by chemicals reacting in the presence of calcium hydroxide and moisture. It fills and blocks the capillary structure, as well as small voids and micro-cracks. The reaction is reactivated in the presence of moisture or water, offering high performance in conditions where water is permanently present. Furthermore, this method is beneficial as it enhances the concrete's ability to self-heal cracks, further reducing permeability, providing a fully watertight structure.

Test data has demonstrated a significant reduction in water penetration depth using

both the hydrophobic pore blocking method and the crystalline method.

Basement sealing

Consideration must also be made when selecting products and methods for sealing the joints between concrete sections in the basement. A PVC waterbar is one option that will create a fully watertight barrier for construction and movement joints.

Other joint sealing products for construction joints can make the construction process easier because they are simple, versatile and reliable. These hydrophilic strips allow the sealant to expand when it is exposed to water, thereby halting the potential ingress of water.

Dual/multiple systems

BS 8102:2009 suggests consideration be given to the use of dual systems where the assessed risks are deemed to be high or the consequences of a failure to achieve the required internal environment are too high.

A common solution would be to combine a typical Type B solution of watertight concrete with either a waterproof membrane (Type A), or a cavity drain system (Type C). Any mistakes made during the installation process can be costly to put right, so considerations for reparability and remediation should be made from the outset to avoid any unnecessary outlay of time or cost.

Basements are at risk of being exposed to underground gases such as radon, methane and carbon dioxide. This is particularly the case in construction projects being delivered on brownfield sites due to the lack of land availability across the country. These gases are more harmful than water because they can be a silent killer. The application of Type A membranes can contribute to reduce the risk of various gases entering into the building.

Summary

The simplest component when constructing any basement or underground structure, is watertight concrete. Consideration needs to be paid to the selection of the correct dual waterproofing system for the project, and ultimately the finished environment.

Defects can occur in any waterproofing system, but the risk can be minimised through design, planning and a waterproofing specialist who can offer expert specification advice and a high level of site support throughout construction.

Alex Burman is product manager of waterproofing at Sika

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Class A Membrane for a Classy Project

A new community is under construction on the Isle of Dogs, designed by architects Rolfe Judd for Galliard Homes. Harbour Central will provide over 640 new homes, a leisure facility, a residential garden and a public square, as well as retail and commercial space.

The centrepiece building is the 41-storey Maine Tower, whose residents will be able to enjoy the facilities at the leisure complex, which will include a cinema, gym and spa, library and private club.

Installed behind the aluminium-clad walls in one area of the new leisure complex is the most advanced breather membrane available in the UK. FlameOut Breathe Class A provides the highest level of protection to the building envelope, rated Class A2-s1,d0 (non-combustible) for flame retardancy and with long-term UV resistance. No other product in the UK offers the same high specification, and the Harbour Central development is the first in the country to use

this premium building membrane, installed by London City Facades Ltd.

FlameOut Breathe Class A is suitable for both wall and roof installations, and is supplied by Industrial Textiles & Plastics (ITP), a North Yorkshire manufacturer with specialist expertise in flame retardant and chemical resistant technologies.

Recent changes to UK Building Regulations specify higher performance standards for materials, including cladding, used in the external walls of certain buildings over 18m in height. All materials, with some specified exceptions, must now be rated non-combustible, as per the EN 13501-1 standard.

FlameOut Breathe Class A is part of the FlameOut range of FR building materials produced by ITP, which include a Class B-s1,d0 breather membrane and two Class B-s1,d0 vapour control layers.

01347 825200 www.itpltd.com



Simple orientation mark enhances classic Ancon serrated washer design



Ancon has made a simple improvement to one of its smallest, but most utilised, stainless steel building components to benefit installers of its masonry support systems. An orientation guide, in the form of two horizontal square ridges, has been incorporated into the design of the classic serrated washer that Ancon supplies with its masonry support brackets. The square ridges, added to the back of the washer, correspond to the line of the serrations on the opposite side that faces away from the user during installation.

The new design makes it quicker and easier for installers to orientate the serrated washer correctly. Users do not need to view the serrated face before installing the washer and can quickly identify how best to correct any rotation that may occur as the fixing bolt is tightened.

Feedback and improvement ideas should be directed to Annabelle Wilson, Head of Marketing and Innovation, on 0114 238 1230 or awilson@ancon.co.uk. More information is available at www.ancon.co.uk/contacts/submit-an-idea.

0114 275 5224 www.ancon.co.uk

Simpson Strong-Tie introduces their innovative new Gable Panel Connector



Leading construction connector manufacturer Simpson Strong-Tie has developed a system of connectors which incorporates new and existing products for the installation of a timber gable panel.

The brand new GPC, Gable Panel Connector, solves the problem of the connection detail between the masonry wall, the wall plate and the bottom rail of the gable panel.

Sales Director, Jon Head, says "We are pleased to be able to offer a complete solution for connecting timber gable panels to masonry walls and roof structures. The GPC has been developed to safely transfer the lateral wind loads being applied to the masonry and the timber gable ends into the braced roof diaphragm. The solutions give installation options using either a continuous wall plate or raised wall plate at the gable end." Simpson Strong-Tie continue to develop a wide range of engineered and tested products to help build Safer Stronger Structures.

For full technical details visit the Resources / Literature section on the company's website.

01827 255 600 www.strongtie.co.uk

Let's end this 'cladding confusion'



It is now more than two years since the Grenfell Tower fire. The government needs to move more quickly to bring confidence back to residents and the cladding sector alike, says Peter Johnson, chairman of Vivalda Group. James Brokenshire, Secretary of State for Housing, Communities and Local Government, should be commended for the £200m grant he has announced to replace defective rainscreen cladding and insulation on around 167 privately owned, residential tower blocks. On the face of it, it's good news for the residents and the cladding sector. However, there remain big questions about how the scheme will work and whether there is even enough money to get the job done. In short, grant money is there to replace ACM on private, high rise dwellings, but still there appears to be little strategic guidance or real leadership being shown by the government on the wider issues surrounding cladding and safety. Brokenshire's grant is a positive move in the right direction. However, I am not convinced that it will be enough to solve all of the ACM issues we're currently facing. Then there are the dark clouds hanging over other cladding materials – that require clarity from a safety perspective.

www.vivalda.co.uk

Metal Technology enlightens office



Grade A office development, Aurora is the perfect example of design and sustainability working seamlessly to create a striking architectural landmark using the latest technology from architectural aluminium systems' firm, Metal Technology. The seven storey 95,000 ft² building features a stunning glass atrium, basement car and bicycle parking with electric vehicle charging points, plus five upper levels of accommodation. Utilising Metal Technology's System 17HR curtain walling on all elevations, this impressive office development not only meets high sustainability standards, it also delivers a striking aesthetic.

