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45 MILLHARBOUR, ISLE OF DOGS

aLL Design brings higher efficiency as well as a bolder sense of colour to residential towers in south east London

TAI KWUN CENTRE, HONG KONG

Historic prison complex becomes a heritage and arts hub




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CONTENTS

03.19

NEWS, VIEWS & INSIGHTS

- 04 Industry news & events
- 24 International Focus
- 26 Site Lines: Workplace wellness
- 28 View Point: James Potter of WG+P
- 45 CPD Focus
- 45 Appointments and company news
- 51 RCI Show Preview
- 55 Doors, Windows & Conservatories Supplement
- 62 Natural Stone Show Preview

PRODUCTS

- 54 Planning & design
- 64 Groundworks & drainage
- 66 Structural elements
- 66 External envelope
- 78 Insulation
- 82 Heating, ventilation & services
- 83 Interiors
- 96 Landscaping & external works
- 97 Safety & security
- 99 Classified & directory

PROJECT REPORTS

- 30 The gentle art of conservation**
A historic Hong Kong police compound and prison have been restored and developed into a new centre for heritage and arts. Gary Sparrow from Purcell explains to Jack Wooler how the firm took a light touch approach
- 38 Blocks of colour**
aLL Design took on a residential project in Docklands to not only add colour, character and sustainability for a mix of residents, but also to solve a spatial efficiency puzzle for the client. James Parker reports

FEATURES

- 65 GROUNDWORKS: SEWAGE TREATMENT, SEPTIC TANKS & PUMPING STATIONS**
Take command of septic tanks
By January 2020, septic tank installations must be upgraded in line with new regulations. Here, Ann Boardman of Saniflo UK offers some tips to specifiers on how to prepare for the changes
- 71 EXTERNAL ENVELOPE: GLASS & GLAZING**
Remaining a sustainable ally
Richard Hall of Reynaers UK explains how glass and glazing systems made from aluminium are helping a variety of specifiers improve sustainability and performance
- 78 INSULATION: THERMAL INSULATION**
Warming to lower cost refurbishment
With new energy efficiency standards now in force, some properties needing upgrading could incur significant refurbishment costs. New insulation technologies could help ease the pain, says Hudson Lambert of Safeguard Europe
- 93 INTERIORS: FLOOR COVERINGS**
Commercial benefits
Catherine Helliker of Danfloor UK explains the many factors that specifiers must consider when selecting a high-performance commercial carpet

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FROM THE EDITOR



So another Ecobuild passes by, except this time it's been rebadged as 'Futurebuild.' I don't know if you attended, but the show which has been at London's ExCel for a few years, seemed little different from its former 'Ecobuild' incarnation. However this seemed to be the intention, the organisers weren't calling it a new event, more an "evolution" from the previous brand identity.

The new name is of course more appropriate for a very broad-based show, which is far from its more purist 'eco' origins. It was that specialist positioning which brought many architects to its early outings at Earl's Court – specifiers could meet a variety of people supplying explicitly sustainable products in one place, in one afternoon. Its much wider array of attractions, plus the location out in Docklands, has made it harder to attract time-pressed architects in recent years.

The verdict on the success of Futurebuild this year might depend on who you speak to. At an uncertain time in terms of the political backdrop, one exhibiting firm we spoke to reported having an "exceptional" day – on the opening day – we took this to mean exceptionally good! Other exhibitors weren't quite so happy. Despite this, organisers say that re-booking of stands was up by a whopping 52 per cent year on year by the middle day, which is certainly impressive given the challenging economic post-Brexit outlook. Clearly, many are continuing to see the importance of investing in their presence at such shows, and presumably seeing solid ROI. Maybe it's the case they see that remaining close to customers is particularly important at the moment?

The conference and more fringe sessions saw some very popular as well as revealing talks, challenging the status quo. One packed session heard cradle-to-cradle pioneer Michael Braungart on why architects shouldn't be "prostitutes" when it comes to obeying clients on sustainability, and should stick to their guns. The main conference stream retained the 'ecobuild' name. One session chaired by eminent architect Sunand Prasad, looked at how education and architecture education needed to collaborate and evolve to deliver what students were now expecting from courses, to equip them for new industry challenges, and also addressed barriers that institutions were facing.

Alexander Wright, professor of architecture at Bath University, said that regulation was key to promote innovation, but that the industry "needed to be altogether more ambitious in regulation of the built environment." He noted a further barrier, "that people making key decisions are being driven by agenda different from our own." He added that "too often minimum standards are taken as maximum standards."

Katy Barker, architect and graduate of Bath and now director of design and build firm Directline Structures spoke from the floor responding another audience member's comment – that architects should be "good generals," synthesising art, business and science, as well as that the industry now needed "guts" to "avoid the dangers of isolationism." Barker as well as other panellists rejected any notion that architects should remain in an exclusively 'artistic' sphere. She said that collaborating with other disciplines was enabling her "to see the construction process from start to finish, rather than just producing master plans."

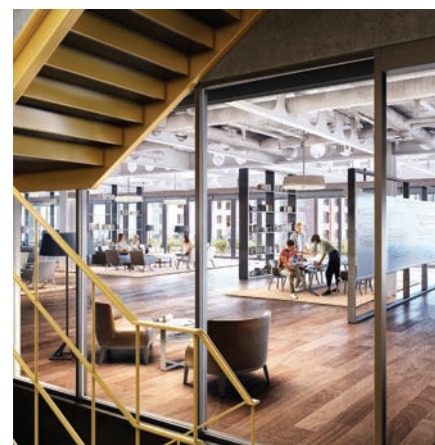
James Parker**Editor****ON THE COVER...**

45 Millharbour, Isle of Dogs, London, by aLL Design is a residential project in London's Docklands that adds colour, character and sustainability for residents, and also helped to solve a spatial efficiency puzzle for Hovedean Properties.

For the full report on this project, go to page 38
Cover Image © Lucy Atlee

MIXED USE

Planning approved for Wood Wharf



Pilbrow & Partners have won planning approval for the Market Building, the centrepiece of Canary Wharf's new urban quarter, Wood Wharf.

The new 14 storey building accommodates a "rich mix of uses," commented the architects; a collaborative workspace at the heart of the building is set between a large public retail market at its base and a new 'sky bar' and restaurant at its top. "Moving the core to the north allows for a simple, generous and open ground floor space that functions as an extension to the public realm, with cafes and restaurants that spill out into the new square planned to its south," said the firm. A double height east-west galleria connects to the two retail levels and links the approach from the first phase of Canary Wharf to the proposed public park to the east.

Fred Pilbrow, partner, Pilbrow & Partners, said, "We are excited that construction can now commence on this pivotal building in the new Wood Wharf. The idea of creating new public space and connections to the existing Canary Wharf is central to the design philosophy. The office space will allow for flexible use, encouraging collaboration and promoting well-being with generous daylighting."

The office accommodation "marks a break with corporate orthodoxy," said the architects. "Structure and services are exposed and the filigree external diagrid allows connections to be opened between individual floors and maximises natural light." The building provides a high level of individual control and external amenity spaces for each floor and day-lit stairs, "which encourage their use in preference to

the lifts," said Pilbrow & Partners.

The restaurant and 'sky bar' are set below a generous over-sailing roof which forms a dramatic termination to the building's facade. Dining areas step down towards a broad south facing external terrace, which commands dramatic views over Wood Wharf and South Quay.

Ivan Ferris, design and development Executive, Canary Wharf Group, said, "We are delighted to have received planning consent for our Market Building at Wood Wharf, after a long journey. The building, once complete, will form the centrepiece to a vibrant new district at Canary Wharf, with the provision of unique retail, office space and roof top restaurant. We would like to thank the Pilbrow & Partners team for their vision and continued hard work to reach this point."

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SOUTH KOREA

The 'Lighthouse Hotel'

Margot Krasojević Architecture has completed the design of an offshore "lighthouse hotel" in Cheju, South Korea, which can harness wave energy to generate electricity by using the building's form.

The hotel design proposal is made up of three building elements that contain the hotel's living, lobby and social areas. Layered aluminium surface elevations are wrapped around the hotel's elements and suspended from the pivoting primary structure, and enclose flip-wing turbines to produce electrical energy when they are lowered into the sea. Seawater crashes into the aluminium panels, flipping over the hydropower turbines.

"The flowing turbines flex as water flows over them, similar to an oscillating wave surge converter" said the architects. "The flip wings are connected to the elevations, which will hold the turbine, allowing the fins to oscillate backwards and forwards for greater effect." The materials used in the design have been specified to be easy to procure and replace, while the cladding comes in a modular format, making it easier to repair.

The lighthouse hotel will sit on a tension leg platform, "which works in the same way as a taut, moored buoy," said the architects. The tethered buoyant structure is a large, semi-submersible floating vessel, which uses a heavy gravity vacuum anchor that fastens it to the seabed. The tension force is maintained in these vertical cables by adjusting the buoyancy of the floating platform, ensuring positive tension at all times.

The hotel is fabricated from a series of partly inflated, moulded ETFE membrane sections. Lightweight yet durable, these airlock sections split apart and float in the event of a rogue wave or an emergency.

The lantern room, located at the top of the hotel, is revealed when the elevations lower during storms. The Fresnel glass lantern light projects out over the entire area, creating an illuminated glass canopy lobby. The refracted light intensifies as it beams through and out into its surroundings, "blurring the edges between interior and exterior space," said the architects.

SALFORD TOWER

The Anaconda Cut completes

Designed by OMI Architects, The Anaconda Cut is a 44 storey tower now completed at 131 metres tall, making it the tallest building in Salford. Delivered by contractor Renaker Build, the property sits in the Greengate area on the site of a former disused car park.

The Anaconda Cut was the name given to a renowned engineering project in the 1970s, which straightened the sharp elbow in the river Irwell where the new development sits to prevent flooding.

The building is clad in a seamless glazed curtain walling with gold coloured reflective metal panels, which "transforms into a shimmering gold plinth as the sun moves around it" said the architects. The lower brick element with gold panelling sits against one facade of the tower to provide continuity along the existing street and buildings below.

The Anaconda Cut comprises of 349 rental apartments ranging from one to three-bedrooms, all with floor to ceiling glazed windows. The units have been designed to the highest specification and carefully curated amenities integrated throughout the building to enhance community living.

Communal roof terraces and seating have been designed on the 17th floor along with a cinema screening room, while the entire 43rd floor is dedicated to a 'Sky Lounge' for all residents to enjoy with "unprecedented" views over the City of Manchester, and stretching as far as the Pennines.



© Craig Barker

EVENTS

AWARDS

National Building Awards 2019
28 March, London
www.nationalbuildingawards.co.uk

EXHIBITIONS

RIBA President's Medal 2018 Exhibition
Ends 22 March, Liverpool
www.architecture.com/whats-on

SEMINARS

RIBA + VITRA Talk: Emre Arolat
19 March, London
www.architecture.com/whats-on

Cost-Effective Sustainable Design Solutions
21 March, Crawley
www.architecture.com/whats-on

TOURS

Building Tour: St Paul's Cathedral
26 March, London
www.architecture.com/whats-on

TRADE SHOWS

UK Concrete Show
20 - 21 March, Birmingham
www.concreteshow.co.uk

RCI Show

27 - 28 March, Coventry
www.rcishow.co.uk

BOOK

Make Sense: Architecture by White

by James Parker

The introduction of the new hardback volume from leading Swedish studio White Arkitekter contains a couple of interesting thoughts on the importance of architecture. Alexandra Hagen, CEO of the practice, says that not only is architecture “the ultimate expression of humanist values,” but that it is also “not possible without positivity.”

Hagen also honestly admits that architecture “is not a quick fix,” continuing, “it is slow, probably the most painfully slow art form of them all. Perhaps the slow pace is meant to remind us that architecture must be more than a statement of today. It will be part of a future that we know little about.”

This handsome 276-page book, which showcases over 80 of the firm's projects, came off the back of an exhibition called *Make Sense* which it staged at Architekturgalerie München in 2017. All together it gives a strong flavour of the personality and ethos of the firm, captured nicely in a Q&A article with Hagen, deputy CEO Charlie Bäckstrand, and Jonas Runberger, ‘head of dsearch’ at White.

White Arkitekter “create environments that inspire sustainable ways of living.” An employee-owned company, White is “a



collective of people interested in people,” including anthropologists, planners, engineers, artists, sustainability experts and researchers as well as architects.

“By integrating research and practice, their work pushes levels of sustainability even higher – it ‘makes sense’ in every way,” the firm commented. Projects featured range from residential apartments to trekking cabins, from schools to offices, to ‘pop-up parks’ and nature reserves, and from hospitals to an entire city relocation.

White said: “To build takes many hands and many minds – it’s a marriage of sensibility and sensitivity. The projects in *Make Sense* aim to make sense for a better future – for people and for the planet.”

TRANSPORT

Images released of Atkins' Newcastle station scheme

The first images of the Newcastle Central Station development have been released. Created by lead consultant for the project Atkins, the new images show the transformation of the station which will “improve connections with the Stephenson Quarter and the Forth Yards Development Areas to promote economic growth.”

Atkins is working in partnership with Newcastle City Council, London North Eastern Railway, Network Rail, and local specialists in town planning and heritage. The team is providing a wide range of services, including architecture, “to unlock the development potential of the surrounding area, and improve



passenger and visitor experiences in and around the station.”

Mike Gardner, project director for Atkins, said, “Our designs aim to enhance user experience, reducing congestion and celebrating the station’s heritage. By improving vehicle routes around the station, rethinking the car parking and



expanding the shopping and leisure offering within the station, our designs will help secure the station’s future as a civic front door and key transport hub.”

Subject to agreement on funding, and if planning is approved, work will begin later this year and is scheduled to complete in 2021.

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To gain insight into this, Eurocell surveyed 1,000 25-40-year old renters and home owners to investigate their views on the subject. Following this, Eurocell asked experts from Simpson Haugh, Hawkins Brown, BDP and The High Street Group to analyse the findings and provide insight into the trends that they are currently seeing in the market.

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LEICESTER RESTORATION

Former Fenwick building in retail-to-resi scheme

Plans to restore and convert the former Fenwick building in Leicester city centre have been approved which will see the landmark building brought back to life with a mixed-use development.

Project partners developer Aimrok Holdings and architects rg+p applied to transform the former department store building into 111 luxury, short stay serviced apartments, together with a rooftop bar which will become a focal point for the development. On the basement and ground floor, the approved design reconfigures an area of 30,000 ft² to include conference rooms, start-up office space and independent commercial units.

The 111 luxury, short stay serviced apartments comprise a mix of studio, one and two bedroom designs, and associated amenities such as an exercise room, ground floor bar, reception and laundry. A two-storey extension to the rear of the building will provide five duplex apartments. All of the apartments have been designed to bring out the period detail of the building, using existing features wherever possible.

The rooftop bar is formed from a single

storey extension and will be available to tenants of the apartments, as well as the general public. Plans include space for a roof terrace and semi-enclosed courtyard.

Andrew Crainey, managing director, Aimrok Holdings, commented, “Our intention has always been to revitalise and restore this building so that it remains a significant destination for Leicester. Working closely alongside rg+p, we’ve created a viable and sustainable design, which we believe will stand out in the modern marketplace. We’re extremely pleased with the successful outcome of this planning application and now look forward to commencing work transforming this much-loved local landmark.”

James Badley, director at rg+p, commented, “This scheme is designed to honour the building’s history by emphasising some of its period features while simultaneously creating high quality residential and commercial space. We’ve worked closely alongside our heritage consultants and the planning team at Leicester City Council to ensure a seamless blend of old and new. Materials such as



copper panelling, stainless steel and powder coated window frames have been incorporated to achieve this. Working on this project represents a fantastic opportunity to continue our investment in our home city, and we’re pleased to be part of the team transforming this iconic building for the future.”

NEW YORK

Brooklyn public library topped with affordable residences

Magnusson Architecture and Planning (MAP) have announced the redevelopment of the Sunset Park Library in Brooklyn, New York.

The mixed-use development, to be completed in December 2020, will feature a 21,000 ft² library facility topped by 50 affordable residences for “low-income occupants.” Sunset Park is the result of what’s been described as a “remarkable partnership” between the Brooklyn Public Library and the Fifth Avenue Committee and “represents a groundbreaking model for shared-use development that can be replicated in other communities across the City,” the architects commented.

Replacing the current Sunset Park Library branch, the eight-storey development will offer two and a half floors of library space (more than double the current square footage), plus 50 units of much needed affordable housing in the neighbourhood. The library’s glass front “will brighten the streetscape; opening the building to the community and welcoming visitors,” said the architects.

The large windows will also bring natural light into the reading and learning spaces within. Above, a brick exterior will echo the neighbourhood historic building material. “The masonry gives way to panelling at the 7th floor setback and

insets on the facade, breaking the mass and lightening the structure’s presence,” said MAP. Topped with solar panels, the development is expected to achieve significant energy cost reductions. Residential amenities include a community room that opens onto a landscaped outdoor deck at the second floor.

Christine Hunter, principal at MAP said, “We’re very proud to be part of a project with such positive impact. Not only does the development help meet the city’s critical need for more affordable housing, it also enhances a much-loved and heavily used library branch, which is so vital to a strong community.”

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SCIENTIFIC RESEARCH

AHR completes agile HQ for geospatial info agency

Architects AHR have completed the new headquarters for the UK Hydrographic Office (UKHO), based in Taunton, providing a “unique and inspiring” office building for one of the world’s leading marine geospatial information agencies.

A design team consisting of AHR, engineers Hydrock, cost consultant Mace and main contractor BAM collaborated on the 11,000 m² office building, providing the organisation with a bespoke headquarters that includes high spec office space, together with staff restaurant, gym and meeting facilities.

The project represents a “cultural shift within UKHO’s way of working, prioritising collaborative and agile workspaces for the 850 staff,” said the architects. The brief was for a building which “cultivates collaboration and provides a modern way of working with the ability to accommodate future business needs.”

Arranged around a dramatic 800 m² atrium, the building accommodates 700 desks across flexible floor plates

which are broken down into 10 smaller neighbourhoods, with a range of work settings including team tables, “scrum” areas, height adjustable desks and quiet work zones.

The design concept “took inspiration from the hydrographic office’s work, following the theme of ‘Seabed to Surface’ with images of strata, contours and water currents influencing the aesthetic design throughout,” said AHR.

The building takes a “very robust approach to sustainability,” adopting natural ventilation wherever possible. Thermal comfort models were undertaken by Hydrock to ensure that the ventilation strategy was robust enough to meet current and future climate demands.

“Outstanding” levels of natural daylight are owed to the glazed atrium and generous 3.5 metre floor to ceiling heights, helping to reduce the need for artificial lighting. The project is on course to achieve BREEAM Excellent and follows the Government’s Soft Landings (GSL) process, which

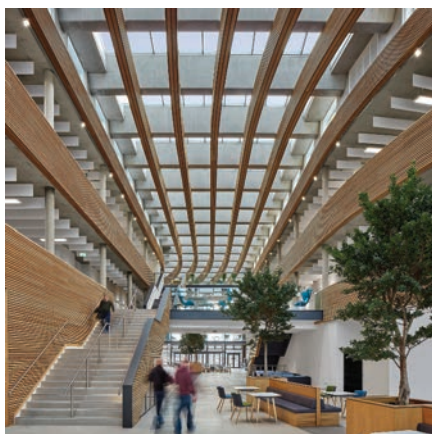
provides a three year post-handover period to “enable the UKHO to get the best out of their building and optimise the environmental systems.”

Hanging from the highly glazed roof are “sinuous” timber baffles, which reinforce the visual concept while providing perfect acoustic control, diffusing daylight and eliminating glare, said the architects.

Adam Spall, regional director at AHR, said, “The UKHO’s aspiration was for a ‘one team’ culture. Our design for the new headquarters has accomplished this through the use of generous staircases, open balconies and wide bridges which create physical and visual connection between all parts of the building, resulting in an impressive sense of openness for such a large facility.”

Jo Funnell of UK Hydrographic Office said: “I am delighted with the outcome of the project and the standard of the building. The collaboration between all parties has been the key to the project’s success. The new environment will support smarter ways of working at the UKHO, using new technology and modern office practices, which is hugely exciting for our business. The design and quality of the building is something we can all be very proud of having delivered in Taunton.”

The project was successfully delivered within an ambitious timescale – completing exactly three years since initial design work began in January 2016. Main contractor



The design concept took inspiration from the hydrographic office's work, following the theme of 'Seabed to Surface'

BAM achieved this by splitting the project into two phases that allowed car park construction to be undertaken while design and costing were completed for the headquarters. A collaborative two stage tender process led by Mace followed a "robust value management approach" to ensure both quality and value for money.

