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Managing Editor

James Parker iparker@netmagmedia.co.uk

Advertisement Manager/ Joint Publisher Anthony Parker aparker@netmagmedia.co.uk

Editorial Co-ordinator Shelley Collyer

Editorial Assistants Roseanne Field Jack Wooler

Editorial Contributor Sébastien Reed

Studio Manager Mikey Pooley

Production Assistants Georgia Musson

Kim Musson

Sales Executives Suzanne Easter

lan Fletcher Kim Friend Steve Smith

Audience Development Manager

Jane Spice

Managing Director Simon Reed Advertising &

Administration t 01435 863500 info@netmagmedia.co.uk

www.architectsdatafile.co.uk

Press Releases

editorial@netmagmedia.co.uk

Subscription circulation enquiries circulation@netmagmedia.eu

netMAGmedia Ltd Cointronic House

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







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FROM THE EDITOR



A the time of writing, we remain on the brink of one of the most important Parliamentary votes to have happened in my lifetime. The vote on whether to accept Theresa May's compromise deal on the Withdrawal Agreement is being widely written off however as doomed to fail, and though the Government has given assurances it will go ahead as planned, we have heard this before, only to see it moved at the last minute.

This farcical situation belies the incredibly serious nature of what is afoot, particularly if you live in Northern Ireland. The spectre of No Deal including an automatic hard border (although how this will be introduced is somewhat baffling), alongside all of the other issues (from queues at customs borders to food and medical supply shortages) is something few want, but incredibly that now looks a realistic proposition.

However May's desperate ploy of 'my way or the highway,' having received no further concessions from the EU, is just that – desperate. The entire situation could have been avoided by MPs if they had had the courage to vote against holding what has turned out to be a highly divisive and even damaging Referendum, but as the cliché goes, 'we are where we are.'

The one thing that you can be certain of if a No Deal occurs (as with everything Brexit related, there is so little certainty) is that costs will rise. There has been little comment in terms of how it might affect construction materials, but it's fantasy land to imagine that tariffs will not be applied to products coming in from the EU under World Trade Organisation rules, to offset tariffs applied to our exports. According to the Timber Trade Federation, 90 per cent of timber used in the industry comes from Europe. Sudden cost rises could scupper what had been a renaissance in the material's use, following the ban on 'combustible cladding' over 18 metres.

What might be a bigger concern is the possible 'non-tariff barriers' under WTO rules, particularly enforcing compliance with standards. The CBI has estimated that delays at the border to ensure that products coming in comply with the appropriate standards for use in the UK could add 6.5 per cent to costs. In addition, the resulting non-availability of products due to delays, especially given the existing challenges in meeting demand in areas like housing, and tight profit margins, could be highly problematic. Our now well-embedded model of 'just in time' supplies is not going to cope well in the short term.

As so often, the bottom line is going to be where the pain is felt, and will have contractors reaching for the phone to lawyers to see how far their contracts can stretch to protect them. Sudden cost hikes are something which architects have recently voted with their feet on, the ARB having raised its annual registration fee by 3.7 per cent to £111, the first rise in four years.

As a result, 1,100 architects have been dropped from the ARB register, bringing it down to just over 40,000. It shows that even small increases in business costs can have a big effect.

James Parker Editor



ON THE COVER...

Karolinska University Hospital reflects the client's aim to create a new attitude to hospital design, a more urban and inviting kind of building that reworks hospital plans around the patient.

For the full report on this project, go to page 38 Cover image $\ensuremath{\text{\odot}}$ Fredrik Sweger

NEW YORK

Fosters' slim NYC tower

Shortly after unveiling their latest UK project 'The Tulip,' Foster + Partners completed their latest "top-to-bottom designed" building in New York.

100 East 53rd Street, developed by RFR and Vanke, has a unique undulating facade, inspired by its neighbour, the Seagram Building. Rising to 63 stories, 100 East 53rd Street includes 94 contemporary residences which offer "stunning" city views.

The building is said to "offer the highest level of lifestyle services and comfort" to occupants. The lobby includes custom furniture and interiors designed by Georgis, and the main entryway displays a work by artist Rachel Feinstein. A 1998 bronze sculpture by American artist Bryan Hunt "animates the lobby with a forceful energy," while an original painting by Federico de Francesco sits in a custom seating area facing the building's distinctive elevators, which have been designed by Foster + Partners.

Encompassing the third and fourth floors, the building's spa-inspired "amenities" areas, including public restaurants, feature a dramatic custom





crystal Murano glass chandelier, handmade by Seguso in Venice overlooking a 60 ft swimming pool, which is lined in smoky black granite and surrounded by bamboo plants.

"The softness of the bamboo is echoed in the slatted oak scrim interior walls, while light pours in from three walls of double-height, undulating windows," commented the project's developers. Around the pool are state-of-the-art wellness facilities, including a cardio room, weight room, pilates/ballet room, yoga room, sauna, steam room, spa treatment

rooms, and changing rooms and showers.

Located off Park Avenue in the heart of the Midtown Cultural District, 100 East 53rd Street is at the epicentre of New York's entertainment, business, and cultural community. The Manhattan neighbourhood is now highly sought after as a destination for luxury living, with its wealth of lifestyle offerings. In addition, the area boasts art galleries and luxury shopping on the world famous Fifth Avenue corridor, as well as Central Park, and various architectural icons and landmark performance venues.

MATERIALS

Carbon neutral resi to office conversion combines oak, steel and heritage brick

The new office of a business that invests in sustainable agriculture in the heart of Paddington, west London, has been completed by Edward Williams Architects. The part-restoration, part-rebuild project has transformed the shell of a double fronted mews building into a "contemporary and timeless workplace," said the architects.

The office has been designed as a zero carbon exemplar, which will have no greenhouse gas emissions once occupied. Edward Williams Architects' design strategy for the three-storey, 210 m² building included replacing the gas supply with 100 per cent renewable electricity. Known for their creative approach to design and use of natural materials, the architects have retained and restored as much as possible of the existing building fabric to achieve "an economy of materials and a sense of historic place."

Where new structural fabric was necessary, natural materials have been used wherever possible, including substantial new oak joists that have replaced the rotting timber structures – sized to meet contemporary fire-prevention standards. The architects commented: "The challenge was to

substantially redevelop the existing small mews building without losing any of the character – indeed adding character where possible."

Externally, the refurbishment respects the existing building features and is sensitive to the mews context. The building has lead roofing and windows to match neighbouring properties. New structural elements were designed to be fabricated off-site and then "elegantly bolted together on-site to maximise quality, and reduce installation time, construction waste, and noise."

Internally the design offers flexibility for various office uses including an informal gathering area, smaller spaces for private working, and larger spaces for board meetings. Further future-proofing comes from allowing flexible installation and removal of office partitions.

Exposed brickwork is combined with new oak panels lining walls, exposed oak joists in the ceiling, and dark grey painted steel throughout. The timber is pressure impregnated to achieve class 0 fire rating. The architects added: "Skilful fire engineering has removed the need for intrusive fire systems."



AWARDS

Nineteen UK architectural practices included in list of nominees for the EU Mies Award 2019

The European Commission and the Fundació Mies van der Rohe have announced the names of the projects that will compete for the 2019 European Union Prize for Contemporary Architecture – Mies van der Rohe Award.

Of the 383 projects in the longlist, 19 have been constructed in the UK. These include Royal Academy of Music: The Susie Sainsbury Theatre and The Angela Burgess Recital Hall by Ian Ritchie Architects, Bloomberg by Foster + Partners, Bushey Cemetery by Waugh Thistleton Architects, Storey's Field

Centre and Eddington Nursery by MUMA, and the Leadenhall Building by Rogers Stirk Harbour + Partners. Two projects by Amin Taha are on the list, including the controversial residential project 15 Clerkenwell Close in London.

The organisers commented on the 2019 award in the context of its previous iteration: "The 383 works draw the present picture of contemporary architecture in Europe. After the challenges of Housing and Heritage in Europe highlighted by the 2017 jury and winners, and the exciting debates that

have taken place during these two years, the new cycle of the prize will reflect on the next challenges of architecture, which architects, clients, policy makers and other professionals are faced with."

The jury includes architects Dorte Mandrup, George Arbid, Angelika Fitz, Stefan Ghenciulescu, Kamiel Klaasse, María Langaritaand, and Frank McDonald. They will shortlist 40 projects and select five finalists which they will visit in April. The awards ceremony will take place on 7 May at the Mies van der Rohe Pavilion in Barcelona.

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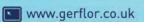
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SPALIN

MILITARY

US Air Force project at Lakenheath takes off

The Ministry of Defence has confirmed the team for its £160m project to build a flight simulator, maintenance unit, new hangars and storage facilities for the US Air Force at RAF Lakenheath. Architects HLM will work alongside engineering and construction firm Kier VolkerFitzpatrick to design and deliver the new facilities.

The Suffolk airbase will be the first permanent international site for US Air Force F-35s in Europe. The flight simulator for the stealth fighters will have the capacity to link to other simulators used by pilots "across the UK and beyond, allowing expertise to be shared and pilots from the UK and US to train together," said the MoD.

Managing director of aviation and defence at Kier, James Hindes, commented



Leaders from RAF Lakenheath, the Defence Infrastructure Organisation, Air Force Civil Engineer Centre, West Suffolk County Council and Kier VolkerFitzpatrick at RAF Lakenheath for a ceremony celebrating the award of the DIO contract © US Air Force Staff Sgt. Alex Echols

on the project: "It builds on our extensive expertise in the defence sector delivering first-class projects within secure environments including facilities at MoD Lyneham and RAF Shawbury.'

Mick Scherdel, director at HLM, said: "Since 2000, HLM has been improving and enhancing training, living and learning across the UK Defence Estates. RAF Lakenheath will benefit further from our recent experience on Project Wellesley, DCLPA Worthy

Down and Catterick Garrison."

Defence Minister Tobias Ellwood commented: "This investment will see substantial benefits to the local economy, bringing 1,000 new personnel with their families and we will work hard to ensure that the benefits will last long after construction ends."

At the height of construction, it is expected that there will be up to 700 personnel on site.

RIBA

Helping architects serve EU demand needs a good Brexit deal, says RIBA

The RIBA has highlighted the importance of a good Brexit deal in serving growing demand from the EU as well as Asia, launching its annual summary of trends in the architecture and construction sectors.

Drawn from data provided by RIBA's Chartered Practices, the Business Benchmarking Survey has been conducted since 2012 to provide insight into trends over time. The key trends it has reported in 2018 (compared to 2017) are:

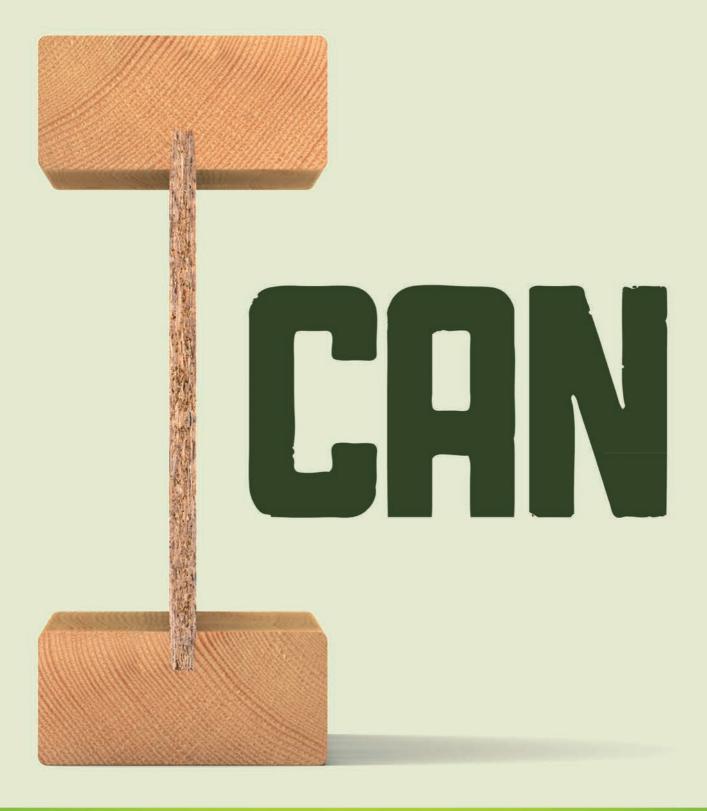
- The value of international work has increased to £513m (from £498m)
- Asia (£140m) has overtaken the middle east (£104m) as the most profitable source of work for UK-based architects

- EU work has increased to £118m (from £108m) – making it the second largest source of international work
- · Salaries have increased ahead of inflation, "suggesting practices are working hard to retain their staff." RIBA CEO, Alan Vallance, commented on some good news in the survey: "Our results indicate areas of buoyancy in architecture and construction projects. The total revenue of architecture firms has doubled since 2012 and, since then, growth in revenue has continued to outpace employment growth, indicating an ongoing increase in productivity."

However he added: "Growing demand

from Asia and the EU - shows the importance of both maintaining our current relationship with the EU and value placed on British experience in new markets, and underlines the importance of a good Brexit outcome. The Government must deliver a deal that works for the architecture sector, and ensures we are able to access vital services, attract and retain talented professionals, and maintain our renowned position as a globally successful hub for architectural excellence."

The RIBA's Business Benchmarking survey provides data on architects' profit and turnover, salaries, and identifies global growth areas for the export of UK architecture expertise. The executive summary of the 2018 survey is available from the RIBA website www.architecture.com



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EVENTS

EXHIBITIONS

The Data and Life of Great Future Cities Ends 26 January, London www.rocalondongallery.com/en/activities

RIBA Sterling Prize Exhibition 2018 Ends 23 February, Liverpool www.architecture.com/whats-on

SEMINARS

Exploring Ethics in Practice 30 January, Nottingham www.architecture.com/whats-on

TOURS

Architecture Walking Tour: South Kensington 27 January, London www.architecture.com/whats-on

Architecture Walking Tour: Victoria & Pimlico 17 February, London www.architecture.com/whats-on

TRADE SHOWS

Architects@Work

23 - 24 January, London www.architect-at-work.co.uk

Surface Design Show

5 - 7 February, London www.surfacedesignshow.com

Futurebuild

5 - 7 March, London www.futurebuild.co.uk

BOOKS

Architecture and design titles for 2019











Phaidon has announced its architecture and design titles for winter/spring 2019, which include books on interior design, forgotten spaces, and the diversity of homes, as well as two on key studios, and one which looks at 'Bubbletecture'.

'Interiors: The Greatest Rooms of the Century,' available from May, is "a celebration of residential interior design and decorating." The book "goes beyond decorators, designers, and architects to highlight exquisite interiors designed by fashion designers, artists, style icons, and film stars."

'Ruin & Redemption,' available March, "captures the drama of abandoned, forgotten spaces, as well as the designs that can bring them back to life – demonstrating that reimagined, repurposed, and abandoned architecture has the beauty and power to change lives, communities, and cities the world over," said the publishers.

'Houses: Extraordinary Living' (available May) "celebrates the incredible diversity and beauty of the house as never before," ranging from Modernist icons to feats of technological, material, and spatial innovation in the 21st century.

'Snøhetta,' available from March, is the first book on this groundbreaking and much-admired architectural firm. Through imagery and text, the book showcases 24 projects – including the 9/11 Memorial & Museum Pavilion and the Oslo Opera House, which together, illustrate the practice's "boundary-pushing and highly collaborative approach to design."

'Nendo,' released in March, offers an insight into the "playful, simple and confounding" designs from one of the industry's biggest names. Featuring more than 1,000 images that trace the studio's evolution over a 15-year period, the book journeys across Nendo's extensive body of work, which "flows seamlessly across disciplines, and is executed in every medium imaginable."

'Bubbletecture' – available from March – "brings together inflatables in every conceivable size, shape, and hue across the realms of architecture, design, art, and fashion." The book showcases how architects, artists, and designers "keep rediscovering this deceptively simple, and occasionally bizarre technology," commented the publishers.

MATERIALS

Showcasing great design using zinc

The latest edition of architectural title 'Focus on Zinc,' published by leading zinc manufacturer VMZinc, is dedicated to the winners of the Trophy ArchZinc 2018.

This eighth 'Focus on Zinc' title completes the overall series and has been translated into French, English and German, and distributed in more than 30 countries.

The magazine presents in detail the 14 international projects awarded in the categories Individual Housing, Collective

Housing, Business Premises and Public Facilities, as well as in the awards' special prizes for Sustainable Construction, Customer Prices, and the Grand Jury Prize.

The awarded projects are each highlighted over two to four pages, which include visuals of the buildings, explanatory texts on the specific use of the zinc, and the comments and judgements of the jury. For each category, a double page is also devoted to a



presentation of the selected projects. 'Focus on Zinc Series No. 8' is

'Focus on Zinc Series No. 8' is available upon request from VMZinc, and from the website www.vmzinc.fr

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VIEW POINT



David de Sousa of AHR Architects looks at how modular construction is at the centre of delivering on the housing challenge, hailing its flexibility, practicality and quality

Britain is in the midst of a housing crisis; it's an obvious fact, without an obvious solution.

In the 2017 budget, the Government set a target of delivering 300,000 new homes per year by 2020. While there has been an increase in new homes since then, early reports suggest that the Government is around 82,000 homes short of this target at present. Clearly, more needs to be done.

Modern methods of construction (MMC) have been held up as one potential solution. While their adoption alone won't fix the housing crisis, they can play an important role in helping to increase supply-side capacity.

The importance of MMC was highlighted in the Government's strategy for the industry – Construction 2025. The strategy laid out several key challenges to the industry, highlighting the need to innovate within the construction sector. Lowering costs by 33 per cent, lowering emissions by 50 per cent and increasing project delivery speed by 50 per cent were all key ambitions detailed in the report – and they are ambitions that the adoption of MMC can help to achieve.

The latest Homes England five-year strategic plan further bolstered this by suggesting incentives would be provided to developers adopting MMC. Clearly, there is momentum building behind this approach.

The benefits of MMC

The Construction 2025 strategy set a target to increase the speed of delivery by 50 per cent, and this is one reason people are turning to MMC as a solution.

With an off-site approach to construction, elements can be designed and constructed in a manner similar to a manufacturing assembly line – and this improves efficiency, scalability and speed of delivery.





Having part of the construction process completed in factory-controlled conditions also negates extraneous factors that can impede project progress. Bad weather, for example, does not slow down construction taking place in a factory in the same way it could on a building site.

Operating in these conditions also creates an environment where a high-quality of workmanship can be guaranteed – resulting in a higher-quality housing – and brings with it additional significant health and safety benefits.

MMC can provide innovative solutions for construction, but it also has significant benefits from a local council planning perspective. The flexibility MMC offers means that housing developments can be moved to meet shifting patterns of demand. This is a significant development that allows local authorities to be more responsive to changes in land usage patterns within their regions – and deliver affordable housing in areas where demand is highest.

The architect's role in MMC

The key focus for architects needs to be on harnessing the advantages presented by MMC whilst creating houses that are sensitive to their surroundings and contribute towards a sense of place.

When using MMC, the role of the architect really should not change. Although there may be elements of the construction process that can be streamlined, the design process should always be bespoke.

Functionality and style are obviously key, but individual planning requirements

must also be considered. For example, sympathetic timber cladding may be incorporated into a housing development in a rural setting. It's also possible for modular elements to be incorporated with traditional construction practices to realise a bespoke element within projects delivered through MMC.

The role of the architect in modern methods of construction is demonstrated in AHR's work to deliver new homes at St Mary's Island. Part of the Chatham Maritime development area in Medway, it is Britain's only strategically-planned island development, and previously operated as a shipyard for 400 years.

AHR was commissioned for the detailed design of an element of the development which became known as the Fishing Village (pictured). This part of the development was designed using an innovative 'kit of parts' system.

This design approach offers a range of benefits for residents, including the ability to design flexibly to create diverse and engaging spaces. In turn, this means it's possible to create a unique design identity for each home, ensuring those homes are sensitive to their surroundings and contribute to an overall sense of place. In this particular case, an innovative approach to design allowed AHR to incorporate varied elevations and street interaction across the site – paying homage to the historic fisherman's lofts associated with the area.

It was an approach which culminated in the project receiving one of the first Building for Life Awards, as well as the



Although there may be elements of MMC construction that can be streamlined, the design process should always be bespoke

National Home Builder Design Award for Best Brownfield Development.

MMC and the future built environment

Projects such as St Mary's Island demonstrate that while MMC is a relatively new discipline at present, it is one that is evolving rapidly and offers exciting opportunities for the future of housing in the UK.

The high-quality projects we see today are dispelling the negative perceptions that 'pre-fab' housing cultivated during the post-war era created. This is coinciding with an increasing number of construction firms looking to diversify their offering and embrace MMC as an additional method of delivering high-quality housing.