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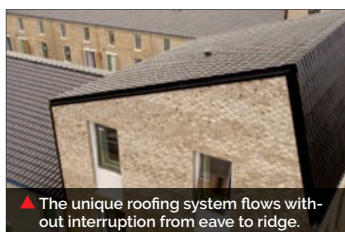


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The Maurice Wilkes Building, sets the standards for premium office space



Developed by St John's College, in partnership with Turnstone Estates, The Maurice Wilkes Building, situated at St John's Innovation Park in Cambridge, is a stunning building that is designed to provide between 3,982 ft² and 27,014 ft² of prestigious Grade 'A' office accommodation arranged over five floors. The building is named after computing pioneer Sir Maurice Wilkes, who helped design the electronic delay storage automatic calculator or ESDAC, one of the world's first computers, during his time working at Cambridge University in the 1940s. As is befitting of its namesake, the building is modern, forward-thinking and stylish in design.

The building was the creation of BCR Infinity Architects, who were commissioned to design this speculative office on the 'toe' site at the southern-most and prominent end of the St John's Innovation Park, which is ideally situated on the main north eastern artery into the city. The building's location means that it has two very prominent approaches and the architects set about embracing this prominent location through competent design of the building's form and orientation. Visually impressive, the building is also extremely efficient and flexible, with a stacked floor plate that

maximises the available office space. A top floor covered roof terrace also enjoys views back to Cambridge city centre, whilst its tensile canopy offers cover, solar shading and sculptural relief to the rational and efficient elevation.

A best-in-class office building obviously required the same of its construction materials, so BCR Infinity Architects chose ALUCOBOND® PLUS for the external facade, which was screwed in to place. In fact, some 3,000 m² ALUCOBOND® PLUS was chosen for its superb properties – flexural rigidity-to-weight – compared to many other construction materials, as well its proven suitability across a whole range of projects including private homes, retail, public buildings, corporate headquarter and offices.

To maximise impact and reflect the building's premium offering the ALUCOBOND® PLUS panels were specified in 500 Silver Metallic and 504 Bronze Metallic finishes, which complement each other to great visual effect. Fabrication was undertaken by Argonaut and installed by Middlesex Facades.

Such is the impact of the building that all space was let prior to completion, with the likes of PwC UK and cyber security pioneers Darktrace having moved in

and will reportedly be joined by other innovative and high-technology companies in the near future.

Paul Herbert, Sales Manager:

07584 680262

Mark Winstanley, Specification Manager:

07584 680263

Richard Clough, Business

Development Manager:

07760 884369

www.alucobond.com

PROJECT DETAILS

Project: Maurice Wilkes Building

Location: St John's Innovation Park, Cambridge

Facade material: ALUCOBOND® PLUS 500 Silver Metallic & 504 Bronze Metallic

Construction system: Screwed

Architects: BCR Infinity Architects

Fabricator / Installer: Argonaut/ Middlesex Facades

Year of construction: 2018



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Schlüter-Systems raises the bar with new pedestal system

Schlüter-Systems is pleased to introduce Schlüter®-TROBA-LEVEL, an adjustable pedestal system for balconies and terraces.

A welcome addition to Schlüter's range of balcony and terrace solutions, the seven-part system is the first loose-lay option to be offered by the company. It opens up a host of new project possibilities, while also being fully compatible with Schlüter's other balcony and terrace solutions (including Schlüter®-BARA edging profiles, Schlüter®-TROBA-LINE drainage channels and Schlüter®-TROBA-PLUS and TROBA-PLUS-G sub-surface drainage membranes).

The TROBA-LEVEL system is stackable and can be combined to form heights between 3mm – 1000mm, making it adaptable to a wide range of project situations. Broadening the possibilities for flow and transitions between different landscape elements, the system can also



accommodate a slope of up to 10 per cent.

Manufactured in polyethylene and polypropylene, the TROBA-LEVEL system is also:

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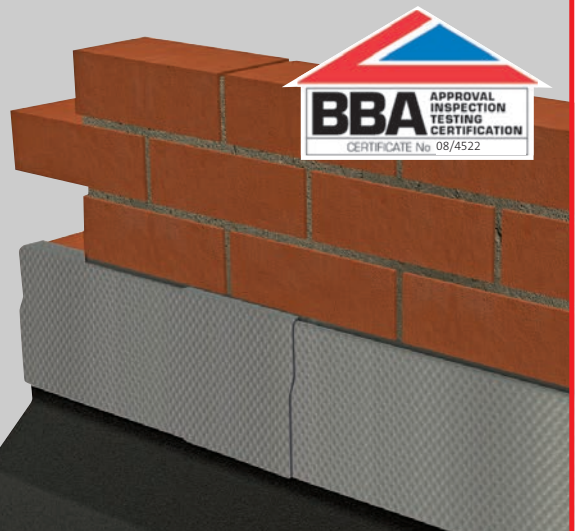
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Opening the door to enhanced efficiency and aesthetics

Aesthetics, longevity and security are all key areas to consider when specifying entrance doors, but with continued increases in energy costs, the role of thermal efficiency is taking precedence in the design process, reports David O'Mara of Hörmann UK



Entrance doors in the UK must comply with the British Standards Approved Document L1B, which specifies a maximum U-value of $1.8 \text{ W/m}^2\text{K}$ for the whole door element. However, architects can aid their clients in cutting long term heating costs by choosing innovative products that offer thermal efficiencies that are significantly lower than the national maximum.

Traditionally, aluminium entrance doors paved the way for security, but lacked

thermal efficiency when compared to their timber counterparts. However, manufacturers are now developing a new generation of high-insulation entrance doors that offer outstanding energy savings, without compromising on the overall security of the door.

Entrance doors are available which are constructed of high strength aluminium, with a high-tech leaf profile made of a carbon glass-fibre hybrid material, to offer U-values as low as $0.47 \text{ W/m}^2\text{K}$. This is



1.3 W/m².K lower than the industry standard, offering significant potential energy savings.

These impressive U-values are achieved through a construction that includes an aluminium door leaf with PU rigid foam infill, an internal leaf profile that is supported by a thermal break, and high stability due to its carbon glass-fibre reinforced composite leaf profile. This can also be combined with an aluminium doorframe featuring a thermal break.

While energy efficiency is taking increasing precedence with homeowners, security shouldn't of course be compromised. Architects can overcome this issue by recommending solutions which feature RC3 security equipment as standard, combined with a five-point security lock. The door's profile cylinder can also be protected against manipulation for additional peace of mind. This can be combined with triple-pane thermal insulation glazing that is protected with laminated safety glass on both sides, with an aluminium doorframe with a thermal break for impressive thermal efficiencies.

Aluminium entrance doors are a popular choice for architects looking to provide their clients with the most durable

and resilient exterior to their new home, as timber and PVCu entrance doors can be subject to discolouration or warping. Aluminium entrance doors can withstand the harshest of weather conditions, and are also available in a wide range of designs, with the added opportunity of personalisation.

Steel entrance doors should also be considered by architects, particularly products that feature up to 65 mm thick door leads with PU rigid foam infills. While these will not offer the lowest U-value of 0.47 W/m².K that can be achieved by an aluminium door, they are still well below the government legislation at 0.87 W/m², while also offering outstanding security benefits.