Dermot Parkinson at BAM said: "The atrium roof showcases our use of innovative, modern methods of construction within the delivery of this new headquarters. Designed as a kit of precast concrete elements and cast off-site only five miles away, it was installed using a 300-tonne crane in just six weeks. The 200 modular rooflights were installed safely from above, without the need for scaffolding and delivered significant time efficiencies".

The whole project was modelled to BIM Level 2 with detailed inputs from the BAM supply chain, that ensured all the exposed services were fully coordinated. "A simple palette of materials (brickwork and larch cladding) along with early input of the supply chain has resulted in a robust and well detailed building that delivers exceptional quality throughout," said the architects. "Throughout the design process the new headquarters has aspired to a very high level of specification, always exceeding the 'minimum standard' in order to ensure that this highly durable and agile building that can meet the organisation's needs for decades to come."

LIFE SCIENCES

NBBJ completes agile Abcam HQ at Cambridge Biomedical Campus

© Nick Guttridge



International architecture and design firm NBBJ have completed the new global headquarters for Abcam, a global innovator in life science reagents and tools. The new "state-of-the-art" headquarters, Discovery Drive is located at the Cambridge Biomedical Campus (CBC), a leading hub of healthcare, science and medical research.

The new 100,000 ft² laboratory and office facility in the city of Cambridge forms part of the second phase of CBC's new "global healthcare village," which is being developed by Liberty Property Trust and Countryside Properties.

To support Abcam's continued growth, the new laboratory and office provides 75 per cent more space, features fully flexible laboratory configurations, and has new instrumentation and technology for enhanced scientific capabilities. It has also been designed to support agile working and provide "introvert" and "extrovert" workspaces, said NBBJ. In addition, Discovery Drive has been developed to meet global sustainability standards, enhance employee wellbeing and "help protect natural resources in the environment."

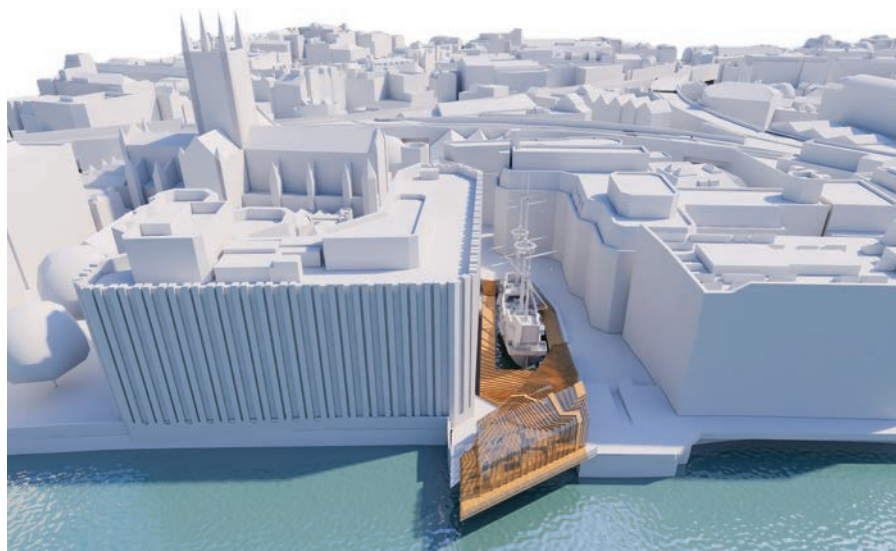
"Based on the interactive culture at Abcam, Discovery Drive's interior design creates an open, connected, and collaborative workplace," said the architects. They have achieved a flexible and efficient design by organising the building in two "distinct" volumes. This dual section can be seen from

within the full-height atrium space connected by a central staircase. The feature stair links staggered floor plates of offices and laboratories, "encouraging opportunities for ad hoc social interaction between floors."

The building's exterior features parametrically designed extended fins and brise soleil, "giving it a distinct identity and marking a new gateway to the south west entrance into the wider campus." Expansive glazing allows views out to the surrounding countryside, while "putting science on show" by making the work within visually accessible to the public.

A variety of hard and soft landscaping helps to "situate the building within the campus," and outdoor amenity spaces with integral cycle storage are provided for employees. The campus' natural biodiversity is enhanced through indigenous planting, bird boxes, and landscape rainwater management using bioswales.

David Lewis, Partner at NBBJ commented: "We are very proud to provide Abcam with its new global headquarters, which will surely bear witness to many important scientific developments and breakthroughs. The design reflects the groundbreaking research and innovation-taking place within CBC. We have enjoyed working with such a pioneering client to develop the latest thinking in science and workplace design."



HERITAGE

SPPARC unveils design for Bankside visitor centre

SPPARC has unveiled its design for a new museum and visitor centre for The Golden Hinde – the full-scale 300 tonne working replica of the 16th-century galleon in which Sir Francis Drake became the first Englishman to sail around the world. The proposed development of the museum and visitor centre, which is due to be submitted for planning later this year, will follow the extensive refurbishment of the ship, which is currently underway on Bankside, London.

Craftsmen are working in situ on the renovation of the ship, using traditional tools and shipwright methods that haven't been used in a London dock for generations. A total of 56 tonnes of sustainable oak have been transported to London from the New Forest and the National Trust in Sussex, to help return the ship to its former glory. The renovation will help "set the scene for the new museum and visitor centre which will seek to assert The Golden Hinde as an important historical and cultural monument," said SPPARC.

Comprised of two levels, the 1,125 m² proposed scheme will feature a new ticket hall, an accessible education space and an exhibition space. At the lower ground level, the new visitor centre will have an external covered walkway with viewing galleries to

the ship, plus WCs, and much-needed offices for staff.

The "materiality of the museum and visitor centre echoes the same timber used for the creation and renovation of the ship," said the architects. Crafted from solid English oak and glass, the proposed museum and visitor centre will "wrap around the ship with the education centre seemingly hovering over the water." In the spirit of The Port of London Authority's 2035 Thames Vision, the proposal will "open up new views of the River Thames, bringing more community and culture to the riverbanks," commented SPPARC.

Glass will be used through the lower ground galleries to allow visitors to view the ship from different angles, while light and shadow effects cast from the timber structure of the visitor centre will chart the route of Drake's journey around the world in a unique exhibition.

SPPARC's design approach aims to "restore, preserve and interpret the history of both the original Golden Hinde and its famous shipman, and the colourful history of the replica herself." The Golden Hinde already attracts thousands of visitors annually, and is a recognised landmark for locals and tourists alike.

However, SPPARC's proposal for a new museum and visitor centre aims to show that it is also an important part of the cultural and historical offering of the area. "The proposal will provide visitors with an exceptional learning experience on the history of the ship and Sir Francis Drake, as well as a dedicated home for artefacts relating to the explorer, which are currently scattered around the world."

Trevor Morriss, principal at SPPARC, said, "The brief for the new Golden Hinde visitor centre called for a unique design which learned from the skilled craftsmanship and innovative nautical engineering of this iconic ship. The concept was derived through the desire to reflect this history of The Golden Hinde and Sir Francis Drake in a contemporary visitor centre."

Angus Francis Coleman, director of Golden Hinde Ltd, said: "SPPARC's passion and energy has been fundamental in creating this new vision for The Golden Hinde in London. We are most impressed by the way the building both complements the ship and ties in with the modern surrounding architecture. This visitor centre will allow us to deliver on a much grander scale, and will turn The Golden Hinde into a major cultural destination."

Anyone wishing to support the fundraising campaign for the restoration can email info@goldenhinde.co.uk

Glass will be used through the lower ground galleries to allow visitors to view the ship from different angles, while light and shadow effects cast from the timber structure of the visitor centre will chart the route of Drake's journey around the world in a unique exhibition



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LONDON

AHMM's 'transformational new quarter'



AHMM has completed work at The Bower, a 450,000 ft² office and public-realm project next to Old Street roundabout in east London. Developer Helical acquired the site in 2012, and approached AHMM with a brief to “re-invent” the site, “a collection of tired office buildings in a sea of car parking,” according to the architects, as a new mixed-use quarter.

Two large buildings, constructed originally in the 1960s for British Telecom, were retained and extended, with a two-storey high hole cut in the front slab block to link the site to busy Old Street. Within the site, a new mews street was created, framed by a collection of new studio buildings.

“Retail space, restaurants and bars line the new pedestrian way, and together the mini-masterplan carefully remakes a piece of city next to the Silicon Roundabout, where Old Street meets City Road,” said the architects.

The existing buildings, originally designed by architect Cecil Elsom, comprised a 14-storey slab block of offices, and a more robust eight-storey warehouse. Although they had different functions, both buildings “shared a similar architectural language of exposed concrete frame, brick spandrels and decorative pre-cast concrete panels.” In the 1980s, the ‘Tower’ was re-clad, removing the original features and losing the similarity to the ‘Warehouse.’

AHMM has reunified the site by making a single new public courtyard and shared entrance pavilion for both buildings, and a

“common material palette for buildings new and old.” Original pre-cast concrete panels on the Warehouse have been retained, cleaned and displayed within the entrance pavilion, and a new exposed steel frame for the tower supplements the existing concrete, achieving a contemporary industrial aesthetic.

In order to improve the Tower’s narrow floorplates and create comfortable spaces fit for today’s workplace demands, this building has been extended upwards and outwards, providing floors with dedicated five-metre tall double-height spaces, “arranged in a clever interlocking section,” said AHMM. “These spaces offer internal generosity, allow more daylight in, and give the opportunity to connect floors and provide flexibility to tenants. Both the Warehouse and Studio buildings benefit from external roof terraces as an added amenity.

The original concrete columns remain, forming a central tenet to the design aesthetic. In contrast to the acoustic mesh rafts, which conceal the services in the Tower, the Warehouse has fully exposed services. The main entrance, located at the heart of the development, comprises an entrance pavilion, which connects the two buildings, and acts as a common point of arrival providing breakout space for the occupiers to hold informal meetings. A generous lounge area supplements the main reception space, providing a contemporary open plan space to meet, sit and eat.

By cutting through the base of the Tower

building on the ground floor, AHMM created a visual connection to the new landscaped street and courtyard, which connects Old Street with the backstreets of Moorfields, providing an alternative route to walking along the congested pavements of City Road. The pathway also encourages visitors into The Bower’s range of shops, bars and restaurants.

With a BREEAM Excellent rating for Offices and a BREEAM Very Good for Retail, the collection of buildings that make up The Bower add value “both economically and experientially,” said the architects, “re-engaging the site with the city and creating a new destination for businesses, the local community and the wider public.”

AHMM associate director Philip Turner commented, “This project shows a commitment to architecture of economy and elegance. The urban scene is re-defined with the introduction of the courtyard and the street, which create a new location and connect to the wider public network of routes and places.”

AHMM founder Simon Allford commented, “The Bower builds on our experience of re-using and recycling buildings, and re-making pieces of city to reflect contemporary requirements and anticipate the future. As a by-product of the new mews, the new buildings form as thin and irregular wedges – the polar opposite to Elsom’s Cartesian grid approach. But interestingly, the spatial character and unusual volumes they generate means that they have let extremely well.”



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CP completes refurbishment hat-trick with Wolverhampton Wanderers FC

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The secret fix undercut anchor is an ideal support system for a wide range of natural stone, technical stone and porcelain panels with a thickness range from 10mm to 50mm. The system is suitable for both standard grid and random pattern facades.

Mechanical kerf fix

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REGENERATION

Hawkins\Brown and Mae estate awarded

Agar Grove Estate designed by architects Hawkins\Brown and Mae Architects with landscape architecture by Grant Associates has scooped the Mayor's Award for Good Growth and the Mayor's Award for Sustainable and Environmental Planning at the London Planning Awards 2019.

The scheme to regenerate a 1960s housing estate is the largest of the London Borough of Camden Council's community investment projects.

The Good Growth award recognises Agar Grove's inclusive design, "reflecting the Mayor of London's ambition to create a city for all Londoners, as expressed through the Mayor's 'Good Growth by Design' programme," said the awards organisers. The Award for Sustainable and Environmental Planning acknowledges the scheme's high-energy performance standards.

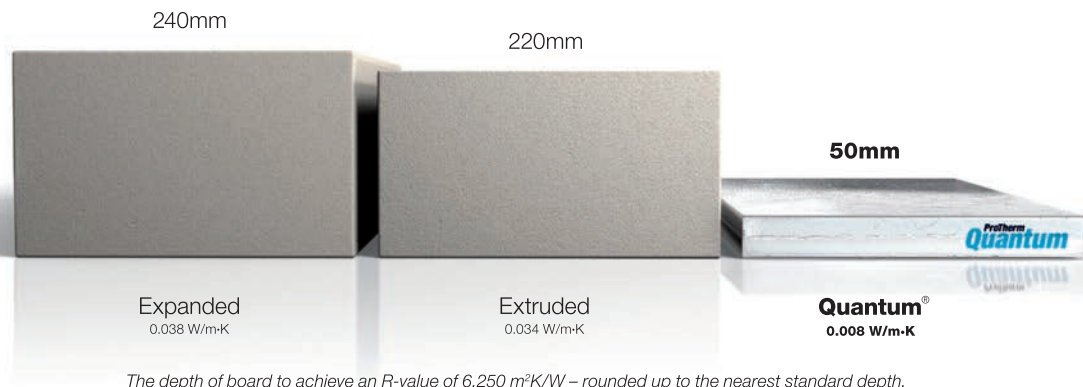
Agar Grove Estate was conceived in 2012 as an "exemplary project, showcasing high sustainability standards and a 'fabric-first' approach to increase energy performance." Work started on site in 2013 to create 493 new homes for new and existing residents, of which, 345 will be built to the Passivhaus energy performance standard.

The public realm concept of interconnecting streets and squares is a key element of the estate's design concept and provides a new urban fabric to the site. The aim was to "move away from the dead-end routes and poor connectivity associated with the original estate."

At the heart of the new estate, a garden square provides a "landscape of pedestrian and cycle priority circulation routes, play spaces, garden and park planting, and seating." Individual residential units and apartment blocks all open out onto the garden square and the adjoining new streets, creating a sense of cohesion and access to outdoor space. The awards are the latest addition to a string of accolades to be given to Agar Grove, which won a Housing Design Award in 2015.

The first phase of the development was completed in April 2018.

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NEW ARRIVALS

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



Left to Right: Paul Wells, Lindsey Bean-Pearce, Neil Andrew, Janice Mitten and John Harding

FIVE NEW PARTNERS DEXTER MOREN ASSOCIATES

Dexter Moren Associates has promoted Paul Wells, Lindsey Bean-Pearce, Neil Andrew, John Harding and Janice Mitten to partners. Paul Wells leads on a variety of hospitality projects, from feasibilities through to construction and delivery, and supports the development of the practice's serviced apartment and retirement living portfolios. Lindsey Bean-Pearce has over 13 years' experience running projects in the UK and Europe, mainly in luxury residential, work space, hospitality and leisure. As co-head of the interior design team she works with a wide range of hospitality brands and international hotel and resort operators with particular expertise in leading large complex schemes from conception to completion.

Neil Andrew has over 15 years' experience running projects in the UK, Europe and Middle East. As co-head of the interior design team, and an "experiential designer," he leads on concept pitches. John Harding is responsible for the delivery of a number of large and complex hotel and mixed-use developments. His "excellent understanding of luxury hotels coupled with detailed technical knowledge means he is integral to the success of every project he works on," commented the firm. Janice Mitten leads the strategic growth and evolution strategy of the practice. The sectors and international markets she is growing include serviced apartments, PRS, co-living, co-working, and retirement living within the UK, Europe and Africa.



LOUISE JOHNSON ALLISON PIKE PARTNERSHIP

Allison Pike Partnership is delighted to announce that architectural technologist Louise Johnson, has been promoted to associate director. Louise has been with the architecture and design practice for 15 years and over this time has developed excellent architectural and job management skills. Louise has led a number of projects in recent years, notably new-build hotel and restaurant fit-out projects for Whitbread and Mitchells and Butlers. Chris Gill, joint managing director, said, "I'd like to congratulate Louise. Her skills, management abilities and client-care have really blossomed over recent years and she is well deserving of this promotion."



ASIF DIN PERKINS+WILL

Perkins+Will have announced the appointment of a new sustainability director, Asif Din. Asif will be leading strategic initiatives for sustainable building across the firm's practice areas, including urban design, architecture, hospitality, and workplace design. With over 20 years of experience working on a number of Passivhaus and zero energy developments both in the UK and Asia, Asif brings a "unique expertise and perspective to the leadership team," the firm said. Asif Din commented: "I'm excited to explore the range of sustainability opportunities in the London office, while also engaging with the firm's breadth of research and expertise at a global level."



Left to Right: Arshad Khan, Nicola Pettman & Karen Coekin © Stephen George + Partners

THREE INTERNAL PROMOTIONS STEPHEN GEORGE + PARTNERS

Stephen George + Partners LLP (SGP) has kicked off the New Year in style with a hat-trick of internal promotions. Nicola Pettman has been promoted from principal architect, Arshad Khan from principal architectural technician and Karen Coekin from accounts assistant have all been promoted to associate. James Nicholls, managing partner at SGP said: "We are delighted to see these latest examples of SGP's commitment to a strong and attractive career path within the practice. These three important associate promotions strengthen SGP's internal processes and procedures for our clients as well as the design and delivery of their projects."

INTERNATIONAL FOCUS

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



LUSAIL STADIUM, QATAR AFL ARCHITECTS

AFL Architects have been announced as the delivery architect on the centrepiece stadium for the 2022 FIFA World Cup in Qatar, working together with engineers Aurecon. Recently unveiled to the public, the 80,000-seat Lusail Stadium will be the largest venue at the tournament and will host the final as well as opening matches. It has been created to sit at the heart of the new Lusail City development, approximately 15 km from Doha. John Roberts, sports director at AFL Architects said, "The developed design and delivery of Lusail Stadium marks an important milestone for AFL Architects. Following the opening of our Qatar office in 2013, our involvement on this project represents the pinnacle of our international journey so far. Following the appointment, our team has impressed with their relentless dedication and enthusiasm for this world-class project, and we are very happy with the progress on site."



COORSTEK CENTRE, USA BOHLIN CYWINSKI JACKSON

Bohlin Cywinski Jackson in association with Anderson Mason Dale Architects have now completed the new CoorsTek Centre at the Colorado School of Mines. The building's design employs massing and materiality to connect to the site's historic context and the surrounding landscape. Its metal and glass facade is vertically punctuated by service cores clad in dark masonry, which help to anchor the building's entrances. Floating horizontal masonry panels made of the signature pale brick used throughout campus add visual interest and introduce a "forward-looking aesthetic utilising the historical palette," said the architects. The north west exterior consists of full-height glazing at Level 1, and vertical glass panels and metal fins at Levels 2 and 3.



NORTON MUSEUM OF ART, FLORIDA FOSTER + PARTNERS

Foster + Partners have completed the Norton Museum of Art in West Palm Beach, Florida. The renovation and expansion has added new galleries and much needed facilities for its visitors, while reinstating the axial arrangement and clarity of circulation of the original 1940s building. The new masterplan restores the logic of the original plan, "reasserting the clarity of the main circulation, balancing the different building heights, and introducing new exhibition galleries and education spaces," said the studio. The campus now also provides an outdoor setting for the museum's growing sculpture collection.



MARAYA, SAUDI ARABIA STUDIO GIO FORMA

Al-Ula, a little-known region in Saudi Arabia has opened a new concert venue. The 'Maraya' ('Mirror' in Arabic) is claimed to be a "feat of modern engineering" by the designers. The building is "an extension of the environment around it in design and beauty, but at the same time has a comprehensive theatre equipped with the latest audio and lighting technology," said Studio Gioforma. Conceived by the practice's Massimo Foglatti and Florian Boje, the building is covered with mirrors on two sides, thereby "enhancing the natural beauty of its setting rather than competing with it." Prince Badr bin Abdullah bin Mohammed Al-Farhan inaugurated the building and praised the efforts of the Royal Commission for the province of Al-Ula, which aims at the sustainable development of the region and re-establishing it as one of the most important cultural and archaeological destinations in the country.