With all this considered, it's clear that MMC has a big part to play if the country is to meet the supply side challenges that must be overcome to deliver on the Government's target of building 300,000 new homes a year.

David de Sousa is a director of AHR Architects Established in 1975 Firman Glass is one of the leading independent glass processors in the UK, manufacturing toughened glass, laminated glass and specialist sealed units.

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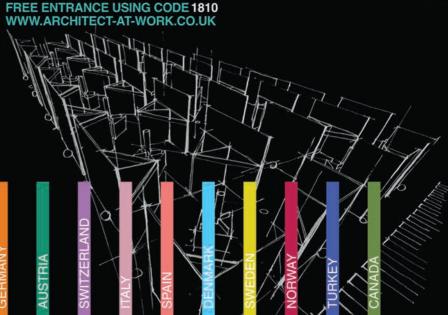
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SITE LINES

Mainstreaming modular

Richard Hyams of astudio describes how architects can use modular offsite construction to deliver good quality housing schemes with rich community benefits

he adoption of modular construction techniques is rapidly accelerating in the UK. Policymakers have realised the benefits of construction techniques that are up to three times quicker than more traditional construction methods, with projects delivered at a fraction of the cost. In fact, the trend towards using modular building techniques has gained so much momentum that even the Treasury is now recommending a far wider use of Modern Methods of Construction (MMC) as part of its £600bn rollout of infrastructure projects over the next decade.

Given the speed at which construction can be carried out and the scale of the housing crisis in the UK, it will surely not be long before increased government support for modular construction becomes widespread. Local and national government now spend £2m per day on temporary accommodation for the over 77,000 homeless households under local authority care. MMC construction techniques offer an opportunity to reduce this financial burden, while also providing high quality, zero-carbon accommodation for a great many vulnerable families.

As a whole, the construction industry is under significant cost pressure. Construction is becoming more expensive, whether that's in terms of resources, skills or materials – there are shortages everywhere. Just last year there was a brick shortage, for example. Until recently there had been reluctance among architects towards

MMC because many believed it limited creativity, skill and design. There are, however, a myriad ways to use modular – from big volume builds right down to smaller projects – that require the architect to be more agile than ever before, partly because they are using bigger components. Architects have begun to realise that working with the larger building elements used in modular design actually demands more of them, not less.

The growth in MMC is also being driven by the need to minimise the resources used, as well as deliver inspired, delightful spaces. This can be seen in East Wick and Sweetwater; two developments that astudio was involved with in east London. The housing schemes had six different architects designing different buildings to create a rich atmosphere. There were also very stringent fabric performance targets, so the facades had to perform very well, and this was before internal heating and energy systems were even considered. This meant ensuring the form and orientation were right as well as ensuring the buildings had a good air tightness level. One of the greatest challenges this project presented was the need to maximise daylight while ensuring the building didn't overheat in the summer or become too cold in the winter.

Working with an environmental engineer in house brings significant advantages. From the first design it is possible to have a





EAST WICK & SWEETWATER

Two developments that astudio was involved with in east London show how Modern Methods of Construction is being driven not only by the need to minimise resources used, but also to deliver inspired, delightful spaces



strategy for limiting carbon and energy use. Orientation, form and materials are all-important and, increasingly, must be energy efficient, from the start. So it is vital to embed environmental considerations in your practice from the start – bringing expertise in-house enables the architect to challenge engineers and contractors.

Technology is also vital. It helps architects understand the macro and micro scale impact of their designs, whether looking at new buildings or interventions into old structures. It allows them to test the design to ensure what we are building will work.

A new development, Sugden Way in Barking, will consist of a series of council flats and is targeted to be complete in just 60 weeks – cutting the 24-30 month time frame of traditional construction practices on this scale in half and saving the council vital resources.

The homes are supplied on a turnkey standardised production basis, where costs are minimised through bulk purchasing of materials and components, while speeding up the production process and reducing the potential for defects during build. The homes are built using a light steel volumetric modular construction method with 90 per cent of the work completed in a factory. This includes multiple fixtures, fittings and cladding options, both internally and externally, enabling each building to have a distinctive look and feel. In the case of Sugden Way, a full brick skin is applied rather than brick slips to make it durable. In order to meet housing association requirements, the design needs be robust both in terms of the materials, but also the fixture and fittings as everything have to stand the test of time. In addition, the design is zero carbon.

The turnkey standardised production basis is a new way of providing local authorities with homes they need. It means companies involved in modular construction becoming suppliers of high quality truly affordable homes. Such a method of construction



Architects have begun to realise that working with the larger building elements used in modular design actually demands more of them, not less

Richard Hyams, astudio

means everything is taken care of, from the design of the homes to securing the planning permission, as well as actually building the properties.

It is clear the interest in modular has increased. London's City Hall has said that it is willing to give more funding to modular development, and Homes England has also provided more support with additional funding for the sector. This is helping to bring manufacturers and developers closer together. But challenges remain around design. The design of each modular development at present must meet the needs of each manufacturer because they each have their own way of building. If modern methods of construction are to become mainstream in the UK, massive industry standardisation is required. Industry collaboration is key.

Richard Hyams is the founder and director of astudio

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NEW ARRIVALS

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









Clockwise from top left: Bosco Lam, Matthew Potter, Yasmin Al-Ani Spence and Sam Wright @ Simon Ellis

FOUR DIRECTOR PROMOTIONS WILKINSONEYRE

WilkinsonEyre has promoted of four of its current associate directors to directors, taking the total number of board directors to 12. The promotions mark a new phase in the continued growth of the international practice, with a current portfolio of projects including CIBC Bank HQ in Toronto, One Barangaroo in Sydney, and new work in Hong Kong. Founding director Chris Wilkinson said: "WilkinsonEyre continues to go from strength to strength because of the talent, commitment and hard work of our staff. We would like to thank our new directors, and all our staff, for the valuable contribution they make." The new directors are firstly, Bosco Lam, whose contribution has resulted in significant expansion and leadership of WilkinsonEyre's transport portfolio. Matthew Potter leads the central Hong Kong office as director, working on all the practice's Asia Pacific projects; his team is leading projects for Swire, New World, Galaxy, Hong Kong University and the Hong Kong International Airport. Sam Wright leads the sports and leisure team, delivering projects such as the Liverpool Arena; the London 2012 Olympic Basketball Arena and the redevelopment of the Compton and Edrich stands at Lord's Cricket Ground. Lastly, Yasmin Al-Ani Spence has led multiple projects since joining the practice in 2014 – her experience has contributed to the growth of WilkinsonEyre's work in Research & Development.



CHLOE PITT LAURENCE ASSOCIATES

Laurence Associates has just recruited a new planning manager to its award-winning team.
Chloe Pitt holds a Masters degree in architectural conservation from Plymouth University and also worked at Cornwall Council for 13 years, specialising major housing schemes, infrastructure projects, town frameworks and neighbourhood planning. She said: "Laurence Associates stands out to me because they assess development proposals from a planning perspective, and this holistic approach gives schemes a much greater chance of success. The practice attracts a huge variety of work so this is a very exciting opportunity for me."



MIGUEL VIDAL ASTUDIO

astudio has appointed Miguel Vidal to the role of project architect and computational design lead. Miguel will run the practice's innovation and computation strategic design approach, utilising these techniques to "drive the environmental sustainability of astudio's projects and create innovative architectural solutions for the future." Miguel Vidal commented: "I am excited to be joining astudio. The practice is renowned for leading the debate on environmentally sustainable architecture and using technology to create cutting-edge, enduring design that has a genuine social impact. Computational design has creative applications in almost all aspects of architecture."



PAUL WONG LWK & PARTNERS

LWK & Partners (HK) has announced that Paul Wong has joined as director of landscape design. Since Paul's appointment he has already started working on various projects, collaborating with other LWK directors across multiple disciplines to deliver "total solutions" to clients, such as an ecological tourism project in Chengdu, a residential project in Guangzhou, and a leisure and recreation project in Hong Kong. Ronald Liang, founder and managing director of LWK, said, "We are delighted that our visions for architecture align and he is adding to our comprehensive architectural consultation capabilities with his unique eye."





INTERNATIONAL FOCUS

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



25 KING, AUSTRALIA BATES SMART

Lendlease's 25 King in Brisbane, designed by Australian architecture and interiors firm Bates Smart, "takes Australia to the forefront of innovation in timber construction design," commented the practice. The 10-storey, 45-metre tall open-plan office complex is the tallest timber structure in Australia. 25 King heralds a move away from steel and concrete towards the more sustainable resource of timber, with an exposed timber structure beneath the building's transparent envelope. Raised on massive exposed timber v-columns and with the south facade expressed as a 'verandah' of engineered timber, 25 King "covertly references the wooden vernacular of the 'Queenslander' building type as well as nodding to the historic pavilions of the Showgrounds district," said the architects. Internally, the use of an exposed CLT timber slab for ceiling soffits has eradicated the need for a suspended ceiling system.



CONCERT HALL, SWITZERLAND STUDIO SEILERN ARCHITECTS

Designed by Studio Seilern Architects, the new Andermatt Concert Hall, a world-class centre for music which will establish the Swiss Alpine village of Andermatt as an important cultural destination alongside its celebrated sports facilities, will open in June 2019. The new facilities include a new village square - at the heart of which is the new concert hall - plus new hotels, residential and chalet facilities. Christina Seilern commented: "It has been an honour for us to work on this exceptionally unique project. The Andermatt Concert Hall will be a world-class facility set to rival cultural counterparts in Europe's top capitals, providing Andermatt's visitors and residents with a new cultural hub right in the heart of the historic village."



FUTURE TOWERS, INDIA MVRDV

MVRDV has completed its first project in Pune, India's eighth largest city and one of the fastest-growing cities in the country. Future Towers provides 1,068 apartments that will house around 5,000 people in one building. Instead of a cluster of freestanding buildings, MVRDV's response to the brief was a singular "mountainous" structure with peaks and valleys, under which the 1,068 apartments are unified in one building. The courtyards below are linked by four-storey high triangular gates, creating a 500 metre-long walk, and also feature different uses, with some designated for play, and others for sport, garden spaces, and more.



UNIVERSITY OF CALIFORNIA'S LIBRARY SYSTEM, LOS ANGELES JOHNSON FAVARO

Johnson Favaro has been commissioned to redesign a comprehensive library master plan for the University of California, Los Angeles (UCLA), to be completed in 2019. The masterplan will include seven out of the 10 libraries located across UCLA's Westwood, CA campus. Responding to the concept of the "21st century library", the university has engaged Johnson Favaro to "explore ways to accommodate the impacts of the digital revolution and to better serve each library's constituents now and into the future". Encompassing a total of 510,000 ft², the masterplan will draw upon an evaluation of system-wide requirements as well as needs specific to each library. It will focus on existing and future spaces for library users, staff, and collections, as well as spaces that foster user engagement including: learning commons, classrooms, study space, collaborative work areas, food service and wellness space.



OODI CENTRAL LIBRARY, FINLAND ALA ARCHITECTS

A new 17,250 m² central library for Helsinki described as "the nation's birthday gift to its citizens," has been designed by Finnish architecture firm ALA Architects, led by Juho Grönholm, Antti Nousjoki and Samuli Woolston. The design for Oodi was chosen following an anonymous international competition that attracted 544 entries. The architects' winning design occupies what's been described as "a hugely significant unoccupied site," one of the last remaining in Central Helsinki. The swooping structure of the library, clad in planks of Finnish spruce timber, seeks to extend the public space of the civic square into the enclosed public space of the library. A covered canopy has been created that blurs the boundary between the two as well as a balcony that allows library visitors to look across the square onto the national parliament building.





VERTICAL VILLAGE, MANHATTAN MVRDV

MVRDV has broken ground on Radio Tower & Hotel, a 21,800 m² mixed-use high rise in Northern Manhattan. The 22-storey building combines hotel, retail, and office functions in vibrantly stacked blocks, "reflecting the vivacious character of the neighbourhood and setting a direction for the future development of the area". Radio Tower & Hotel takes the typical composition of a small block in Washington Heights, pulls it apart and then reassembles it into an asymmetrical stack of boxes, with openings and roof terraces. These boxes are designed to appear like separate buildings: each is roughly the same size as others in the neighbourhood, and features its own specific window pattern inspired by the nearby buildings. The boxes also take inspiration from the vibrant colours of the shopfronts in the majority Hispanic neighbourhood, with each part of the building being finished in a different colour of ceramic bricks. Combined, the elements of the building's external appearance form a condensation of the characteristics of Washington Heights' existing urban fabric.

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TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



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www.sureset.co.uk

LANGLEY STRUCTURES LAUNCHES NEW RIBA APPROVED CPD



Langley Structures Limited has launched a new RIBA approved CPD course on Flat to Pitched (FTP) roof conversion. The session is designed to introduce specifiers to the features of the systems, the benefits, and considerations with regard to the design and installation. The one hour session entitled Lightweight Structural Frames, Design and Installation Over Existing Flat Roofs is delivered by a member of Langley Structures' technical team and with the RIBA accreditation qualifying CPD points are doubled. 01327 704778 www.langleystructures.co.uk

SWEGON'S CPD SEMINAR, A BREATH OF FRESH AIR



This CIBSE accredited CPD seminar from Swegon outlines the importance of properly selecting an air distribution system and the impact this can have upon the comfort and well-being of end users and building occupants. The seminar explains the variety of room requirements and what product to use where, when and why. For consultants, building service engineers and architects, having a thorough understanding of air distribution systems will aid the design of a particular project. 01746 761921

www.swegonair.co.uk/cpds

RENOLIT LAUNCHES NEW RIBA APPROVED SURFACE DESIGN CPD



RENOLIT has launched a new CPD seminar on the flexibility and uses of thermoformable PVC as a decorative surface which illustrates the benefits of PVC films over other decorative surface materials. The seminar provides architects with an understanding about PVC and its common uses within interior construction projects. It informs how to recognize different types of surfaces films, their applications and raises awareness of some specialist applications. 01670 718222 www.renolit.com/design

NEW RIBA ACCREDITED CPD FROM HOWE GREEN LTD



Howe Green Ltd, one of the UK's leading manufacturers of access covers, has launched a new CPD seminar.

The CPD – *Safe Access All Areas: Floor Access* has been accredited by RIBA and is listed on the RIBA CPD website – www.ribacpd.com.

The aim of the CPD is to help architects and specifiers gain a greater insight into the key considerations when specifying floor access covers.

Floor access covers provide a safe and easy way to overcome the challenge of accessing building services concealed under floors. As a small part of an overall construction project floor access covers are often an overlooked element of the building envelope. However, the consequences of specifying an access cover that is inappropriate for the environment where it is being installed can have far-reaching, and costly, implications.

Choice of materials, such as stainless steel or aluminium, loading performance, floor finish and fire rating are examples of just some of the different design parameters that need to be considered when specifying floor access covers.

The CPD also outlines how floor access covers can be moved safely and in line with the Manual Handling Operations Regulations (MHOR) 1992, CDM 2015 Regulations and Building Regulations. 01920 463 230 cpd@howegreen.co.uk

Exciting Royal visit to grant Queen's Award for Monodraught



is Royal Highness, the Duke of Kent has awarded local business Monodraught Ltd with the Queen's Award for Innovation. The award was granted for our Cool-phase hybrid cooling solution. He was accompanied by several other local dignitaries, including the High Sherriff of Buckinghamshire, the Chair of Wycombe District Council, the Chair of Buckinghamshire County Council and the Mayor of High Wycombe.

There can be a high cost to business of maintaining a comfortable working environment with regulated temperature and fresh air. With combined capital and running cost savings of on average 60 per cent compared to air conditioning, the system delivers significant efficiencies for businesses, as well as dramatically reducing their environmental footprint. We are delighted to receive this recognition for our development of a system that provides intelligent control of ventilation and cooling using phase change materials.

Sir Henry Aubrey-Fletcher, Her Majesty's Lord-Lieutenant of Buckinghamshire said: "I would like to congratulate Monodraught on winning the award. The company is testimony to the ambitions of business and to the skills and commitment of those who work in such a



successful enterprise. They are an example to us all and they add to the prosperity and vitality of Buckinghamshire"

Receiving the award, Andrew McCubbin, Managing Director of Monodraught said:

"This is a landmark moment in Monodraught's history, and represents the culmination of years of engineering innovation. Looking to the future, we will continue to be open minded, and have the courage to be creative and forward thinking. Cool-phase is one of a stable of innovative Monodraught products that are considered

market leaders. We believe the world of today needs environmentally sustainable solutions more than ever, and we are very proud to play our part."

During the presentation which was attended by the whole Monodraught team and selected guests, the company demonstrated the Cool-phase system using an innovative new virtual reality app to demonstrate the value of the solution in action.

01494897700 www.monodraught.com

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hroughout 2018 DELTA MEMBRANE SYSTEMS LIMITED invested in technologies which continues to lead the field in innovations within the waterproofing sector. Our range of Waterproofing, Damp Proofing and Ground Gas Protection Solutions offer Specifiers, Architects, Constructors, Civil Engineers and home owners alike a one stop-shop for all their Structural Waterproofing needs.

Flexi Dri Plus Plug

Delta Membrane Systems Limited, is pleased to announce that it has been successful in its application for a new patent in respect of its Flexi Dri Plus Plug, a new achievement that strengthens the company's portfolio.

Delta has been awarded patent number 2698550 by the European Patent Office for innovating the Flexi Dri Plus Plug.

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Visit our Case studies page for a useful understanding of how different products within projects fit together and how different elements work in creating a robust solution.

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Large Wins for Flowcrete UK at the FeRFA Awards 2018



Flowcrete UK has won the Large Industrial Project of the Year and Large Commercial Project of the Year categories at the FeRFA 2018 Best Practise Awards. The Resin Flooring Association (FeRFA) represents major businesses and organisations involved in resin flooring, screeding and surface preparation. Its annual awards event, which this year was held at St Johns Hotel, Solihull, on November 23rd, celebrates the best of the resin flooring industry's achievements from over the past year. Flowcrete UK's Managing Director, Kevin Potter, said: "We're so proud and delighted to have been presented with these awards! Winning two categories is a fantastic testament to the hard work and commitment of the Flowcrete UK team as well as the quality of our flooring solutions." At the awards ceremony Flowcrete UK was first presented with the Large Industrial Project of the Year award, thanks to its work at The Macallan's stunning new whisky distillery. This was soon followed up by winning the Large Commercial Project of the Year category in recognition of the Menai Science Park's (M-SParc) Flowcrete UK floor.

01270 753000 www.flowcrete.co.uk

Ancon wins third Queen's Award



ANCON has officially received the 2018 Queen's Award for Enterprise from the Lord-Lieutenant of South Yorkshire, Mr Andrew Coombe, on behalf of Her Majesty the Queen. This is the third time the

company has been honoured in this prestigious award scheme that acknowledges outstanding achievements by UK businesses. Ancon's 2018 Innovation award follows its Queen's Awards for International Trade in 2015 and Innovation in 2012. The award was received on behalf of Ancon by company director Peter McDermott at a special ceremony attended by 36 long-serving employees.

0114 275 5224 www.ancon.co.uk

EPIC to support '100 per cent Hackitt'



Engineered Panels in Construction (EPIC) has thrown its full weight behind the '100 per cent Hackitt' campaign to help drive the industry to adopt all 53 recommendations from 'The Independent Review of Building Regulations and Fire Safety'. EPIC general secretary Chris Pateman said: "We hope to

see more companies and organisations joining us to reinforce the importance of this message, to lobby the Government for swift and effective change, and to help support the industry transform the way it works to ensure safe, future-proofed buildings."

0330 221 0499 www.epic.uk.com

SE Controls creates dedicated smoke control solution for Urban Sciences Building

ewcastle University's innovative and multi-award winning Urban Sciences Building (USB) is using a combined smoke control and environmental ventilation solution that incorporates a SHEVTEC control system, which was engineered by SE Controls to meet the unique requirements of the project.

Designed by architects, Hawkins Brown, the 12,800m² USB is the first structure to be completed on the 24 acre Newcastle Helix development and is home to the university's world leading School of Computing, as well as providing extensive teaching and research facilities focused on digitally enabled urban sustainability.

As energy efficiency and sustainability are key aspects of the building design, these principles were also carried through to the glazed facades, curtain walling, environmental ventilation and smoke control systems.

Cladding and glazing systems specialist, Dane Architectural Systems, were involved



from the early stages of the project and used Schueco FW 60+ SG, with AWS 114 TipTronic concealed actuators linked to the BMS, which automatically activates vents and manages day-to-day ventilation. However, to ensure the smoke control system could integrate fully with the Schueco system, Dane Architectural turned to SE Controls, as a specialist contractor capable of providing a fully compliant solution that would fulfil the specific operating requirements.