As well as thermal efficiency, aesthetics and visual appeal will always be a deciding factor for consumers when choosing a new entrance door for their property. Because of this, doors that offer concealed hinges and door profiles are a popular choice for contemporary properties to offer a sleek, streamlined finish. The ability to also choose from a wide range of RAL colours and finishes including matt or high-gloss is important to ensure homeowners can add personality to the exterior of their property.

The way homeowners lock and unlock their entrance door should also be considered by architects, as there are a wide range of systems available that offer the highest standards in security and usability. Radio finger scanners, key pads or remote control transmitters are designed to provide homeowners with unrivalled levels of security, supported by apps, which offers the ability to unlock or lock the entrance door remotely throughout the property, whilst also checking the status of the door. By specifying innovations such as these, architects can offer clients the highest standard in performance and efficiency.

Architects can also streamline the design process by using online programmes, which provide the necessary data required at the initial design stages of a build. Planning can be easily achieved using the modern interface, providing tender specifications, images and drawings in both DWG and PDF formats. Ideal for use at the tender and specification stages, it can also provide access to a vast amount of CAD, technical drawings and BIM models.

David O'Mara is marketing manager at Hörmann UK

Glendyne natural slates provide new roof



Cembrit Glendyne natural slates have been specified and installed on a unique renovation project for the Historic Kent landmark, St Alphege Church. Having worked with Cembrit many times in the past, the architect specified Glendyne natural slates. David Gullick from Clague Architects comments: "We chose Glendyne for the project due to its consistency, aesthetic appearance and durability. The standard of these products, and the service that we received from Cembrit was second to none. The outcome of the roof is just what we desired." Visit the website to watch a video on the project.

www.youtube.com/watch?v=KEe_5ew0p7o

Bradite wins hands down for refurb



Tests involving a range of well-known leading paints convinced a firm of professional decorators that Bradite's EW99 epoxy floor and wall coating was the correct choice for a challenging job in Leeds. A car park and walkways needed attention as part of a refurbishment contract at Concord Street Apartments. Builders merchants Brewers recommended that the Bradite product should be considered particularly because of its adherence and quick drying properties, as well as its toughness. "We sampled four products and the Bradite's performance was flawless," says Gavin Shaw of Shaws Decorators, Wakefield.

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Over 60 years, repairs to Grade II Listed Moreton House in Bideford, north Devon, had caused significant problems. Cement repairs, vinyl paints and a sprayed-on acrylic render coating resulted in damp building up, damaging the plaster and wood. In many places moisture was trapped behind the paint. Some of the external render was replaced with lime but the new owners did not want to use limewash as it needs a lot of coats and regular reapplication. They used Earthborn's Silicate Masonry Paint system which is a durable, easy to use alternative to limewash and conventional masonry paints. It comprises a primer and paint, which form a chemical bond with the underlying mineral substrate to produce a very hard wearing, weather resistant barrier. It offers the same high levels of breathability as limewash but is easier to use and lasts up to 15 years. Useful for any porous mineral surface such as stone, brick, concrete, render or cob, Ecopro Silicate Masonry Paint gives a classic matt finish that will not yellow with time. It even helps prevent algae growth and mould. The paint was used on the stone window sills as well as the walls. Earthborn's silicate masonry paint range has 24 colours. Bespoke colours can be developed through the nationwide network of Earthborn stockists.

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Profile 22 helps transform 1960s building



Over 1,000 Profile 22 Optima Chamfered Windows have been used in a conversion project in Cheadle Hulme, Cheshire. Profile 22 Approved Window Contractor Kingfisher Windows won the contract for the work because it was able to meet the exacting specification at the most competitive price. Kingfisher Windows tendered for the work with Profile 22 Optima Chamfered Windows. The Optima system is often specified on commercial contracts because of its intelligent design, impressive performance and attractive good looks. The system delivers a 1.2 W/m²K U-value as standard, with U-values as low as 0.8 W/m²K possible, and achieves BS7412 weather performance.

www.profile22.co.uk

Crittall windows for iconic London tower



Crittall Windows has been selected to manufacture and install replacement steel fenestration for one of London's most iconic high-rise residential blocks. Trellick Tower remains a major symbol of the Brutalist architectural style of the 1970s. The Crittall contract, just announced, is valued at £750,000 and involves replacing windows in the separate stair and service tower, communal walkways, and parts of the main building. Some 860 Corporate W20 windows are to be installed. All windows are galvanised and finished with Duralife, an architectural grade polyester powder coating.

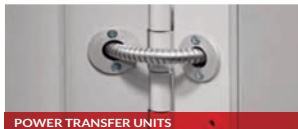
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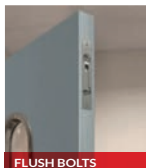
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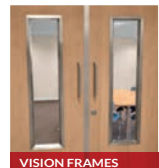


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Addressing critical interfaces

Andrew Mitchell of NBT (Natural Building Technologies) discusses the challenges of achieving design integrity at building interfaces, for insulation or air-tightness

The role of the architect in the design and construction process has changed over the years, with many of the responsibilities that used to sit with the architect now shared between a disparate collection of consultants. The 'blank spaces' between their remits have left a gap where there is often a lack of joined-up thinking to ensure that all elements of the project work effectively as a whole.

A primary example of the impact of this fragmentation is the critical interfaces between different building envelope elements, particularly structural, acoustic and thermal, (delivering either insulation or airtightness). With the main contractor delegating responsibilities to a multitude of subcontractors, we have developed a construction process where supply chain partners are responsible for their own elements of a complex jigsaw, but are not fully engaged with those responsible for the other pieces of the puzzle.

With the architect and the engineer also working independently, and often novated to the principal contractor, there is often no central role to ensure that the interfaces are as robust as possible. As a result, unresolved elements are often 'discovered' during the construction process, leading to delays, waste, and the potential for increased costs combined with poorer final results.

The performance gap

Advances in building materials and increasingly strict Building Regulations have delivered significant improvements to the performance of the building envelope of contemporary buildings, compared with those built only a handful of decades ago...on paper, at least. We have also seen a wealth of sustainable and renewable materials enter the mainstream of specification, as both architects and their clients recognise that a more environmentally responsible approach to construction can actually reduce the cost of the building rather than add to the



bottom line. Woodfibre insulation is an excellent example of this attitude shift, providing excellent thermal and hygroscopic performance along with carbon 'lock up' credentials.

The problem is that elements within the envelope build-up can only deliver their designed performance if the interface is fully integrated in order to prevent thermal bridging and heat loss. If, as is often the case, the interfaces are far less robust and well-detailed than they appear on paper, we lose the opportunity for creating more thermally efficient and airtight buildings, while adding significant construction cost through increased time, increased material waste, and failures that can lead to costly snagging.