KOOLKIEL, GERMANY MVRDV

MVRDV has been selected as the designer of a 65,000 m² mixed-use complex that will redevelop a post-industrial site in Kiel, Germany. The proposal, which includes a hotel, offices, residences, commercial space, and an event space, makes use of a flexible design system, rather than a "fixed and unchangeable plan," allowing the design to "adapt easily to the needs and desires of the community as the design development progresses," said the architects. The proposal calls to retain the existing structure as commercial units, topping it with apartments. Next to this, a new building is proposed with a zig-zagging plinth containing offices and shops, topped by several cubic blocks of housing, and a small tower of office spaces. At the end of the site will sit a 250-room hotel tower. The project's most eye-catching element is the facade panels, which are made from fibre reinforced concrete. These sit in front of the window and display a variety of icons inspired by the creative output of the locals.



LATITUDE, PARIS STUDIOS ARCHITECTURE

'Latitude' a joint venture between Benson Elliot and Générale Continentale Investissements (GCI) is set to create a unique working environment in the heart of La Défense, Paris. Latitude is distinctive for its lateral design, conceived by STUDIOS Architecture. The new building will provide 22,300 m² of office space over eight floors. Its expansive floorplates will feature landscaped break-out areas, as well as state-of-the-art amenities for both tenant and public use. Latitude will be built to the highest environmental standards and is set to receive CSR credentials including HQE 'Exceptionnel', BREEAM 'Excellent', Effinergie+, Well Core and Shell 'ready', and Wiredscore Platinum. The project is scheduled to complete in 2020.



SHENZHEN BAY, CHINA WILKINSONEYRE & MORPHIS

Architect WilkinsonEyre and landscape architect Morphis have won a major international competition for a 6.3ha urban design and masterplan project in the Greater Bay area of Shenzhen, south east China. The design celebrates the concept of 'City-Culture-Bay' to create a coherent ensemble of interconnected elevated walkways, linked by escalators and stairs to a lively streetscape and basement level civic realm. The design will become an ensemble of animated places, as a series of destinations along its linear route, framed with new commercial and cultural buildings.

SITE LINES

Wellness at heart

Racheal Cadey of Edge Architecture + Design explains how The Crown Estate's new head office in London became the first WELL Platinum certified workplace in Europe, by putting wellness principles at the heart of the design

There is a growing body of evidence that makes a business case for wellness in the workplace. Effort and money invested in environments that support employee happiness and wellbeing have a direct impact on the bottom line. Harvard researchers, for example, have found that for every dollar spent on employee wellness, medical costs fall by \$3.27, and costs related to absenteeism drop by a further \$2.73.

The World Green Building Council has highlighted how productivity can improve by 8-11 per cent, as a result of improved air quality. A study by Harvard University's Healthy Buildings Program found that lowering carbon dioxide levels, boosting ventilation and removing toxic chemicals could increase productivity by 8 per cent. In a space where volatile organic compounds (VOCs) were removed, people scored 60 per cent higher in cognitive tests than in a typical office setting, and if

ventilation was improved as well, the test scores improved by 100 per cent.

The importance of natural light has also been highlighted as an important factor in performance at work. A US poll by Future Workplace found that 47 per cent of employees say they feel tired from the absence of natural light or a window and 43 per cent report feeling gloomy because of the lack of light.

Last year, The British Council for Offices (BCO) published the report, 'Wellness Matters: Health and Wellbeing in offices and what to do about it,' to help decision makers in the property sector maximise their investment in wellbeing, to advise on how to choose between competing third-party assessment and rating tools, and to provide a 'roadmap' for incorporating wellness throughout a building's lifecycle. The BCO found that perceptions of the costs of project delivery and certification could still be a barrier to



ARRIVING AT A NEW STANDARD

Head office of The Crown Estate at 1 St James's Market, London - seventh floor arrival
Image © Andrew Hendry

With the demands of occupants of workplaces changing, the introduction of new performance indicators and health and wellbeing certifications gaining greater recognition, the idea of what is essential and not just a 'nice to have' is changing

prioritising health and wellbeing. But with the demands of occupants of workplaces changing, the introduction of new performance indicators and health and wellbeing certifications gaining greater recognition, the idea of what is essential and not just a 'nice to have' is changing.

Aiming for WELL Platinum

At Edge, we have always seen prioritising the wellness of employees as an investment in business and brand. Our fundamental approach is to work with our clients to understand how their workspaces are affecting the people who use them through a series of metrics-gathering exercises, including surveys, workshops and one on one interviews. By relating this back to a company's perception and performance, together we agree a project's ambition and wellness performance goals unique to them.

The Crown Estate's WELL Platinum certification for its head office, made by the International WELL Building Institute – and the first such award in Europe – was the result of a focused commitment to wellness principles as a driver of the workplace design.

The Crown Estate's head office is located in the heart of its central London portfolio. The development at No.1 St James's Market comprises two mixed-use blocks centred on a new pedestrianised public square, with retail and restaurant space on the ground floor and office accommodation on the floors above.

The Crown Estate's goal of "brilliant places through conscious commercialism" is at the heart of everything it does and its new workplace would demonstrate this purpose in practice. The Crown Estate wanted to achieve the highest certification for health and wellbeing, a Gold SKA rating, BREEAM Excellent rating for the fit-out as well as for the base build.

As a member of The Best Building Partnership, The Crown Estate was already engaged in sustainability leadership and sharing best practice in benchmarking and performance for commercial real estate. The design approach for No.1 St James's Market paid particular attention to future proofing, sustainability and a long-term focus. The new workplace was designed to prioritise and preserve access to natural light as well as to encourage mobility.

Achieving the highest certifications for health, wellbeing and sustainability required new learnings, rigorous specifications and innovative use of materials from The Crown Estate's natural assets. WELL certification involves documentation review and performance verification to determine whether a project meets the requirements of the standard. Performance verification, which is thought to be unique to WELL in this form, ensures that the space is not only designed for health, but that it is actually performing for health.



The Crown Estate achieved the standard by meeting the WELL Institute's requirements, which are based on seven categories of building performance – air, water, and light, as well as "nourishment," "fitness," "comfort," and "mind," across two floors of No.1 St James's Market.

Judith Everett, chief operating officer at The Crown Estate, explains, "When we moved to our new offices we wanted to deliver the very best environment for the people who work at The Crown Estate, and this accreditation shows we achieved that. The WELL standard has changed the way we, as an industry, think about how we can have a positive impact on the people who work in our buildings. We've worked hard to ensure that our own space here at St James's Market represents the best standards in flexible, contemporary workspace, and this formal accreditation would truly demonstrate our commitment to creating brilliant places – both for ourselves and for our customers."

Edge worked closely with The Crown Estate, plus sustainability consultants Cundall, project managers Buro-Four, building services consultants Watkins Payne, and cost consultants Alinea, to create an environment that placed people at the heart of the business.

A wellness strategy underpinned by data

The holistic, evidence-based wellness approach has resulted in a workplace environment certified to be of the highest performance. The Crown Estate had already been monitoring air quality and Leesman (LMI) data. As part of using the WELL standard, everything was tested and monitored on site. The Crown Estate carried out a strategic review of every measurement, examining every feature and the design and cost implications involved with WELL Platinum and signed these off individually. To achieve Platinum meant in the first instance, meeting all of the Institute's preconditions. Ultimately, 105 features were to achieve accreditation, 85 per cent of the optimisation features.

The new workplace was designed for performance, continually monitored and has either met or exceeded the project targets. Post-occupancy data shows that the new workspace is hugely popular with the client and its people (+25 per cent LMI) and that the move to new ways of working achieved a satisfaction +92 per cent LMI. Edge has helped The Crown Estate to provide a stunning, transformational workspace, which is delivering greater staff satisfaction, wellbeing and productivity.

Racheal Cadey is founder & principal at Edge Architecture + Design



VIEW POINT

James Potter from WG+P Architects takes a look at how the process of identifying your practice's USP as part of marketing can reveal some interesting truths

I'll start with a plug for some excellent IT consultants, called DP-IT. They have nurtured our practice's computer systems with care and diligence. DP-IT were founded by two people, one with the surname Seymour and the other Holland, their forenames being David and Patrick, hence 'DP'. During our practice rebranding as Waind Gohil and Potter (WG+P), I was curious to enquire as to why they'd chosen to use their forename initials in their company brand. "...because SH-IT didn't work for us..." was the immediate response.

I hesitated to suggest HS-IT, as it was obvious that, for David and Patrick, the debate over how to arrive at their company name was a brief affair. Perhaps this says more about the differences between the services offered by architects versus those of IT consultants than it does the people involved, however it was interesting to observe that, despite their seeming irreverence to branding, their desire remains to have a brand and project something on the world outside.

So why this slightly lavatorial tale of corporate identity. It hints at two distinct approaches to branding (or re-branding) for companies and architects alike; do it yourself because you either a) don't really care, or b) are a megalomaniacal skinflint (that could cover great swathes of the industry), or alternatively you pay a branding specialist to research what you are, what you strive to become and allow them free reign to throw back at you a brand that says of you everything the outside world needs to hear. A logo accompanies the process, and imbues all your aspirations.

Of the two approaches we chose the latter. Some may be familiar with the process: the branding consultant looks beyond the portfolio of photographs and rigorously interviews clients past and present, collaborators and staff, instigates high-level workshops to encourage 'blue sky

thinking' and wraps it up with some penetrating analysis and conclusions. Let us, for a moment, ignore whether branding is pseudo-science. One thing hugely edifying is having someone sit you and your business partners in a room and ask; how are you different from everybody else?

It's an idiosyncratic question; we are different just by being the firm we are, but then we know the actual question is 'tell us what you think is unique about you so we can project this, in short form, onto the outside world to artificially accelerate your growth'. Or, because life's too short, what's your USP? (Unique Selling Point, just in case you were unsure).

For a creative business with more than one partner in charge this is a tricky question, as each partner will have a slightly different view on what the answer is. Furthermore these individual views are often susceptible to change. So once the branding consultant has dared to ask the Ultimate Question, there is a reassuring silence across the room while we each weigh up whether we're about to derail our shared aspirations by blurting out what we think the firm should become or worse still, discover one of us is secretly a fanatical post-modernist (NB, no one at WG+P is).

So what makes it such a hard question to answer, particularly for a relatively new practice such as ours?

To be an architect is to continually take forwards experience gained but with an ever-stronger desire to learn and broaden horizons; it is one of the few professions that offers such scope, with no two combinations of site and client being the same. It follows that a natural aspiration of a design led firm is to work on anything and everything, so to speak.

This premise doesn't translate happily into something marketable, which tends towards the opposite end of the spectrum: highly specific niche expertise being far easier to shout about. This expansive



BRONZED

An extension to a home in Kent designed by WG+P was clad in bronze

outlook to architecture goes some way to explain why the most decorated architects and practices have a huge variety of cross-sector experience; they have mastered the application of their design to any given brief. Ironically, by the time you are good enough to find work in all and any sectors your USP becomes that very ability, evidenced by your completed portfolio of work. 'We can do anything' being somewhat more potent in the market than 'We could do anything'.

Of course, there is more to standing out than simply pushing a specialism but it weighs heavily on the minds of many. In a volatile industry like architecture to market oneself on a single sector specialism leaves you vulnerable to the ebbs and flows of that sector, within the wider economy. Eggs and baskets etc...

Leaving sectors and selling points behind, for many studios marketing a distinct

message as to the services offered is difficult as the output for each and every firm is a complex balance of resource and fees. 'Starchitects' command higher fees, can allocate greater resource and produce highly crafted buildings, which proliferate further clients wishing to build (and spend) the same. Many lesser known and smaller firms would be economic by comparison but fishing for design-led opportunities by upselling value for money is tempting a mismatch within the creative field, attracting clients who weren't fully in tune with the intentions of the firm they may be engaging. In any successful identity there is a clear logic to selling design and ideas as something aspirational, to foster an ever increasing (one would hope) loop of interesting and better work.

If something we design looks a little different, it's often because of how we've gone about it within the office, and not simply because an individual has had a singular good idea. This process is behind closed doors, which is why it's not so easy to distil for marketing purposes, nor does marketing that process offer the outside world any greater appreciation for what they are procuring as it doesn't directly form



By the time you are good enough to find work in all and any sectors, your USP becomes that very ability, evidenced by your practice's portfolio of work

the output of the office – i.e. a building. As with any successful 'elevator statement,' they capture and convey something of the spirit of the company that sets them apart from the crowd. 'Vorsprung durch Technik' tells you virtually nothing about what a certain

German car maker actually does, how it delivers on its flair for build quality and, er, creative engine efficiency expectation management (now there's a USP). Yet it tells you almost all you need to know, relative to other car manufacturers.

I do wonder if Messrs Seymour and Holland could've braved it out as SH-IT; they both happen to share a bone-dry humour which could carry it off and there would be a fairly abrupt self-selection process of potential clients. This is part of the battle – finding the best clients is often about projecting an honest and frank portrayal of your business onto others.

For the rest of us the soul searching continues, and while we may not have found the panacea of identity and uniqueness, we do intend to push forwards with some values we feel defines our work and methods, these being Process, Wellness, and Opportunity. After all that's been said, the trickiest part won't actually be defining the message, it will be assessing whether the USP (such as it is) has demonstrably advanced the firm, relative to where it would otherwise have been without it.

James Potter is director at WG+P Architects

Millcroft Supports the Renaissance Luxury Living at Athlone House

Originally constructed in 1872 as a private home, Athlone House sits in an elevated position in circa eight acres of grounds with exceptional views across London. Requisitioned and used as an RAF Intelligence School during World War II, it later became a geriatric hospital, before being left unoccupied and becoming so derelict that the next owner was keen to demolish it and build a new property. Local opposition to this led to years of planning delays and the current owner has opted to return the house to its former glory.

The task of transforming the historic property is the responsibility of main contractor, Knight Harwood, and the company has enlisted the help of Millcroft to design, erect and manage the complex scaffolding and access requirements of the project.

Knight Harwood's scope of works includes new roofs, extensive structural works, restoration of stonework and brickwork,



© Billy Jones, Millcroft Director

damp proofing and replacement of all windows. The poor condition of the building and the extensive facade works have meant that Millcroft cannot fix the scaffolding to any part of the existing house. Instead Millcroft's design team has designed an

independent scaffolding structure that can be anchored to the ground using around 200 Kentledge blocks instead.

In addition to the structural challenges of designing the scaffolding structure, Millcroft's in-house design team has also had to consider the exceptionally high wind loading prompted by the property's elevated position and the wind tunnel effect of the openings within the scaffold enclosure. This has involved the use of simulation techniques to engineer the scaffolding for safety and to sequence erection of the scaffold and sheeting in a meticulous programme that supports site safety at all times.

The scaffold is now in place but Millcroft will retain a permanent team on site to carry out adaptations as the programme progresses, attending weekly project planning and health and safety meetings to support Knight Harwood's project management team.

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**BUILDING
PROJECTS****TAI KWUN, CENTRE FOR HERITAGE & ARTS
HONG KONG**

The gentle art of conservation

A historic Hong Kong police compound and prison have been restored and developed into a new centre for heritage and arts, in the largest heritage project the area has seen. Gary Sparrow from Purcell explains to Jack Wooler how the firm took a light touch approach

The Tai Kwun Centre for Heritage and Arts is the largest heritage project ever undertaken in Hong Kong, and looks to remain so for the foreseeable future. Containing a former police station, magistrates court and prison, the site has witnessed British colonisation, Japanese occupation and bomb damage in WWII, and emerged from it all to be preserved as a centre for culture in the historic territory.

The 10-year, \$HK3.8bn project comprises a variety of restored and revitalised historic facilities, including “interpretive heritage spaces,” as well as a new art gallery and auditorium, restaurants and retail, as well as open spaces for the public to access, contrasting with the densely urban surroundings.

Paving the way for a project of this sort, in recent times the voices of Hong Kong citizens urging the conservation of historic landmarks had begun to be heard, most famously in the 2006/2007 public demonstrations protesting against the demolition of the Star Ferry Terminal. Though it was still removed, Hong Kong appeared to undergo a change in thinking, the public indicating a strongly held collective view that heritage sites need to retain heritage standards.

It was during this period that the Tai Kwun Centre was in its public consultation stage, and as such, the careful treatment of heritage has been the key theme running through the project. Conservation architects Purcell were employed to achieve this end; they in turn researched the history and significance of the compound, identifying





areas that should be retained, as well as the scope for change.

Much of Hong Kong's colonial architecture has been demolished over the years, with buildings, often of historic merit, replaced with the high-rises that characterise the area. The city now holds the largest number of skyscrapers in the world – making the Tai Kwun Centre a unique oasis, sitting on highly sought-after land in the city's prime central business district.

The Centre has been both restored and revitalised, providing a permeable site of significant heritage. Now open to the public, the area has been turned into a thriving 3.37 acre cultural hub, with 16 restored heritage buildings nestled between the many towers of Hong Kong Island. As well as hosting frequent shows and exhibitions, it includes areas educating visitors on heritage alongside its numerous retail and restaurant offerings.

A rich heritage

The site comprises three main historical elements, their functions split across several buildings: the former Victoria Prison, the Central Police Station, and the Central Magistracy – the combination originally intended as a holistic approach to processing criminals. Previously titled the Central Police Compound, the fortress-like site was constructed and redeveloped gradually from the 1840s onwards, and also contains various living quarters, an armoury, and a barracks.

The magistrates courts served as a venue for war crimes trials post-WWII, and the prison was later re-opened for use by the Immigration Department, but by the late 20th century most inmates had been transferred to a nearby prison. In 1993, the Hong Kong Government realised the potential of the site as a heritage asset, declaring it as an official monument, and commenced moves to transform the area to its current use.

Tenders were put out to various developers to get expressions of interest for a “revitalisation” project, and after some deliberation, the proposal from The Hong Kong Jockey Club – a not-for-profit organisation that controls all gambling in Hong Kong – was accepted. A 2007 public consultation was followed by Purcell's appointment in 2008.

The conservation specialist architects were brought in to produce the masterplan that would inform the client's development proposals. “The conservation management plan is a detailed piece of

research on the buildings and the site, which includes a framework for the future management of the site,” explains Purcell associate Gary Sparrow.

Being originally conceived as a fortress, the compound is walled in on all perimeters. Purcell’s aim was to enable visitors to enter the Centre from most sides, separating the varied array of structures using inter-linking routes and bridges between many of the buildings. This increased porosity would encourage visitors to linger, discover other parts of the site, and extend their visits.

“At the start of the project there was some concern from the public that this would just be a commercial shopping mall,” explains Sparrow.

“The idea from the Jockey Club however was that there would be an approximate one-third split between heritage and art, commercial, and back-of-house spaces.”

Sparrow continues: “Our task was to try and embed the site back into the city. As such, the mixed-use facilities are spread across the site. There’s not really one area with a specific use, which hopefully encourages people to explore all of the buildings across the site.”

Two other architects featured on this complex project – Herzog & de Meuron, designing two new buildings and making other interventions across the site, and Rocco Design Architects, taking the on-site executive role. Construction and repair work began in 2012, and the project was completed in April 2018, with the site re-opening in May.

A porous compound

Just three buildings were identified for demolition: a 1920s garage, a laundry yard area, and a 1980s office. The remaining 16 historic buildings, covering the prison, magistracy and police HQ, have all been repaired and repurposed, with extensive works undertaken on both the interiors and exteriors.

The Police Headquarters block is on the north of the site. It was constructed in 1919, later than many of the other buildings, with red brick walls and white render, granite features and imposing columns. Forming the public face of the complex, its north facade displays a neo-classical revival design. The building now contains a ‘Heritage Storytelling Space,’ and a police service centre, plus a restaurant and shopping areas.

Visitors can enter the site from the north using a footbridge gate connected to Hong



Kong’s municipal escalators, which run between the Headquarters block and the Armoury. Once inside, they enter the open space of the Parade Ground, flanked by the former Police Armoury to the west, Married Inspectors’ Quarters to the east, and barracks to the south, in addition to the Headquarters block. This almost untouched area provides an ‘urban oasis’ in the city for public recreation and cultural events.