As the Automatic Opening Vents (AOV) have specific zone requirements and operate

in banks of 3 for normal ventilation needs, SE Controls designed the operation of the smoke control system to maintain the functionality and flexibility of the TipTronic control, while integrating with the system and providing effective smoke ventilation to the building in the event of a fire.

To achieve this, SE Controls worked in close collaboration with Dane Architectural and developed the new OS2 TipTronic SHEVTEC Controller, which is dedicated to Shueco's TipTronic actuator system, enabling it to provide effective smoke and heat exhaust ventilation (SHEV) to the building.

Following the production of detailed schematic drawings, operational documentation and installation details, SE Controls installed more than 40 of the new OS2 TipTronic controllers at the USB, enabling routes to be kept clear of smoke to aid escape and access for fire-fighters.

01543 443060 www.secontrols.com





Deceuninck's new appointed directors

Deceuninck UK has announced the appointment of two new directors, Chris Jones (pictured left) and Darren Woodcock (pictured right), following several years of outstanding performance. Previously Head of Sales, Chris Jones has been promoted to Sales Director and Darren Woodcock promoted to Operations Director. Managing Director Rob McGlennon said: "I'm delighted to confirm Chris and Darren's promotion to Sales Director and Operations Director respectively. They have helped us grow fast and built our reputation for helping fabricators grow." He continues: "It's an exciting time for Deceuninck. Sales are 17 per cent up year to date on 2017, and the last three months have been over 40 per cent ahead of last year as we gain momentum. We are investing in additional machinery and warehousing to keep up with the demand."

01249 816 969 www.deceuninck.com

New Managing Director for Reynaers UK



Aluminium systems supplier Reynaers, has announced the appointment of Richard Hall to the position of Managing Director for the UK subsidiary of the business. He will oversee the continued growth of Reynaers as it expands its trade and retail offerings and builds on its success in the commercial sector. Richard

has over 22 years' experience in sales, marketing, engineering and supply chain roles. Richard said: "I was attracted to the role at Reynaers due to the strong emphasis on product leadership and customer relationships. The company has gone from strength to strength, having doubled the number of employees and turnover in the last decade."

0121 421 1999 www.reynaers.co.uk

NVHR® wins prestigious Energy Award



Breathing Buildings, a leading provider of controlled hybrid ventilation systems, is delighted to announce that it has won a prestigious Energy Award. Recognising the vital importance of good indoor air quality and thermal comfort in schools, the Cambridge-based company's new

energy efficient NVHR® (Natural Ventilation with Heat Recycling) hybrid ventilation system has been named as the winner of 'Energy Efficient Product of the Year HVAC&R'. The Energy Awards 2018 were announced on 5th December where over 500 of the energy industry elite celebrated the very best achievements in the industry.

01223 450060 www.breathingbuildings.com

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New 2018 edition brochure available



The new 2018 edition of the Yeoman Shield Brochure has just been released featuring updates on its new products and developments. To keep pace with the everchanging building interiors environment the company has made additions and improvements to its systems ensuring that they continue to protect, to the optimum, walls and doors, from impact damage caused by every day

wear & tear. Included in this reprint is the Smooth Wall Panel products with an extended colour range, an Aluminium Chequer Plate as well as a decorative Digital Print option for wall panels.

0113 279 5854 www.yeomanshield.com

Mitchells & Butlers choose Mitton



Mechanical and electrical services specialists Mitton Group have won a competitive tender let by Mitchells & Butlers, one of the largest operators of restaurants, pubs and bars in the UK. The agreement means Mitton Group will supply planned and reactive maintenance

services across the Mitchells & Butlers estate. The work carried out by Mitton Group will include mechanical and electrical maintenance work for heating and cooling systems, emergency lighting, fire alarms and ancillary services including PAT testing as required. Mitton Group has seen significant expansion over the past five years.

01274 691177 www.mittongroup.com

Sounding out multi-purpose venues



The Folkehuset Absalon in Copenhagen is an excellent example of the growing trend towards multi-use and multi-purpose cultural social centres. Designed to promote community cohesion with a flexible space to accommodate a variety of activities and services, multi-purpose venues are used to support everything from sport, leisure and learning through to childcare, heritage, culture, elderly needs, tourism, pop-up shops and events. This award-winning project designed by Arcgency architects has taken a former Church with its high ceilings and transformed it into a flexible community centre with 'living-room' feel. Troldtekt panels are frequently specified for these types of projects as a key way to control acoustics. If acoustic absorption is wrong, discomfort and irritation will result from the reverberations. If they are designed well, the participant's interest will increase. The benefits of 100 per cent Troldtekt natural wood wool panels include high sound absorption, high durability, natural breathability, low cost life cycle performance and sustainability as documented by Cradle to Cradle certification at silver level.

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GEZE UK take centre stage



Leisure venues seeking to attract people through their doors need to strike the perfect balance between aesthetics and functionality. Alongside this can be a long list of specific needs. GEZE UK's new Project Portfolio Leisure outlines how some of these considerations have been put into practice within a range of different buildings from a

prestigious art gallery, theatres old and modern, to striking landmark visitor attractions. The brochure highlights the flexibility that GEZE UK's extensive range of solutions provides as a manufacturer of both manual and automatic door and window control systems.

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BUILDING

TIVOLI CINEMA BATH

Box office appeal

An interior design project in Bath took the boutique cinema concept up a notch, for a client looking to balance high end and universal appeal. Sébastien Reed spoke to the firm directing a dramatic makeover

recent addition to Bath's leisure offering, the Tivoli boutique cinema joins an array of retail and gastronomic units at the city's new SouthGate district, including top brands such as Apple, Hotel Chocolat and Urban Outfitters. London-based design consultancy Run For The Hills were approached by the client, Tivoli Cinemas, whose ambition was not only to create a

premium cinema, dining and cafe experience, but also to sculpt the Tivoli brand from the ground up. Part of Tivoli's USP is that the interior design including curation of bespoke fittings and artwork plays a key role in the experience.

It is Run For The Hills' first cinema, the client selecting its designers on the strength of their hospitality design portfolio, which includes a number of restaurants and bars.

ADF JANUARY 2019 WWW.ARCHITECTSDATAFILE.CO.UK



Since Tivoli is an all-day venue, one of the key challenges presented to the designers was the treatment of light Justin Ribbons, Tivoli Cinemas' CEO, was also swayed by the integrated approach the firm offered. He explains: "We liked the fact they do both branding and interiors, so we got to work with just one design shop to create a seamless new brand identity and in-venue look, from the decorative scheme to the design of the menu, signage and ad campaign."

Despite the market for boutique cinemas being a mature one, the offering from competitors is relatively well defined and homogenous. For example, at the premium end sits Electric Cinemas from the Soho House Group, and in the mid-range are the Everymans and the Curzon cinemas. In terms of Tivoli's interior design, both client and Run For The Hills (working with cinema specialist architect Unick Consulting) wanted to create something fresh for the cinema scene which sat somewhere between high-end and mid-range. The resulting brief emphasised pushing the boundaries of what can be expected in boutique cinema design and hospitality design, especially outside of London. Anna Burles, creative director and co-founder of Run For The Hills explains: "We eventually found a place in the middle, with a creative design that reflects the

breadth of audiences that cinema attracts."

Prior to Tivoli Cinemas' arrival on site. the venue (a neo-Georgian building designed by Chapman Taylor as part of the wider SouthGate retail scheme completed in 2010) housed a large fast-food unit. This meant that a considerable amount of work had to be done to renovate the interior spaces and provide amenities that the client demanded. The early stages of general arrangement planning went through multiple rounds of CAD, with the architects focusing on the technical planning of the seating arrangements in the studios and screening rooms, while Run For The Hills concentrated on the concept and spatial configuration of the hospitality areas and public spaces. These included the entrance, concierge, corridors, stairwells, cocktail bar, design of the kitchen pass, bathrooms, café, lounge and main restaurant space.

Provision & planning

The exterior of the building is completed by a large, retro-styled 'Now Showing' screen within a blackened steel 'crittall' frame, accompanied by subtly backlit lettering. Visitors are beckened in through an oversized and dark door opening into a concierge-style lobby – the space is "very



moody and dark, exuding a premium feel," explains Burles. The entrance is dressed with light fittings and softly illuminated decorative signage. A mesh and brass framed staircase takes users up to the first floor open-plan hospitality area.

Upon entering the main leisure space, users encounter the bar, beyond which the cafe and lounge areas are adjacently situated, forming intuitively located zones. Run For the Hills designed crittall-style room dividers for flexible sub-division of the pillared open plan space, along with all-new doors, wall panelling and a picture rail running the entire perimeter, from which curtains and art are suspended. The main cocktail bar is one of the biggest new constructions, with a ceiling-suspended metal gantry and custom lighting. The Tivoli logo is displayed across a large backbar joinery piece – also designed bespoke – with an integrated antique mirror.

Located at the far end of the space is a more formal restaurant area – the entrance to which is framed by further curved 'urban-deco' crittall screens that divide the space without closing it off completely. Behind the screens hang full-height drapes, giving users the option for more intimate private dining and events, and maximum

flexibility for either private or public use. Curved sofas were designed with couples in mind.

New walls and partitions were erected to cordon off each of the four screening rooms plus the exclusive 'Director's Lounge,' while the bathrooms are situated more or less in the pre-existing locations, having undergone some minor tweaks in layout. Kitchens and back-of-house amenities were repositioned for enhanced functional performance.

Materiality

In the early stages of the design, Run For The Hills experimented with bespoke stoneware pieces and detailing, as Burles explains: "We were really inspired by the beauty of Bath as a location and the history and materials that come with it." The designers played with the idea of using Bath and York stone to reference the location, but then decided against it as the building itself, with its neo-Georgian architecture, was seen by the team to pay sufficient homage to the local context. "We didn't want to veer into cliché in any way," says Burles.

Also, as in all projects, budgetary restraints placed limits on design freedom. A bespoke mosaic floor in front of the

SCREENING STUDIO

One of four 'Screening Studios' featuring opulently-upholstered two-seater sofas



Tivoli's colour palette is earthy and warm, including rich golds, green, ochre and dusky blue tones, in linens, velvets and deeptextured weaves

cocktail bar was considered – nodding again to the city of Bath – but the prospect of future venues and the nature of the material made it, in Burles' words, "a tricky concept to future-proof."

Tivoli's colour palette is earthy and warm, including rich golds, green, ochre and dusky blue tones, in linens, velvets and deep-textured weaves. In terms of materials choices, chalky and marbled stones offer tactile finishes and are paired with a strong mix of patinated metals including bronze, brass and blackened steel.

"We wanted to create a journey with the interior design, materials and finishes, and the lighting," explains Burles.

Lighting the mood

"We worked really hard on the lighting as that can not only elevate the design but also seriously enhance the user experience – getting customers in the mood and encouraging 'dwell time' within the space," comments Burles. "Lighting also ties in key spaces that otherwise are quite far apart and could feel quite disconnected from each other."

The lighting scheme is a mix of off-theshelf luminaires and fully bespoke, Run For The Hills-designed larger key pieces, all intended to balance each other both stylistically and in terms of materials. Burles explains: "We've mixed metals over modern chandeliers, nodded to the natural world with leaf and petal designs, and contrasted these with urban black steel and tube lamps to create pockets of space that balance old and new design ideas."

Run For The Hills worked closely with architectural lighting consultant Elektra Lighting to create 'fluid' lighting throughout the cinema's spaces. This included ensuring the correct lux levels via specifying the correct numbers of lamps, and rationalising the placement of ambient background lighting.

Elektra Lighting also developed technical lighting details for the many bespoke joinery pieces Run For the Hills designed, including a faceted, crittall-style bulkhead at the entrance to the screening rooms, and the custom mesh and metal staircase. A significant part of their role was to marry the 'colour temperature' across wall and ceiling pendants and also across the kitchen lighting and back of house, specifying the bulbs and fixtures to complement other decorative fittings. Important in the cinema experience, this also served to prevent any sudden bursts of white light when any back-of-house doors or hatches are opened.

Since Tivoli is an all-day venue, one of the challenges for the designers was the appropriate treatment of light throughout the project, given fluctuations in daylight levels across the cinema's opening times. In the day, oversized Georgian lattice windows cast streams of sunlight and long shadows onto the herringbone-patterned oak floor. After sunset, atmospheric lighting adds to the buzz around the bar area while soft pools of light serve to



further zone the seating and dining areas. Lighting in the corridors drops to create a sense of excitement when heading into the 'studios' to watch a film, provoking a sense of anticipation in customers.

Many of the decorative lights were custom-designed to create an original style for Tivoli, with modern features harmonising with 'old-world' chandeliers, juxtaposed with industrial-chic fixtures, shapes and finishes. The interiors and graphics teams also worked closely to merge lighting and wayfinding throughout the space.

Studios

The four 'screening studios' are small but opulently furnished cinema auditoria. In the initial concept phases, all four studios were envisioned with unique identities and colour schemes, sharing some core materiality, but having different fabrics to the seating and cushions. However, "after chatting it through with the client," Burles explains, "we opted for a single colour scheme, for practicality and continuity." The final palette combines two "very bold" shades that would tie the project together visually, as demonstrated on the deep sofas and armchairs which are upholstered in "a mix of deep, dark midnight blue velvet and burnished gold."

Fabrics and soft furnishings feature block colours, bold geometric patterns and pastels with 'pops' of bright colours with contrasting piping and trims. The velvetclad two-person and single sofas are paired with cushions for extra comfort. Each sofa features a shelf on the back and is matched with a table for in-screen drinks and dining. The sofas on the front row are paired with velvet and leather footstools.

Ink-blue fabric-draped walls are lit with soft washes of light, and low-level bespoke table lamps add to the ambiance. "Rather than using wall lights in the studio rooms we've played with lighting 'scallop' effects over drapes," says Burles. Run For The Hills designed a bespoke carpet, featuring a pattern derived from Tivoli's logo.

The twelve-seat Director's Lounge has its own dedicated foyer and entrance, with a private adjoining hospitality lounge featuring leather sofas and an in-screen bar. Dark leather seating, geometric wall-fabric and upholstered wood panels feature throughout. The room is filled with custom joinery and brass accents, and each of the two-seater sofas is paired with footstools for ultimate visitor comfort.

"We have worked hard to continuously develop and evolve the design for the space, and the finished article really reflects our original concept, and the ideas of the whole team behind it," says Burles. A particular plus on this project for Run For The Hills was the opportunity to expand its horizons and work on a typology that they had never played with before. The project, now finished, opened its doors in December to greet its first customers with a screening of Mary Poppins Returns. Burles and her team are eagerly awaiting filmgoers' reactions.

DIRECTOR'S LOUNGE

The exclusive 'Director's Lounge' has its own foyer and entrance, and a distinctive decor

PROJECT FACTFILE

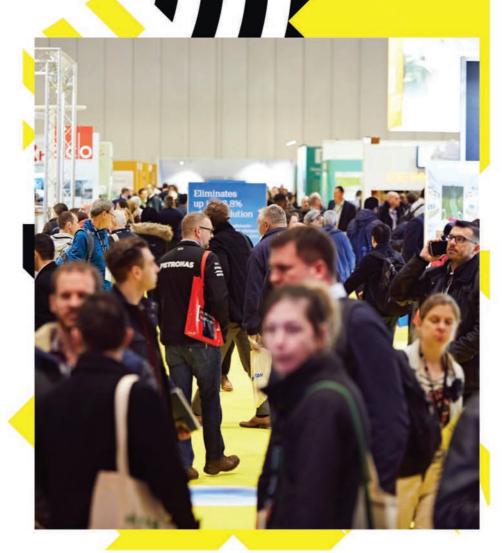
Design consultant:
Run For The Hills
Architect:
Unick Consulting
Architectural lighting consultant:
Elektra Lighting
Lighting manufacturers:

Pooky Lights, Northern Lights

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Hauraton beat the competition

The Community Sports Complex in Doncaster has been imaginatively planned and built to the highest architectural standards. The development integrates sport and community facilities in a spectacular parkland setting. Doncaster Council is confident it will raise the town's profile locally, regionally and nationally and help to significantly increase the numbers of local people watching and taking part in sport and other community activities.

At the heart of the complex is a 15,100 capacity community stadium that incorporates an 800 square meter supporters bar, plus a 350 seat restaurant, a gymnasium and martial arts centre. The stadium is complemented by a separate floodlit six lane athletics track with two eight lane straights and its own covered 500 seat mini-stand. Other facilities include two floodlit reinforced and grass sports fields, 11 floodlit all weather pitches for five and seven a-side team games, a 10 acre public park and a 1000 space car park.

The location of the Complex has meant particular attention was paid to rainwater



run-off and pipe depth issues in general. WSP Consulting Engineers were appointed for this part of the project. In discussion with main contractors Carillion, it was decided to use Hauraton injection moulded polypropylene RECYFIX® SUPER drainage channels around the perimeter of the stadium. 640 metres of channel was eventually specified, plus a further 340 metres of pitch-side drainage inside the stadium itself. RECYFIX® SUPER was chosen for being strong yet light enough to comply with manual lifting regulations. Subsequently,

250 metres of same channel was also used to drain walkways and around the five-a-side pitches. Hauraton also supplied the components for the athletic track water jump and the long jump sand trap.

Being such a large environmentally sensitive area, the car park drainage system was a particularly tricky problem. Colin Taff, Hauraton applications engineer explains, "The larger sizes of Recyfix® Super channel were initially considered for the car park. However because of its position and relation to the nearby lake it was essential the depth of the system was kept to a minimum. It was realised there could only be one outlet at the end of each run, located to one side of the car park. Using RECYFIX® SUPER would have entail installing too many trash boxes and deep pipe drains therefore a high capacity channel was the only practical solution. After further consideration our newly introduced RECYFIX® HICAP® system was found to answer the problem perfectly".

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Stroke unit goes to the toilet to help patient recovery



The stroke unit at Blackpool Victoria Hospital has become the first of its kind in the country to go to the toilet to help patient recovery. The specialist department within the Blackpool Teaching Hospitals NHS Foundation Trust has had a Closomat Palma Vita shower (wash & dry) toilet installed. The toilet, which looks like and can be used as a conventional WC, has integrated douching and drying, triggered when the flush mechanism is operated by pads on the side of the toilet, thus enabling patients to go to the loo without having to rely on nursing staff to help them. Closomat supplied and installed the new toilet and spent time training nursing staff so all understand how the toilet functions. The company is Britain's leading manufacturer of disabled toilet solutions; its Palma Vita is the biggest-selling shower toilet in the country, delivering the most effective washing and drying performance. Unlike alternative shower toilets, the Closomat Palma Vita can be accessorised, initially or retrospectively, to accommodate changing needs. Closomat has more than 55 years' experience in delivering personal hygiene solutions whether at home or away.

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21st century hospital access from Tormax



As part of a significant redevelopment project, TORMAX was contracted by MK Contracts Ltd to install an impressive four-wing automatic revolving door to the main entrance of Harlow's Princess Alexandra Hospital. With an internal diameter of over 6m, this prestigious entrance system delivers clear and unhindered access for all patients, staff and visitors, even at the busiest times of the day. Additional access is offered via a set of swing doors situated to one side, powered by a pair of advanced TORMAX iMotion 1201 operators. The TORMAX Classic Large revolving door frame, that was installed at the Princess Alexandra hospital, features a strong central pillar constructed from steel for longevity and is suitable for door diameters from 3.6m up to an imposing 7.4m. For safety and rapid evacuation, the revolving door has an integral break-out system, allowing the leaves to be swung out of the way in an emergency. Delivering continuous, reliability even under the highest levels of pedestrian traffic, a TORMAX TRP door drive powers the weighty four-leaf door. The TRP operator can be neatly concealed in the floor or within the canopy of a revolving door.

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ADF JANUARY 2019 WWW.ARCHITECTSDATAFILE.CO.UK

Yeoman Shield Twin Handrail Chosen for New Care Unit at William Harvey Hospital

eoman Shield were assigned by main contractors Bauvill Construction to install a wall and door protection system as part of the scheme to create a new Cardiac Critical Care Unit (CCU) and Cardiology ward along with an access corridor at William Harvey Hospital in Kent.

The access corridor was fitted with Yeoman Shield's Guardian Twin Handrail in a stunning colour combination of burgundy and mid grey with matching accessories and attractive stainless steel connective brackets helping to add a unique touch to the décor of the area.

Chosen for its dual functionality the Guardian Twin handrail incorporates an ergonomic upper handrail as support for people who require assistance and a lower robust protection rail, which sitting slightly forward guards both the handrail and the walls from marking and damage caused by the passage of wheeled equipment.