Worse still, if the physics of the building are not properly understood, totally inappropriate materials may be used, which could lead to overheating in the summer months – or major moisture issues affecting the integrity of the building or the health of the occupant. So, while the specification may add up to excellent

The idea is to align improved design integrity and building performance with a real-world approach to answering buildability issues, time pressures and skills shortages



thermal performance and energy efficiency, the constructed building may not deliver the level of durability, comfort, energy savings or service life calculated at design stage.

What's the answer?

For some, part of the answer is modular construction where envelope solutions can be created in factory conditions to deliver real, measurable thermal performance, without compromising the integrity of the building or the health of the occupier.

There are lessons to be learned from the modular approach – which can be used to transition this standardised model into the less uniform world of onsite construction too.

What's required are new build systems for the building envelope, which consider the full 'foundation-to-wall-to-roof' build-up required for different types of construction, including clad and brick clad timber frame structures as well as CLT (cross-laminated timber), steel and concrete designs with both clad and rendered external finishes. In this way, insulation suppliers can provide a total solution for the interface design with an inclusive package of products to provide everything required for consistent installation.



Supply chain engagement

The idea is to align improved design integrity and building performance with a real-world approach to answering buildability issues, time pressures and skills shortages. If suppliers offer a single-source, consistent specification and work with specifiers and contractors to advise them and develop the specification, they can ensure the specific interface detail used is the right fit for the individual project, contributing to quality assurance.

Collaboration has become a buzzword in construction, but supplier engagement is often the missing link in this process because so many specification choices are made as a procurement function rather than as an integral part of the early design process and buildability analysis. Architects should expect suppliers to be more than a company that simply sells products. Instead the supply chain should be challenged to actively contribute to the performance of the finished building and the expertise needed to improve the design of the critical interfaces within the building envelope.

Andrew Mitchell is managing director of NBT (Natural Building Technologies)

3 is the magic number for modular housing scheme

An innovative combination of three reflective, low emissivity wall construction membranes from Protect Membranes has been used to deliver the magic formula for a flagship affordable housing scheme on behalf of Gwalia Housing / Pobl Group, delivering thermal efficiency benefits and reduced heat loss.

Appointed by main contractor Morganstone, timber frame specialist Seven Oaks Modular Ltd constructed the wall panels offsite in their factory, followed by delivery and installation on-site. Installing Protect's reflective membrane solution helped Seven Oaks Modular to reduce material waste during manufacture and value engineer without severely impacting labour cost. The timber frame panels incorporated Protect TF InterFoil, a vapour permeable, reflective membrane installed on the cold side of the insulation, with the foil facing into an airspace to deliver low emissivity performance. This was combined with Protect

TF200 Thermo, a reflective, external breather membrane and Protect VC Foil Ultra, an internal vapour control layer on the warm side of the insulation to help create a radiant barrier. This system achieved the client's target U-value of $0.19\text{W/m}^2\text{K}$ and achieved important insulation savings, with a reduced thickness of PIR needed for the 140mm stud without increasing the overall wall footprint.

Warren Rowlands, Senior Designer at Seven Oaks Modular commented: "The use of Protect's full reflective membrane system enabled us to not only value engineer this project but ensure a robust solution that provided affordability to the client. The innovative application of membranes offering low emissivity within unventilated cavities was easy to incorporate into our timber frame panels at the factory, ensuring the structure retained thermal efficiency and met our target U-value."

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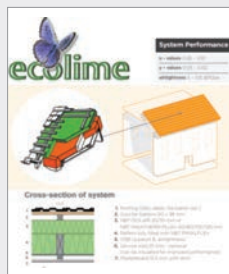
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a completion date in 2019, this new build development offers a mix of 41 affordable homes all of timber frame construction, including two and three bedroom houses, one and two bedroom apartments and two bedroom bungalows.

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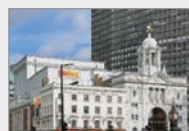
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Better insulation- vital if we are to slow global warming

The uptake of energy efficiency measures such as loft and wall insulation must be accelerated for domestic housing if the UK is to meet its legally binding climate change targets. This is an unambiguous conclusion of the recently published Committee for Climate Change Report “UK Housing: Fit for the Future”

The report pulls no punches, stating that the majority of homes in the UK are unfit for the challenges of climate change and its contribution to global warming and that the performance of housing is an issue that needs to be addressed as a matter of urgency.

Statistics paint an uncomfortable picture, with 14 per cent of total UK CO₂ emissions resulting from energy usage in homes. Another recent headline was the fact that in 2017, emissions from buildings actually rose by 1 per cent over those of the previous year.

It should be also be noted that over 60 per cent of our current housing stock was built pre-1960 when little thought was given to heat-loss prevention. Energy costs were low and coal was still king, being the main source of domestic heating. Central heating systems were in their infancy and the incorporation of insulation in new-build properties only really began in the years following the oil-price shock of 1973.

Minimising air leakage

Retro fitting of traditional insulation materials is a complex and time-consuming and expensive affair and one which rarely addresses the important issue of air leakage. As up to 40 per cent of a building's heat loss can be attributed to air leakage [what we would all understand as draughts], it is vital that air leakage is included in any programme of measures designed to improve a building's thermal performance.

Moisture vapour in the air within a building carries heat and moist humid air can support up to 4000 times more heat energy than dry air. As air leaks out of a building it carries this moisture vapour and with it, heat.

For new-build properties, maximum permitted air leakage figures vary considerably. In Ireland, it is proposed that the maximum permitted air leakage is reduced from seven to five [7-5cum/m²/h].



60% of our current housing stock was built pre-1960 when little thought was given to heat-loss prevention.



14% of total UK CO₂ emissions result from energy usage in homes.

Icynene, a fully breathable, open cell spray-foam insulation has a Global Warming Potential of 1 and an Ozone Depletion Potential of 0 [Zero].



In England and Wales it remains at a staggering ten, with Scotland at seven. Clearly there is lots of work to be done to improve matters on the home-front.

The best way to increase the energy efficiency of a building is not just a matter of

reducing U values as required by Building Regs, but rather to combine U value reduction with an air barrier – creating a “sealed box” effect to reduce air [and heat] leakage to a minimum.

Sealing the box

Traditional forms of insulation – mineral fibre and rigid-board type materials – are relatively inefficient in sealing the box, in that they cannot completely fill all voids or seal the interface between the insulation and the building structure. Nor can they cope with small structural movements which will often lead to air-leakage gaps, particularly in difficult to treat situations where access is poor and/or when voids are of complex geometry. This can lead to cold bridging and thermal by-pass, with the consequent risk of localised condensation and inevitable dampness.

Air leakage can be eliminated by the introduction of an air barrier but must be installed with great care if it is to perform as desired. It can also add considerably to installation time and costs, particularly in retrofit applications.

Spray applied insulation

The modern alternative is a fully breathable, open-cell spray foam insulation, which is applied using a pressurised gun system.

Here, foams are applied as a two-component mixture that come together at the tip of a gun forming a foam that expands 100-fold within seconds of application, sealing all gaps, service holes and hard to reach spaces, virtually eliminating cold bridging and air leakage.