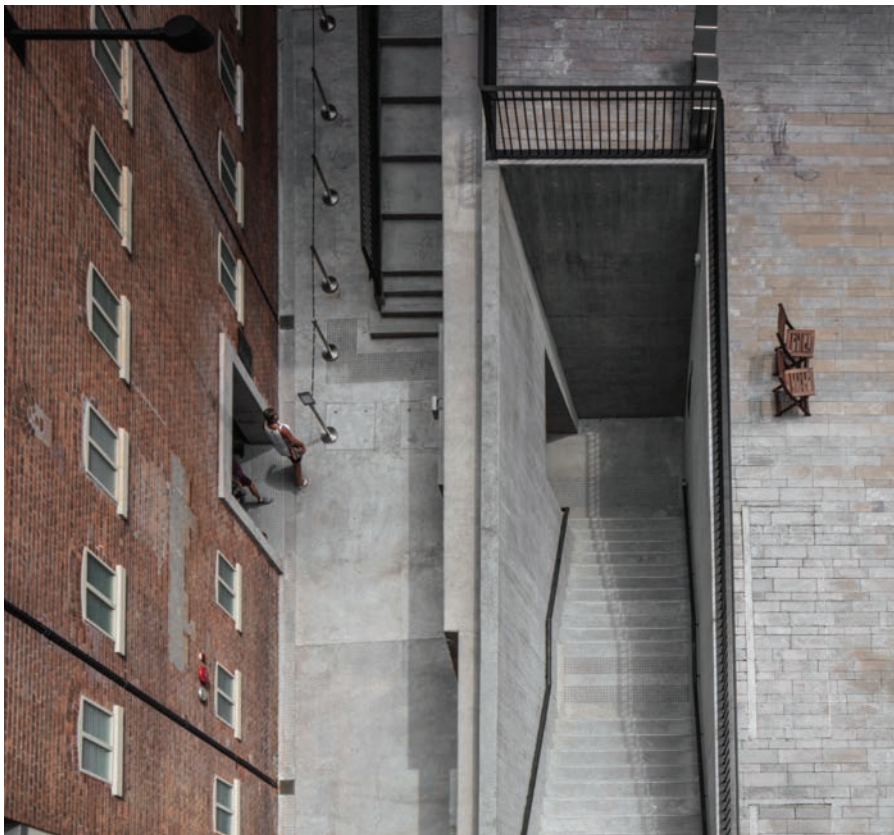
On the east side of the site is the Central Magistracy, which underwent two reconstructions after its establishment in the 1840s. The current building was constructed in 1914, in Greek-revival style with passageways taking prisoners from the police station – the two courts here serving the entire colony for a considerable period. The imposing colonial architecture was intended as a symbol of the importance and power of the court, however the building now serves more communal functions, such as another ‘Heritage Storytelling Space,’ as well as cultural and lifestyle programmes.

Visitors have the option to travel along the eastern side, past the Central Magistracy, and into the open Court Yard, or south through the Barrack Block and into the Prison Yard on the site’s upper platform, which is surrounded by the various halls (from A to F) of the prison facilities, along with the two new Herzog & de Meuron buildings, which house an international-standing contemporary art

URBAN OASIS

The city now holds the world’s largest number of skyscrapers, making the Tai Kwun Centre a unique oasis on highly sought-after land in the CBD

Now open to the public, the area has been turned into a thriving three-acre cultural hub



gallery, and an auditorium (pictured, left).

The Prison Yard is the third and final open space, facing the historical street Chancery Lane, that runs along the south wall. Once imposing and forbidding, the new space has been dedicated to cultural programming. Visitors are also able to enter this half of the site from gates on both the east and western side.

Halls A to F of the new Centre are the former buildings making up Victoria Prison – Hong Kong’s earliest and longest running prison, completed in 1841 and retaining a Victorian facade. It was later redeveloped into a radial form, a popular prison model with a central inspector’s area with multiple wings off it, emulating Pentonville Prison in London. Some of the halls have been restored to their original form, for visitors to learn about the prison and the lives of its inmates – which at one point included Vietnam’s former leader Ho Chi Minh – others have been repurposed for office space, restaurants, and back-of-house facilities.

Among these halls is a prison block that has been left as an “interpretation space,” with cells unaltered from their last period of occupation. “That provides a really good sense of what the prisoners were feeling like,” says Gary, “especially during the summer months – we haven’t installed any air conditioning, so you really get a sense of what the prisoners were facing.” This is a key example of Purcell’s adopted approach of “minimal intervention” when it came to restoration.

Careful restoration

The buildings on the site, and its “interpretation spaces” in particular, had been treated with great care in order to be restored to their former states, with some areas requiring work to meet modern building codes. Key to restoration works were detailed analyses and conservation cleaning, with the colour scheme of the walls and joinery, for example, being reverted back to their authentic look through paint analysis, and tiles being painstakingly restored.

Purcell discovered evidence of previous generations of paint beneath the current decoration, and in the police compound, which was painted a very bright blue, in the 1980s, the decision was made to restore internally back to the dark brown of the original design. Almost all of the buildings were brought back to their original colour schemes in the project.

Conservation cleaning was undertaken

using a super heated water system, “basically a kind of steam cleaning,” explains Sparrow, to remove the layers of paint all the way to the original brick inner facades.

Two of the dormitory buildings were originally faced with brickwork internally. Over the years, where the decision had been taken to over paint those surfaces, modern paint has been used, which was compromising the building’s health. “It was a kind of plastic paint which trapped moisture in,” says Sparrow. “This was making the brickwork deteriorate, so we took the decision to do conservation cleaning.” Using this approach, the team were able to remove the paint without damaging the brick substrates.

In addition, the team sampled various joinery items to identify the timber species, which helped them identify suitable repair materials. “Where we had to do window repairs, we could use the same timber species or a like-for-like material.”

Statutory compliance presented the architects with a further challenge; in Hong Kong, building regulations assume that a project is new build. “For example,” explains the architect, “if you’ve got existing staircases which are too steep to apply to the current codes, you can’t always rebuild the staircase because there may not be enough space in the existing enclosure, which may mean major re-planning.” He adds: “In effect, you’re going to destroy the very thing you’re trying to save.”

To resolve this issue, Purcell undertook assessments of staircases and their arrangements, including comprehensive risk assessments and taking the resulting mitigation measures. “We did a lot of negotiations, and luckily our executive architects were excellent in having the discussions with the building departments to overcome some of these issues.”

Contrasting additions

The site has not just been restored and revitalised, new functions have been added across the former prison compound. As well as providing provisions for the necessary retail, restaurant and back-of-house functionalities to keep the facility both practically and financially sustainable – catering largely for local ‘boutique’ businesses – the two new Herzog & de Meuron volumes offer large-scale modern cultural spaces alongside the heritage aspects of the compound.

The Tai Kwun Contemporary is a 16,000 ft² art space hosting frequent exhibitions,

mainly from local artists, and the ‘Cube’ houses a 200-seat auditorium plus an amphitheatre. The distinct and somewhat dramatic new volumes ‘float’ above the surrounding buildings, cantilevered above the compound’s enclosing granite walls.

While integrated tightly into the compound, the two new buildings both deliberately contrast with their historic neighbours. However, although explicitly modern, both featuring 100 per cent recycled aluminium external ‘padding,’ the architects took inspiration from the surrounding heritage, while concurrently addressing practical issues of structural support, sun shading and rain protection.

The buildings’ geometry was taken from some of the existing masonry work around the site, with their textured facades breaking down scale and reducing reflectivity and glare. The cladding itself also took reference from the original granite walls, the bonding pattern being incorporated in the new buildings’ design.

“We’ve always said that we advocate that new interventions should always be of their time, and the two new buildings achieved this very well,” notes Gary.

Informed judgements

The careful treatment of the site’s long history is professed in each facet of this project. Unique in Hong Kong in terms of its size and treatment, the compound already serves thousands of visitors a day, offering them access to a public cultural venue in a previously impenetrable complex.

The fully restored site is an impressive testament to the architects’ design ambition, with attention to detail in historical accuracy the top priority. Many of the specialist assessment and repair techniques used during the project were being introduced for the first time in Hong Kong, and Sparrow notes that diligence was evident throughout: “We’ve tried not to make a leap of faith in decisions, when we can actually use technical data to make the best informed judgements.”

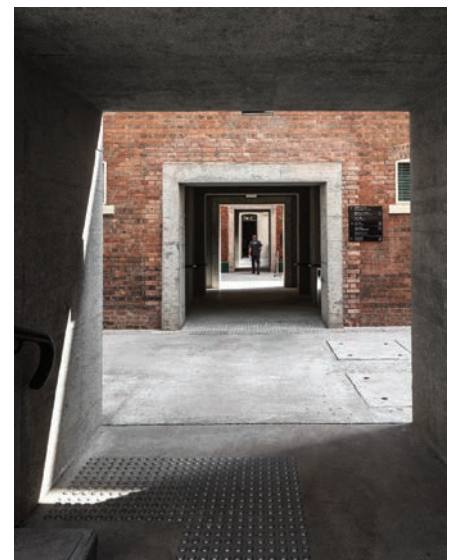
He comments on how the public have reacted to Tai Kwun so far: “The proof is in the numbers. In the six months since the site opened at the end of May 2018, more than 1.5 million people have visited.

Sparrow concludes: “It was the Jockey Club’s intentions not only to physically integrate the site into the city, but also emotionally. They want people to return again and again, to come back for dinners, shows, exhibitions, heritage, and, from what I can see, that’s happened.” ■



“Our task was to try and embed the site back into the city”

Gary Sparrow, associate, Purcell



The Perfect Match for Grade II Listed Church

Needing to replace an old cast iron rainwater system, Hatherlow Church's list of "must haves" was not a small one.

Elder of the Church, Mat Simpson explained "Hatherlow Church is a grade II listed building, and as such we were looking

for a system that would be in keeping with the mid – 19th century building, as well as matching existing gutters and downpipes already installed. The product would also have to cope with the vast amount of water that flows from the pitched roof when it rains.

"Being budget conscious, we also required the lowest cost possible, for an aesthetically pleasing, long lasting and highly functional system. Yeoman Rainguard managed to tick all the boxes."

To accommodate the large water flow levels from the pitched roof, 130 x 100 mm Deep Flow XL Aluminium Gutters were installed to the front side of the Church.

These were complemented with the addition of 100mm dia. XL Aluminium Downpipes, sufficiently wide enough to cope with the amount of water captured in the deep flow gutters.

The installation, carried out by Yeoman Rainguard's team, was completed with attractive Bellvue cast aluminium rainwater hoppers to either side of the Church's porched entrance.



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12th Century Abbey selects Advanced to protect its priceless artifacts



Jedburgh Abbey, a 12th century Augustinian abbey located on the Scottish Borders, has selected the MxPro 5 panel, from Advanced, to protect a rich heritage of treasures on display in its visitor centre. Founded by David I, King of the Scots, nearly 1000 years ago and famed for its unusual architecture, Jedburgh Abbey is one of the four great abbeys established in the Scottish Borders. The Abbey's museum houses some of the famous works of art associated with the early history of the site and some of the artefacts discovered during excavations. Advanced were specified by the team at SAFE Services who were appointed to design, install and commission the replacement of an ageing fire system within the Abbey visitor centre, gift shop, staff rooms and offices, utilising existing cable runs and containments to avoid exposed wiring. MxPro is one of the fire industry's leading multiprotocol fire system solution. It offers customers a choice of two panel ranges, four detector protocols and a completely open installer network, backed up by free training and support. MxPro's ease of installation and configuration and wide peripheral range make it customisable to almost any application.

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Fit for a Queen – HiQu™ at Hever Castle



Aqualisa's HiQu™ smart showers have been installed at Hever Castle, in Kent, once the childhood home of Anne Boleyn. The team at Hever Castle, in conjunction with interior design company Interiors at Nine to Eleven, specified the Aqualisa product primarily for its performance, reliability and modern aesthetic, but also, in no small part, because of Aqualisa's local

Kent heritage. Sarah Clark, Interior Designer at Interiors at Nine to Eleven said: "The feedback has been great across the board, with visitors stating that they especially like the design of the shower and the successful combination of the two different interior styles."

01959 560010 www.aqualisa.co.uk

Helifix structural repairs reinstate arches

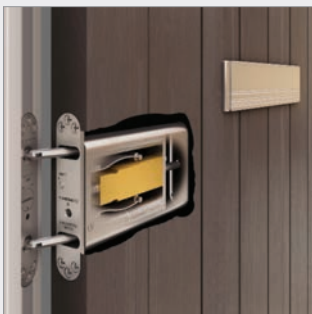


As part of a refurbishment and restoration programme at the world famous Alexandra Palace, structural repair experts, HELIFIX, devised a bespoke repair solution to secure an arch window and two adjacent minor arches

on the north-west tower. Helifix used bonded HeliBars to reinforce the masonry, grouted CemTies to secure the arches and a pair of 7m long SockFix tie bars, virtually hidden from view, being carefully installed through all three arches and positioned in line with the window transoms. The Helifix solution allowed these unsightly remedial measures to be removed and the original window to be reinstated.

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Door closer enhances fire safety



British designed and manufactured, Samuel Heath's Powermatic controlled, concealed door closers are gaining increasing popularity for use on fire doors in high-rise flats and apartments. The door closers carry the CE mark and have been independently tested and proved to meet the requirements for one hour and half-hour fire doors under BS EN 1634-1.

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BUILDING
PROJECTS45 MILLHARBOUR
ISLE OF DOGS

Blocks of colour

aLL Design took on a residential project in Docklands to not only add colour, character and sustainability for a mix of residents, but also to solve a spatial efficiency puzzle for the client, as James Parker discovers

The practice founded by the late Will Alsop and Marcos Rosello, aLL Design, is not a familiar sighting in the residential sector. Its exuberantly colourful new apartment building in London's Docklands is the studio's largest residential project yet, and is a relatively modest 14 storeys, but betrays some hints of the firm's trademark exuberance.

45 Millharbour, a mixed tenure scheme developed by Hovedean Properties, is located on the Isle of Dogs, to be precise on Millwall Inner Dock, at the north end of which sits South Quay DLR station. The high-rise cluster of Canary Wharf is to the north, across the South Dock, and the area has seen a lot of medium-rise residential and office buildings developed in the last couple of decades.

However, as Lucy Atlee, project architect at aLL, told *ADF*, "there are a lot of proposed very tall buildings as well as completed new buildings, cheek by jowl with terraced Victorian housing. The docks provide some respite from the built-up nature of the surroundings, being large expanses of water, but it's a region with a different sort of vitality – one far removed from its historic function as busy dockyards.

aLL Design was taken on to add efficiencies and enhancements to the scheme, which had already been taken through planning by architects EPR, up to Stage C. The massing aspects and general layouts had already been agreed, and aLL was appointed to the project, post planning.

Form

The project is composed of four blocks, including two 14 storey towers which sit at the east and west ends of the site, and include privately owned and shared ownership apartments. Both towers have dramatic views, with the eastern tower looking out over the dock, and the western back out over London's skyline. Atlee comments: "There are spectacular views looking towards the London Eye."

The towers are connected by two central seven storey blocks containing affordable flats and duplexes for housing association Network Homes. In total there are 138 apartments, plus commercial units on the ground floor including serviced offices and a cafe, as well as an 'A2' class unit (potentially a bank branch or similar), which all help make the scheme more welcoming.

A landscaped public space includes a new public route from Millharbour road through to the dockside, and provides amenities including a play area as well as bike racks. Lucy Atlee praises for the client for giving something back to the community: "To take part of your private land and make a new public route and public amenity space is commendable."

Adding efficiency

Given that the scheme had already gone through planning, the designers had to work within the existing envelope as they looked to add space efficiencies.



LIGHT CHANGES

The mix of dark grey brick and an iridescent gives a lighter effect and makes the facades' appearance change through the course of the day



The reception areas for each tower are as dramatic as the exterior, with their bright floors, solid surface desks and letter boxes, contrasting dark walls, and bespoke, characterful, terracotta pendant lights

By reconfiguring the stair cores and lobbies, aLL added 353 metres of net floor area to the apartments, which in turn added to their potential market value for the client. This took the efficiency score of the buildings from 80 per cent to 82.5 per cent, which Atlee says the client was “really happy about.”

The key intervention was in the lobbies on each floor of the towers – where there was effectively a “double lobby” previously, explains Atlee, “we now have a single lobby with the lift in and the staircase off it.” She adds: “this improves the arrival at the apartments too.”

The architects also created a shaft in the lift cores to use as a natural smoke vent, which meant a generator was not needed for smoke extract. This bit of design innovation to the existing scheme meant that a space that wouldn’t have otherwise been used delivered a carbon saving passive solution, and contributed to space savings.

aLL also identified unused space underneath the ground floor ramp for use as bike stores. This meant the ground floor could be entirely given over to revenue-generating office space, and “would activate the ground floor,” says Atlee. The basement also contains a 42-space car park, gym, and plant rooms.

Space standards

Following aLL Design’s interventions, the apartments are now “quite spacious,” and the PRS and shared ownership apartments

benefit from underfloor heating and engineered timber floors. All apartments meet London Housing Design Guide space standards, as well as Lifetime Homes. Lucy comments that the balconies “weren’t quite wide enough” for the guidance in the previously consented scheme, so these were increased.

Atlee adds that achieving the extra space “was a satisfying exercise, to make it work as efficiently as possible” – the 2.5 per cent extra space from rationalising the lobbies was all added to the internal area of apartments, meaning the residents would have increased functional and aesthetic benefits across all tenures.

Adding floor area to individual apartments was chosen for compliance purposes as well as resident amenity and therefore market value, as adding levels above would have reduced the floor to floor heights. They needed to be 2.6 metres to comply with GLA guidance, and in any case to achieve this the architects needed to make service voids “minimal – services are contained in a shallow ceiling void.”

The project was initially designed by EPR to be tenure blind, and, says Atlee, “that was the way we carried it through, as the way we felt it should be done.” She adds: “The affordable elements are executed to the same high quality as the private elements.”

BREEAM & BIM

The project had high standards in terms of sustainability, with the apartments having been designed to Code for Sustainable

Homes Level 4, and the shell and core for the offices being to BREEAM Excellent Offices standard. In addition, when the offices come to be fitted out, it will be done to a Green Lease (an 'eco'-based commercial lease).

As well as being project architect, Atlee is also a BREEAM Accredited Professional (AP). In addition to bringing her high degree of knowledge on the assessment process, and focus on sustainability, simply having her on board as part of the design team gained the project BREEAM credits.

All the apartments have low water consuming sanitaryware, taps with adjustable flow rates, and low energy appliances. The building is connected to a district heating system (a condition of planning), and rainwater is collected in underground tanks to be used for irrigation. PV panels on the two towers' roofs are combined with an area of brown roof to support biodiversity, and there's also some rare Jersey Cudweed, a plant with just two surviving UK populations. It was discovered during early site surveys, and later bagged up and moved to the roof. Swift and bat boxes have been ensconced within the building's brick elevations.

There was a further sustainability challenge in terms of logistics posed by Tower Hamlets planners – the project team had to organise barge deliveries of some materials in order to reduce the scheme's impact in terms of carbon emissions and pollution from lorries. It was easier said than done, says Atlee: "They came into the dock, and getting permission to close it off was challenging." She adds: "I'm a sustainability person, that's my background, and I support the environmental benefits of the logistics requirement – and while it was difficult to implement, it's good to have done it."

With "excellent levels of insulation and air tightness," all apartments are supplied with fresh air thanks to MVHR units. Atlee comments: "It was a squeeze getting the plant into the service voids while maintaining 2.6 metre clear floor to ceiling heights" – the project's 3D BIM model was instrumental to ensuring this was done as painlessly as possible.

As well as being a rare mainstream residential project for the studio, this is also the first built project that aLL has applied Revit on; "We do everything with Revit now," says Atlee, adding that the structural engineer and MEP were also using the same model.





CONTRASTS

Brightly coloured balconies make a dramatic impact on the dark facade and can be seen from far and wide. All images © aLL Design

Primary colours

The external design of the scheme was revamped by aLL, with an eye-catching combination of grey brick mix, and balconies – plus solid aluminium Velfac facade panels – picked out in bright primary colours. One tower has bright yellow accents, the other has a vibrant orange. Atlee explains the decision to go for bold colours: “We extended the use of colour so the project stands out in the sea of new resi towers in Canary Wharf and Millharbour.” The sharply detailed exterior is finished by window frames precision-matched to the brickwork.

Atlee is right in saying the patches of bright colour on the dark facades make “a dramatic impact.” The balconies, which have been transformed from grey in the original scheme, are “distinctive in long range views such as from Greenwich Park as well as locally,” their vertical PPC fin railings running around exposed concrete slabs.