The same Guardian Twin Handrail system



was also deployed in the CCU this time with a red lower rail, a striking contrast to the mid grey handrail. Matching red Corner Protection Angles, both 90° and 135°, were installed to vulnerable corners protecting from impact damage.

Fire doors in the unit also benefitted from the installation of Yeoman Shield's fire rated door protection products, shielding the door from impact damage that can be detrimental to the functioning of a fire door.

Fire rated door edge protectors to both meeting and hinged edges as well as door protection panels were added to the door without affecting the integrity of the original fire door.

Yeoman Shield were able to assist with exacting time scales on the project by a quick turnaround of product and service with a site survey, manufacture and installation of the product being completed in two weeks.

Paula Stone, Head of Operational Facilities Management at East Kent University Foundation Trust commented "The lower wall protection element of Yeoman Shield's Guardian Handrail now fitted in our high traffic areas will reduce the cost of repairs and maintenance overtime. The upper handrail of the system will help less abled patients get around hospitals giving them something to grab on to if needs be, helping to prevent falls.

"The design of the rail has the added benefit of being easy to clean which adheres to our infection control policies."

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Clean, private and secure environments for laboratories enhanced with secondary glazing

PisiOxus Therapeutics Ltd is a UK and US based cancer therapeutics company listed 25th in the Sunday Times Hiscox Tech Track 100 in 2017 for its 'Gene Therapy for Cancer' platform technology for the treatment of solid tumours. PsiOxus has recently expanded into 21,000 sq ft of new facilities including a state of the art research and development laboratory in The Quadrant at the Abingdon Science Park.

The main contractor, Morgan Lovell specified Selectaglaze, to improve the thermal insulation and security of the building. The original primary windows were thermally inefficient, draughty and let heat escape. PsiOxus' research and development environment demands the utmost cleanliness so a glazing solution was required to meet these requirements. As part of the refurbishment, windows with fire ratings separating the labs and corridors were also required to conform to building regulations.

Selectaglaze met the brief by installing a



total of 15 horizontal slider units with 6mm toughened low-E glass in the two and three pane options to all primary windows. The inverted u-channel section was included to sit in the bottom of each frame to minimise the dust traps and enhance the ease of cleaning. All of the secondary glazing on the ground floor was fitted with Satinovo obscurity glass.

In addition, a total of 22 Series 40 fixed light units were fitted as viewing panels in the research and development laboratories. The Series 40 has a sturdier frame which can house higher weights of glass than required in a standard unit. The vision panels within the internal walls were fitted in 6mm toughened glass and in the lab areas, units were fitted with a 10mm Pyrodur glass, providing 30 minutes of fire integrity.

The successful on-time installation of secondary glazing has greatly benefited the working atmosphere in the labs. The PsiOxus staff are already reaping the benefits of the new secondary glazing in their daily operations.

Selectaglaze is the leading specialist in secondary glazing, established in 1966 and Royal Warrant Holder since 2004. It boasts a wealth of knowledge and an extensive range of products to suit all projects.

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Newly built hospital uses Hunter Douglas



Hunter Douglas Architectural's linear wood ceiling has been installed at a new £40 million hospital in London. Architect BDP specified the Siberian larch for the atrium at the Royal National Orthopaedic Hospital (RNOH) in Stanmore, and the global architectural products company supplied 278m² in

random-length panels from 900mm to 2500mm, in 111mm module width. Juliette Halliday, national sales manager at Hunter Douglas Architectural, said its solid wood linear ceiling and wall systems are developed to maximise efficiency and is a popular choice for specifiers and architects because of the unique manufacture and fitting system.

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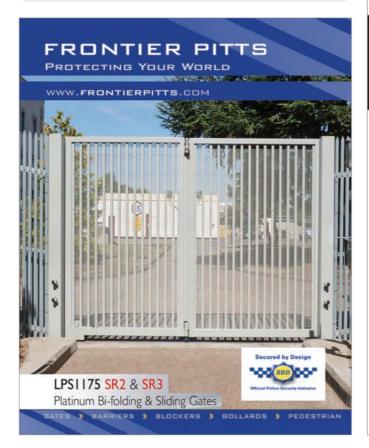
Altro Orchestra looks the part in clinic



Altro Orchestra™ smooth flooring has been used to transform the eye clinic at Torbay Hospital, South Devon's main hospital. The flooring, ideal for areas where comfort and sound reduction are important, was used to replace old carpet floor tiles that were no longer suitable. 2.85mm Altro Orchestra

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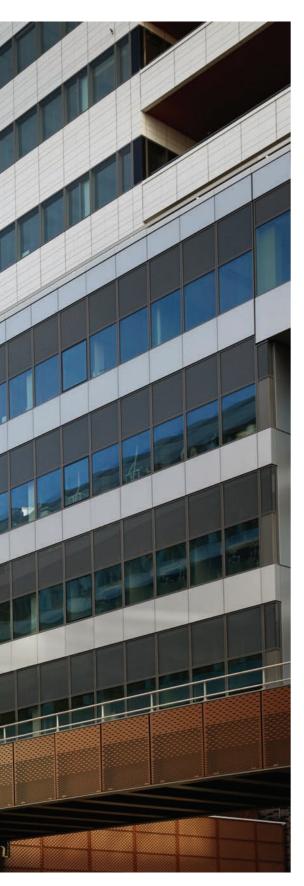
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BUILDING

KAROLINSKA UNIVERSITY HOSPITAL SWEDEN

Working together for patients

The substantial new hospital north of Stockholm embodies collaboration – between the public and private sector, academia and healthcare, and two of Sweden's leading architectural firms. James Parker reports

Recently opened after a 12 year gestation in the north of Stockholm, the new Karolinska University
Hospital presents itself more as an entire urban block than a stand-alone building.

The client was unusual for a major healthcare project, being the County Council, but the extent to which the project knits into the urban fabric made its perspective key to creating a successful masterplan. As well as creating a colossal 330,000 m² building with 629 individual patient rooms and 35 operating theatres, the client's overarching aims also included architectural quality, attractive environments for patients, and a building with a clear civic presence.

Most importantly, perhaps, the new building reflects the client's strong focus to transform its healthcare approach, away from supporting traditional medical priorities, to a very different model that reworks hospital plans around the patient.

Project drivers

The new building greatly enhances the physical integration between the world-renowned medical university, The Karolinska Institute, and the hospital, helping university research staff and hospital departments work together.

The other central reason for the project is that the region's demographics are changing fast. Stockholm's population is expected to increase by 350,000 between 2010 and 2020, with numbers of children and elderly

growing disproportionately fast, as life expectancy continues to increase.

Many Swedish hospitals were planned and constructed in the 1970s, and are inadequate in terms of responding to rapid developments in medical technology, procedures and treatments. The client also wanted to support interdisciplinary activities, i.e. exchange of ideas between medicine, research and education in the life sciences. Combining this with the flexibility needed for the inevitable future changes would be no small challenge for the project team.

Sustainability was another key driver, and the project has been awarded LEED Gold, as well as Swedish Environmental Classified Building Gold. Energy consumption is less than half of a standard hospital, with 99.7 per cent of its energy coming from renewable sources, such geothermal heating – in addition it's connected to a district heating network.

Site & masterplan

The project has been described by one of the two architecture practices involved, Tengbom, as "the single largest engine behind the development of Hagastaden." This sees the council harnessing the reputation of the Karolinska Institute, hospital, and related local enterprises to create a new neighbourhood that sits between Stockholm and the outlying suburb of Solna.





The aim was to provide a very public building, not an institute, with a clear role in the city

By 2025 the area will be full of apartment blocks grouped around workplaces offering world-leading research and highly specialised medical care, plus cultural attractions and green spaces. The area is already populated by an array of old hospital buildings, surrounded by the Institute's academic facilities. One notable recent structure is Aula Medica, the Institute's auditorium – encased in a rounded and expressively glazed form by Swedish practice Windgårdhs.

Project architect for Tengbom, Christine Hammarling, told *ADF* that connecting to the university was "a very important part of the decision to choose the site." She adds that it was decided during design development to centralise all facilities in one new building on one site rather than an initial idea to disperse buildings across both the Institute and hospital campuses.

Design collaboration

The project (a 16.2bn SEK investment – £1.4bn) was hugely demanding in terms of design resource. Around 60 Tengbom staff joined White Arkitekter in a specific project company, WhiteTengbomTeam, totalling 120. They set up shop in a dedicated office next to the site in 2010 – at the time the biggest architecture office in Sweden. The project was initially the result of a design competition, which resulted in White being appointed as the client's architect, and therefore barred from entering the tender for the public-private partnership to build and then run the hospital. Skanska subsequently won what would be the

country's largest public-private project, with Tengbom as their architect.

Christine Hammarling explains how the collaboration worked: "We had team leaders that worked on different areas, who raised questions to a focus group represented by two architects from Tengbom and two from White." The hospital was the country's most advanced BIM project yet, both supporting and relying on the strong collaboration across the teams.

Hammarling says that the hospital's facilities management team had an unusually large role: "From the beginning, they were a part of the bid, and the design process, including making revisions. Now they own the BIM model and are responsible for driving the hospital." Now the hospital's in operation, they are able to use the model as a 3D manual for example to assist them with locating and planning maintenance.

Bringing care to the patient

Before the project started in 2006, Karolinska University had developed a new operating model that "better integrates care, research and education," while "addressing the challenges of a fragmented organisation." The Karolinska Hospital (which opened in 1940) became increasingly specialist, but this meant that departments were increasingly operating as separate silos. Care was often fragmented, with patients travelling between the hospital's 60 clinics.

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PATIENT-CENTRED

The design reorganises traditional hospital layouts around the patient, bringing imaging departments closer – and provides spacious single rooms





new hospital would "focus on the patient's pathway throughout the entire care process," This meant in practice that the hospital programme would be fundamentally reorganised, bringing often traditionally distant hospital department functions much closer to the patient. Christine Hammarling sums it up: "It's intended that the patient should not move around the building, care will come to the patient."

In terms of the plan for the new building, a 'Thematic' approach looked at each care issue (infection/inflammation, cancer, neurology, heart/vascular, trauma and 'reparative' medicine, children and women) as a theme running through the building, which would be intersected by the related disciplines. However the location and function of these would not dictate how the 'theme' progressed through the building, but would instead support it.

So, in addition to all patients having single rooms (increasingly common in new hospitals, partly due to infection control concerns), the supporting functions are distributed across the hospital. The stand-out example is that rather than the traditional model of imaging being concentrated in one department, there are several small imaging units. Patients spend a lot less time travelling to scans as a result, which it's hoped will increase their sense of empowerment. Christine Hammarling comments: "This was one thing that was very new for me and the team, and was a main goal for the client."

Form

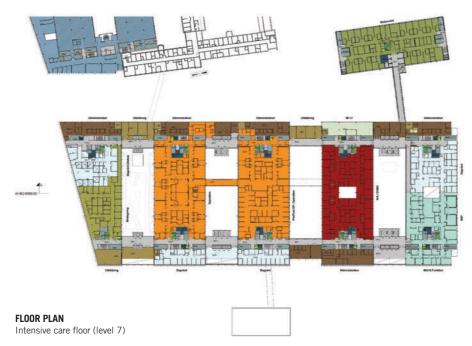
The client provided an overall brief for the design competition in 2005. Christine Hammarling comments: "It was a good concept, very rational, so we didn't needed to transform it into something else." Instead, she says, "it was more a case of organising the different departments, restacking, which we started after the bid was submitted, together with Skanska and the client."

The hospital consists of five medium-rise 'core' buildings, linked via two skyways to the north – one to a new 40,000 m² lab and research building, and an additional double-height link connecting clinics in the new block to the radiation therapy building. Surrounding the core buildings is a low-rise 'mantle' which houses the hospital's administrative areas.

From west to east, the five core buildings provide, respectively:

- outpatients, day care and dialysis
- outpatients, day care, imaging, theatres, surgery, clinical tests and inpatient ward units
- imaging, intensive care, surgery, pre and post-op, inpatient wards
- emergency unit, trauma and imaging, surgery and imaging, intensive care, inpatient wards
- emergency, maternity, childrens ICU, daycare and imaging, neonatal ICU, inpatient wards.

In this tight site, it wasn't possible to squeeze all necessary administration areas in alongside medical templates planned according to the client's new 'patient first' approach. Therefore, during the bid process Tengbom







came up with a solution of removing a good part of the administration functions from the westerly core building, which is angled to fit alongside the main street. These were moved to the existing 'thorax' building to the north.

The mantle links all of the core buildings—although they are also linked by glazed corridors and waiting areas, including at high level apart from the 'trauma centre', which is topped by a helipad. As well as admin areas, the mantle includes meeting rooms, conference and lecture rooms, as well as staff cafeterias. As Christine Hammarling explains: "There are a lot of facilities where researchers can meet clinicians, share knowledge and develop new treatments."

Offering a more human scale, and cafes, restaurants and pharmacy at ground level, the mantle also helps the building present a friendlier face to the city around it.

Hammarling comments: "The aim was to provide a very public building, not an institute, with a clear role in the city. It represents a new attitude to hospital design, a more urban and inviting kind of building."

The overall plan is based around a concept of elective patients (i.e. non emergency) coming into to the hospital horizontally at the western end of the hospital, while acute patients enter via A&E at the eastern end. The medical organisation runs vertically through the core buildings, with the research functions conceptualised as running horizontally

across the site, including out into the Academic Mall, a public outdoor park which runs along the north elevation of the building.

This is a lively external space which connects the building with the Institute's research facilities to the north, including via skybridges running overhead. At the end of the green outdoor 'Mall' is a pedestrian and cycle bridge linking across the street to the Aula Medica auditorium, and uniting the institute with the hospital in a new way.

From a distance the building appears as one unified urban block – it was designed to continue the rhythm of the adjacent Stenstaden neighbourhood next door. However being deep planned to maximise its site, important permeability and daylighting is provided by internal courtyards, and a road running north-south through the building. In addition, a new square has been created in front of the main entrance.

There is a single main entrance, but some individual departments have their own entrance, notably radiation therapy which is in an underground bunker. Hammarling says this functions as a "specific unit, and needed to provide a specific entrance."

Patient rooms

The single patient rooms are large, and bright, with a 3.2 metre floor to ceiling height, 2.7 metre high windows enhanced by ash frames, and enough space

The architects have combined to produce something that is a flexible, future proofed structure for healthcare





CONNECTION

The hospital consists of five core buildings linked to other buildings on the site via two skyways, and a surrounding lower-rise 'mantle'
All images © Fredrik Sweger

PROJECT FACTFILE: KAROLINSKA UNIVERSITY HOSPITAL

Client: Stockholm County Council **Architect:** WhiteTengbomTeam

Contractor: Skanska

Interior design: Nyréns Arkitekter Cost: 16.2bn SEK (£1.4bn)
No. of design team staff: 120
Floor area: 330,000 m²
No. of beds: 1340

for relatives to stay overnight. Totalling 20 m² (plus a 7 m² "hygienic room" i.e. ensuite), their larger than standard-size also enables multidisciplinary teams including researchers from the Institute to work easily without compromising the patient's dignity.

The treatment rooms are placed along the facades, many overlooking the internal landscaped courtyards. Theatres, treatment rooms, staff areas and conference rooms also benefit from good levels of daylighting. Intensive care units are organised differently from normal patient areas, with 25 m² rooms and a nurses station each overlooking a pair of rooms.

Generally speaking, floor to floor height is 4.9 metres, with the rooms' generous dimensions being assisted by the corridors taking the brunt of services in their ceiling voids.

Materials & colours

Christine Hammarling says that the design team "strove for a sense of nature," and this is present in some of the materials, for example the wood frames found throughout the building. While there are a lot of concrete surfaces, the public areas, including the entrance hall and the fourth level circulation in the 'mantle', have natural granite floorcovering. Adjacent to lift lobbies, these are "kind of lounges opened up to the city between the core buildings," says Hammarling.

There is solar control glass to the south of the building, facing the city, and the facade under the helipad has double glazing with an especially large cavity to cope with added noise.

A rich colour concept was developed, inspired by the changing of seasons. Each of the core buildings has an strong individual colour scheme in clinical areas, ranging from green, to orange, blue, red and yellow, to assist patients with wayfinding given the huge size of the building. Patient rooms and circulation have a calmer colour palette, the former sporting a pale yellow floor colouring. The wood effect bedhead units in the patient rooms have been designed to resemble the ash frames, and to organise the services in an efficient way to optimise patient care.

The new hospital has what is thought to be the largest "public display" of art in Sweden. Ranging from new installations, to relocated works, and newly commissioned wall art, the programme has been carefully specified, including in areas where patients don't normally get to see the therapeutic benefits of art, such as in imaging units.

Flexibility & adaptability

Christine Hammarling says that the 'thematic' concept that drove the design is particularly useful when it comes to the future flexibility essential for major hospitals: "The idea about the generality of the thematic concept is that you can organise the departments either vertically or horizontally as you want, over time. They can be located nearly anywhere."

Other specific examples of adaptability include the eastern end of the whole block, which has been designed to be extended on in future as changing requirements dictate. In addition, the 'hybrid' nature of several operating theatres means they can be adapted for use by any of the hospital's departments, as well as used for x-rays. The hospital, despite its size, has the agility to be able to flex according to need, rather than functions being fixed.

Lastly, further future adaptability was provided by "robust joists" – as Christine Hammarling explains. "It was a principle to have a small area at the edges of each core building, where you can expand and develop future installations [of infrastructure such as services] within the existing service risers. This would mean that an area could be rebuilt to support a new care activity in the future without disturbing surrounding functions.

One of the aspects that sees the hospital already living in the future is the presence of Autonomous Guided Vehicles (robot porters, basically). These low vehicles carry all supplies from a central hub, using prescribed routes and dedicated lifts.

Conclusion

Stockholm County Council continues to grapple with the triple challenge of a growing, ageing population, a renowned research institution and hospital needing to collaborate, and a changing healthcare technology landscape calling for a looser-fit building for the future.

It has the possible answer to all three in the Karolinska University Hospital. The architects have combined to produce something that is a flexible, futureproofed structure for healthcare; it locks into its urban fabric with precision-designed efficiency, but does not ignore the holistic needs of its end users – patients, staff, students and visitors. In fact, the human-focused design of Sweden's newest major hospital puts them front and centre.

Luceco illuminates Manchester Royal Infirmary



Manchester Royal Infirmary (MRI) can claim many medical breakthroughs and can also boast pioneering energy efficient lighting throughout their estate. Luceco, A C Electrical (North) Ltd and the Estates and Facilities Directorate at the MRI have worked together to reduce energy consumed by old lighting technology, replacing these fittings with cost effective LED luminaires from Luceco. Richard Horton said "An example would be a typical hospital corridor. We removed 120W wall washers and replaced them with LED asymmetric LuxPanels from Luceco running at 44W, creating substantial savings. However, using LiteIP, we have reduced the energy consumption of the 44W luminaires to provide an additional 95 per cent saving by utilising available daylight. The corridor was lit 24 hours a day, seven days a week, it now operates at five per cent for the majority of the burning hours when personnel are not present, illuminating to 100 per cent when traffic is detected. Whilst we realise daylight light harvesting will reduce during the winter, the impact on energy consumption along with the PIR control has created massive energy savings."

01952 238100 www.luceco.uk

Mcavoy to build new hospital wing



The McAvoy Group has been awarded its largest healthcare project to date – a £15m contract for the offsite construction of a new wing at Northumbria Specialist Emergency Care Hospital in Cramlington.

The new wing is being constructed by McAvoy using an advanced offsite solution to reduce the build programme by half to less than 12 months. This will help Northumbria Healthcare Trust to meet the rising demand for patient services in the region and maintain its position as a world leader in emergency medicine. For further information visit www.mcavoygroup.com/healthcare.

www.mcavoygroup.com

CUPACLAD exhibited at Architect@Work



CUPA PIZARRAS will be exhibiting at the ARCHITECT@WORK show at the Old Truman Brewery in London from the 30th to the 31st January 2019. The company's stand will promote its CUPACLAD natural slate rainscreen cladding system, specifically CUPACLAD Design. An efficient and lightweight product, the CUPACLAD systems have been developed to adapt to any kind

of project with a choice of fastening methods – visible and invisible. Installation is also simple, while highly durable tectonic slate provides a sustainable and durable alternative to other cladding systems.

01312 253111 www.cupapizarras.com/uk

ARCHITECT@WORK STAND NO 7



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ADF JANUARY 2019 WWW.ARCHITECTSDATAFILE.CO.UK

MAKING SPACE



THE QUICK & EASY-TO-INSTALL POCKET DOOR - VISIT US ON STAND 09 TO FIND OUT MORE

Excel Architectural will be exhibiting Scrigno Pocket Doors at Architect@Work on the 30-31 January 2019 at the Old Truman Brewery in London.