When selecting which spray applied insulation to use, it is important to understand a number of factors: Unlike the urethane foams of 20 years ago, modern spray foams such as Icynene FoamLite use water as the blowing agent. This means that the reaction between the two components produces CO₂ which causes the foam to expand.

As FoamLite expands, the cells of the foam burst and the CO₂ is replaced by air. Consequently, from an environmental perspective, Icynene has a Global Warming Potential [GWP] of 1 and an Ozone Depletion Potential [ODP] of 0 [Zero]. Nor does Icynene emit any harmful gases once cured.

Breathability

Modern spray foam systems are also formulated to create an “open cell” composition. Open cell foams such as FoamLite are extremely vapour open and will allow moisture vapour to pass freely through it allowing the building to breathe naturally. Open cell foam will also not soak up or “wick” water.

This new generation of spray applied insulation products, when professionally applied by experienced contractors, can result in near zero air leakage through the building envelope. In fact, Icynene has been shown to achieve air tightness standards exceeding those of the world renowned Passivhaus system of construction.

Conclusion

Clearly, reducing heat loss in our existing housing stock will make a significant contribution to lowering carbon emissions. There are over 25 million homes in the UK, a large proportion of which have seen no improvement to their thermal performance over their lifetime, so improvements made through a combination of better insulation and reduction of air leakage will result in lower energy consumption and therefore help achieve the overarching goal of slowing the rise of global temperatures.

www.youtube.com/watch?v=xn4ZHQJLWHM&feature=youtu.be
www.icynene.co.uk

The quiet fun solution

The London Gunnersbury Park Museum is a perfect example of how high-performance acoustic solutions can solve the problem of noise in public and leisure places. As design trends continue towards minimal furniture and hard surfaces, it becomes increasingly important to reconcile aesthetics with personal comfort.

As part of its Heritage Lottery Funded redevelopment, London's once-neglected Gunnersbury Park Museum has been transformed. It now boasts new gallery and learning spaces as well as a brand-new exhibit telling the stories of local people. A new addition to the Regency Mansion is the pavilion, originally designed to house both the catering facilities and horse-drawn carriages that are a large part of the Park's heritage. When considering its redesign, the architects wanted to create a space that would provide a hub for the Park. It needed to be a space that emotionally connected with visitors to the Museum and regular users of the Park.

With this in mind, the designers decided to specify Troldekt panels. With their natural



look and feel and acoustic properties, they were the ideal solution for the ceiling. It allowed them to use harder surface materials elsewhere to suit the architecture of the pavilion.

Path Design says, "We needed to ensure that we addressed what could be a relatively hard interior because of the heavy floors we needed for high traffic catering and the predominantly glazed elevations. As such, we looked to soften acoustically the space to reduce the

background noise generated by the open kitchen and coffee machines, along with the general noise created by visitors."

Troldekt panels are commonly specified throughout the UK and Europe to improve the interior acoustic environment. They offer high sound absorption, high durability, natural breathability and low cost life cycle performance in addition to inherent sustainability.

01978 664255 www.troldekt.com

Building for a better world



In April, a special clinic for treating children suffering from cleft lip and palate was opened in the Moroccan city of Oujda. The new building was made possible thanks to the dedication of humanitarian architecture charity Article 25 and

the extensive support provided by the **Sto Group**. Sto provided all the construction materials for the interior and exterior surfaces of the building, including a facade insulation system designed to save both heating and cooling energy, durable facade renders and finishes, textile wall coverings, low-emission interior coatings, non-combustible acoustic ceiling systems, and easy-to-clean floor coatings.

01418 928000 www.sto.co.uk

Kingspan TEK provides off-site solution



© Matt Noone

Silverlake is an exciting new development, constructed by Conservation Builders Ltd, which offers lakeside holiday homes amongst the beautiful heathlands, woodland and lakes of West Dorset. The newbuild project is designed to be an exemplar of sustainable development from design to future operation, and the latest phase utilises 4,000m² of the **Kingspan TEK Building System** for the walls and roofs of the new properties. The Kingspan TEK Building System was selected as it allowed for predictable off-site construction and design flexibility, as well as providing exceptional out-of-the-box fabric performance.

01544 387 384 www.kingspantek.co.uk

Insulation solution for development



© Michael Whitestone

A development for contemporary urban living in Bristol is benefiting from the latest advancement in vacuum insulation technology and exceptional thermal performance with the **Kingspan OPTIM-R E Roofing System**. The Old Library is a new-build featuring 36 spacious studios and apartments in the vibrant, North Bristol neighbourhood of Cotham. Kingspan Insulation provided detailed information regarding the fitting of the Kingspan OPTIM-R E Roofing System, ensuring the ratio of Kingspan OPTIM-R E panels to OPTIM-R flex infill strips was optimised. This ensured that the U-value requirements were met without compromising on aesthetic design.

01544 387 384 www.kingspaninsulation.co.uk/optim-r

Patient comfort a priority at hospital's unit



A new Intensive Care Unit opened at Walsall Manor Hospital, which provides specialist care to critically ill patients. **Kingspan Kooltherm Pipe Insulation** has been installed to assist with effective temperature management to safeguard patients' wellbeing. The project has also targeted a BREEAM rating of 'Very Good'. M&E contractor, Chase Insulations Ltd, installed 3000 lm of Kingspan Kooltherm Pipe Insulation on the HVAC pipework in conformance with Kingspan's high standards. The insulation delivered a simple, low maintenance solution for effectively reducing heat transference and ensuring optimal heating and cooling system efficiency.

01544 388 601 www.kingspanindustrialinsulation.com

Vortice supplies stylish Quadro Range



Vortice is delighted to be working on a stunning development, Lawford Green, in partnership with Rose Builders who have an outstanding reputation for building environmentally friendly homes in East

Anglia. Surround yourself in a wealth of parkland, unique history and picturesque coastal scenery, all encapsulated in the unrivalled beauty of the Stour Estuary. Rose Builders have selected the energy efficient Vort Quadro centrifugal fans for the development. This stylish centrifugal fan has the option to be inbuilt or surface mounted, can be mounted in any orientation and has easy accessible filters.

01283 492949 www.vortice.ltd.uk

Air Vent Technology battles the elements



Air Vent Technology Ltd have helped design a ventilation system to suit the requirements of the kiln room area of Interfish Ltd. The company needed a system which could cope with the special demands encountered in a fish processing company. The Air Handling Units chosen and installed have separate extract fans specifically to serve the kiln room area. The

units were fully treated inside and out to give protection against the high salt content of the air at this coastal location. The extract unit was supplied with "motor-out-of-airstream" to offer additional protection and longer life against the harsh extract conditions and high ambient temperatures.