The architects needed to take a pragmatic, performance-based approach to materials specification for the facades, although the project was specified pre-Grenfell, but it was also one which realised aesthetic goals. Atlee explains: “When we took on the project there were elements of the elevations that were not suitable for use over 18 metres. So we

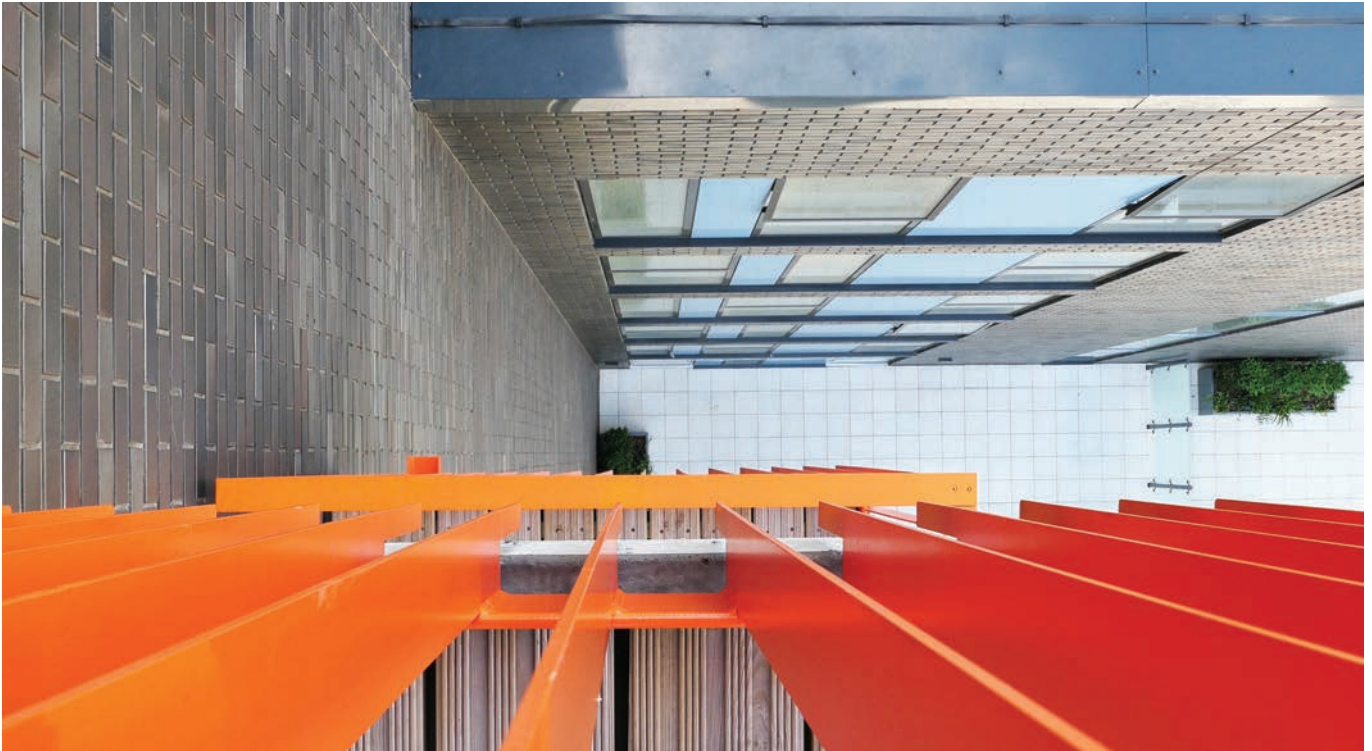
changed to a U-profiled glass from Reglit, and changed the panels to Velfac. These high-gloss panels also had the benefit of “a much cleaner detail, much higher finish and better longevity.”

The brick specification for the facades was meticulous, and required a determined search for the right variety. “In the planning application, the brick mix was a light grey and a darker grey,” says Atlee, “and we found it quite hard to find.” They finally arrived at a Hagemeister mix of a dark grey and an iridescent, which would give the effect of a lighter grey overall. As the resulting mix reflects light it also makes the facades’ appearance alter through the course of the day.

Atlee adds: “It was difficult to find a grey without brown or purple tones. Because we were using bright colours we felt it had to be something monochrome.” She says supplier Modular Clay Products “were really helpful in finding what we were looking for.”

Atlee says she is very happy with the result, and that the design team chose full brick rather than brick slip alternatives for this project. She says: “There was an early proposal to use a render-applied brick tile, however after visiting another site and viewing samples the architects “resisted it, as it really didn’t look good.” She adds: “Swift, the brickwork subcontractor were excellent, and as the building is all about





the brick as well as the colour, it wouldn't be the same building without it."

On the PRS/shared ownership towers, the top floor of apartments is clad in a cornice of yellow/orange Trespa panels, to match the Velfac panels and PPC balconies below. The late Will Alsop had originally drawn some "playful elements" to be added at high level, adding a floor to each of the towers, says Atlee. However this wasn't possible in the end, as the scheme's Community Infrastructure Levy calculation would have had to be redone. "CIL was just about to come in, and it would have cost more money to add something to the top, it didn't make any financial sense."

Interiors

The colours of the exteriors of the towers are continued through to the inside, assisting wayfinding and orientation for users, including on stair cores, bike and bin stores. The reception areas for each tower are as dramatic as the exterior with their bright floors, solid surface desks and letter boxes, contrasting dark walls, and bespoke, characterful, terracotta pendant lights. "We had initially wanted to have back-painted glass in the receptions, but that was value engineered out," says Atlee, "so we changed walls to charcoal grey and used the back-painted glass in the lifts. It's a relatively small area but still has a big impact."

The colour-matched resin floors from Flowcrete survived value engineering, says Atlee, "because it's a small area and has long-term maintenance benefits as it's quite hardwearing." In the affordable housing cores, they are vinyl.

Conclusion

The scheme is now fully occupied, and the architects "plan to go back and do a post-occupancy evaluation," says Atlee, to "check everything is working as intended." While this scheme may not be quite as playful as some of Alsop's previous, often flamboyantly eccentric buildings, it shows that the practice can provide elements of fun and design flair in a 'real world' scheme, and achieve financially robust as well as aesthetically valid results for clients and users. Lucy Atlee concludes: "It was a worthwhile exercise to solve the puzzle and make the building more efficient to the benefit of the client and occupants, as well as making it more sustainable within the confines of the existing building."

It may be a signal of a respected practice moving further into the mainstream, to bring the legacy of a great architect to a wider group of clients and projects. However it's not leaving the more rarefied schemes behind, says Atlee: "We're not ruling out doing more esoteric projects – but we want to build." ■

PROJECT FACTFILE

Windows: Velfac
Brick: Hagemeister (supplied by Modular Clay Products)
Resin floors: Flowcrete
Lobby lights: Hand & Eye Studio
Lifts: Orna
Sanitaryware: Duravit

Perfect edge finishing for a prestigious residential development

Schlüter-Systems provided a variety of trims and movement joints to ensure a damage-free finish for the tiled walls and floors of high-end residential project, Landmark Place.

The 280,193sq ft Barratt Homes development has an enviable position on the north bank of the River Thames, near the iconic Tower Bridge, and boasts 165 one-bed suites, one, two and three bed apartments and penthouses across 10 storeys. It replaces Sugar Quay, a 1970s office building built for Tate and Lyle, which was purchased by CPC Group back in 2012.

The project was a Foster + Partners scheme delivered by Broadway Malayan. A six-year process has resulted in stunning surroundings for those who are lucky enough to have secured a residence, and Schlüter-Systems' products provide subtle and stylish support throughout various formats of matte and polished porcelain (297 x 297mm, 597 x 597mm, 1197 x 1197mm) and 600 x 600mm marble.

INSIGHT

Area: Kitchen and Living Space

Action: Preventing the build-up of tension and resultant cracks within tiled coverings

Schlüter provided 7550m² of its uncoupling membrane Schlüter®-DITRA 25, in addition to over 400 metres' combined length of the 10mm-wide PVC movement joint Schlüter®-DILEX-BWB and the 5mm-wide equivalent Schlüter®-DILEX-BWS, both in brilliant white. The combination of these two products forms a complete system to guard an installation against damage from movement. Installed between the tile and the substrate to accommodate the differentials of movement in the tile and substrate, DITRA 25 has become a tile installation staple, having amassed decades of proven use across the world. DILEX-BWS and -BWB divide a tile covering into appropriately sized fields for the relief of tension and are available in a variety of popular tones, making them as inconspicuous as possible within an installation.



Area: Flooring Thresholds

Action: Handling transitions between material/tile changes

Transition profiles Schlüter®-SCHIENE and Schlüter®-RENO-T in brushed stainless steel were used to neatly handle changes in the covering material. SCHIENE was used for finishing in areas where tile abutted carpet and the T-shaped RENO-T provided a neat bridge between adjacent tiled areas.

Area: Bathroom Niches and External Corners

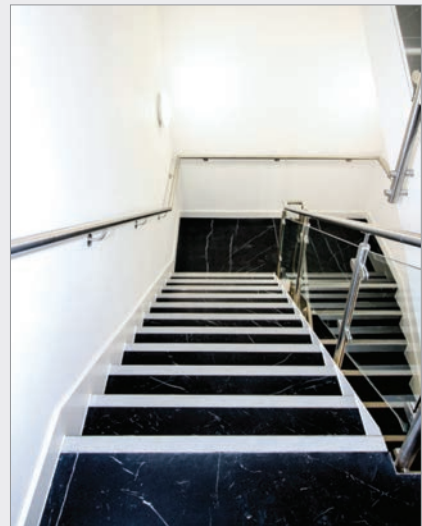
Action: Protecting edges of wall tiling/providing feature finishing

Wall profile Schlüter®-JOLLY-MC was used on the niches and external wall corners within all the porcelain bathrooms of the project. Consisting of brass with a plating of chrome, this stand-out finishing trim combines premium durability with a particularly high-shine finish.

Area: Stair Core ('Back of House' Stairs)

Action: Finishing stair edges

Schlüter®-TREP-G, a brushed stainless steel stair nosing with an adhered non-slip insert, was used to finish and enhance the safety of the marble-effect porcelain tiled stair core. The white insert selected not only provides



slip resistance, but also creates a good contrast with the dark porcelain tile for enhanced user friendliness.

"We find that Schlüter offers a great range of profile depths, so you can always find the right sized trim for job", says Joshua Gallagher, Project Manager at Marmi Limited, "This was of huge benefit at Landmark Place, as there were so many different expanses of tile and material transitions to handle".

"Whenever we order Schlüter products, we always find them to be of the highest quality", continues Joshua, "Our teams enjoy installing them and never have any problems doing so".

For Landmark Place, Schlüter-Systems' extensive range of profile solutions provided the icing on the cake. For more information on how Schlüter can help with your tile and stone projects please email pr@schluter.co.uk.

Established in 1992, Marmi Ltd specialises in the design, supply and installation of high-quality internal stonework, complemented by associated works such as screeding, waterproofing, underfloor heating, terrazzo and ceramic tiling. For more information, visit www.marmiltd.co.uk.

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TO BE OR NOT TO BE OSB?



For those specifiers who have contemplated using SterlingOSB Zero for a new project, Norbord has produced a CPD video presentation which highlights the features and benefits of the popular, versatile board. There are variants available and applications include roofing, timber framing and interior fit outs. Available on RIBA's CPD website, the presentation, which features a voiceover, begins with learning aims and ends with learning outcomes. The presentation also highlights Norbord's commitment to the environment, showcasing that SterlingOSB Zero is FSC certified, BBA approved, and even recyclable.

01786 812 921
www.norbord.co.uk

TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



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

020 685 9685
www.comar-alu.co.uk



Bakerhicks appointed to new framework

BakerHicks have been appointed to a new framework to deliver a range of upgrade works to the depot infrastructure that support the rail franchises of the Go-Ahead Group, a leading UK based transport provider. The framework specifically relates to Govia Thameslink Railway (GTR), the largest rail franchise in the UK in terms of passenger numbers, trains, revenue and staff, and the Southeastern Franchise, which the company has held since 2009. The scope of works will primarily comprise modification, maintenance and upgrade projects to support the Go-Ahead Group in delivering a first-class passenger experience. BakerHicks have a long and successful track record in the rail industry and are currently engaged in the design of a new workshop facility for London Underground at their Acton Depot in West London, as well as the design of a new station at Stanford Le Hope in Essex. They are also leading advocates of Building Information Modelling (BIM). BIM can also be used to digitally represent elements of the railway, as well as to manage assets that are already part of the rail infrastructure.

01926 567800 www.bakerhicks.com



Another Accreditation to the Collection

As a business that both supplies and installs building materials for contractors and end users, Harrison Thompson are on their metal when it comes to health & safety, quality and investment in their employees. As well as a quality accreditation of ISO 9001 & ISO14001 alongside health and safety CHAS and Constructionline endorsements, Harrison Thompson, (whose market leading product brands are Yeoman Shield wall & door protection and Yeoman Rainguard rainwater systems), can now add SafeContractor to the list. "Being SafeContractor accredited shows that as a company we take health and safety extremely seriously and after undergoing an audit by a recognised body, have been proven to have reached a recognised standard, both on our premises and whilst working on site." Explained Director Phil Christopher. Holding such qualifications makes it easier for clients to identify a supplier or contractor that can be relied upon to comply with health and safety regulations as well as providing a high standard of material, service and workmanship.

0113 279 5854 www.yeomanshield.com

Encasement provides stylish cover up at Twickenham Catholic College

Saint Richard Reynolds Catholic College in Twickenham is using Encasement's 'Forma' and 'Vecta' decorative metal casings to conceal structural steelwork around a new courtyard walkway, as part of its recently opened £14 million teaching block.

Designed by DHP Building Design Consultants and built by main contractor, Graham Construction the project involved the refurbishment of the existing Edwardian structure, alongside the construction of The Elizabeth Building to create a modern learning environment for pupils. In addition to primary and secondary classrooms, the Elizabeth Building also includes a hall, library and sixth form centre.

An integral part of the new facilities was the creation of a covered walkway along two sides of the college's main 'quad' courtyard that also incorporates 14 structural support columns, which are concealed by Encasement's rectangular 'Forma' decorative

metal column casings and matching ceiling soffits and fascias.

Each 650mm x 990mm weatherproof column casing stands 3.74 metres high and is manufactured from 1.5mm thick aluminium, which incorporates a Rimex 'Black Pearl' finish that combines a highly polished surface with a pattern of small circular indentations, making the casings both durable and aesthetic.

In addition to the column casings, the walkway also includes almost 70 metres of aluminium fascias and soffits at ceiling level, which use the same Rimex Black Pearl finish to conceal building services and drainage pipework. All casings solutions were not only manufactured and supplied by Encasement, but were also installed by the company's specialist installation team.

Encasement's Managing Director, Martin Taylor, commented: "The Black Pearl finish was an excellent decision for this project as it helps provide interest by breaking up the



large surface areas of the column casings. Also, the pattern helps provide some additional rigidity to the aluminium, making it even more durable and ideal for high traffic use. The same applies to the ceiling soffits and fascia, but the main advantage of using the same material is that it integrates with the column casings and provides a uniform finish to this excellent project."

01733 266 889 www.encasement.co.uk

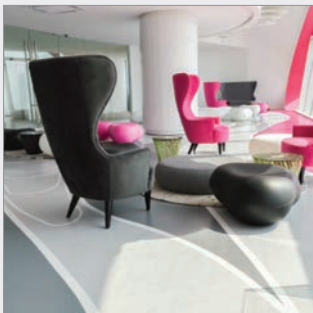
New Product and Marketing Manager role at Schöck



In a move that reflects the continued expansion of Schöck in the UK, Simon Hill has been appointed to the newly created position of Product and Marketing Manager. Schöck is launching a major new acoustic sound insulation product range called Tronsole in the UK market. This will sit alongside the market-leading Isokorb structural thermal break range and Simon's role is to develop the overriding product development and marketing strategy for these product ranges in the UK. Simon, who has a BEng (Hons) in Civil Engineering, originally joined Schöck in 2014 as a Key Account manager. He has worked in the construction industry for over 20 years and has wide experience in a number of structural engineering, sales, commercial management and marketing roles. It is this wealth of experience, combined with a highly disciplined approach to organisational demands that make him the ideal candidate. Simon comments: "It is paramount that we continue to provide the level of service and product innovation that the market has come to expect from Schöck; and my priorities are to successfully develop and deliver the strategic and operational activities that meet these demands".

01865 290 890 www.schoeck.co.uk

How artistic flooring is reflecting architecture



Flowcrete is contributing to the latest interior design trend by providing artistic flooring that reflects the architecture of the host building. With the rippling exterior design and unique glass-fronted PODs set into the construction, the Arte S buildings (pictured) surely stand out and provide a talking point all on their own. What makes these buildings even more impressive is the designer's choice to continue the ripple aesthetic within the interior as well. With the aim of replacing reality with fantasy, curves and ripples can be seen everywhere in the lobby from the rounded chairs and stools to the demarcation used in the flooring. As well as looking visually attractive, the line markings, created using Deckshield UV Linemarker from Flowcrete also work to separate the light and dark grey hues. For the flooring, 382m² of Flowtex PT, a heavy duty, epoxy screed with high impact resistance was used, coated with the self-smoothing epoxy resin Flowshield SL 1000 in Steel Grey and striking pink hues. As well as being aesthetically pleasing and complementing the lobby furniture beautifully, this floor finish is suitable for areas of high footfall, trolley and rubber wheeled traffic.

01270 753000 www.flowcrete.co.uk

Celebrating the great, the good and the simply outstanding

This year the Offsite Awards has seen fierce competition with over 200 entries across 22 categories from high profile names, all competing to be crowned as industry leaders of the offsite manufacturing and construction sector.

Steel framing innovators EOS, are celebrating success at the Offsite Awards and have announced that they have reached the finals in no less than five categories this year including:

- Best Use of Steel Technology – The Ram Quarter



- Housing Project of the Year – The Ram Quarter
- Leisure Project of the Year – The Travelodge, Middlesex Street, London
- Education Project of the Year – Sarah Swift Building, University of Lincoln
- Healthcare Project of the Year – Sarah Swift Building, University of Lincoln

Steve Thompson, Managing Director of EOS said of the awards success: “We are really chuffed – it’s fantastic to be nominated in five categories of these prestigious awards – especially taking into consideration the calibre of the competition and variety of projects. This is testament to a progressive approach, the dedication of the EOS team and the partnerships we have formed with some of the most forward-thinking companies in the construction industry.”

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SE Controls helps protect passengers at the world's longest sea bridge terminal

The passenger clearance building (PCB) at the world's longest combined sea bridge and tunnel is using smoke vents and failsafe linear actuators from SE Controls Asia to help protect passengers and officials by ensuring escape routes are kept clear of smoke should a fire occur in the 90,000 sq.mtr structure.

Designed by Aedas (Hong Kong) in collaboration with Rogers Stirk Harbour & Partners (RSHP) and opened in late 2018, the Hong Kong-Zhuhai-Macao Bridge (HZMB) is 34 miles (55 km) long and spans two channels of the Pearl River Delta to join Macao and Hong Kong with mainland China at Zhuhai in its southern Guangdong province.

In addition to the three cable stayed bridges, the nine year long building project also included the construction of a 4 mile (7 km) sub-sea tunnel and four artificial islands, as well as the two-storey PCB, which houses retail units, food and beverage outlets visitor centre, as well as the ground floor arrival hall and the first floor departure hall.

The PCB is part of the port area, which is constructed on an artificial island of around 150 hectares that has been reclaimed from open waters while the terminal's undulating modular roof design and glazed curtain walled structure allows plenty of natural light and fresh air to enter the building.



Image by permission of HZMB

As part of the wide range of sustainable construction methods and energy efficient technologies used in the building, it is also capable of generating much of its own energy and water.

The smoke control system is equally advanced and incorporates almost 2,000 smoke vents into the design. These are located in three individual zones to give greater control over the ventilations system, which enables escape routes to be kept free of smoke

if a fire should occur.

Every smoke vent in the PCB is operated by two SE Controls SEPO pneumatic gas / spring failsafe actuators, which are equipped with a locking catch. In the event of a fire the system automatically opens the vents to release smoke and heat from the building, but is also designed to operate even if a failure should occur in either the mains power or pneumatic system.

If either were to fail, the actuators automatically default to the open position and lock the smoke vent fully open until the situation has been remedied, which complies with the requirements of the Hong Kong Fire Service Department.

Alex Luk, SE Controls Asia Pacific Director, has been involved in a wide range of successful and high profile projects throughout Hong Kong and China. He explained: "The sheer scale of the HZMB project is astonishing and required new technological solutions to be found in many areas during its planning design and construction."

He added: "The unique design, layout and structure of the Passenger Clearing Building enabled us to engineer the complete system and by using different smoke control technologies, the system is fully integrated life safety solution dedicated to this particular build."