Come and discover how easy the Scrigno cassette system is to install and how it can save you valuable interior space. Single and double door systems are available, as are **FD30 fire rated** single door systems, **glass door** conversion kits and our new self-assembly kit.

Visit excel-ah.com/scrigno for information on how to register for free entry.

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Carefully curated for 2019

Architect@Work, the carefully curated annual two-day trade event aimed at architects, interior designers and specifiers, will move to Old Truman Brewery in Shoreditch for the seventh London edition on 30 - 31 January

This year at Architect@Work, leading international architectural suppliers will showcase over 200 innovative products and offer the latest innovations in surface solutions and lighting technology, as well as interior and exterior fixtures and fittings. All exhibitors go through a rigorous selection process, overseen by an external judging panel, to ensure that this is one of the UK's most highly respected trade shows of its kind.

The theme for Architect@Work UK 2019 is "future-proof". In an age when change is measured in seconds and sustainability is a necessity, not an 'extra', architects and designers are increasingly tasked with proposing projects that have longevity. How can practitioners ensure they are taking the lead when it comes to future-proofing their projects?

Design library Material Driven will present a curated collection of materials and projects that have been 'futureproofed'. 'Materials That Are Healthy' will focus on materials that contribute to health and well being and are not only toxin-free but also toxin-absorbing, including fabrics embedded with seaweed and carbon negative composites made with captured greenhouse gases. 'Materials That Adapt' will showcase modular products that can easily be moved or made larger/smaller. 'Materials That Are Resilient' will include durable materials that can withstand all the elements. And 'Materials That Close The Loop' will highlight materials that have longer life cycles and can be reused, repaired and recycled rather than being sent to landfill, from bioplastics, to bricks grown from mycelium.

Talks programme: Wednesday 30 January 15:00 – Modern Methods

Offsite construction and prefabrication are the buzzwords of the day, and they are bringing about a quiet revolution within the built environment. A series of high-profile case studies will be explored in this talk,



demonstrating how modern methods of construction are changing building design across all sectors.

16:15 – Sarah Wigglesworth in conversation Architect Sarah Wiggleworth has been championing sustainable design for decades and has created projects that foster social wellbeing, while retaining her environmental credentials. In this special interview she will reveal the key projects that have shaped the practice, as well as discussing upcoming work that demonstrates the evolution of her work.

17:30 - Back to the future

Demolishing old buildings and replacing them with new ones is expensive and bad for the environment. The truly sustainable approach for the city is one that renovates



The theme for the 2019 event is "future-proof" – how can practitioners ensure they are taking the lead when it comes to future-proofing projects?



LAMILUX supports architects and planners with a range of leading skylights offering daylight and ventilation for

flat roofs. The focus at stand 25 will include the latest innovations from LAMILUX showcasing the Ventilation Flap PR60 and the flat-roof circular window; LAMILUX Glass Skylight F100. For more information about LAMILUX and its products, visit www.lamilux.co.uk, Stand 25.

and reimagines its built heritage, making it fit for purpose for the contemporary occupant. This panel of experts will look at a range of case studies, from homes to offices, galleries to exhibition centres.

Talks programme: Thursday 31 January

13:00 – Eco is not a dirty word Sustainability is absolutely integral to the future of the built environment but there are still very few companies that are creating truly innovative projects and developments. The speakers on this panel will explain the power of green design, with small boutique projects that wrap around trees, mega structures, and sustainable strategies for healthy city development.

16:15 - Zero carbon cities

What can we do to make our cities carbon neutral? The technology exists but we need good design coupled with developers and local government to make it a reality. This panel of experts will prove that zero carbon isn't science fiction, it's happening now and it's achievable for everyone.

17:30 - Brave new world

Architects and designers have historically played an important role in helping us visualise what our world might look like in the near future. By using cutting-edge technologies and radical forms, we are encouraged to look ahead, not back. Restrained and rational projects have become the fashion in the recent years, but this talk explores the work of designers that are creating the places and spaces of the future, inspiring the next generation.

The event is free to attend for registered trade visitors, with complimentary catering throughout Architect@Work, encouraging networking and downtime, as well as deal-making opportunities.

Architect@Work UK runs from 1pm - 8pm on 30-31 January at Old Truman Brewery. Register at www.architect-at-work.co.uk using code 1830

Architect@work opens doors for Latham



James Latham will be exhibiting for the first time at Architect@work UK in London. The two-day event takes place on 30th and 31st January 2019 at the Truman Brewery in Shoreditch – an area which is home to more architects per square mile than anywhere else in the world.

It will see Lathams, (who will be on stand 51/T1) showcasing a collection of performance doors demonstrating a range of technical features and benefits as well as test certification that are suitable for multiple applications in numerous sectors including healthcare, educational, commercial and residential. Steven Dennard, Group Door Manager, James Latham said: "The range of products we will be showing incorporate the most advanced and innovative door manufacturing processes available in the market. These are highly technical door solutions that have been especially developed with an Architect & Designer audience and the specification market in mind.

marketing@lathams.co.uk

ARCHITECT@WORK STAND NO 51

BAL presents new uncoupling at Surface Design Show 2019



BAL – a market-leader in full tiling solutions – are presenting innovative new tiling technologies including its unique Flexbone uncoupling mats on Stand 618. Developed to protect floor tiling from lateral movement which occurs in problem substrates – such as heated floors – BAL Flexbone uncoupling mats provide a buffer layer between tile and substrate. BAL Flexbone comes in two varieties – Flexbone VAried and Flexbone 2Easy. Unique to the UK, BAL Flexbone 2Easy is a floating mat system – where NO adhesive is needed underneath the mat system i.e. the mat is truly uncoupled. Because no adhesive is needed under the mat, preparation is reduced to a quick sweep of the floor if the surface is flat, sound and level. BAL Flexbone VAried is a bonded mat system for heavily trafficked areas. Waterproof, it features patented GripLock Technology for superior adhesion and a unique bone structure for faster fixing than traditional cavity mat systems. Less adhesive is required on the mat surface, and trials indicate adhesive can be spread on the mat surface circa 30 per cent faster. The bonded mat is perfect for high load-bearing and commercial areas.

01782 591100 www.bal-adhesives.com

SURFACE DESIGN SHOW STAND NO 618

Surface Design Show 2019

Surface Design Show will take place at London's Business Design Centre in February, giving a platform for architects, designers and specifiers to explore the best in interior and exterior surface materials, lighting design, development and innovation

From handcrafted surfaces to the latest technological advances in architectural lighting, Surface Design Show hosts over 150 exhibitors each year highlighting the very best in surface design. Returning exhibitors include Innerspace Cheshire, James Latham and Blueprint Ceramics. New to Surface Design Show are Reed Harris, producers of decorative tiles, wallpapers and paint, and the internationally recognised leather specialists, Wildman & Bugby.

Surface Design Show 2019 also features some 40 talks from over 50 industry professionals, all designed to engage and inspire.

The 'Opening Night Debate' returns at 6.30 pm on the first day of the show, Tuesday 5 February. Organised in association with the Royal Institute of British Architects (RIBA) and New London Architecture (NLA) it will discuss whether factory-made housing can provide Londoners with better places to live. The panel will be chaired by Peter Murray of NLA, with Ben Derbyshire of HTA Design and RIBA president, Carl Vann of Pollard Thomas Edwards, and Hazel Rounding of ShedKM debating the topic 'Factory-made Housing: is this the solution to building better homes long term?'

Returning for 2019 is the ever-popular 'PechaKucha Evening', hosted by Chris Dyson of Chris Dyson Architects on 6 February from 6.30 pm. Speakers include Nigel Ostime of Hawkins Brown, Soraya Khan of Theis and Khan Architects, Alex Scott-Whitby of ScottWhitbyStudio, Stuart Piercy of Piercy and Co, Simon Fraser of Hopkins Architects, Alison Brooks of Alison Brooks Architects, Lucia Berasaluce of Haptic Architects, and Ben Cousins of Cousins & Cousins Architects. Presenters will discuss 'Identities and Boundaries: site specific responses to modern architecture' in an "exciting and inspiring" format using 20 images, each discussed for 20 seconds.

Since 2013 the show has hosted the 'Surface Design Awards', now recognised as



one of the most respected events in the design calendar. The awards pick the best and most interesting exterior and interior surfaces for different sectors of design, including commercial, housing, light and surface, public building, retail, sustainable, and temporary structures.

The 2019 awards received entries from across Europe, the USA, Australia, China, Korea and India. The shortlist consists of an impressive 43 projects across seven categories including Blitz Club by Studio Knack and Simon Vorhammer; Morpheus Hotel by Zaha Hadid Architects; and Brunch With by MM Consulate. The Awards Presentation will take place on the morning of Thursday 7 February, at Surface Design Show. Tickets to the Presentation are available via the Surface Design Show website. Award partners include; James Latham, Finsa, Business Design Centre, Soluis and Roof Maker.

'Surface Spotlight Live', curated in collaboration by trend expert Sally Angharad and colour forecasters Colour Hive, will return to Surface Design Show 2019. 'One of a Kind' will aim to "inspire a kinder approach to design". A series of thought-provoking and innovative products





BUSINESS DESIGN CENTRE LONDON - 5-7 FEB 2019

www.surfacedesignshow.com

The 2019 show includes some 40 talks by over 50 professionals from the industry, all designed to engage and inspire



will be showcased, all which "go beyond aesthetics to promote meaningful experiences, with highlights for the workplace and public realm," say the organisers.

'Stone Gallery', which is officially supported by Stone Federation GB, whose Stone Knowledge Hub forms a focal point for the event, will also be returning to Surface Design Show 2019. Stone Gallery is an industry-leading event for architects and designers to meet and specify natural stone. The 2019 edition welcomes back returning exhibitors as well as new additions, such as Piedra Paloma, Airemarmores and Marmi Faedo. The Stone Hub will be curated by Arup and will provide a platform for architecture and design professionals to listen and learn from the leading designers.

Now in its fifth year 'Light School', the home of architectural lighting, allows architects and designers to touch, compare and learn about innovative lighting and technology products. Confirmed returning exhibitors include Appelec, Optelma, and Pixalux. The Light School arena, Light Talks, will return once again supported by the Institution of Lighting Professionals. Industry experts from Hoare Lea, Nulty+, Atelier Ten and 18 Degrees have already confirmed they will share their knowledge at Light Talks.

New to Surface Design Show is the 'New Talent' area, curated by internationally acclaimed speaker and forward-thinking chief creative director at Trendease International, Jennifer Castoldi. Those chosen to be featured will be up and coming designers in the surface and materials sector. New Talent exhibitors can only have been in the industry for five years or less and will be hand selected by Jennifer. Participants include experimental materials studio, MUUNA; Laura Evans Designs; Yi-Han Fu, textile designer; Orla Lawn, decorative panelling and Tomasz Maker, woodworking and metal work.

Registration for Surface Design Show is now open. Visit www.surfacedesignshow.com to register

Quiet Mark Award For Armourcoat Acoustic

rmourcoat 's new Acoustic Plaster System has been granted the Quiet Mark Award - the international mark of approval from the Noise Abatement Society Charitable Foundation.

Quiet Mark is the international award programme and system of support for brands and consumers. Through its pioneering acoustic tests, the organisation awards its distinctive Purple Q Mark to products and services that show excellence in low-noise and high-performance.

Designed to optimize the acoustics of interior spaces, the Armourcoat Acoustic plaster system offers a clean and smooth mineral surface that can be applied seamlessly over large expanses to both flat and curved surfaces. Comprising of a special mineral wool composite panel that is bonded onto the substrate and finished with a seamless layer, the system presents an elegant marble-based plaster finish while allowing sound energy to pass through the surface.

The Armourcoat system includes a high percentage of pre and post-consumer recycled



material, zero VOCs, is class '0' fire-rated, and achieves a class 'A' Noise Reduction Coefficient rating for the 50mm system.

Poppy Szkiler, Founder and Managing Director, Quiet Mark (pictured) comments: "We welcome Armourcoat to the growing family of global organisations that are prioritising investment in acoustic research to create quieter solutions, as recognised by the Quiet Mark award. Armourcoat's innovative acoustic plaster system performs to the highest building standards and incorporates

special wool composite. This delivers excellent noise reduction properties and minimises the unnecessary intrusion of unwanted sound into our buildings, allowing the creation of a peaceful and supportive aural environment in our homes and places of work."

Poppy will be presenting *In Pursuit of Silence – Acoustic Solutions for a Noisy World* at the Surface Design Show as a main stage presentation on Wednesday 6th February. The critical-hit feature documentary In Pursuit of Silence has put acoustic design on the agenda as the new necessity. Poppy shares seasoned insights as third-generation noise reduction campaigner, Executive Producer of the film and creator of the Quiet Mark global award programme for leading solutions to unwanted noise.

Visit Armourcoat on stand #102 at the show, which features the Quiet Mark awarded Armourcoat Acoustic plaster system 'quiet zone'.

01732 460668 www.armourcoat.com

SURFACE DESIGN SHOW STAND NO 102

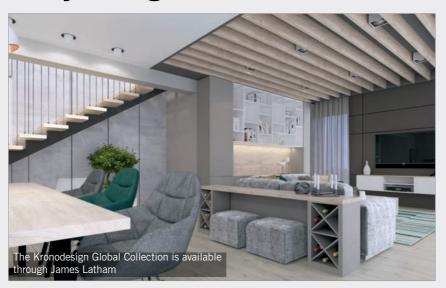
Surfaces inspired by design

ames Latham returns to London's Surface Design Show in February, where it will be showcasing one of the biggest and most varied collections of surface solutions for both inside and outside the building.

Created to inspire architects and designers when looking to specify materials, the stunning collection of decorative panels and timber reinforces Latham's status as a single-source supplier and has been carefully selected to provide innovative ideas for design and product specification.

During the show, Lathams will be featuring a number of exciting new products and range additions for 2019, both on its usual, eye-catching stand on the ground level (stand: 208) as well as in its permanent Product Specification Showroom which is located on the Gallery level of the Business Design Centre at Suite 301.

Chris Sutton, Managing Director, James Latham explained, "Working in conjunction with our supply partners, who are among the biggest and most recognised surfacing brands in the World and experts at forecasting trends, we are presenting our take on both



interior and exterior surface solutions for the future.

"Showcasing a wide range of design-led exclusive and semi-exclusive products, our stand, and indeed our showroom, will act as a hub for providing ideas and inspiration to visiting architects and designers."

0116 257 3415 www.lathamtimber.co.uk

SURFACE DESIGN SHOW STAND NO 208

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

Roofshield protects Belfast college roof



The historic buildings of St Malachy's College in Belfast have been fitted with an added layer of protection in the form of **The A. Proctor Group's** Roofshield, which has long been recognised as one of the highest performing roofing membrane solutions, providing a pitched roof underlay, which is both air and vapour permeable.

Roofshield's patented air permeable structure allows high levels of airflow, in addition to the transport of moisture vapour, making the formation of condensation in the roof space virtually impossible and will still perform in conditions in which airtight alternatives will not.

01250 872261 www.proctorgroup.com

Norbord helps housing for UK troops



Norbord's popular flooring solution, CaberDek, was used during an Army Basing Programme project in Tidworth, Wiltshire. The Army Basing Programme provides housing and improved facilities to Service personnel, helping over 100 Army units to

relocate in the UK, following the government's commitment to bring back all units from Germany by 2020. CaberDek, with its protective peelable covering, was the obvious choice to fulfil requirements, allowing work to continue even before the roof was in place by maintaining a waterproof surface during adverse weather conditions.

www.norbord.co.uk

2019 RAG features record number



The 2019 edition of F. Ball's industry-acclaimed recommended adhesives guide (RAG) now includes a record number of adhesive recommendations for over 6000 branded floorcoverings from over 200 leading international manufacturers. Every adhesive recommendation is stringently tested and must be endorsed by each individual floorcovering manufacturer before it can be included in the RAG.

Available on the F. Ball website (where it is constantly updated throughout the year), or as a free app via the Apple and Google app stores, the RAG is also available as a printed A5 booklet.

01538 361633 www.f-ball.co.uk

A show-stopping demonstration of success

Treland's most iconic new building, the Central Bank of Ireland on the banks of the River Liffey, was recently renovated into the show-stopping demonstration of success it is today, after sitting for years as an unfinished shell; a symbol of the recession. Now it breathes new life as Ireland's first ever BREEAM "Outstanding" rated building, setting an example of progressive construction that thinks about the future.

Architects Henry J Lyons achieved this by designing the large sweeping interiors to be as user friendly as possible for the Bank's staff, by specifying acoustic wood panels from Woodfit Acoustics, made from MEDITE PREMIER FR. This MDF panel from MEDITE SMARTPLY is flame retardant for safe use in public buildings and is produced using FSC certified timber, from sustainably managed forests in Ireland; all the essentials to make this board suitable for the Bank's new interior.

In doing this, the building is reaffirmed as a symbol of renewal, recovery and wellbeing, both economically and by offering these



elements to those who use it as their daily workplace. The modern interior is conducive to teamwork and collaboration through use of natural light, safe, natural materials and acoustic performance.

Supplied by Noyeks, Woodfit provided the custom-made acoustic systems and non-acoustic panelling throughout, using veneered MEDITE PREMIER FR, variously finished for use in different areas. The finished panels range from ebonized slat ceilings and slat walls, custom white washed perforated panelling which extends seven storeys high, and perforated oak ceiling tiles throughout the work areas.

The environmental building standard BREEAM is one of the world's leading sustainability assessment methods for construction. Awarding credits for use of FSC certified building products, it recognises and reflects the value in higher performing products and projects across the built environment lifecycle.

MEDITE PREMIER FR is produced in both Euroclass B and C. CARB2 compliant, it also has a smooth finish and can be made in a range of sizes and thicknesses, giving it the versatility to suit numerous applications from hotel foyers, offices, public libraries, schools and other public buildings. It's suitable for use as a wall lining and in ceiling applications, and has been certified for use in fire resistant partition systems.

info@mdfosb.com mdfosb.com/en/medite/products/ medite-premier-fr

Green Roof CPD from Optigreen



Green roof supplier Optigreen, offer a CPD seminar which is perfectly designed for an audience that has had limited involvement with specifying green roofs. The seminar covers areas such as: What is a Green Roof?; Initial Design Considerations; Green Roof

Build-up's and How They Function; Dealing with Pitched Green Roofs; Care and Maintenance. Optigreen can tailor the presentation to your time and needs and the company will issue an individual CPD certificate to each person who attends.

info@optigreen.co.uk

An office oasis for NI Civil Service



The headquarters for Northern Ireland's Department of Agriculture, Environment and rural Affairs in Ballykelly brings together a suite of state-of the-art systems from architectural aluminium systems' company

Metal Technology. Metal Technology's System 17 curtain walling featured on all facades in combination with System 5-35Hi+ tilt-and-turn and 4-35Hi+ casement windows, the south, east and west elevations also utilised two variants of System 22 Brise Soliel providing solar control. The 300mm continuous blade to the atrium area was designed specifically to meet the design requirements for this project.

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Contractor Bouygues chooses Deceuninck over aluminium

ore than 700 frames of Deceuninck's 2500 chamfered windows have been installed in a development of luxury apartments in Southampton. Alexandra Wharf is a collection of two and three bedroom, stylish water-front apartments, forming part of the Ocean Village development at the city's marina.

Although aluminium profiles were originally specified, Deceuninck fabricator Dempsey Dyer worked with contractor Bouygues to customise the specification to allow the use of sustainable PVC-U. The contemporary look of the 2500 chamfered series closely mimics the look of aluminium – so closely that at street level it's impossible to distinguish the PVC-U in the apartments from the aluminium used for the Harbour Hotel next door.

The building also called for 150 sliding doors and Dempsey Dyer and Bouygues opted for the clean lines of Deceuninck's Slider 24,

which suited the contemporary design. It's also one of the highest performing doors on the market for weather, water tightness, and security. All 150 doors and 700 windows were externally finished in Anthracite Grey Smooth Foil on white PVC-U internally.

The harbour location and design of the building posed several technical challenges. The high rise nature of the apartment building design required strong windows to withstand high wind and water pressure – a challenge easily met by Deceuninck's 2500 window with its Class 4 air permeability, Class 8A water tightness, and Class A5 2000Pa exposure.

The high salt content of the sea air also required special consideration. Austenitic hardware was required to combat the corrosive effects of salt water and all the hinges and screws used in the project have a TRICOAT surface, treated with a top coat containing a micro-corrosion protection



system. The seaside location also meant the windows required a low solar gain and the 0.28 G-value of the 2500 window ensured that the building would not overheat.

The project was completed in full and on time within 12 months, and contractor Bouygues was extremely happy with the finished development.