01264 356415 www.airventtechnology.co.uk



Pent up about roof ventilation

Gilberts Blackpool, through its innovative in-house R&D capability, can produce, from scratch, bespoke roof ventilation terminals. Further, the terminals can be designed to integrate clear acrylic or glass daylight solutions – be it domed or in-plane panels – which can potentially contribute towards a zero carbon strategy. Gilberts has developed and manufactured bespoke options that have encompassed square, rectangular and even curved designs, for locations as diverse as Oxford boathouses to a butter packaging facility near the Irish coast and electrical converter stations on the Moray Firth. The company has its own, in-house purpose-built test laboratory, which, combined with in house 3D modelling and Computational Fluid Dynamic (CFD) software, enables it to validate any bespoke penthouse design before manufacture and delivery to site.

01253766911 www.gilbertsblackpool.com

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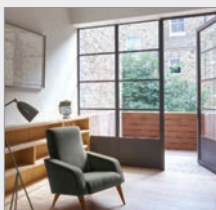
Polyflor adds to the Expona family



Polyflor, a commercial and residential vinyl flooring specialist, is pleased to announce the launch of a brand new product format, the Expona EnCore Rigid Loc collection. This exciting new hybrid product has an expertly engineered premium rigid SPC (Stone Polymer Composite) construction with exceptional stability making it ideal for installation over existing subfloors. Expona EnCore's technically sophisticated specification combines: A premium rigid SPC core; 0.55mm heavy commercial wear layer; high clarity decoration layer; 1mm IXPE Acoustic Backing Layer and 5G-i locking technology.

0161 767 1111 www.polyflor.com

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01476 249494 www.bronzecasements.com

Steel windows and doors in the bathroom



Steel in the home continues to dominate in the home fashion stakes; internal partitions and large steel windows replace solid doors and walls in contemporary homes. And, with advice from the **Steel Window Association**, homeowners can enjoy plenty of options

if they want the look! The most common use of steel windows in bathrooms is to create shower screens; not only are they an excellent replacement for shower curtains, the stylish design also allows plenty of light to enter the shower space.

www.steel-window-association.co.uk

Underfloor Air Conditioning for Flax House



Flax House is a five storey Victorian building with red brick, warehouse style construction, located on Adelaide Street in the Linen Quarter of Belfast. Underfloor air conditioning, with full underfloor supply, and underfloor return air was specified so that the warehouse loft ceilings could be left exposed, highlighting the retained features and building characteristics. Flax House is the second building on Adelaide Street to make use of plenum air conditioning. A total of 11 CAM-C downflow units and 128 TU4 Fantiles were supplied for the five storey building. Visit the **Flexible Space** website for further information.

01342 310400 www.flexiblespace.com

Mapei adds to the ambience with Ultracolor Plus in London extension



©Lipton Plant Architects

Products from Mapei have been specified by Lipton Plant Architects after distinct plans were made with their London-based client to build an extension on an existing building situated along Wolsey Road. Its design was shaped around the history of the area with inspiration from the significant 'Newington Green Gardens' and the former forest clearing, which was lost to create streets and houses in the Victorian era. Also positioned opposite a mural of a garden which has since faded, the architects designed the extension around the concept of

re-establishing the mural and its history, cultivating the illusion of a forest inside the property.

Using a palette of simple materials, the extension to the house's roof by GMS Building Services has created a bedroom and en-suite. Tailored to curve and 'float' upon the top floor, the extension added approximately 25m² to the property, with the new space providing a haven in the treetops, flooded with light and warmed by timber.

Adding to the ambience, Mapei's Ultracolor Plus was specified for the addition of the en-suite bathroom. The water

and abrasion resistant, flexible grout was used between standard white tiles on the floor and walls in the colour Terra di Siena, with the theme of copper and brass used throughout the extension to complement the colour of the wood. With its earthy tones, the grout completed and fulfilled the specification provided by Lipton Plant and the client.

Mapei's Ultracolor Plus is available in 35 colours suiting every mood. For more information, visit the Mapei website.

0121 508 6970 www.mapei.co.uk

Spiral UK creates a design classic for Centenary Lounge

When award-winning business, Centenary Lounge needed a stunning staircase for their new flagship outlet in Worcester, they called upon the design and build skills of staircase specialists, Spiral UK.

The unique cafe-tearooms recapture the glamour of the 1930s railways, with beautifully designed interiors inspired by the golden age of travel.

Spiral UK's Managing Director, Eric Nicholls, explains how his company brought this vision to life: "It was a real privilege for us to work on such a prestigious project and



with such an inspiring brief. We were able to use top quality materials that truly reflect the luxurious style and superb craftsmanship of the art deco era.

"The staircase is crafted in steel with closed risers and treads fashioned from white washed oak, the walnut clad balustrade has a stainless-steel handrail which helps to accentuate the beautiful curve and flow of the staircase."

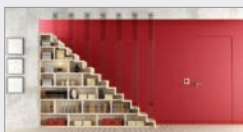
This is the latest successful project completed by Spiral UK, who have secured a string of high-profile new business wins in the

last year. These include feature staircases for the Sony Interactive head office, Salesforce Tower in London and the new Launchpad Building at Falmouth University, as well as escape staircases at the new Dyson Campus.

Centenary Lounge's Founder, Aasia Baig adds: "The number of customers who have seen the new staircase and simply said "Wow!" tells me that it has hit exactly the right note for our business. We are really thrilled with the finished result."

0330 123 2447 www.spiral.uk.com

Flush hinged door systems



Rocket Door Frames offers a chance to keep on trend with your interior style without the interruption of a door. There is literally nothing to see except clean contemporary lines with plastering right up to the edge which,

when combined with hidden hinges, completes the look of invisibility. For ease of installation each unit is supplied with its own jig for routing the door. FD30 approved also available. Looking for simple, modern style that you can continue through your whole interior design interior, the flush hinged door system is the perfect answer.

0330 9980617 www.rocketdoorframes.co.uk

Specifying a loft ladder just got easier



Premier Loft Ladders have made it even easier to download NBS product data from their website. Where available, the specification can now be copied directly from the main product pages, as well as from NBS Plus. Furthermore, architects and

specifiers will soon be able to access NBS authored loft ladder BIM models in both Revit and IFC format. The BIM objects will include a selection of the company's most popular products, covering a wide range of requirements, from Passivhaus certified loft ladders (pictured) through to high-performance fire rated models.

0345 9000 195 www.premierloftladders.co.uk

Super Subway shapes from TREND



The Subway range of glass mosaic tiles from Italian specialist, TREND, has been developed to add class and glamour to any feature surface – tiling, walls, splashbacks, and customised artwork. Crafted by hand using traditional artisan techniques, the tiles are coloured throughout to achieve consistent shades and prevent fading. They are completely resistant to heat, burns,

impact, wear and chemical cleaners. The collection comprises tiles which are made from recycled glass and recovered mineral products at levels reaching 78 per cent of total raw material content; enabling specifiers to obtain LEED (and other) points for sustainable building projects.

www.granitetransformations.co.uk

Altro donation for royal alexandra hospital



SiMBA, the charity supporting families who have suffered the loss of a baby, has opened a new Family Room and Quiet Room at the Royal Alexandra maternity hospital in Paisley. As part of the project, Altro donated Altro Wood Safety Comfort flooring for the family and quiet

rooms, and Altro Pisces flooring for the en-suite bathroom. Victoria Boulton, Lead designer with Grosvenor Interiors, commented "Altro Wood Safety Comfort works well as a contrast to our furniture finish. The look, comfort and safety underfoot were important features."