01543 443060 www.secontrols.com



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www.architectsdatafile.co.uk/adf-e-reader-survey

GEZE UK sponsors ironmongery award



GEZE UK is sponsoring the primary award for a biennial event which celebrates the best of British architectural ironmongery specification. The 'Winner of Winners' Award is chosen from all the category winners from the 2019 GAI/RIBA Architectural Ironmongery Specification Awards which takes place on 21st

March. It will be the fourth consecutive time that GEZE UK has sponsored the prestigious award which recognises an entire specification team – architectural ironmongers and architect – and highlights the synergy of the professional partnership.

01543 443000 www.geze.co.uk

No Feed-in Tariffs? No problem for commercial-scale roof-top solar power



mypower
Beko Waters
240.6 kW Solar PV Installation, November 2015

The ending of the Government's feed-in tariff scheme, paid to renewable energy schemes since 2010, won't hamper the financial viability for businesses of commercial-scale roof-top solar power, says solar power company, **Mypower**. It will still offer a ROI of 14-15 per cent, offer substantial financial and environmental benefits and continue to compete successfully with 'conventional' energy on the open market. Solar PV systems are 50 per cent more efficient and cheaper than 10 years ago: larger-scale commercial installations generate electricity at 4-6p/kWh compared to 14-15p for energy from the Grid. As energy demands of companies, farms and industry peak during the day when the PV panels are most productive, a significant proportion of clients' energy needs is replaced with cheaper energy for at least 25 years. With no moving parts, a solar PV system is easy to maintain in the long-term. The removal of feed-in tariffs should actually lead to increased demand. Gone will be uncertainty around effects of future Government policy on financial viability, and gone will be the paperwork with its perceived complexity dissuading many from considering solar power at all.

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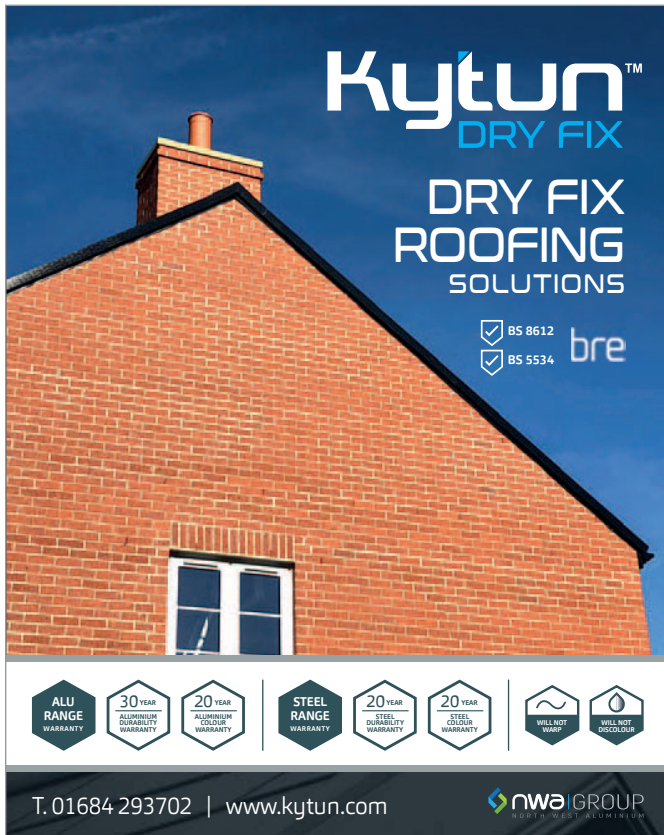
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Discover solutions to all of the challenges

The RCI (Roofing, Cladding and Insulation) Show returns to the Ricoh Arena, Coventry on 27-28 March, bringing together the latest trends, technologies and industry issues



The RCI Show is the largest UK event bringing together the entire roofing, cladding and insulation supply chain, allowing visitors to compare and source new products, learn from the experts and hear about the important issues currently impacting the market.

Visitors to the show can find construction products and services, including rainwater systems, plant and tools, the latest materials, safety equipment and green roofs, and much more. The RCI Show also gives visitors the opportunity to speak to the experts, try out products and discover how they can benefit their business. The event is free to attend, and visitors are encouraged to pre-register via the website.

The RCI Show will comprise three key elements to make it easy to find the information that is most relevant for our visitors: keynote conference programme

from industry leaders, practical RIBA approved CPD seminars and an exhibition of leading suppliers.

Visitors may be keen to find out the benefits and opportunities for off-site construction. Or perhaps they want to discover the latest developments in green roofing. The new RCI conference is the place to find the answers. For example, Vivalda Group chairman Peter Johnson will highlight the opportunities and benefits that off-site fabrication offers the construction industry.

Peter Johnson will discuss the challenges of successfully delivering off-site fabrication, supply chain readiness and lessons learned from other market sectors. Day two of the show kicks off with Dusty Gedge, from the Green Infrastructure Consultancy discussing the evolution of the green roofing market. Dusty will



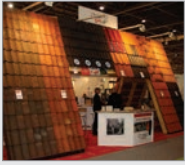
Dallmer, the drainage system specialists will be showcasing their range of Renova roof drains at the RCI Show. The technically sophisticated drains

for flat roof drainage connect to all standard roof membranes. Time consuming and labour intensive renovations are a thing of the past with the Renova drains, as the drains are simply inserted into the outlet of the existing drain. **Stand B7.**



Seamless Aluminium Group has been successfully designing and manufacturing high quality rainwater systems for

over 40 years. Investment in an 80,000 ft² manufacturing plant and innovative, high tech production machinery including an electrostatic powder coat paint line has helped them to become a market leader in their industry. High standards of quality and customer care is at the core of the business. **Stand K9.**



Crest Brick, Slate & Tile will be showcasing its products of high quality clay and concrete roofing tiles with different

profiles and colour options. The company's talented team will be on hand giving advice and information on its full range plus technical advice on how the company can specially design and manufacture bespoke roofing systems for your project. Stand E20.

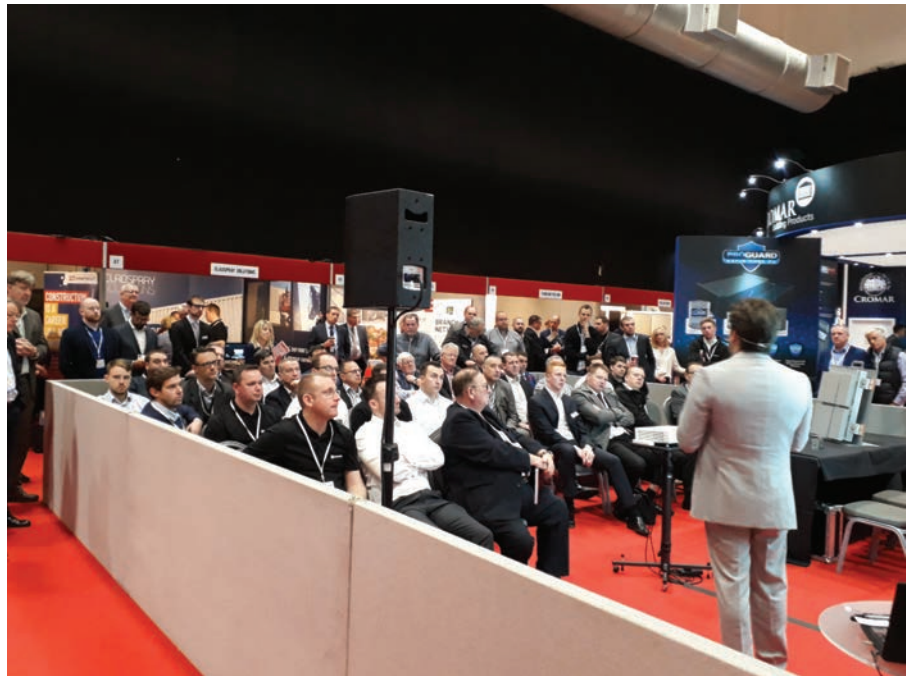
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“The RCI Show is a fantastic opportunity to support the roofing cladding and insulation industry. We are looking forward to attending and discovering up to date news and the latest industry innovations”

Ian Deacon is managing director at Rio Asphalt & Paving Co Ltd

highlight what factors are driving the market and where the innovations and opportunities lie to increase usage in the UK construction industry.

Other conference highlights include an interactive panel debate discussing how Brexit might affect your business, and Willmott Dixon will be looking at tackling the stigma surrounding mental health in the construction industry. ITP will look at the implications of the changes to Building Regulations in the wake of the Grenfell Tower tragedy.

The RCI shows popular CPD seminars are designed to encourage professional development within the industry. Sessions can be pre-booked by all visitors and the programme includes content delivered by

the BBA, Monier Redland, Marley Alutec, Surespan and many more.

But nothing beats face-to-face discussions, so visit the RCI Show to source new supply chain partners and build new relationships. The 2019 show brings together an impressive number of suppliers, manufacturers and industry supporting organisations. Many of the exhibitors will run live demonstrations of tools and systems on their stands. Alongside the main exhibition there will be several feature exhibits designed to inspire and enthuse.

Online registration is now open, allowing visitors to tailor their agenda to meet their own specific business requirements. Pre-registration is advised to secure a place at the Conference and CPD seminars.

To register for the RCI show and secure a place at the Conference and CPD seminars visit www.rcishow.co.uk today. To keep in touch with the RCI show follow us on Twitter @RCI_Show



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Stand L7



Safe Access for the new Albukhary Foundation Gallery of the Islamic World

Bilco UK supplied twenty one special size Ladder Access Roof Hatches to the British Museum's newest gallery, the Albukhary Foundation Gallery of the Islamic World.

The new, permanent, exhibition space is a result of the renovation of two beautiful Victorian galleries located in the 'White Wing' area of the Museum.

The roof of the White Wing was originally laid in lead but was later replaced with copper in the 1960s. As part of the refurbishment of the two galleries it was decided to return the roof to its original lead design. The roof timbers and boarding were overhauled, and forty-five tonnes of new lead added.

Ladder access was required to the roof void area to allow for routine maintenance activities. Bilco UK's SS-50TB Ladder Access Roof Hatches were specified by the architects, HoK.

The SS-50TB Roof Hatches were made to



order as they were required in a larger non-standard size, 1215mm x 915mm, than the standard stock sizes. The hatches were also manufactured with a PPC finish to blend in with the new roof.

The SS-50TB is engineered with compression spring operators to provide smooth, easy, one-hand operation, regardless of the size of the hatch. An automatic hold-open arm locks the cover in the open

position to ensure safe egress and a grip handle allows for easy, one-hand release and closing. This one-hand operation of the SS-50TB, to a fully open or closed position, enables the ladder user to maintain three points of contact at all times.

The Ladder Access Roof Hatches are fitted with a closed-cell EPDM sponge gasket, as standard, to help ensure weather tightness, energy efficiency and to meet Building Regulation Air Leakage targets. The specially designed gasket provides a better seal of the cover to the curb. This ensures the hatches have a Class 1 rating under BS EN 12207:200 and meet the requirements of Part L of the Building Regulations.

A thermally broken cover and frame design provide superior thermal performance. The design of hinges and other features ensures that the hatches are resistant to the effects of ageing and weather in exposed locations.

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RCI SHOW STAND NO 17



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RCI SHOW STAND NO K9

Sundolitt showcased at the RCI Show



Sundolitt will be focusing on the advantages and benefits of EPS and XPS insulation across a wide range of applications on stand H7 at the RCI Show in March. Part of the Norwegian-based Sunde Group, Sundolitt products play a crucial role in construction and civil engineering applications, supplying insulation from its four sites to site anywhere in the UK. Sundolitt look forward to meeting you on Stand H7 where their sales and technical team will be on hand throughout show to discuss your next project and insulation requirements.

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RCI SHOW STAND NO H7

Consort Claudgen launches BIM library



Consort Claudgen has launched their first BIM objects which include panel heaters, fan heaters, recessed ceiling heaters and air curtains. Architects and specifiers can now access the BIM models for their BIM projects from Consort Claudgen's website or the NBS National BIM Library. The objects are authored and developed to the trusted NBS BIM Objects Standard and are free to download in both Revit and IFC format. The BIM objects featured in the NBS National BIM Library also includes technical details such as dimensions, ratings, insulation standard classes and electrical specifications to aid architects and specifiers in their design process.

01646 692172 www.consortepl.com/bim-modelling

DOORS, WINDOWS & CONSERVATORIES SUPPLEMENT

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Image courtesy of Ahmarra
See page 56



Architectural Bronze Casements make bespoke, handmade bronze windows, doors, screens and secondary glazing. Bronze is an exciting and traditional alternative to steel and aluminium. Made from architectural bronze which is strong, long lasting and visually appealing, bronze casements offer fine sightlines, thermal efficiency and low maintenance characteristics. Ideal for both renovations and new build projects. Visit our website or you can call for a brochure.



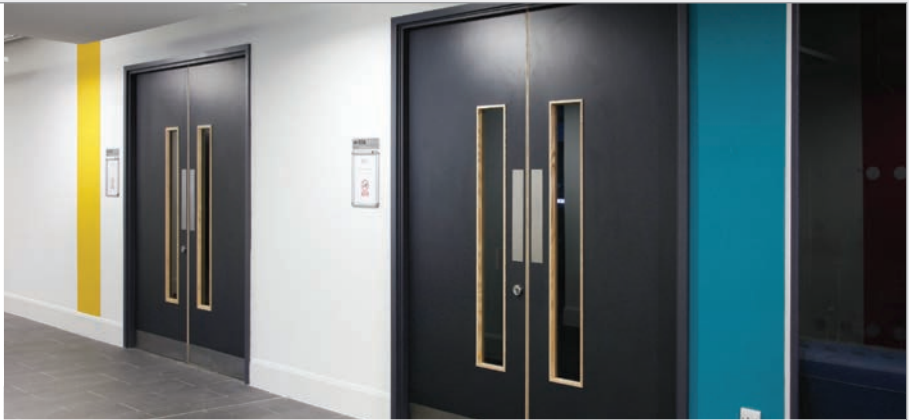
Specialist door manufacturer, **Ahmarra** has launched a new collection of doors designed specifically for the luxury hotel sector. All doors are made to order, allowing complete design freedom and ensuring that every project is truly unique. Ahmarra's high performance timber doorsets and glazed screens are particularly suited to areas of high footfall such as hotels, that often have specific fire, acoustic and safety requirements.



The Sash Window Workshop is this year celebrating 25 years of business. The company was established on the 11th February 1994 by Richard Dollar. Initially operating from a small converted pig shed in Ascot, the company now operates from two workshops in Bracknell. The company now has over 80 employees and turns over around £6.5 million a year. They provide a range of bespoke timber window and door services.



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Technal brands help build business school

2018 has seen the completion of the Business School and Growth Hub's new flagship building on the University of Gloucestershire's Oxstalls Campus.

This latest addition to the campus has been constructed by Willmott Dixon while Austin-Smith:Lord LLP was the architectural practice leading the design team. Vision 2000 is the fabricator which manufactured and installed the package of Technal systems that also includes Technal doors and windows.

The Project Architect for Austin-Smith:Lord, Neil Farquhar, comments: "The University of Gloucestershire always wanted the new Business School building to be a showcase for the campus: with an efficient compact form of three storeys that has been developed to maximise its location; signalling its presence from the moment of arrival on the campus. As a result of which we worked to express a range of features on the main elevations. This involved not just the treatment of the main entrance, but also views of other areas."

For the atrium Vision 2000 employed the MX Roof System to create four large



rooflights – the biggest of which is eight metres square – covering a total area of 140m².

The building also features lines of clerestory windows atop each elevation, executed using the Technal FY65 system, providing a number of opening lights for natural ventilation. The overall U-value achieved is 1.52 W/m² K.

The first and second floor windows, totalling almost 300 m², were also fabricated using the FY65 system and are coupled together using a special structural mullion section. This carries a special feature cap and supports solar shading.

The curtain wall screens at first and second floor level were fabricated using MX Capped and again carry solar shading, while a 12 metre by three-metre-tall run of feature screens were supplied in MX Toggle.

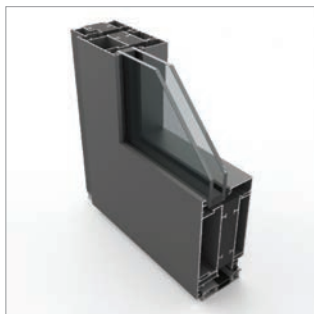
The ground floor curtain walling again uses MX Capped, with PY and CD doors as well as FY65 windows inset. There are six pairs of doors set within the curtain walling, plus two sets of automatic sliding doors to provide EA compliance.

Technal's MX suite of curtain walling profiles offers contractors and consultants the widest set of technical and practical benefits, as well as providing an aesthetic and very durable solution for a variety of project types.

Simon Hagain, who co-founded Vision 2000 with Godfrey Meese, reflected on the relationship with Hydro/Technal: "We have been using the Technal brand since we established the company 18 years ago, and had already completed the Hay-on-Wye and Llangorse schools for Willmott Dixon prior to tendering for the Oxstalls Campus contract. In fact, we do a lot of education as well as commercial, large scale residential and hospital projects across Wales, the South-west and the M4 corridor using Technal systems."

01924 232323 www.technal.com/en/uk

Senior launches new low U-Value PURE® Commercial Door



Senior Architectural Systems has added weight to its range of high performance fenestration solutions by developing its largest, strongest and most flexible aluminium door system to date – the new PURE® Commercial Door. The launch of the new PURE® Commercial Door will strengthen Senior's existing range of commercial aluminium doors, which includes the popular SD, SPW600e, SPW500 and SPW501 systems, to provide specifiers with a high performance solution for every application and project requirement. Benefiting from the same sleek slim sightlines and patented PUR thermal break as Senior's popular PURE® aluminium windows and patio doors, the new PURE® Commercial Door provides a secure and efficient solution for medium and high traffic areas where frequent access is required. Available as a standard, electronic-locking and panic-exit system, Senior's new commercial door system offers exceptional flexibility and a wide variety of door stiles allowing it to be specified in a multitude of different configurations and design options. The new PURE® Commercial Door can be specified in an almost unlimited choice of colours and finishes both inside and out.

www.seniorarchitectural.co.uk

Nothing cheeky about AluK's Nandos installation



Diagonally shaped curtain walling leaning outward and without a singular regular pane of glass or panelling beyond the doors is just the sort of challenge which AluK relishes. This single storey installation enabled the specialist aluminium systems company to demonstrate both the versatility of its product range and its ability to create project solutions for clients. Installed by WD Group for main contractors RG Carter, the curtain walling was an integral part of architects Stride Treglown's vision for the landmark structure, which also features a flying roof. It features AluK's SL52 flexible capped curtain walling system throughout, with an entrance door fabricated using the suited GT55TB door system. The diagonal design and irregular angles meant that AluK had to create a solution with multiple transom and mullion sections which was cost effective. The biggest issue was designing out the drainage and connections of the system, which AluK's expert technical team successfully achieved by working alongside the architects in a 3D environment from an early stage, without compromising on any aspect of the overall design.

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New Schueco UK window is latest in range



New from Schueco UK is the AWS 75 PD.SI Panorama window. Aimed primarily at the residential market, the new window is designed for the construction of ribbon windows and for use as an insert in a Schueco mullion/transom facade system such as the Schueco FWS 35 PD. The

Schueco AWS 75 PD.SI window features reduced internal and external face-widths as low as 55 mm that enable it to deliver a whole new level of transparency, yet the window is still able to achieve an excellent U_w value of $0.87 \text{ W/m}^2\text{K}$.

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Exceptional air-tight door automation from TORMAX



The new TORMAX Hermetic automatic sliding door system delivers a high quality, technologically advanced solution for any location that requires an air-tight entrance, including operating theatres, quarantine zones, laboratories and clean rooms in both research and industry. Delivering unique, all-round sealing, the door leaf automatically slides closed before being fractionally lowered and then pressed firmly against the integral door frame. This ingenious mechanism ensures the TORMAX Hermetic meets the highest safety standards and requirements for air-tightness and is certified to EN16005/DIN 18650. Hygiene is often a crucial issue for locations that require a sealed entrance and the TORMAX Hermetic has been carefully designed to minimise areas where dirt can be harboured. The sensors are seamlessly integrated into the body of the door leaves, ensuring user safety and error-free detection of obstacles whilst encouraging easy and thorough cleaning. There are no guide elements in the doorway, allowing for a seamless floor finish, whilst the upper section of the door cladding itself is gently sloping to remove hard-to-clean corners.