01249 816 969 www.deceuninck.co.uk

"A" First Class Flame Retardant Membrane

n a UK building materials first, Industrial Textiles & Plastics (ITP) is launching a Euroclass A2 flame retardant breathable membrane for roof and wall installations. Powerlon FlameOut Breathe Class A is a woven material, engineered with the highest level of flame retardant properties.

Independently tested to EN 13501-1, FlameOut Breathe Class A is rated A2-s1,d0. Prior to the launch of this innovative multipurpose breather membrane, the highest level of flame retardant breather materials offered in the UK were Class 0 (BS 476 Parts 6 & 7) or Euroclass B.

The introduction of FlameOut Breathe Class A is timely: changes to UK building regulations will ban the use of combustible materials on the external walls of new buildings over 18 metres that contain flats, plus new hospitals, residential care properties and dormitories in schools and student accommodation (over 18 metres). "FlameOut Breathe Class A represents a new generation of fire protection materials for the construction industry," said ITP's Managing Director, Marc van der Voort. "It builds on

our two decades of experience in flame retardant technology for building materials as well as temporary containment sheeting."

While the Euroclass B rating is the highest for inflammable materials, Class A2 rated materials are non-burnable. The S1 rating indicates very limited smoke development while the d0 rating shows no burning droplets when the material is exposed to direct flame during the testing process.

CE Certified FlameOut Breathe Class A is heavyweight with very high tensile strength, good water vapour transmission and is rated W1 for water tightness. Proprietary FR tapes and glues are offered with the membrane for effective installation.

Other flame retardant breather membranes in the Powerlon range include FlameOut Breathe (rated Class B-s1,d0) and UV resistant breather membranes, which are suitable for use behind open or closed ventilated rainscreens and facades: Powerlon UV145FR (Class B-s3,d0) and Powerlon UV Colour FR (Class B-s2,d0).

01347 825200 www.itpltd.com



New Powerlon FlameOut Breathe Class A breather membrane is rated Euroclass A2-s1,d0, the highest level of fire protection for wall and roof installations

REHAU used for houseboat installation



REHAU windows and doors have been installed in a luxury houseboat in Belfast, providing a clean and bright finish to the Scandinavian inspired boat, while keeping it cosy and warm inside. The boat was rescued by newly retired couple Gillian and

David Campbell, who bought the barge as a renovation project. Gillian was advised on the window and door specification by REHAU's trade counter partner in Belfast, Windowmate. Thomas McAllister, Sales Manager for Windowmate explored a number of options and ultimately recommended REHAU TOTAL70 range. The casement and fixed windows offered a high U-value for excellent thermal efficiency.

01989 762600 www.rehau.uk

LZR® triggers 'initial' activation



A new combined activation and safety sensor for special door and window requirements is being launched by GEZE UK. The GEZE laser scanner LZR® can be used in environments which demand a wider range than standard activation and safety sensors. In these cases, the LZR® range can be used to boost their activation using

a four-laser light curtain which provides three-dimensional protection of the monitored area. The laser scanner LZR® also incorporates a 'time-of-flight' measurement system which make them very reliable as they are not affected by background reflection.

01543 443000 www.geze.co.uk

Monarflex protects workers and public



Monarflex Airflow FRA containment netting is protecting both workers and passers-by during the £38.25m Category A fit out of India Buildings. Sale-headquartered contractor Styles&Wood selected Monarflex Airflow FRA to shield the scaffolding during

the 72-week programme because it knew it could rely on it as it had previously worked with this robust but decorative material. Distributed by **BMI**, Monarflex Airflow FRA is an exceptionally strong flame-retardant containment netting that has been specially developed for high and low-rise locations where strong winds are a significant risk.

marketingukandi@bmigroup.com www.icopal.co.uk

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Versatility meets sustainability

Clean, classic, green, award-winning – what's not to like about insulated render? Aliva UK's Justin Price explains why it ticks all the boxes when it comes to modern facade design

iven that more than a third of the heat in a building is lost through its walls, high-quality insulated render that gives a stylish, contemporary finish is a serious consideration for any eco-friendly building project.

Insulated render is hugely versatile. It can provide quality, individual looks for buildings across many sectors including retail, residential hospitality, leisure, and education.

In Weston-super-Mare, a white insulated render and ceramic tile seamlessly reflected a building's classic Art Deco beginnings whilst at the same time modernising tired 1980s conference facilities (pictured, right). The brief was to redevelop Weston College's little-used conference facilities into an environmentally conscious educational centre.

Future proof

Insulated render fitted the bill perfectly. Its thermo credentials and design flexibility enabled View Architects to design an award-winning energy-conscious building that tied in with the rest of the building at the same time as future-proofing for generations of students.

To achieve an Art Deco look, cut stone was the first choice for the building's logo – however that amount of stone would have been too heavy. High performance rainscreen cladding was specified instead – a lighter product made entirely from natural materials to support the building's eco-conscious design. The tile was cut with the logo 'Winter Gardens', linking the new entrance to the identity of the building.

Modernisation and refurbishment

Another advantage to insulated render is that it is a cost-effective way to update buildings to meet current building and thermal value regulations, and provide better housing.

Thermal render helps reduce the cost of living for tenants, thereby addressing fuel poverty for vulnerable tenants, as well as reducing carbon emissions.



Add to that its versatility – thanks to a huge palette of colours – it remains the preferred option for architects looking to update tired buildings cost-effectively.

As well as being cost-effective, insulated render is also straightforward to apply – with expert supervision – and can keep its clean, good looks for years.

Insulated render can also be combined with brick slips to ensure the restored buildings stay true to their surroundings. In Salford, Greater Manchester, a 1960s tower block was transformed by HLP Architects thanks to a lightweight insulated render that created a modern aesthetic and thermal fabric for the building.

The architect chose render in salmon pink, plus blue smooth traditional and lightweight stock effect brick slips, to complement the existing brick structure and surrounding buildings.

The result was a bright, modern finish that transformed the look of an ageing building into an exemplar for 21st Century high-rise living.

No limits

Insulated render can be installed quickly over large areas, and without height restrictions, which makes it ideal for taller buildings. It is also easy to install, allowing contractors to keep to tight schedules.

A 12-storey high rise block in







Wythenshawe, Greater Manchester, is a perfect demonstration of the advantages of insulated render. It allowed for the use of a textured finish in white and blue-grey that transformed the tired exterior while meeting the need for both thermal and external upgrades. A blue brick slip over a mineral wool insulation complemented the traditionally laid brickwork to the apartment blocks.

Insulated render's versatility and reliability also made it the ideal material for Telford's Building Schools for the Future project. Architect Faulkner Browns needed to clad seven schools in an eco-friendly fashion. The bespoke insulated render finishes allowed the contractor to keep to a tight schedule of delivery deadlines – while ensuring individual branding for each school in a wide variety of colours.

Futuristic cladding

Insulated render can create a continuous clean, stylish envelope for buildings with complicated shapes and lines. With insulated render's self-cleaning and anti-algae properties, architects can design modern, sleek buildings without fear of

With insulated render's self-cleaning and anti-algae properties, architects can design modern, sleek buildings without fear of early wear and tear

early wear and tear.

AEW Architects created an award-winning building for telephone answering firm Moneypenny with the help of insulated render. The smooth, crisp facade wraps in unbroken lines around the exterior of the building, providing a faultless finish thanks to 5,000 m² of the material.

Insulated render ensures buildings both old and new meet modern thermal requirements, while providing a beautiful, weatherproof and long-lasting finish. It is worth considering for all types of projects, as the design permutations and colours are endless.

Justin Price is sales director at Aliva UK

Sto solutions help create development



One of the most prestigious residential development projects in the UK has recently been completed using a number of different products from Sto. StoTherm Classic external wall insulation and StoDeco profiles have been used to provide high levels of thermal

insulation and an outstanding external appearance for the 11 new properties which make up the development in St John's Wood, London, close to the world-famous Abbey Road Recording Studios. Sto solutions were selected for this project as they offered a unique combination of speedy construction and outstanding quality of finish.

01418 928000 www.sto.co.uk

W20 steel windows shine



The retention of a four-storey facade has been one of the main technical challenges for the project team involved in the redevelopment of a former factory located in Birmingham's famous Jewellery Quarter; with a member of the Steel Window Association (SWA), REA

Metal Windows, having supplied and installed a package of custombuilt W20 windows to replace the original frames. All the windows, measuring some 3,500mm x 2,500mm, were hot dip galvanised and finished in a RAL 7016 Matt Grey, polyester powder coat. The 4-8-4 double glazing offers a centre pane U-value of 1.2 W/m2 K.

www.steel-window-association.co.uk

Senior brews up a storm for Thwaites



High performance aluminium curtain walling and doors have been used to create an eye-catching facade for the new head office and brewery facility for Thwaites. Senior's popular SF52 curtain walling has been used to create the attractive entrance to the new facility and

to maximise the flow of natural light into the interior spaces. The sleek aluminium frame of Senior's SF52 system perfectly complements the attractive building envelope design, which comprises charred vertical timber, zinc cladding and natural stone, and helps to create a sense of symmetry across the front elevation.

www.seniorarchitectural.co.uk

Crown Flush Window Suite



Sapa has launched its new Crown Flush Window Suite. With a variety of frame, vent, mullion and transom options for the creation of multiple window styles, the Crown Window Suite now offers even greater design flexibility. With a consistent

unbroken external appearance, the flexibility of Sapa's new aluminium flush window will suit a wide range of residential applications – from classic cottage aesthetics to modern, sleek designs. Sapa has developed the Crown Flush Suite to address a range of customer preferences and provide solutions without compromise.

01684 853500 www.sapabuildingsystem.com/en/uk

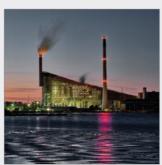
Cedar Shingles help enhance the sound of music at Cumbrian therapy centre



Marley's Western Red Cedar Shingles have been specified internal and external building material for the Sunbeams Music Centre, an award-winning music therapy centre that is helping to make a real difference to people of all ages. One of the critical objectives for the centre's design was to ensure it sat seamlessly within its local environment. This led the design team at MawsonKerr to the use of natural building materials; the extensive use of Marley's Western Red Cedar Shingles has helped achieve this perfectly. Marley's Western Red Cedar Shingles delivered a renewable and sustainable cladding solution for the centre, providing one of the lowest carbon footprints of any widely used building product. In addition, the colour blend ensures the centre fits seamlessly into the local environment. A primary design theme was the wish to connect the inside of the centre with the exterior facade, and the use of cedar shingles both internally and externally brings with it a connected symmetry that accentuates the building's positioning within the landscape. In addition, the natural aesthetics of timber add to the welcoming vibe the building designers wished to create.

01283 722588 www.marley.co.uk

Reducing the risk



A revolutionary new project in Copenhagen designed by Bjarke Ingels Group Architects has turned a waste-to-energy plant into a 95,000 square metre tourist attraction. Located on Amager island, the Amager Resource Centre incorporates a ski slope into the roof, walking trails and a rock-climbing wall up one face. All this build on the island's reputation for extreme sports enthusiasts, thanks to its parks, beaches, dunes and lagoon for kayaking and windsurfing. The 100m building will incinerate over 435,000 tons of waste per year and serve about 140,000 local households. Given the potential dangers of such a massive operation, Structura Kalwall® translucent cladding has been used extensively not only for its aesthetics and energy efficiency but also for its excellent explosion-venting and blast-resistant properties. Kalwall can be specifically designed to be the weak point in the building envelope in order to relieve pressure created by any explosion, thereby reducing the risk of damage to the primary structure and the occupants. The panels work to vent pressure out of the explosion without collapsing roofs or floors. Kalwall also provides dramatic savings in energy consumption.

www.structura-uk.com/kalwall





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earthborn

Earthborn replaces limewash at medieval hall house



A listed north Devon home, built around 1550, has been given a contemporary look thanks to its redecoration with Earthborn paints. The previous owners limewashed it inside and out, but current owner Simon Clarke decided to investigate alternative options. He said: "The house is built of Devon cob, a clay soil based building material. It's important that these old, natural walls can breathe, to prevent damage caused by moisture build up. So I needed breathable paints, but I didn't want to use limewash again. It wanted to create a more contemporary feel, use a wider palette of colours and avoid the regular repainting that's needed with limewash." Simon's research drew him to Earthborn paints, which can be used straight over existing limewash. He selected Earthborn's Ecopro Silicate Masonry system offers a durable, easy to use alternative to limewash and conventional masonry paints. The result is a very hard wearing, water and weather resistant barrier. It offers the same high levels of breathability as limewash but is easier to use and lasts much longer. Useful for any porous mineral surface, Ecopro Silicate Masonry Paint gives a classic matt finish that will not yellow with time. It even helps prevent algae growth and mould.

01928 734 171 info@earthbornpaints.co.uk www.earthbornpaints.co.uk

An artist's vision is brought to life

he auditorium for the Humanities Division of Uppsala University (Humanistiska Teatern) is an innovative and unique building designed in the shape of a horseshoe. Unlike traditional lecture halls, the horseshoe-shaped design of this unique building allows all in the auditorium to see and hear each other, encouraging both speakers and attendees to participate in lectures and debates. This unusual building is encapsulated in a spectacular facade created from over 300

perforated aluminium sheets. The vision of artist Ann Lislegaard has been brought to life by using RMIG ImagePerf technology to transfer her intricate design to the metal sheets.

White Arkitekter has been awarded the prestigious Swedish architectural prize PLÅT18, in recognition of the innovative use of perforated metal.

01925 839610 info.uk@rmig.com www.city-emotion.com



PROJECT DETAILS

Humanistiska Teatern, Uppsala University

University campus auditorium, Sweden

Architects: White Arkitekter Artist: Ann Lislegaard

Technical Characteristics

Raw material: Aluminium

EN AW-5754

Pattern: RMIG ImagePerf

Thickness: 3.0 mm

Finishing operations: Bending

Surface treatment: Powder coating

BMI Slate fulfils beach-based dream



Facing out across the Bristol Channel, the Beach House at Brean, near Weston-Super-Mare, is both striking and robust – and now features a roof guaranteed by BMI Redland for 15 years against the storms and aggressive marine conditions it faces. Self-builder Phil Scott

chose Cambrian Slate from **BMI Redland**, partly because of the recommendations from BMI's Technical Department and partly because of his own knowledge. Manufactured to be lightweight with a thin leading edge and surface patterning taken from impressions of real natural slates, Cambrian Slates are suitable for a wide range of projects.

marketingukandi@bmigroup.com www.redland.co.uk

A Dutch masterpiece with BMI Redland



One of the UK's largest manufacturers of flat and pitched roofing and waterproofing solutions – is setting new standards in interlocking profiled clay tiles with the introduction of the BMI Redland Hollander Clay Pantile. The Hollander Clay Pantile replaces the

company's popular Cathedral Clay Pantile and offers several design and manufacturing enhancements over its predecessor. The increased headlap variation, now up to 30 mm, gives more laying flexibility, a second nib provides greatly improved tile stability and a second nail hole means more roofs can be just nailed rather than clipped.

marketingukandi@bmigroup.com www.redland.co.uk

BMI Redland Heathland found moreish



Combining the appearance of a handcrafted tile with the robust performance of concrete, the BMI Redland Heathland tile has proved ideal for an exclusive development in Warlingham, Surrey. BMI Redland's Heathland tiles are a more sustainable product than the handmade clay tiles they mimic because they incorporate a

significantly lower level of embodied carbon. Heathland combines natural weathered character with the performance of a machine-made tile in an attractive and cost-effective roofing product.

marketingukandi@bmigroup.com www.redland.co.uk

Klober Permo® air gets recognition



Klober has received a significant boost for its low resistance air-open underlay Permo® air with certification by Local Authority Building Control (LABC) for its Registered Details scheme. LABC ensures that buildings

are safe, healthy, inclusive and efficient, and meet the standards set by the Building Regulations. Designed to meet this requirement and prevent condensation forming in the roofspace, Klober Permo® air offers an exceptional level of breathability. Permo® air not only avoids the additional cost of supporting ventilation, but also interruptions in the roofline caused by traditional tile or slate vents.

01332 813050 klober.co.uk/shop/category/air-open-underlay

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Roofshield

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Kemper System on display at Museum of Liverpool



emper System has helped to refurbish the Museum of Liverpool, completing a complex waterproofing project, which made the final of the Liquid Roofing and Waterproofing Association (LRWA) Awards 2018.

Positioned over the Leeds Liverpool canal link, the museum required remedial works, which involved removing the original terrace steps and the failed single ply waterproofing of two separate terraces.

Once the original steps and terrace

structure had been removed, Kemper System's solvent-free Kemperol 2K-PUR liquid waterproofing system was used by specialist contractors K Pendlebury & Sons to waterproof the original concrete slab underneath.

A complex steel support system was then bolted through the new waterproofed concrete slab. Further waterproofing was required comprising very specific detailing, including 672m of galvanised steel stepped beams with approximately 200 small



individual supports and more than 3,600 individual bolt heads securing the steel to the slab.

Neilan Symondson from K Pendlebury said: "This was an extremely intricate job which had to be carried out in challenging weather conditions as the building is located on the waterfront. The Kemperol 2K-PUR was applied on slopes ranging from 20 to 35 degrees with very complex detailing.

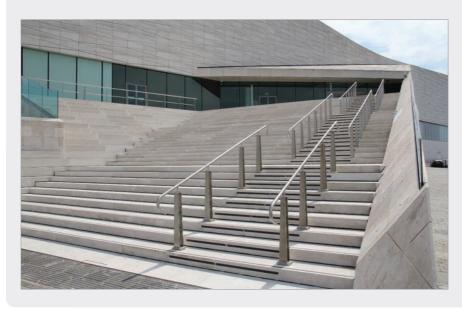
"As Kemperol 2K-PUR is applied wet-onwet this made it much easier for us to work around the extensive structural detailing and awkward shapes, ensuring they were waterproofed effectively.

"As it's odourless, this also assured the client that anyone visiting or working at the museum during the works wouldn't be affected by any disruptive odours."

Stuart Hicks from Kemper System added: "This was a complex, high-profile waterproofing project that had to meet a number of strict requirements as recognised by the independent judges of the LRWA awards.

"Crucially, the application process for Kemperol 2K-PUR will ensure the waterproofing performs to the highest standards to keep the museum watertight for many years to come."

enquiries@kempersystem.co.uk www.kempersystem.co.uk





Blue sky thinking on resilience

Mark Harris of Radmat Building Products explains why the UK needs to increase the uptake of blue roofs and make a major contribution to flood risk alleviation

here is no quick fix for flood risks.
Sustainable drainage strategies
contribute to rainwater management,
flood risk alleviation and deliver other
benefits in new build construction, but what
about cities, where vast quantities of hard
landscaping cannot be replaced by swales
and bunds, and where providing below
ground attenuation is difficult?

The Building Regulations help to ensure that new build construction helps alleviate flood risk, but 98 per cent of the built environment is existing buildings, so what about the flood risk contribution from them? Without regulatory change it is unlikely we will see any positive contribution to flood risk alleviation by buildings in cities and existing buildings, but there is some light at the end of the tunnel.

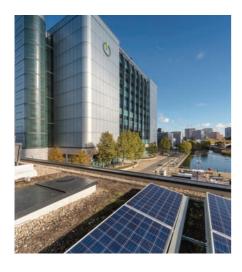
While we are unlikely to see national regulatory change in the near future, the updated London Plan, due for release in 2019, will take a positive step to ensuring London plays a positive role in controlling rainfall and improving drainage, by adding a requirement for rainwater attenuation systems known as blue roofs, There are also positive signs of adoption of this technology from the offices of the new city mayors in Manchester, Birmingham and Sheffield.

ADF JANUARY 2019 WWW.ARCHITECTSDATAFILE.CO.UK





Blue roofs have been around in one form or another for well over 60 years



What difference will the inclusion of blue roofs in the London Plan make? To assess that we need to look back over the impact of the London Plan on the roofing industry and the environment over the past 14 years since its inception and some of the research that went into its development.

From a rainwater management perspective, the London Plan partly introduced green roofing as a contributory factor to managing rainwater in the City. This was based in part on looking at regulations in Europe, where green roofs were widely used with the aim of contributing to sustainable drainage.

In Germany government buildings were required to have a percentage of their roofs greened, private developers gained additional footprint and insurers reduced premiums. While in Basel, Switzerland, it's not possible to build without having a green roof.

Blue roofs

Over the past 13 years green roofs have become an everyday sight in London where there are now more green roofs than in any other city in the world. But green roofs still only provide limited flood risk alleviation, a technology that provides a much greater contribution to flood risk alleviation is the blue roof, hence its inclusion in the updated London Plan.