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Advanced's high rise reputation sees it protect European landmark

Global fire systems leader, Advanced, has been specified on another landmark tall building. Set to stand at 62-storeys high, 22 Bishopsgate in the City of London will, on completion, become the second-tallest building in Western Europe.

The 278m office building will offer 1,275 million ft² of high specification office space, as well as eight community spaces, covering over 100,000 ft², including an innovation hub, curated gallery space, fresh food market, gym and wellbeing retreat. Once completed, Advanced will protect both of Western Europe's tallest buildings, with 22 Bishopsgate being the latest in a long line of London's most prestigious and iconic skyscrapers specifying Advanced, including the Shard, the Leadenhall Building, the Heron Tower and the HSBC Tower.

At the centre of the active fire protection for 22 Bishopsgate are over 80 networked MxPro 5 panels with graphic display and BMS integration, alongside three special build



Courtesy of Lipton Rogers

panels for the building's Fire Command Centre, that will form part of the intelligent fire detection network. Advanced's panels are used alongside Apollo's Soteria detectors and its networking is widely regarded as the most resilient and scalable solution on the market. It can be expanded up to 200 node networks covering huge areas with complicated cause-and-effect.

As a UK-first, 22 Bishopsgate will utilise a specially developed lift-evacuation strategy in case of fire. The building is separated into

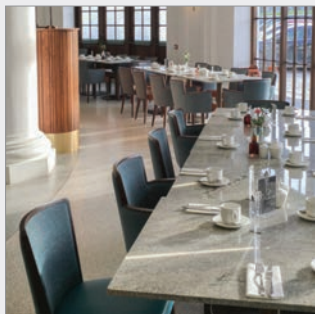
four vertical areas by fire-hardened slabs with a two-hour fire rating separating a floor from the one above at levels 26, 42 and 58. Depending on which of the four vertical areas of the building a fire is detected, workers on that floor and the floors above egress via fire escape stairs to the area below and from there can evacuate via the lifts, safe in the knowledge that these are protected by the slabs above.

Responsible for every aspect of installation of the fire system from design to completion, PHF Fire, a division of PHF Electrical, used Advanced for its market-leading networking capabilities, best suited to managing a network of this size and complexity.

Advanced is a world leader in the development and manufacture of intelligent fire systems. The performance, quality and ease of use of its products sees Advanced specified in locations all over the world.

0345 894 7000 uk.advancedco.com

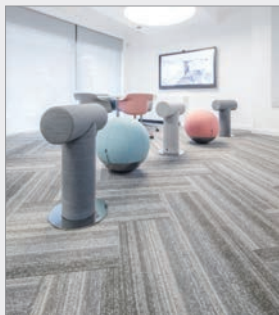
Modern flooring for historic Spanish City dining and leisure centre



The historic Spanish City utilised flooring solutions from Flowcrete UK in its 2018 restoration project that saw its Edwardian features brought back to life. "The Dome" first opened its doors in 1910 and was a hub of activity and interest to the residents of Whitley Bay and visitors alike. Almost eighteen years after its closure, North Tyneside Council has reopened Spanish City and restored it to its former glory, thanks to support from the National Lottery Heritage Fund and its players. Kevin Potter, Flowcrete UK's Managing Director, said: "With the devil being in the detail, the expertise of Flowcrete UK was called upon to find the ideal flooring solution for the dome area that would merge Spanish City's early twentieth century heritage with modern building technology." Over 500 m² of the semi-dry cementitious Isocrete K screed and Isocrete K Screed HDP was installed alongside underfloor heating, in order to provide a heavy-duty base for the resin flooring. To pay homage to the twentieth century glamour, 200 m² of the decorative seamless terrazzo system Mondéco Earth was chosen in two complementary colours to form concentric circles around the dome.

01270 753000 www.flowcrete.co.uk

Antron® carpet fibre proves performance and flexibility at Workplace House



Antron® carpet fibre, played its part in this year's Clerkenwell Design Week, used in six carpet qualities from Christy Carpets at Workplace House, a collaborative showroom space in London's bustling Clerkenwell district. Workplace House sees highly-regarded manufacturers and technology companies come together to create an exemplar agile workplace, brimming with innovative workplace design and solutions. For the floors of Workplace House, Christy Carpets has selected some of its most stylish designs, with six of these carpets making use of Antron® carpet fibre. Known for rock-solid performance and ease of maintenance, Antron® carpet fibre can be found throughout the showcase space, demonstrating Christy Carpets' confidence in choosing the fibre for demanding areas such as the main entrance, where making an excellent first impression is key. Stephan Hanke, INVISTA Antron® carpet fibre, comments: "The widespread use of Antron® carpet fibre at Workplace House demonstrates the confidence Christy Carpets has in the full range of available Antron fibres; from the durability and soil-hiding capability of Antron® carpet fibre up the peerless stain and fade-resistance, soil-hiding and longevity of Antron® Lumena."

www.antron.eu www.INVISTA.com

Street artist teams up with Formica Group



Okuda San Miguel is one of the most prominent contemporary muralists in the world and the first artist to team up with manufacturer **Formica Group** to create a limited edition line of laminates. Using Okuda's

vision, standard, monochromatic hospital rooms were converted into spaces full of colour, positive energy and optimism. It was this success that influenced the decision to create the line of laminate panels with Okuda's distinctive artistry. The Okuda panels are available in four exclusive patterns and three sizes which can be adapted to any interior or exterior project, ranging from small-to-large scale application.

0191 259 3512 www.formica.com

Flying high with HeartFelt® ceiling



Avolon Aerospace's new global headquarters in Dublin is the first building in Ireland to feature **Hunter Douglas Architectural's** award-winning HeartFelt® ceiling. The state-of-the-art HQ is designed to achieve LEED Gold accreditation for energy efficiency and environment design. Hunter Douglas Architectural's award-winning HeartFelt® ceiling panels were specified for the majority of the open-plan office areas and boardroom by MOLA Architecture, who was so impressed with the quality of HeartFelt® that it has already specified it on a further two projects and Senior architect Dara Murphy says he is confident it will be used in further fit out schemes.