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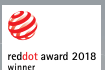
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the Natural StoneShow2019

The UK Stone Industry Event | 30 April to 2 May | EXCeL LONDON

Take a fresh look at stone and hard surfaces

As a cladding material, architectural detail, hard landscaping, interior, or even roofing material, stone has it all. Architects will be able to see for themselves at the Natural Stone Show, which is taking place in London's ExCeL from 30 April to 2 May



INFO FOR ARCHITECTS

The Architects' Day will feature a range of relevant expert presentations, hosted by international stone consultant Vince Marazita

To help the industry's professionals get a more complete and satisfying understanding of what can be a mind-boggling plethora of products and services on offer, the first day of the show is Architects' Day

Nothing makes an architectural statement quite like stone. Its solidity is a perfect counterpoint to glass and steel, adding colour and shadow highlights. It is not by accident that so much stone can be seen on the world's most prestigious buildings.

At the Natural Stone Show you will see stone in all its sustainable, hardwearing, resilient variety, from indigenous sandstones, limestones and slates to ornamental marbles, granites and semi-precious onyx from all over the world.

For the first time this year, the Stone Show is co-locating with Hard Surfaces, because these days the stone industry has extended its repertoire with a variety of innovative, engineered products that have extended its pallet still further. These are

products from companies such as CRL Stone, Caesarstone, Quartzforms, Sapienstone, Ceramiche Keope, Ceramica Fondovalle, Pyro + Echo, Infinity, Stone Italiana, Porcelain Slabs, Nerostein, and many others.

As well as the exhibitors themselves, there is a feature highlighting 135 of the latest innovations curated by MaterialDistrict, which is a leading 'match-making' platform for ground-breaking materials. These are hard surfaces at the cutting edge which will inspire designers and fabricators.

There are also galleries of the award-winning projects in both the Natural Stone Awards and the Tile Awards to demonstrate just what can be achieved in natural and engineered stone.

In Hard Surfaces new materials will occupy their own exhibition space but will be alongside more British stone than ever in the Natural Stone Show, from companies stamping their authority on the indigenous stone industry – Albion Stone, Lovell Stone Group, Johnston Quarry Group, Stamford Stone Company, Johnsons Wellfield Quarries, Welsh Slate, Bath Stone Group and others.

Even the familiar Portland limestone, from which much of London is built, can produce an occasional surprise and Albion, which extracts it, has just come across an Ostrea Patch Reef Whitbed in one of its mines. It is in limited supply and is being sold as a premium product reserved for particularly discerning customers on the finest of projects.

Of course, while many projects use indigenous stones, even more use imported stones, many of which these days come from India and China, although Europe also supplies a proportion. You will find plenty of examples of stone from all over the world at the Natural Stone Show. There will be a good selection of exhibitors from Chinese and Indian pavilions – some familiar, some hoping to break into the market. And European stone has been enjoying a renaissance in the UK of late, particularly, but not exclusively, its marbles. One reason is a growing appreciation of the shorter lead times of stone supplied from Europe compared with the Far East.

Italy, Spain and Portugal have all enjoyed an increase in exports to the UK. One of the Portuguese companies exhibiting at the Natural Stone Show, Aire Limestones has even joined Stone Federation Great Britain in order to assist it to penetrate the market in the UK and Ireland. That technology will also be on show at the exhibition, from leading international manufacturers such as Breton, Intermac, Omag, Thibaut, Prussiani, Comandulli, and more, as well as the latest developments in products for fixing, sealing, cleaning, and otherwise maintaining natural and engineered stones from companies such as Lithofin, Ardex, Fila, Kerakoll, Raimondi, Schluter, Stone Care Europe and Trimline Group



To help the industry's professionals get a more complete and satisfying understanding of what can be a mind-boggling plethora of products and services on offer, the first day of the Natural Stone Show is Architects' Day, hosted by international stone expert Vince Marazita from Stone Trends International. This RIBA-accredited workshop explores the conceptual advantages of stone design through a series of case studies delivered by stone consultants and architects. As well as explaining how to get the most from designing and specifying stone, there is also a guided tour of the Show to highlight some of the materials and processes the industry offers and a complimentary sit-down lunch to network at. Building professionals can register at bit.ly/architectsday

In total around 50 seminars are available over the three days.

TILE TRENDS

Joe Simpson, tile blogger and editor of TSJ will explore the latest trends in tile interiors during the Wednesday session 'Marrying tradition to technology'

Find out more and keep up-to-date with all the latest show news visit www.stoneshow.co.uk & www.hardsurfaces.co.uk or to get your free ticket visit bit.ly/StoneShow2019



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Take command of septic tanks

By January 2020, septic tank installations must be upgraded in line with new regulations. Here, Ann Boardman of Saniflo UK offers some tips to specifiers on how to prepare for the changes

Septic tanks are found all over the UK, mostly in rural areas, and provide a relatively hassle-free solution to disposal of waste water and sewage where there is no mains drainage. The key to an effective septic tank is regular emptying and maintenance, and they can pose some problems, such as polluting watercourses. Therefore, new rules banning the direct drainage of septic tanks into local watercourses will come into affect from 1 January 2020.

In light of these changes, on 1 January 2015 regulations came into force in England and Wales creating the 'General Binding Rules' (GBRs) for septic tanks or small sewage treatment plants for domestic use, specifying that some owners of septic tanks must upgrade their systems during the next two years.

Septic tank systems can be replaced in a number of ways. One way is to simply connect to a mains sewer, and if that's not feasible, there are other possibilities. For example, a drainage field, or infiltration system, so that the septic tank discharges into the ground; or alternatively the existing septic tank could be replaced with a small sewage treatment plant. In exceptional circumstances, property owners can request a permit to allow discharge to surface water. A other way is to use a septic tank conversion unit to upgrade an existing surface water discharging septic tank, however a permit is required for this and evidence must be provided that it will treat to the equivalent standard as a sewage treatment plant.

Underground pumping stations

A simple solution is to install an underground pumping station. These are available in different sizes to suit domestic

and commercial properties, and come with blades for macerating waste and even without blades – featuring specialist 'Vortex' technology on some models.

Smaller models tend to feature a single grinder pump, with float activation and robust cutting blades to prevent clogging. They come with an automatic 1500 watt motor that is both powerful and quiet for unobtrusive operation and they help to discharge the waste up to a maximum height of 14 m or horizontally along 110 m or a lesser combination of both.

Larger pumping stations feature dual motors and are designed to work with a single dwelling with multiple storeys or multiple smaller types of accommodation, such as student accommodation and holiday pods. They contain two separate, load balanced pumps with high performance macerating systems that operate alternately for even wear and to provide a reliable, fail safe operation. Look for models that, in the event of overload, allow both motors to run simultaneously, or in the unlikely event of a motor fail, models where the other motor will take over. Some products offer a high capacity 500 litre tank with multiple connections to take waste from bathrooms, kitchens and utility rooms in industrial or large domestic buildings.

Blade-free models allow for a clear passage of 50 mm and high flows, with no need to macerate. It's a system preferred by some who believe it can eliminate clogging issues from prohibited items being flushed away. In reality the performance of both bladed and vortex pumps is the same. However, peace of mind for customers managing public spaces is important – clogging can lead to



A simple solution is to install an underground pumping station – these are available in different sizes to suit domestic and commercial properties



unwanted downtime and associated maintenance costs. While both products are equally efficient at discharging waste, it is personal preference as to which system is chosen.

For industrial applications, choose models that provide even greater performance that come supplied with a smart monitoring system complete with remote alarm unit.

Other necessary requirements of your chosen solution include meeting the relevant British Standard when installed or have a CE mark. If installed pre-1983, this requirement does not need to be met. Your chosen solution must have sufficient capacity, be installed in line with the manufacturer's specifications and be maintained at least once a year or in line with the manufacturer's specifications.

In addition, the sewage release must be below the 'mean low water spring mark' if in a tidal area. In all cases, your chosen solution must be repaired or replaced by a competent person if not in good working order.

Ann Boardman is head of marketing and product management for Saniflo UK

The world's most advanced collated screw system just got even better!



Simpson Strong-Tie's Quik Drive auto-feed system is a significantly faster way to install screws. With a multitude of modular fittings and screws for a huge range of purposes, there is a Quik Drive kit to suit just about every application - from drywall installation to mezzanine floor construction. A perfect alternative to traditional nailing and screwing. The ergonomic design allows the installation of screws into walls, floors and ceilings without the need for bending, stretching or crouching. Which means not only can the system operate for several hours at a time – so can you. The Quik Drive system fits onto all leading dry wall drivers with just a click. The patented screw strips are designed to avoid jamming, and unlike many collated screw strips, a partially used one can be saved for reuse later – so it's cost effective too. Sales Manager, Phil Chambers, explains: "The Quik Drive system has been on my radar for some time, it's not just fast, it's really (really) simple to use." In addition to Phil conducting Quik Drive demonstrations throughout the UK, an all-new catalogue now features additional Quik Drive equipment and collated screws.

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Aquarian Cladding provides perfect solution for Southampton city centre project



When main contractor Galliford Try needed the perfect cladding solution for a new landmark development in Southampton, they knew exactly who to turn to for help – **Aquarian Cladding Systems**. The external cladding supplier's Gebrik brick cladding system was the perfect choice for Vincent's Walk, an impressive development in the heart of the city by Victoria Hall Management. Standing between 8-11 storeys high, it provides accommodation for more than 280 students and includes a cinema room, gym and roof terrace, plus retail space on the ground floor. Chosen for its exemplary aesthetics, reliability and time savings, Gebrik was also vital in overcoming one of the project's main challenges. As a select company from Aquarian's Approved Installer Network, cladding specialist T&T Facades made use of more than 4,000m² of the Gebrik system. Aquarian's expert team worked closely to support the project through design and installation, with attention given particularly to the two separate build-ups, which included a 15mm drained cavity with timber battens and a larger cavity using helping hand brackets to achieve deep window reveals.

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Dresser adds precision

Dresser Mouldings, one of the UK's largest bespoke timber manufacturers specialising in quality, bespoke timber mouldings, is now offering Sansin Precision Coat factory finishes.

Sansin's Precision Coat products have been developed to meet the demand for coatings that balance wood protection and performance along with stunning colour and aesthetics.

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Bill Gunn, Managing Director of Dresser Mouldings commented, "This is a great fit for us and one which will add real value to our customers. Here at Dresser Mouldings we pride ourselves in having the largest selection of bespoke manufacturing for exterior timber substrates, backed by state-of-the-art technology, machinery and

expertise. The addition of Sansin's Precision Coat factory finishes combines both the beauty and protection of a class-leading product with the commitment to quality manufacturing and attention to detail for which Dresser Mouldings is known."

Offered in a variety of stunning colours, Sansin's Precision Coat factory finishes include; Precision Coat SDF for wood siding, cladding and decking; Precision Coat Foundation, a penetrating base coat that offers up to six months protection against weathering and UV during construction; Precision Coat ENS, a self-priming and tough, durable satin two-coat finish that can be applied to virtually any surface – from millwork to cladding and decks and Precision Coat Woodforce: A durable, water repellent wood treatment for exterior wood surfaces, Woodforce is designed to bring dimensional stability to wood by reducing moisture absorption up to 74 per cent during wetting periods.

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"The BBA's certification of Koster NB 1 is a significant milestone for this excellent product, the symbol of quality and reassurances in our structural waterproofing solutions. We believe that this will provide Specifiers, Architects, Engineers and Contractors alike with even greater confidence when specifying Koster NB 1 into their structural waterproofing projects.

We shall continue to lead the field in structural waterproofing and hope to continue our progress by having more products certified

by the British Board of Agrément".

Christopher Burbridge, Delta's Managing Director.

Who is the BBA and what is BBA Approval?

The British Board of Agrément (BBA), is the UK's major authority for the evaluation and certification of construction products. For manufacturers (such as Delta) to achieve BBA Approval for a product, the product must go through rigorous laboratory tests, on-site evaluations and thorough manufacturing assessments. If the product successfully meets all the criteria it is awarded BBA Approval and Agrément Certificate.

Why is BBA product Approval so important?

BBA Approval is an independent assurance that a product will perform as the manufacturer claims it will. The BBA's reputation for robust testing gives the NHBC,



builders, specifiers, local authorities, and others within the industry reassurance that a product is of a consistent quality, will perform and will last. As the British Board of Agrément say "BBA products won't let you down!"

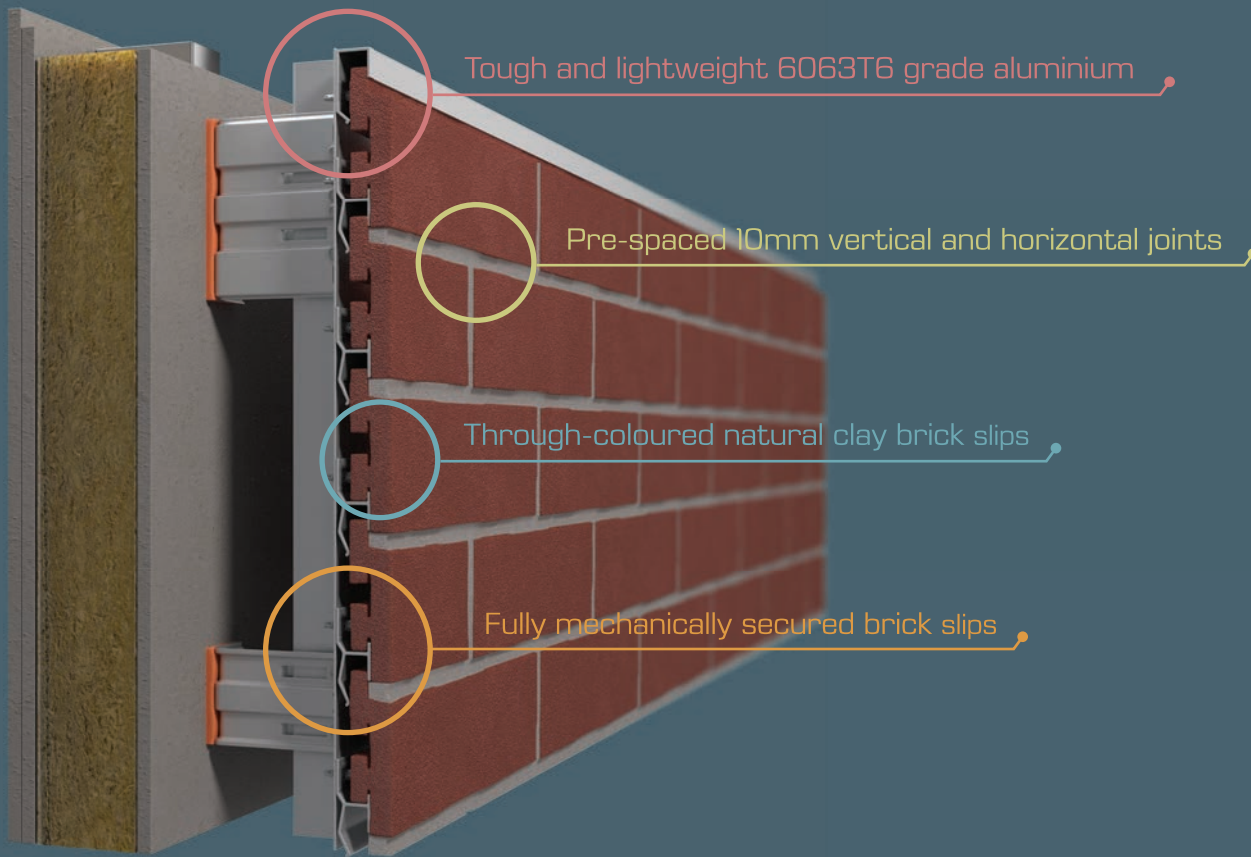
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Remaining a sustainable ally

Richard Hall of Reynaers UK explains how glass and glazing systems made from aluminium are helping a variety of specifiers improve sustainability and performance

Sustainability is a 'top-of-mind' concern nowadays; it permeates all levels of society, from a micro perspective where each household recycles its waste, through to the macro view which influences local authorities' approach to urban planning.

In the UK alone, the built environment contributes to over 40 per cent of the country's total carbon footprint. In response, the Government created its Construction 2025 strategy, which aims to lower greenhouse gas emissions in the built environment by 50 per cent by 2025. The construction industry is responding to the challenge, as a 2018 report showed that nearly two thirds of businesses operating in this sector are more committed to taking action on sustainability than they were in 2017.

With heating being one of the largest contributors to energy consumption in any household, it is natural for developers to invest in finding the sources of heat waste and develop solutions to improve a building's energy retention. Studies from the European Aluminium Association show that 40 per cent of household heating is lost through windows or gaps around windows, which further supports the glass and glazing industry's efforts in innovating with materials and high-performance window design.

Why aluminium is truly 'green'

Although there are a number of materials, which claim to be environmentally friendly, aluminium is one of the few that is truly green. Firstly, it is incredibly durable, which means that regardless of the context in which it is being used, it can last for long periods of time with little or no maintenance. The top of the Empire State Building is a great example of the material's longevity; one of the first structures to use anodised aluminium, it is still an impressive feature nearly 90 years after its construction.

Aluminium is also 100 per cent recyclable. Unlike many of its counterparts, it can be recycled repeatedly without



ISTANBUL

The Now Bomonti project in Istanbul features curtain walling and fritted windows from Reynaers

losing any of its properties. The act of recycling only requires 5 per cent of the energy needed to produce new aluminium, making it even more environmentally friendly.

The building industry is taking advantage of aluminium's unique features more and more. Currently, 35 per cent of recycled aluminium is in use and the percentage will continue to rise as older buildings are refurbished or replaced and the aluminium in their structures goes back into the supply chain. The recycling rates for aluminium reported by the European construction industry are encouraging, standing at an impressive 95 per cent.

The 2003 demolition of the old Wembley Stadium is a great showcase for aluminium's green quality, as nearly 86 per cent of the massive 213 tonnes of aluminium found in its structure was either recycled or reclaimed.

Improving sustainability with glass

Glass and glazing systems have come a long way in recent years based on innovations in both technology and design. Energy efficiency is one of the main end goals when it comes to sustainability and it can be

The future of sustainable innovation in glass and glazing is looking highly promising, from buildings using fritted glass, metal scrims or building-integrated photovoltaics, to the development of smart glass that is able to adapt its opacity in real time



GREENWICH SQUARE

The Greenwich Square residential development in London was fitted with Reynaers curtain walls, windows and sliding systems

achieved in a number of different ways.

It goes without saying that great insulation is key for any window, sliding door or curtain wall when looking for ways to minimise a building's energy loss. Advancements in this area include thermal breaks, which are strips of rigid insulation with aluminium profiles sandwiched around them to improve thermal performance. This is an innovative way to embed insulation into the core of door and window systems, visibly improving energy saving in commercial and residential builds.

Making use of daylight and finding smart ways to regulate it is another way to support sustainability in the built environment. For instance, developing slim profiles for large glass panes allows more light to come in, ultimately resulting in less energy being used for lighting and heating. Aluminium's inherent properties make this a possibility; the material only expands by 1 mm per metre and it is incredibly strong, which allows for narrow window frames to support a large glass area. Alternatively, Brise Soleil systems have been developed to reduce heat gain within a building by

deflecting sunlight, therefore reducing the need to cool a building down.

The future of sustainable innovation in glass and glazing is looking highly promising, from buildings using fritted glass, metal scrims or building-integrated photovoltaics, to the development of smart glass that is able to adapt its opacity in real time based on changing weather conditions to save energy.

The future of sustainable innovation in glass and glazing is looking highly promising, and as one of the most adaptable materials available, aluminium has the potential to be able to accommodate any new technique seamlessly. Whether it is adjusting the depth of the window frame to integrate various glass unit types such as triple glazing, or adapting to a unique building shape that uses metal scrims and photovoltaics to create a thermal buffer between the indoor and outdoor, aluminium will continue being a key part of making sustainability in buildings a reality in designs of the future.

Richard Hall is managing director at Reynaers UK

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Sounding off

There are a lot of advantages to open-plan office environments, but the downsides can outweigh the positives if the acoustics and aesthetics are not spot on. Here, Simon Boocock, Managing Director of C. R Laurence of Europe, discusses how the use of glass partitions offer the best solution.

Much is made of open-plan offices being good for business. Helping to maximise floor space, they help towards the feeling of inclusivity and help colleagues to integrate and collaborate. Aesthetically, the flow of natural light is encouraged and an overall modern look is achieved.

A recent study in the US revealed that open-plan offices, when designed in the right way, can even improve physical fitness among workers and aid their overall mental health and wellbeing. Overall, the intended impact of open-plan office environments is to breed a happier and therefore more efficient workforce. However, while the idea is all good in theory, the reality is often somewhat different to this. In fact, open-plan offices can cause workers to be distracted from the work at hand and result in decreased efficiency – the noise from overheard conversations, printers at work and phones ringing can cause work rates to plummet. Not to mention the lack of privacy and differentiation between departments that can be detrimental to morale. Where worker wellbeing is the intended outcome, in fact open-plan offices can end up causing more stress and undermine worker performance.