Blue roofs consist of a water storage medium, typically a cellular geocomposite drainage or retention board, and a discharge control mechanism. Blue roofs attenuate rainwater rather than drain it as quickly as possible. A correctly designed blue roof releases attenuated water at the required discharge rate for the site, providing the integral source control and attenuation required by a Sustainable Drainage System (SuDS), without the requirement for land consuming ponds and retention basins, or below-ground geocellular storage tanks.

Incorporated in an inverted roof construction, the roof elements are installed above the insulation and thermal sheet, and can be finished with a green roof, paving or gravel ballast, providing other benefits for the occupants.

Jonathan Ward, an associate director at Arup, summarises the blue roof design as "a flat roof which allows stormwater to be temporarily stored and drain away over a few hours, thereby reducing flood risks." The roof area doesn't have to be significant either; a roof of less than 300 m² can attenuate 94 per cent of the rainfall of a one in 100 year six-hour storm, by draining over a 27 hour period.

Blue roofs have been around in one form or another for well over 60 years, and are specifically used for attenuation. Other methods can be used for storage, rain water harvesting or a combination thereof, and roofs can go even further, for example the University of Toronto's Innovation Complex, which has a zero-runoff roof that incorporates a green roof, wind turbines and solar PV.

So why haven't we built more blue roofs in the UK? The answer probably lies in scepticism, risk aversion, outdated concerns over flat roofing materials durability, and a lack of guidance documents and legislation.

Concerns over waterproofing durability can now be eradicated through BBA Certification, which will specifically state whether or not a product is suitable for a blue roof application. Products such as PermaQuik already have BBA Certification for blue roofing.

Guidance is going to require a longer term view, industry support and funding. Paul Shaffer of CIRIA (a not for profit research organisation) is currently fundraising the development of a comprehensive blue roof guidance document to support blue roof delivery and help grow the market, something the GLA has committed to part fund, as have a number of companies in the industry. However further support is required to develop this important guidance that will help deal with the scepticism and provide greater confidence in delivery and performance. In the meantime a concise, pan-industry Technical Guidance Note has been published by the NFRC providing a welcome, but simplistic overview.

What this fledgling part of the industry needs now is wider commitment to funding the CIRIA guidance; CIRIA has been fundamental in supporting the delivery of sustainable drainage. This guidance could be part of the process to get Government and the environmental regulators (Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales) to look more closely at the positive contributions to flood risk management that blue roofs can have, to both new construction and existing buildings and also help the BRE recognise the positive contribution blue roofing can bring to the BREEAM assessment process.

CIRIA's Paul Shaffer can be contacted at Paul.Shaffer@ciria.org for further info on the guidance document project.

Mark Harris is head of technical services at Radmat Building Products

Clippers Quay brought to life by best-in-class illbruck installation products



Clippers Quay is an ambitious development rejuvenating Salford's historic docks with a little help from silicone, tape and sealant specialists tremco illbruck. During its construction, illbruck products played an integral part in ensuring the complex will provide outstanding performance for decades to come. The firm's high-strength, tear-resistant ME501 membrane was used to provide a high-performance seal between windows and the construction reveal. Using high-bond self-adhesive strips, it can be quickly and easily attached to windows, then bonded back to the SFS with illbruck's SP525 low-modulus sealant. In areas where SP525 wasn't practical, illbruck's ME508 self-adhesive membrane was used instead – it's not only incredibly easy to use, but it can bond to virtually any substrate. TP600, high-performance illbruck impregnated tape, was used to provide an excellent primary weather seal between the buildings' windows and brick facade And ME315, the company's highly popular single-sided protection tape, was used to seal joints between the SFS and the concrete structure because of its high bond capability and exceptional water and weather resistance.

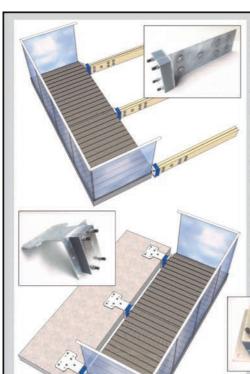
02476 855000 www.illbruck.com

Senior delivers a new look for Leicester's New Walk



A landmark new mixed use development in the heart of an historic part of Leicester has been given a modern makeover thanks to a range of high performance aluminium fenestration solutions from Senior Architectural Systems. Designed by Franklin Ellis Architects, the new building in the New Walk area of the city is located on the site of the former council offices and features high quality office space, residential apartments and ground floor retail units. A key feature of the scheme is the striking facetted facade of the main building which has been created using Senior's popular SF52 aluminium curtain walling system. Here, Elite Aluminium Systems' technical expertise was vital to the successful interpretation of the architect's vision, as owing to the faceting of the curtain wall frames and the irregular formation of the mullions and transoms, each aluminium bar had to be manually drawn to enable them to be accurately fabricated. The retail units also feature Senior's high-performance thermally-broken aluminium SPW501 aluminium doors, with the residential apartments benefiting from Senior's SPW600 aluminium windows and doors.

www.seniorarchitectural.co.uk/architectural-systems/sf52-curtain-wall



We at **BalconyLife** are specialists in the design and manufacture of balconies & canopies, structural thermally broken building connection systems, structural thermal breaks, electrical insulating plates, steel staircases and steel welding and fabrication for buildings.

The **BalconyLife** balcony range includes the **Vista View** with its contemporary glass balustrade appearance and the **Panorama** with its elegant and traditional appearance of metal-railing balustrade. These ranges come both in cantilever and Juliet styles and a variety of sizes including the Junior balcony which provides the benefits of a walk-on cantilever balcony at a budget price.

BalconyLife offer the complete thermal and structural solution for designers when fixing structural and architectural elements to a building outside of the insulated building envelope. Our building connections can be installed within timber joist floors and to concrete floors or steel structural frames. The BalconyLife Concrete Strap and Timber Tee building connection systems and Insula structural thermal breaks have been successfully installed on construction projects throughout the UK in order to comply with the requirements of the Building Regulations Part L to improve the thermal and energy efficiency of buildings.

The Insula structural thermal break products are available in a standard range. We also offer a bespoke design service so the Insula thermal breaks can be manufactured to achieve project specific

requirements including steel to steel, concrete to steel and concrete to concrete thermally broken connections.

BalconyLife have a knowledgeable and

experienced design team who are available to discuss your requirements from initial enquiry through to installation of our products.





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> Visit us at: www.balconylife.co Contact us at: 01509 844233



BoilerMag Teams Up with Worldwide Brand

he popular BoilerMag range of heating protection products will now be marketed under the world renowned Spear and Jackson brand name. Previously marketed by sister company Eclipse Magnetics (and Spear and Jackson Group member company) the BoilerMag range will now benefit from the strength and heritage of the Spear & Jackson name.

Sales & Marketing Director for Boilermag, Steve McAllorum said: "Spear and Jackson has over 250 years of experience and innovation, as well as an enviable reputation and a market leading product range. We are, therefore, delighted to be working closely with them in order to expand the reach of our popular range of magnetic heating system filters and water treatment chemicals."

BoilerMag is manufactured by magnetic technology experts Eclipse Magnetics, who, in addition to Spear & Jackson, are part of the world renowned Spear & Jackson Group. With a 250 year history, the Spear & Jackson Group is a multi-national organisation with divisions covering garden tools, metrology



equipment, woodworking tools, and magnetic equipment.

With premium quality manufacture and high collection capacity, the BoilerMag range

of heating system filters offer a range of quality system treatment products for all applications, from small domestic properties to large industrial installations. The BoilerMag domestic heating system filter ensures that virtually 100 per cent of ferrous oxide and scale is removed on first pass. Perfect for residential applications, it can be installed and cleaned in minutes, effectively removing both magnetic and non-magnetic debris.

Boiler filters are also important for larger buildings, preventing the build-up of contamination in central heating systems, reducing energy bills, increasing boiler life, and reducing maintenance call outs. The BoilerMag XL is designed for use in medium sized commercial, retail, or large residential properties, while the BoilerMag XT is perfect for industrial heating systems. Both offer a 10 year warranty, ensuring protection even in the most demanding large scale applications.

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issue has even been delivered! What's more, the Digital Issue includes interactive links to featured companies. Subscribe for free now.

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OMNIE UFH warms Cotswold homes



A development of six new five-bedroom detached properties, whose construction features the area's distinctive natural Cotswold Limestone, is making full use of the benefits to the ClipPlate system and other products from the range of OMNIE Limited. ClipPlate is amongst the most popular

options to OMNIE's LayFast brands: being compact and suitable for in-screed applications. Pipe runs are simply pressed into the profiles without the need for joints and resist being disturbed as the screed is laid. OMNIE offers a full range of solutions for rapid completion and restricted construction depths, as well as its TileOver range.

01392 363605 www.omnie.co.uk

Smart Thermostat Enhances Award-Winning Underfloor Heating System

Schlüter-Systems Ltd is delighted to announce the arrival of a brand new smart thermostat, a highly anticipated enhancement to its electric underfloor heating system, Schlüter®-DITRA-HEAT-E.

Based on Schlüter's existing 2" thermostat, the new WiFi-enabled introduction allows for more closely customised operation of the award-winning system. The discreet thermostat offers minimal visual impact within a room and connects directly to a chosen wireless network. In addition, an easy set-up wizard and capacity to schedule up to six events per day results in ultimate flexibility for end users.

Alongside the new thermostat is a dedicated app; Schlüter-HEAT-CONTROL is free for both Android and Apple iOS devices and boasts an intuitive interface for easy control of the system. Via the app, users can control each thermostat individually or group multiple thermostats together to form heating zones of their choice. Multiple devices can use



the app and multiple users can control the system, remotely adapting settings to their individual requirements.

Other features and benefits include:

- Remote setting of the system via the app (on/off) – ideal in order to be greeted by a warm floor on arrival
- Adaptive function optimises when

heating is turned on/off to ensure desired temperature is achieved in the most energy efficient manner

- Open Window function shuts off the heating for 30 minutes if a rapid drop in temperature (usually the result of an open window or external door) is detected
- Six default modes Manual, Eco, Comfort, Boost, Frost Protection and Holiday – which can be called upon as desired
- which can be called upon as desired

 Track energy consumption and cost
 In conjunction with the unique Schlüter®DITRA-HEAT-DUO matting, with its fast

DITRA-HEAT-DUO matting, with its fast reacting heating and acoustic reduction fleece, this new announcement installs Schlüter's electric underfloor heating solution as an unrivalled system. The smart thermostat brings the controls for the system in-line with users' expectations and allows it to function even more effectively in tandem with a busy life.

01530 813396 www.ditra-heat.co.uk





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Holistic design takes centre stage

Following on from a raft of recent research that makes a clear connection between the built environment and health and wellbeing, David Cook of Vent-Axia discusses the new Government White Paper on the crucial effect of building design

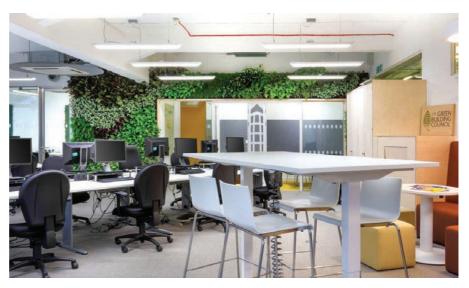
ealth and wellbeing can no longer be ignored. The All Party Parliamentary Group for Healthy Homes and Buildings' White Paper 'Building our Future: Laying the Foundations for Healthy Homes and Buildings,' published in October 2018, focuses on the detrimental impact that poor quality buildings are having on the nation's health and wellbeing, and makes far-reaching recommendations on how this should be tackled. The White Paper outlines how, by tackling the numerous issues in new and existing constructions in a more holistic way, there is a real opportunity to create buildings that promote positive health and wellbeing.

The White Paper makes clear recommendations to the Government on how it can improve standards in homes and buildings to benefit occupants' health and wellbeing. Representing a key part of these recommendations, the White Paper calls for better and consistent building standards and regulations. It also calls for both new build designs and building renovations to consider health and wellbeing, taking a holistic approach to consider elements such as ventilation, heating, energy efficiency, air quality, lighting and acoustics.

The All Party Parliamentary Group for Healthy Homes and Buildings believes that it is only by taking such a holistic approach to delivering healthy homes and buildings that we can make changes where the real benefits can be realised. Without focusing on the issue as a whole, it suggests we risk making gains by tackling one issue, simply to lose them again by failing to tackle another.

Indoor air quality

As part of the holistic design of healthy buildings, ventilation and indoor air quality are two key areas to consider. The White Paper identifies aspects of poor quality, such as buildings suffering from poor indoor air quality (IAQ); which has



been linked to allergy and asthma, lung cancer, chronic obstructive pulmonary disease, cardiovascular disease, and dementia. It is cited in the White Paper that this results in an annual cost to the UK of over 204,000 healthy life years. This backs up earlier findings from The Royal College of Physicians, which reported that poor IAQ causes thousands of deaths per year, and has healthcare costs amounting to "tens of millions of pounds" every year.

Meanwhile, in terms of healthy buildings, the Stoddart Review found that the health and wellbeing of staff had a significant positive impact on productivity, with happy workers being 12 per cent more productive. Nationally, just a 1 per cent increase in productivity would add £20bn to the UK economy, so the benefits of healthy buildings definitely add up.

Following a raft of reports linking the health implications related to indoor and outdoor air pollution, momentum is now growing regarding the importance of good air quality. As a result, the publication of the White Paper follows hot on the heels of Defra's new Clean Air Strategy consultation, published in May 2018, which confirmed the importance of



WELLBEING TO THE FORE

Wellbeing measures within the recent refurbishment of UK Green Building Council's London headquarters included an innovative ventilation system featuring Vent-Axia's Lo-Carbon T-Series fans, delivering a 750 per cent increase in background fresh air Images © Morgan Lovell

With the health and wellbeing of the nation now firmly on the agenda, this is the ideal time for architects to lead the way with this holistic approach to building design

clean air. This draft strategy outlines the Government's ambitions to reduce air pollution, thereby making our air healthier to breathe, as well as protecting nature and boosting the economy, with the draft setting a clear direction for future air quality policies and goals. The consultation closed in August 2018, and the final UK Clean Air Strategy and detailed National Air Pollution Control Programme is due to be published by March 2019.

Healthy buildings

So, what does this mean for architects? While the Government is starting to address the causes of air pollution, until air quality improves, it is essential to look at ways of improving the quality of air being brought into buildings. One way is to specify modern ventilation with air filtration. The latest Demand Energy Recovery Ventilation (D-ERV) or Mechanical Ventilation with Heat Recovery (MVHR) units tackle air pollutants generated outside of the building, by filtering the air before supplying it to the inside of the building. By removing these pollutants from the outside air being brought into a building, air filtration systems improve indoor air quality (IAQ)

and so offer a healthier indoor environment. However, it is also important to tackle pollutants generated inside a building such as VOCs and CO₂. On-demand ventilation systems, such as D-ERV supply or extract air only when and to the level it is required improving IAQ. Sophisticated sensors monitor these 'internal pollutants' along with humidity and temperature and adjust ventilation accordingly, further enhancing IAQ and helping achieve a healthy building.

With the health and wellbeing of the nation now firmly on the agenda, this is the ideal time for architects to lead the way with this holistic approach to building design. By marrying the benefits of ventilation and good IAQ with improved lighting, acoustics, heating and energy efficiency, not only can the physical and mental health of occupants be improved, but businesses can see improved productivity, and overall sustainability will be improved too. This all-round approach to building design is surely a win-win for everyone.

David Cook is product-marketing manager, non-residential, at Vent-Axia



Air diffusion solution for exposed ceilings



Exposed ceilings in new builds and refurbishments are being specified more than ever before. Waterloo Air Products plc has designed a clever Blanking Collar that keeps the purity of the design architects want, at the same time as maintaining performance levels. Mat Southgate, Technical Quality Manager at Waterloo said: "The result is a small device that is

designed to be easily added to the swirls. It's a great solution, because it looks so good and it doesn't detract from the exposed ceiling. We proved the performance of the air distribution through smoke tests and it showed that it worked really well giving a horizontal air pattern.

01622 711500 enquiry@waterloo.co.uk

TSSA move into new Headquarters



The Transport Salaried Staff's Association (TSSA) have just completed a fit-out of their new headquarters space on the second floor of 17 Devonshire Square, London. Working with Adaptive Cooling on behalf of the project lead, Morgan Lovell, AET supplied additional equipment to cater to the

TSSA space layout. This included 24 extra TUS Fantiles and six FlexTouch wall controllers for the Director's offices, permitting remote temperature and fan speed adjustment of the Fantiles without having to physically access the integrated controller within the unit.

01342 310400 www.flexiblespace.com

Happy New Pumps in 2019!



Wilo UK continues to provide the widest range of pumps for all requirements for domestic and commercial buildings. You can even download Wilo-Select 4, to help you with pump selection based on duty requirements. You can size pumps, select duty points and create and save quotes for your customers. Wilo-Select 4 is available as a stand alone software

for you to download, or can be used online to ensure the latest information is always available.

01283 523000 www.wilo.co.uk

Vectaire's Microbox 125/2DC chosen



Vectaire's Microbox 125/2DC was chosen to ventilate St Peter's House and Admiral's House in Kents Road, Torquay. This prestigious development converting two listed buildings into apartments needed discreet, but effective ventilation. The Microbox, provided this. The unit is slim (less than 184 mm deep) so is particularly suited for in-line installation where space is at a premium. It is easy to install, using

the minimum amount of ductwork (therefore fewer fire dampers and less coring), saving approximately £250 per system.

01494 522333 www.vectaire.co.uk

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THE ART
OF HEATING

Stay close and cosy to nature



The team at Panasonic have been working to create an unfiltered, unique and comfortable luxury living experience in bubble style Domes to bring a 180-degree transparent window to the world of nature. Each Dome is kitted out

with Panasonic Aquarea Fan Coils which are connected to air to water Panasonic Aquarea Monobloc heat pumps for quick reaction heating and cooling as well as domestic hot water. Panasonic additionally supply DX ERV units to maintain a constant air flow rate. Each Dome can be monitored via the Panasonic Aquarea Smart Cloud technology to maintain the optimal environment for each guest.

www.aircon.panasonic.eu

Farmhouse modernised in Maidstone



When an 18th century residential farmhouse's existing heating system could no longe accommodate the high hot water demand required, TPS Heating specified Alpha's FlowSmart with Climatic RF controller. The historic farmhouse needed a system that could heat 23 radiators and provide enough hot water for the two bathrooms in

the property. Tom Davies of TPS Heating commented: "This is the first FlowSmart I have installed and it won't be the last. It was simple to install and effective; although the system has only been in-situ for a few weeks, the homeowner is highly impressed with its performance."

0344 871 8760 www.alpha-innovation.co.uk

Gilberts throws light on exposed ceiling design



New light is being shed on exposed ceiling design – literally – through innovations by leading air movement specialist Gilberts Blackpool. The company is already one of the leaders in solutions enabling designers to optimise the trend towards open ceilings and exposed building services in commercial interiors. Now it has pioneered an acrylic version of its coanda plate, inset with LED lighting, for use with its range of GS swirl diffusers. Specifies can choose either a single colour for the LEDs, or an option whereby the colour changes through a preset range. "In exposed ceiling ductwork, the coanda plate is key to ensure efficient horizontal dispersal of fresh, incoming air, without 'dumping'. As the exposed ductwork is an architectural feature, we decided to give designers optimum opportunity to add a new dimension to their plans," explains Gilberts Sales Director Ian Rogers. The backlit coanda can be specified with Gilberts' range of GSF and GSJ swirl diffusers for exposed ceilings. Both versions feature a patented design of radial vanes to optimise omni directional discharge airflow with natural or mechanical air distribution strategies.

01253 766911 info@gilbertsblackpool.com



New-for-old Stokvis boilers



Moto Hospitality Ltd owns more than 50 sites across the country. Having purchased Stokvis boilers, plate heat exchangers and packaged plant in the past, they have returned to the company to source their latest models. Therefore, with the two existing Econoflame R18 Series boilers at Moto Lancaster approaching the end of their design life, they have been replaced

as part of a major capital works contract, using the modern, high-performance, R3401 boilers, each offering an output of 656kW.

www.stokvisboilers.com

Coloured rads for 2019!



Stelrad has a wider range of coloured radiators from stock available as we head into 2019 with several of its models available within 72 hours in anthracite grey. In addition most of its other radiators are available on special order in up to 36 colours with an eight week lead time – making radiators part of the

decor for architects and designers looking to brighten up domestic and commercial buildings using coloured radiators to match or contrast with corporate or creative colour schemes.