01604 648229 www.hunterdouglas.co.uk

GreenBlue Urban's first ever showroom



Global Tree Pit innovator – **GreenBlue Urban** is proud to announce their first ever showroom in Farringdon, London – Located at 117 St John's Road, EC1V 4JA. The London based showroom will be the only place in the UK to showcase a range of tree pit products that enable healthy uncompacted aerated soil for extensive urban tree canopy growth. Products include; Soil Cells, Root Management, Irrigation, Aeration, Grilles and SuDS solutions. Working alongside our sister company Kinley the showroom will also display a range of outdoor inspired products to assist specification of edging, tiling and planters.

enquiries@greenblue.com

Installation of coloured shade sails & posts

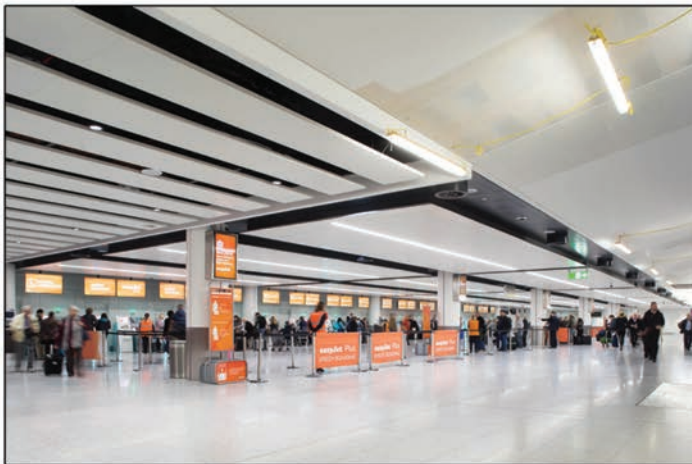


In May 2019 **Jeckells the Sailmakers** completed an installation at Attleborough Primary School to create three brightly coloured mesh shade sails on green posts to match their drainpipes with yellow post bumpers to match their logo. The installation provides sun shade for the youngsters at the school and Jeckells' project

managed the whole installation, including specification and installation of the posts. Jeckells' do a lot of work for schools, understanding their health & safety requirements and working around the curriculum to make life easier for busy school administrators.

01603 782223 www.jeckells.co.uk

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Shades apart

Louise Martin-Bennett of Fordingbridge discusses why an increased focus on user wellbeing is meaning that shading systems are more in demand than ever



With continued focus on user wellbeing, client specification of shade systems is now commonplace in UK architecture. Certain sectors, specifically education and healthcare, are requesting these benefits from a planning stage to ensure that their patrons are protected from the UV-related issues brought by the ever changing climate. Within schools especially, credit is given to specifications which take the matter into account for their pupils. No longer just a mainstay of continental installations, both existing and new-build establishments are taking the situation seriously with regards to shade.

The same is true within leisure. With an increasing number of those holidaying at home thanks to favourable weather and continental uncertainties, UK park operators are taking to the task and ensuring that their users remain protected, safe and as a result, more likely to return. Whether it be an independent caravan park or a national holiday operator, exterior

shade is now deemed a necessity to support the comfort of patrons. Likewise in theme parks where shade is provided for queuing thrill-seekers prior to rides.

Fortunately for design professionals, the days of pop-out, retractable sails more akin to that which you would find on the side of a motorhome, are a thing of the past.

The choice for shading varies greatly, each having its own merits and disadvantages, from inexpensive triangle-sails, which have the benefits of easy installation, and straightforward bi-annual replacement when worn, to more permanent and architecturally rewarding solutions. Favoured in the South Pacific, mounted horizontal louvres fabricated from timber and steel alike had become increasingly popular in UK architecture, providing a complete shadow over the facade of a building at the hottest point of the day thanks to clever angling of the materials and placement of the structure.

While these are praised for reducing ambient temperature on adjacent rooms,

Whether it be an installation to be sited against a building, or a free standing area of shelter in open space, care and consideration should be taken when deciding on which method of shade is selected



(forgoing the need for blinds), the reduction in natural light, and similarly the lack of providing a dual benefit with shelter from rain, means that this is a system that's falling out of favour with UK end-users. In fact, it is the dual-benefit aspect which must not be overlooked when planning which system to use.

Despite the ever increasing temperatures the UK is experiencing in spring and summer, designers still need to consider that the UK's somewhat unique weather system does present its own challenges. The low-cost shade sail provides little in way of protection from rain, providing nothing but a place for water to pool and grow stagnant, or simply run off in a torrent below. Similarly, louvres are completely ineffective against rain and sleet protection, hence the falling from grace with regards to their installation at a building's entrance.

Architectural canopies represent a further option for architects and clients alike, offering both shade and rain protection for users. While there is a more considered approach to design and installation with such a structure, such an intervention ensures that these can deliver the project brief for a number of years, negating the initial expenditure. Here careful collaboration between contractor and architect at a planning stage is especially key, more so than with a shade sail alternative.

Considerations with regards to shading now fall further than simply casting a shadow on a building, and with the importance of natural light, longevity and user safety equally key, it stands architects and designers in good stead to demonstrate this understanding to their clients when discussing a brief.

Whether it be an installation to be sited against a building, or a free standing area of shelter in open space, care and consideration should be taken when deciding on which method of shade is selected. While public perception of overexposure to UV is now greatly increased, it is still clear that no-one wants to spend their time in a shadow during the warmer months. Equally, if the specified solution provides the additional advantage of rain protection, while still remaining visually appealing and retaining the above benefits, the end project will be all the better for it.

Louise Martin-Bennett is canopy draughtsperson at Fordingbridge

Sealing solutions for 'Willowbrook Park'



As part of plans to solve Oxfordshire's housing woes, Resiblock have combined with Croudace Homes and South Oxfordshire District Council to provide sealing solutions for 'Willowbrook Park', Didcot. Under the 'Willowbrook Park' plans, Resiblock '22' has been utilised to seal and stabilise Concrete Block paving that formed the pathway and roadways to a key landscaped area on Mersey Way. These works further seal Resiblock's reputation in the Didcot area, following the successful installation of Resiblock '22' at the Bloor Homes site of 'The Greenway' in 2017.

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Green-tech supply substrate for roof terrace installed for Barratt London

Green-tree's intensive roof garden substrate has been installed in a large-scale roof garden for a Barratt development in West Hendon.

Green-tech was called in by Kingston Landscape Group who specialise in commercial landscape installations and grounds maintenance across London. They are well known and respected for their stunning roof top gardens within some of the London's most admired developments.



Green-tree Roof Garden intensive substrate was recommended and supplied for the roof top planted areas along with a containerised planting scheme. The substrate is a blend of lightweight aggregate and award-winning Green-tree topsoil. It was ideal for this project due to its lightweight texture and good water-holding capacity which ensures healthy plant establishment in harsh rooftop environments.

Tom Beck, Commercial Manager from Kingston Landscape Group said: "We have worked with Green-tech for a number of years, and particularly like using their Green-tree Roof Garden Intensive topsoil. It's lightweight and its properties are ideal for growing in rooftop planters. Their production process and haulage service is very professional and well organised. I have no hesitation in recommending this company and their product on any job."

Green-tech's spokesperson said: "Green-tree Green Roof Substrates are successfully



used in roof garden and containerised planting projects because of their lightweight nature, good levels of fertility and excellent aeration properties. We offer a consistent, all-year round supply and it can be found in numerous high-profile projects across the country.

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