0844 543 6200 www.stelrad.com

Deanestor announces record orders



Deanestor, a contract furniture and fit-out specialist, has announced a record order book and strong financial performance this year. The business has generated £20m of orders in 2018 from contractors and developers – a

record order intake in the history of the company. This is a 40 per cent increase on the same period last year and has secured projects for the business for 2019 through to 2020. Deanestor provides high quality contract furniture solutions to construction clients and contractors for healthcare, education, student accommodation, build-to-rent and laboratory projects – both new build and refurbishment.

enquiries@deanestor.com

Environmental milestone for Forbo



Forbo Flooring Systems has quantified the environmental impact of its 2.5mm Marmoleum, with an independent Environmental Product Declaration that confirms that it is manufactured as a carbon neutral floor covering. The independent Environmental Product Declaration (EPD) documents the life cycle process of

Marmoleum and shows that the CO² produced in the extraction, transportation and manufacturing process of 2.5mm Marmoleum is balanced out by the removal of CO² through the growing of its natural ingredients such as flax, jute and rosin tapped from pine trees.

01773 744 121 www.forbo-flooring.co.uk/CO2Neutral

Lyndon in full bloom at The Flower Bowl



The Flower Bowl in Preston is a new and extraordinary mixed leisure destination that is home to Lyndon's luxurious handcrafted and bespoke seating solutions. Lyndon bespoke banquette seating was specified within the venue's ten pin bowling alley —

aptly named the Copper Bowl – that has eight bowling lanes, two of which are located separately for private parties. The seating oozes comfort and functionality, and cleverly maximises the use of space. Bearing the Lyndon stamp of handcrafted luxury, the banquettes reflect the elegance and sophistication of The Flower Bowl.

www.lyndon.co.uk

Decorative floors from CTD



From patchworks of muted tones to monochrome geometric patterns, decorative floor tiles are being increasingly favoured by the commercial and specification market. Ideal for those designers or architects who are looking to make a statement, CTD Architectural

Tiles' exceptional range of contemporary patterned floor tiles are guaranteed to add a unique quality and interest to any residential or commercial interiors project. CTD Architectural Tiles is committed to bringing customers the latest innovations in product and in service.

0800 021 4835 www.ctdarchitecturaltiles.co.uk



Ahmarra Door Solutions supply bespoke doorsets for the Royal Veterinary College

ver 100 bespoke walnut veneer and Formica laminate-faced fire doors were manufactured by Ahmarra for the UK's oldest veterinary school, the Royal Veterinary College.

All doors were produced under the Q-Mark Fire Door Manufacturer Schemes, which ensures a fully compliant and third-party certified product.

Ahmarra secured the project with installation contractor, Avi Contracts, working for Morgan Sindall. The project featured solid American Black Walnut frames throughout including a 15 metre stretch of glazed screens.

The six-storey Hobday Building, on Royal College Street, is being developed in phases and will remain fully operational for students and staff during the refurbishment. The refurbishment programme comprises new office and teaching space, research laboratories, and dining and communal spaces for staff and students.

'We are very proud to supply doorsets and



screens for such a prestigious building. The upgrade to this world-renowned college will ensure that staff and students can work in modern, spacious facilities' said Martyn Fennell, Ahmarra's Business Development Manager. 'Ahmarra specialise in working closely with Architects, main contractors and clients to ensure a cost effective and fully compliant product. Our many years of experience in this field, has enabled us to

develop our own range of doors which are specifically tailored for the education sector, whilst allowing design flexibility. We have produced beautiful doorsets for several other prestigious educational environments over the last 12 months including the London Metropolitan University'.

02392 389 076 www.ahmarra.co.uk

Washroom looks to the sky



Commercial washroom designer and manufacturer Washroom Washroom, has delivered an outstanding washroom refurbishment featuring striking 'Deep Night Sky' Corian vanities for ISG's flagship London head office. Washroom worked closely with ISG to deliver the new male and female washroom

areas. The Washroom team designed, manufactured and installed bespoke trough-style Corian vanity units with Corian under panels for a unique washroom space. The solid surface construction of Corian means the colour runs consistently all the way through for a perfectly neat and unified appearance, creating an attractive finish.

www.washroom.co.uk

PCS offers a versatile range of products



PCS are a UK manufacturer of high performance construction panels that are thermally insulating, lightweight and waterproof. Its construction boards, shower tray formers and seating profiles form part of a versatile range of products that provide

effective solutions for floors and walls prior to the application of Tiles, Plaster and Flexible Render Systems. Whether you are designing or developing a Residential Project or a Hotel Complex, PCS can advise from the outset. Detailed CAD drawings, build Specification and bespoke manufacturing are all part of the company's service.

www.pcsboard.com

Paint with added protection



Crown Trade's innovative Clean Extreme Anti-Bacterial Scrubbable Matt paint has been specifically developed to inhibit bacterial growth and withstand rigorous cleaning and scrubbing without any detriment to the finish. Formulated to help create hygienically clean

walls and ceilings, Crown Trade's Clean Extreme Anti-Bacterial Scrubbable Matt offers high quality anti-bacterial protection, making it ideally suited for use in the healthcare and care home sector, as well as in food preparation facilities and other areas that are subject to stringent hygiene and cleaning requirements.

www.crownpaintspec.co.uk

Sliding version of InnerVision launched



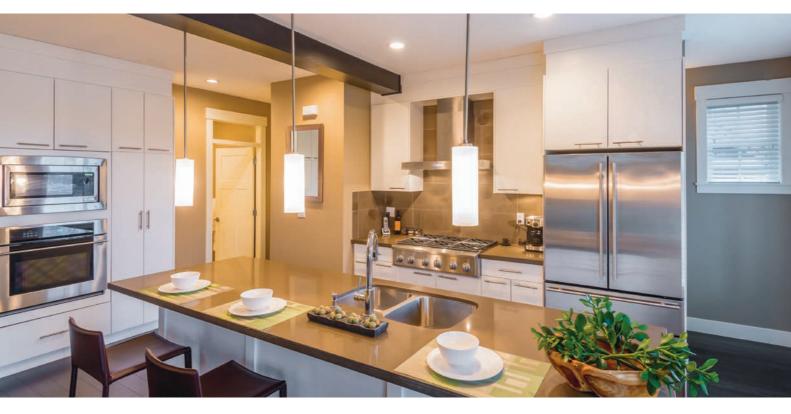
Creating a seamless transition between internal areas by opening or closing space is now possible with new single or double leaf sliding doors from Crittall's range of InnerVision interior screens. The new doors offer wider opening areas than more intrusive hinged alternatives by virtue of their sliding design

maximising use of inside room space, particularly where it may be limited. Offering the strength and ultra-slim profile which are the hallmark of the Crittall range of products the InnerVision range allows the sub-division of internal commercial or domestic spaces without interrupting the transmission of light or reducing valuable space.

01376 530800 www.crittall-windows.co.uk

Serica, the new standard in luxury super-matt















Serica is the ultimate premium finish and the latest addition to the dp-specialist range.

This robust PVC is silky smooth to touch and adds a luxurious supermatt statement when laminated double sided to MDF or dp-lite Hollowcore board. With anti-scratch and anti-fingerprint technology, Serica is designed to cover all types of furnishings in homes, offices and stores.

In case micro-scratches occur, the surface can be easily repaired using a simple iron. The PVC's resilient nature means it does not require a protective film, easing the manufacturing process. Available 1220mm wide and stocked in 11 unicolour designs as well as a further 19 colours deliverable on short lead times.

"The best performing super matt finish, setting a new standard on the market "

According to a leading European manufacturer of furniture frontals.

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4-specialist

Contact us for more information:

Century House, Premier Way, Lowfields Business Park, West Yorkshire HX5 9HF

t: +44 (0) 1422 658341 e: info@decorative panels.co.uk

A brand new look for Cistermiser's infrared urinal flushing control valve



Cistermiser has updated its market-leading IRC® infrared urinal flushing control valve, with improved aesthetics and an array of practical new design features. The IRC® employs motion-sensing infrared to automatically control the flushing of cistern-fed urinals, minimise water wastage and ensure compliance with Water Regulations. The PIR sensor detects movement and activates the solenoid valve, allowing water into the cistern. Incorporating the same proven and robust brass valve, new IRC® design features include a stylish and 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 with ease by simply removing the front fascia to access the battery compartment. The success of the IRC® is due in no small part to its design flexibility. Battery or mains-powered, the IRC® can use batteries as back-up power to mains supply if required. The sensor can be pipe, wall or ceiling mounted, surface-mounted or recessed to conceal the unit and reduce the risk of vandalism.

0118 969 1611 www.cistermiser.co.uk

Fly Forbo project creates stunning home from home office environment



A prestigious law firm has refurbished its Norwich branch to create a smart office environment that delivers a home from home feel, using Allura Wood Luxury Vinyl Tiles (LVT) from Forbo Flooring Systems. Mills & Reeve's new office has subsequently won the Highly Commended prize in the Fly Forbo 2017/2018 competition. When Feilden + Mawson architect, Josephine Harkins, was tasked with creating a new office design that would complement the old Georgian factory next door to the offices, she knew that Allura Wood's rustic design would be the perfect fit. The Allura Wood collection consists of contemporary and in demand reclaimed wood designs and natural stone aesthetics - taking the trend for nature inspired interiors to a new level. What's more, it's ideal for heavy footfall environments, thanks to its PUR Pearl finish and superior dimensional stability. In the office's shower room and tea and coffee making areas, Surestep Wood was used in a sand-like tone, Elegant Oak, The colour complemented the rest of the re-design and the flooring itself provides outstanding slip resistance, with clear step crystals guaranteeing a lifetime of slip resistance.

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



Manufactured in the UK . Installed Worldwide PCS are a UK based manufacturer of High Performance Construction Products that are Thermally Insulating, Lightweight and Waterproof. DeltaBoard: Thermal Construction Boards and DeltaTray: Tileable Shower Floor Formers form part of a versatile range of products manufactured by PCS that offer high performance for the lining and overlaying of subfloors and walls prior to the application of Tiles, Plaster and Flexible Render Coatings Whether you are designing or developing large Residential Projects, a Hotel Complex, Spa Resort or Private Home Refurbishment, our technical team can advise from the outset. Detailed CAD drawings, Build Specification and Bespoke Manufacturing are all part of our PCS High Performance Construction Products provide effective and durable solutions designed to enhance the performance of buildings minimising construction time and costs. PCS manufacture a diverse and versatile range of products such as: Tile Backer Boards, Shower Tray Formers, Flexi Board, Wedge Board, Tileable Seating Profiles, Wellness Spa Pods & more. For more information visit www.pcsboard.com What's Under Your Tiles?

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Spiral staircase specification

Mike Edwards of Complete Stair Systems discusses the key factors in getting spiral staircase specification right for a property, from size to style

piral staircases is a centuries old invention, but not only can they offer practicality and style in any setting, but with the advancement of technology and availability of modern materials, they can now also create an ultra-stylish centrepiece in any home. Yet, contrary to popular belief, they really don't have to break the bank, and on most occasions can actually work out better value than a conventional staircase.

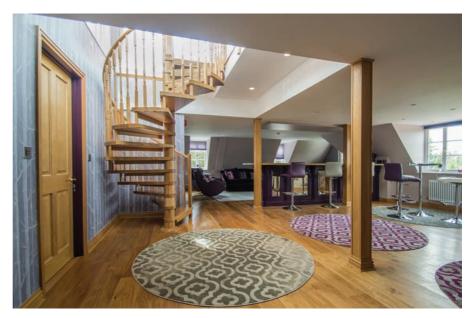
Most commonly found in private homes, spiral staircases are used for a multitude of reasons, from accessing that previously difficult to get to loft space, to being centre stage in the hallway of a bespoke home. Occasionally, spiral staircases can be found outside providing access to a seafront balcony, or simply allowing for transitioning from one level to another within a garden.

Tread size matters

Spiral staircases are subject to a tight set of building control guidelines on what is acceptable, and what isn't, and size ranks highly on the list of things to check. For a spiral accessing a single habitable room, a loft space or mezzanine, a clear tread width of 600 mm is required. This usually translates to a diameter of 1400-1500 mm (allowing for handrail either side and centre column). This type of spiral staircase is referred to as a Category A stair.

In contrast, a main spiral staircase in a home, accessing multiple habitable rooms, will need to be significantly bigger. This type of staircase is referred to as a Category B stair, and must have at least 800 mm clear tread width, although 900 mm or even a 1000 mm clear tread width are often seen as more desirable. With a bigger clear tread width comes a bigger overall diameter, and those interested in this type of stair should be working on the basis of this being in the region of 1800-1900 mm (based on minimum 800 mm clear tread width).

Once you have determined the size of the stair, be certain that you can accommodate it within the property. It is an extremely



common misconception that half a spiral staircase can sit under the ceiling of the floor above. Unfortunately, this is not the case, and will reduce head height on the stair so significantly that it will be near impossible to use. Whether you opt for a square or circular opening, it is important to not only make sure that it can accommodate the entire stair, but also that at least 100 mm of tolerance is allowed. This gives room to manoeuvre the stair within the opening, and also ensures that there is sufficient knuckle gap on the outside of the handrail – avoiding any pinched fingers!

Spiral staircase styles

Now you have determined the size of the stair you need, and know that it will fit correctly within your home, you can start looking at style, materials and finish. From timber to marble treads, and from spindles to curved glass balustrades, there is no end of options available to create the perfect stair.

Whether you are looking for a classical style, or an ultra-contemporary wow factor, any style can be achieved, but the materials If you are looking for a versatile, practical and value for money alternative to the tried and tested conventional staircase, the spiral staircase offers the perfect solution



used will be the biggest driver of cost, so consider carefully.

For a basic kit system, expect to pay in the region of £1-2K, however, keep in mind that most of these systems will only go up to a 1600 mm diameter, limiting them to be used only as a secondary stair (Category A). At the top end of the kit range, a fully specified system with solid hardwood treads and stainless steel barrels and spindles can cost as much as £4K. In contrast, the cost variance for bespoke spiral staircases is much greater and, although starting at around £5K, the introduction of expensive timbers like walnut, or curved glass balustrades, can see prices rise to £20K. Ultimately, a style and budget is available to suit everyone.

If you are looking for a versatile, practical and value for money alternative to the tried and tested conventional staircase, the spiral staircase offers the perfect solution. A stylish, symmetrical design, wide range of available materials, and a compact footprint means that when you come to specify your new build or renovation, a spiral staircase should be top of your list.

Mike Edwards is sales executive at Complete Stair Systems



Flooring provides cost-saving solution



When Monmouthshire Council's St Mary's Roman Catholic (RC) Primary School needed a new flooring to replace the old granwood flooring within two multi-purpose halls and a corresponding corridor, something suitable which was both quick to install and cost-efficient was

required. The solution was found in Gerflor's Attraction®, a highly durable, loose-lay, fast track floor tile system which could be quickly and easily laid directly over the existing flooring, thereby avoiding the time, cost and mess that would have been involved in lifting the original granwood, which typically creates a lot of dust.

01926 622600 www.gerflor.co.uk

Altro serves up dream kitchen



An Altro floor-to-ceiling solution has helped to provide celebrity chef, Richard Bainbridge, with a dream kitchen for his Norwich restaurant. Richard won Great British Menu in 2015, and opened Benedicts three years ago. The restaurant has since won a raft of awards and been named

in The Times Top 100 Restaurants in the UK, Square Meal Top 100, and been awarded 3AA Rosettes. Richard Bainbridge said: "We now have a beautiful new kitchen and everyone at Benedicts is so proud of it. The Altro floor-to-ceiling solution is playing a key role in bringing everything together and it completely delivers on its promise."

01462 489 516 www.altro.co.uk

Creating luxury through lighting



Control systems from CP Electronics have been used to inject a sense of luxury to a Premier League football club, and one of Manchester's most highly sought-after apartment blocks. The RAPID system from CP Electronics enables Wolves' team

to operate eight different pre-programmed scenes including controlling perimeter lights, through to dimming them to an optimal level for presentations, and even a disco lighting setting at a touch of button. To help create and control the luxury ambience of CitySuites, CP Electronics also supplied its D-Mate® room control system to the communal areas of the building, including the reception, gym and pool.

0333 900 0671 www.cpelectronics.co.uk/projects

Enhance the ambience of any space



Sylvania has launched ToLEDoTM Mirage, an innovative and sophisticated new range of LED lamps. Designed to exude class and enhance ambience, the range is perfect for use in homes, restaurants, hotels, bars and heritage buildings.

The range boasts an innovative patented design and features a scratch and high temperature resistant golden-tinted glass envelope, replicating the optical effect of classic multi-filament incandescent lamps with a distinctly modern flair. Low power consumption and extended 25,000 hours lifetime make it the ideal decorative lighting alternative for traditional incandescent and halogen lamps.

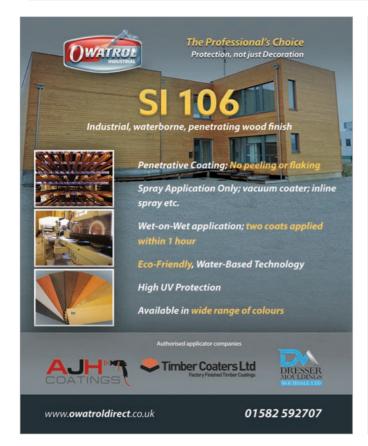
www.sylvania-lighting.com/en-gb/applications

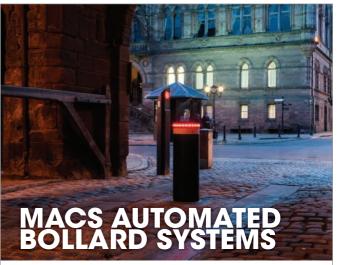
DoubleTree by Hilton integrates high-specification fire audio solution from Advanced



DoubleTree by Hilton, part of Hilton Worldwide, has selected a high-performance fire system from Advanced at their eight-storey, 366 room hotel in Boston, Massachusetts. An Advanced audio system was specified by the stylish, four-star, DoubleTree by Hilton Boston North Shore as it met regulatory requirements for the low frequency 520 Hz warning tones necessary for the sleeping areas of the hotel and its award-winning emergency communications system, PerfectSync, synchronized tones and digital messages to ensure compliance with local codes. PerfectSync automatically synchronizes audio, voice and strobe signals across Advanced's Axis AX fire alarm networks dynamically, as conditions change. Synchronization of audio and visual signals across multiple notification zones, floors & areas, prevents confusion in an emergency situation and aids in meeting intelligibility standards. Advanced's Axis AX system has been designed to offer enhanced power and performance in a user-friendly format, offering a vast range of configurations, control and interface options all with simple set-up and operation.

01670 707111 uk.advancedco.com





Macs Automated Bollard Systems Ltd specialise in the nationwide supply of security bollards and vehicle restriction solutions. Commonly used to help to secure private driveways and prevent unauthorised use of private parking spaces, telescopic security bollards serve as both a visual deterrent, helping to prevent attempted theft of vehicles and property, and offer a physical security barrier between the road and the protected area. With customer satisfaction our number one goal, our team will thoroughly discuss and assess your specific needs, and work to deliver a solution to fit.

For more information on any of our services, please visit www.macs-bollards.com, or to talk to one of our advisors call 0161 3206462



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www.mikewye.co.uk

EverEdge Titan is the perfect product



EverEdge Titan steel landscape edging has been a staple of the EverEdge range for over a decade. Made in a variety of heights, thicknesses and finishes, EverEdge Titan is the perfect product where a stronger or

deeper edge might be required. In 2018, sales of the Titan range rocketed as the versatility of the product became more commonly known. Throughout the year, EverEdge Titan has been used in projects of all shapes and sizes. From creating a traditional parterre to edging a new asphalt pathway, such as in the picture, Titan is built to do it all. Titan is the perfect product for edging in public spaces.

01630 417120 www.everedge.co.uk

Nationwide supply of security



Macs Automated Bollard Systems Ltd specialise in the nationwide supply of security bollards, automatic barriers, vehicle restriction solutions, and retractable power units. With customer satisfaction as its number one goal, the team will thoroughly discuss and assess your specific needs, and

work to deliver a solution to fit. Macs only work with manufacturers that the company believes offer the most reliable and highest quality products, and they offer a technical support and aftercare service, always having someone at the end of the phone when you need.

enquiries@macs-bollards.com

Burslem in the Market for Resiblock



As part of Stoke-on-Trent City Council's plans for the former bustling market town of Burslem, **Resiblock** has been installed to help provide paver stabilisation and stain protection. Resiblock was also installed to help with the Council's objective to improve

the appearance of Burslem. Following the renovation of paving in the area of Market Place and Westport Road, two of Resiblock Commercial Sealers, Resiblock '22' and Resiblock '22' A.F were used on the Concrete Block Paving and Chinese Sandstone respectively.

mail@resiblock.com

LEADING ON AGGREGATE...







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