An all-round solution to these issues is to include glass partitions within the office's design. Keeping the look and feel of an open-plan environment that is so important, a frameless glass partition enables natural light to flow and a high-end look to be achieved, while acoustics and privacy levels



can also be managed more effectively.

Fortunately, from the viewpoint of the specifier and installer at least, fitting glass partitions does not need to be a huge task and maintenance can be carried out quickly too, keeping downtime to an absolute minimum. With the right systems chosen, glass office partitions are straightforward to fit, even retrospectively, enabling the open-plan space to be easily adapted to suit changing requirements as and when necessary too.

One such system is the CRL Langle Office Partition range which includes the standard and XL versions, both offering a creative and effective solution for modern interior designs. The dry-glazed system provides a maximum transparency and an elegant appearance thanks to its thin, powder-coated profiles available in a satin anodised, brushed nickel or matte black finish. The profiles can be fixed to ceilings, floors, walls and door frames for a complete look and are supplied with EPDM fixing gaskets available in black or grey.

Where noise reduction really is key to the installation, Office XL can accommodate 20 to 28mm thick insulating glass which

will insulate sound up to 42dB, allowing employees to work with far less disturbance.

To help with the glass panel installation, the CRL Vacuum Ratchet Tensioning Kit enables them to be easily placed and pulled together. With no silicone sealant required, a clean and neat finish is achieved with polycarbonate joints that simply clip on the glass.

The height of hinged doors can be easily adjusted and floor-to-ceiling doors can be mounted, if desired. The system effectively closes the gaping joint between the glass door, side panel and top light, making it acoustically viable.

For a modern, urban look in any interior design, CRL's Langle New York Office system features all the advantages of the Office XL system with a stylish, matte black frame. As all profiles are from the same series from CRL, the system is connectable via original angle connectors for a flexible partitioning system that meets the needs of the specifier, installer and end user.

New York Office is simple to fit and requires no special tools or glass cut-out for assembly; simply plug and play. Installed without notches, the entire system is screwed in and dry-glazed, minimising installation time and making it ideal for fitting retrospectively too. Vertical and horizontal profiles can be positioned as desired, which allows for a versatile design to be created depending on individual requirements.

Such solutions overcome many of the common practical challenges of open-plan office environments, creating an upmarket and productive ambience where colleagues can work together collaboratively.

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MX curtain wall encloses new annex



High specification curtain walling fabricated using Technal MX Grid system, has been successfully employed in the construction of a new science annex at the University of Manchester. Working alongside Dortech, the fabricator, Technal provided excellent energy and acoustic performance, while contributing to the visual appeal of the building. Technal is part of the Hydro Group, a world leader in aluminium solutions that also encompasses sister brands Sapa and WICONA. The project has been shortlisted for a number of design awards including the 2018 RIBA awards.

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Producing edging systems for 25 years

For 25 years, EverEdge have been producing steel garden edging systems for use in landscaping projects around the world. In more recent years there has been a boom in the UK green roof market with housebuilders and architects looking to rooftops and podiums as a way to bring landscapes into the cities. Green roofs are now recognised as a great environmental boon to city planning, not to mention the enjoyment we all get on a personal level from beautiful gardens.

To fit in with this demand, EverEdge are able to produce not only low level edging systems but also made to measure steel walls and planters to suit virtually any specification and in a variety of finishes. The most specified finish in recent years has been Cor-Ten steel which is chosen for its low maintenance qualities as much as for its aesthetics.

EverEdge work exclusively in steel as we believe it is the best material for the job. Not only is it 100 per cent recyclable, but it has an incredibly high strength to weight ratio. This ensures that steel construction requires less material and enables us to



design and build lightweight, robust and durable structures.

EverEdge can work with architects, designers and contractors to find answers to the specific challenges of installing steel walls and planters onto roofs whether they be ensuring the surface remains waterproof or to ensure weight limits are adhered to.

We are expecting to see continued growth in the green roof and podium sectors throughout 2019 and are excited to see what projects land on our desks over the next months.

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Grass Concrete Hits the Roof



Hitting the roof was the obvious next step for Grass Concrete Ltd, a company with proven credentials for environmental construction products. The new Grassroof® is an overlay paving system that can be applied to new or existing flat roof structures. Grassroof® can be used as an extensive or simple-intensive paving layer, or as a base layer for intensive roof designs. Grassroof units interlock together and can be laid either directly onto the roof membrane or via a foil backed polystyrene underlay.

A key element in simplifying the installation is the use with a Regarm moisture retaining blanket. The specification of Regarm will enable the omission of a soil layer reducing the volume of heavy bulk materials during installation. Grassroof® with a simple “leave and lay” format incorporates sedum turf; no soil is required, and these succulent plants can store moisture. When installed, the lightweight system weighs as little as 4.39kg/m² providing an easy to install and maintain green solution.

01924 379443 www.grasscrete.com

Senior picked for residential scheme



Senior Architectural Systems have been used to frame the views enjoyed by the residents of the new Berry Court private rental scheme in Bournemouth. The contract to supply the fenestration package for Berry Court is the latest to be delivered by Senior in partnership with long-term supply chain partners Soundcraft and

main contractor Morgan Sindall, with whom Senior has an established trading agreement. Senior was once again able to demonstrate the added value it could bring to the project in terms of technical information and value-engineered solutions to assist with budgetary and time constraints.

www.seniorarchitectural.co.uk

BMI lifts the Vale with school project



Safe, robust and theft-proof, Romilly Primary School is now set for many maintenance-free years thanks to the work from BMI UK & Ireland. The school roof posed a tough challenge to Vale of Glamorgan Council as it was not only old, it was also immensely complex and susceptible to burglary. “I chose BMI UK & Ireland because, by using their BMI Redland and BMI Icopal products, they offered a solution that met the design brief, and provided support throughout the project,” explains Paul Hynam, the council’s construction consultant. “BMI Redland’s Cambrian Slate also meets our environmental criteria – it’s recycled – and it’s Welsh”.

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

Warming to lower cost refurbishment

With new energy efficiency standards now in force, some properties needing upgrading could incur significant refurbishment costs. New insulation technologies could help ease the pain, says Hudson Lambert of Safeguard Europe



The first place to start is the fabric of the building: walls, roof, windows, doors. By far the greatest heat loss is through a property's walls

On 1 April 2018, the Minimum Energy Efficiency Standards (MEES) came into force. These standards state that all commercial and residential properties must achieve an Energy Performance Certificate (EPC) of Grade E or above to be rented out.

One group of properties that present a particular problem are those with solid walls, which have historically been difficult and costly to insulate. And this is no small problem. The National Insulation Association (NAI) estimates that around 36 per cent of the UK's 24.5 million dwellings have solid brick, stone or concrete walls.

However, new, more cost-effective solutions are coming to market. Materials engineers are making use of new technologies to create incredibly slim insulation which boosts a property's

U-value at a fraction of the cost and with far less disruption. Developed in the aerospace and oil and gas sectors, these aerogels exhibit the lowest thermal conductivity of any material.

By combining aerogel insulation with a masonry 'cream' – which keeps walls dry, and hence means they will conduct less heat – it is possible to boost a property's EPC rating significantly. Smaller properties will move from F to E rating with these measures alone, while larger ones will require a limited amount of additional expenditure.

The MEES, which came out of The Energy Act 2011, currently applies only to properties that are being let for the first time or where the lease is being renewed. There are some exceptions, which include listed buildings, conservation areas, and buildings which are deemed to have had as much energy upgrade work as possible.

From April 2020, MEES will apply to all rented homes, and from April 2023, all rented commercial properties must meet the grade. This means that landlords will only have a limited time to make the necessary upgrades to their properties.

So where to start?

The first place to start is the fabric of the building: walls, roof, windows, doors. By far the greatest heat loss is through a property's walls.

Take the example of a Victorian end-of-terrace house, which, even with loft insulation and double-glazing was still given an EPC rating of F. This is because over half of the heat lost – 54 per cent – was passing through the walls.

A lack of insulation is an obvious reason for the huge heat loss, but another likely contributor is damp walls. As well as causing discomfort and potential health problems, damp walls increase the rate of heat loss by a factor of up to two.

It is worth noting that both EWI and IWI, if improperly designed or installed, have the potential to exacerbate or create damp problems in a wall

Bring on the technology

Adding insulating boards to either the internal or external face of the wall has historically treated solid walls. Both options raise significant challenges for landlord, tenant or an owner-occupier for that matter.

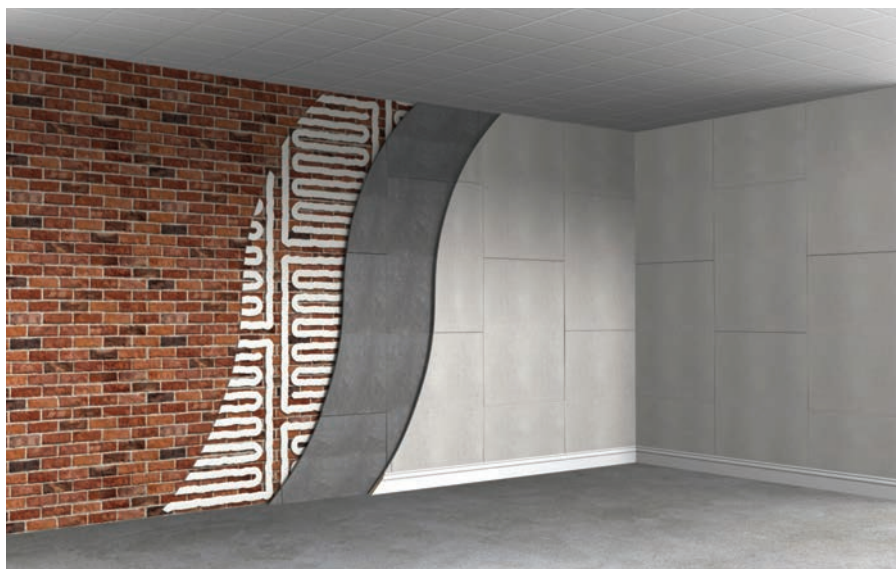
External wall insulation (EWI) requires a large capital outlay, between £8,000 and £22,000 per home according to the NAI and requires economies of scale to make it viable. EWI has been most often applied to local authority or housing association-owned apartment blocks. For individual homes, the holy grail would be to persuade a whole street to invest in EWI, but the political and economic mechanisms to do that have not been created.

Internal wall insulation (IWI) is a more cost-effective option, requiring a capital investment of between £4,000 and £13,000 according to the NAI. But it can be disruptive for householders, and could mean that a landlord must lose a tenant and suffer from a rent-free period, as well as the costs associated with securing a new tenant once the work is done. IWI also reduces the space inside a room and can mean that period features are sacrificed or recreated at some cost.

It is worth noting that both EWI and IWI, if improperly designed or installed, have the potential to exacerbate or create damp problems in a wall. EWI applied to a wall with rising damp, which remains untreated, will make the problem worse. IWI can cause condensation to form behind the insulation leading to damp and mould.

As with any energy efficiency improvement measure, it is always important to take a holistic view of a property and the way it works to avoid causing more problems than are solved. One potential solution is a system approach which combines super-slim aerogel technology and a masonry cream that allows wet walls to dry out while preventing moisture getting in.

Because these aerogel materials are super-insulators they can still have a significant impact when applied in very slim



layers. When it comes to selecting the right masonry cream, it's important to choose one that allows water inside the wall to evaporate out while preventing moisture from outside penetrating inwards.

For that Victorian end-of-terrace property cited earlier, the application of the combined slim insulation and masonry cream changes the U-value of the walls from 1.7 W/m²K when damp and uninsulated to 0.8 W/m²K when treated.

The application of such a system is good news for the tenants as well as the landlord. They could expect to save nearly 30 per cent on their heating bills every year.

Hudson Lambert is director of Safeguard Europe

Better insulation can help prevent climate catastrophe

A new study highlights the contribution better insulation can make to slowing the effects of global warming. ADF magazine takes a look.

According to a recent study by the Intergovernmental Panel on Climate Change [IPCC], without urgent worldwide action to prevent global temperatures rising to a point 1.5 degrees higher than those of pre-industrial times, we face what they describe as a “Global Climate Catastrophe”.

Whether you are a global warming sceptic or not, the three-year study paints a bleak picture of our future, if urgent action to reduce carbon emissions – one of the principal causes of worldwide temperatures rises – is not taken soon.

The IPCC report, presented in South Korea in October 2018, says that rapid and significant changes need to be made across the board in energy consumption, land use, industry, cities and lifestyle. It says we need to travel less, use energy more efficiently and demand low carbon in everyday consumer products.

The report also emphasises the need to improve levels of insulation in homes, offices and factories so as not to waste the energy that has already used precious resources to generate.

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



Open cell foams such as Icynene FoamLite are vapour open and allowing the building to breathe naturally.

Clearly, the main action points are aimed at governmental levels but even small steps taken by individuals can collectively, make a significant impact on the issues that threaten us.

Take home insulation. Over 60 per cent of our current housing stock was built pre-1960

when little thought was given to heat loss prevention. The incorporation of insulation in new-build properties only really began in the years following the oil-price shock of 1973.

Now, with energy prices rising year by year at inflation busting rates, efficient thermal insulation is more important than ever before.

Unfortunately, there is a common misconception that, to reduce heat loss in a building you simply put more and more insulation in the roof. This works up to a point, beyond which, adding more layers of insulation follows the law of diminishing returns. Why is this?

How Insulation Works

To understand how insulation works it helps to understand heat flow, which involves three basic mechanisms – conduction, convection, and radiation.

Insulation materials work by slowing conductive heat flow and to a lesser extent, convective heat flow. Heat flows from warmer to cooler areas until there is no longer a temperature difference. Heat loss is also proportional to the speed of the moving air, the amount of moisture present and the temperature differential between heat source and the air itself.

In a typical home, this means that in winter,





Icynene expands 100-fold within seconds of application, sealing all gaps, service holes and hard to reach spaces, virtually eliminating cold bridging and air leakage.

heat flows directly from all heated living spaces to adjacent unheated roof voids, garages, cellars and particularly to the outdoors.

In order to specify insulation correctly, the designer needs to understand the reasons why it works and apply the correct technology to any given construction detail. By understanding the processes that make insulation work and indeed, the factors that stop it from working, design professionals will be in a far stronger position to specify the correct material for the correct application.

Preventing air leakage.

In the UK, U values are the measure of insulation's ability to limit conductive heat flow - the lower the U value the better the resistance to heat loss. However, it should be noted that up to 40 per cent of a building's heat loss can be attributed to air leakage - what we would all understand as draughts.

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

Therefore, the best way to increase the energy efficiency of a building is not merely to reduce U values as required by Building Regs, but rather to combine U value reduction with an air barrier - creating a "sealed box" effect to reduce air [and heat] leakage to a minimum.

Traditional forms of insulation - mineral fibre and rigid-board type materials - are



This new generation of spray applied insulation products can result in near zero air leakage through the building envelope.

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

Air leakage can be eliminated by the introduction of an air barrier but must be installed with great care if it is to perform as desired.

Spray applied insulation

The modern alternative is a fully breathable, open-cell spray foam insulation, which is applied using a pressurised gun system. Here, foams are applied as a two-component mixture that come together at the tip of a gun forming a foam that expands 100-fold within seconds of application, sealing all gaps, service holes and hard to reach spaces, virtually eliminating cold bridging and air leakage.

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

As FoamLite expands, the cells of the foam burst and the CO₂ is replaced by air.

Consequently, from an environmental perspective, Icynene has a Global Warming Potential [GWP] of 1 and an Ozone Depletion Potential [ODP] of 0 [Zero]. Nor does Icynene emit and harmful gases once cured.

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

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

Conclusion

Clearly, reducing heat loss in our building stock will make a significant contribution to lowering carbon emissions. There are over 20 million homes in the UK, so improving their thermal efficiency through better insulation and reduction of air leakage will result in lower energy consumption and therefore help achieve the overarching goal of slowing the rise of global temperatures.

www.youtube.com/watch?v=xn4ZHQJL-WHM&feature=youtu.be
www.icynene.co.uk

Evinox Energy Supply Canary Wharf's Wood Wharf

A new urban district is being created in London's Canary Wharf, which when complete will feature up to 3,600 new homes, a GP's surgery, a two form primary school for 420 children, 490,000sq ft of retail space and eight acres of public spaces squares and parks. The development, called Wood Wharf, has been designed to provide a new residential led, mixed use, waterside community and is expected to be completed by 2023.

Working with the developer, Canary Wharf Group (CWG), in combination with SES Engineering Services, Emico and Haydon Mechanical & Electrical contractors, Evinox Energy supplied heating and cooling interface units for 1330 apartments for the first phases of this development, with more to follow for the remaining phases.

Homes are all connected to a district heating network, with each apartment featuring a ModuSat XR-ECO Twin Plate heat interface unit for the supply of heating

and hot water and a ModuSat Single Plate interface unit to provide cooling.

Interface units were tested by BSRIA as a requirement of this project, something Evinox were happy to undertake, confident their first-class product manufacturing and performance would exceed the required results.

In addition to the efficient performance of the ModuSat units, Evinox equipment was also chosen due to the flexibility of manufacturing and short delivery timescales. "On-time" delivery schedules were critical for this project, as some of the equipment was being built into prefabricated pods by a third party prior to delivery to site.

Their range of heat interface units are designed and developed internally by technical engineers to UK standards, and built in Evinox's own production facility in Brasov Romania by partner Romradiatoare, using lean manufacturing principles. Working closely with component suppliers enables



them to deliver bespoke units, built to project specific requirements, in a timely manner.

One of the key components used in every ModuSat HIU, is the high efficiency plate heat exchanger from SWEP, who are a world-leading supplier of brazed plate heat exchangers for HVAC and industrial applications. Evinox's ModuSat XR-ECO HIU delivers impressive, ultra-low DHW return temperatures to the primary network by incorporating SWEP high efficiency domestic hot water plate heat exchangers with volumetrics that encourage turbulent flow. This contributes to excellent annual Volume Weighted Return Temperatures and system operating efficiency.

www.evinoxenergy.co.uk 01372 722277

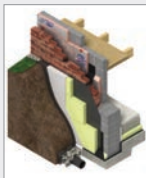
New videos from Keraflo detail the advantages of Tanktronic SCV



Two videos are now available online which highlight the advantages of Keraflo's innovative Tanktronic Servo Ceramic Valve (SCV). The first video details sequential installation, with step-by-step captions to guide Building Services Engineers and professional installers when fitting an SCV inside a cold water storage tank as an integral part of a Tanktronic electronic tank management system. The second video features Cisterniser and Keraflo Technical Sales Manager Tim Harris, who presents the key features and benefits of the SCV to deliver a concise overview of the product. Connected to a Tanktronic Control Unit and incorporating Keraflo's proven brass bodied valve with ceramic disc sealing parts, the SCV features a high torque electric motor which efficiently opens and closes the filling valve as required. Quiet in operation with low power consumption, the SCV runs a self-cleaning maintenance routine and diagnostic functions include a data log of usage and cleaning cycles. Straightforward to install and commission, the SCV is designed to efficiently match tank capacity to demand, with adjustable filling level parameters based on the size of the tank and water consumption needs.

0118 921 9920 www.ourworldiswater.co.uk

Kingspan reimagines XPS



Kingspan Insulation has introduced the latest advance in XPS insulation, Kingspan GreenGuard, an all new range of boards with excellent compressive strength. Kingspan GreenGuard replaces the popular Styrozone range and is available in three grades to suit differing requirements. Kingspan GreenGuard was developed to handle some of the most challenging

applications including the floors of aircraft hangars and industrial units. The line's advanced design includes a 100 per cent recycled waste stream, minimising the environmental impact of the boards.

01544 387 384 www.kingspaninsulation.co.uk

Spacetherm® WL helps house improve



The heat efficiency of a Victorian mid terraced house in south-east London has been dramatically improved thanks in part to the introduction of A Proctor Group's Spacetherm® WL insulation. The challenge of dealing with heating inefficiencies, major heat loss and high heating costs are a

common problem with many Victorian buildings and solid wall dwellings. Spacetherm WL (Wall Liner) is a high-performance laminate specifically designed to be fixed to the internal surfaces of existing solid walls without the need for mechanical fixings.

01250 872261 www.proctorgroup.com

Underfloor services for 55 Gresham Street



AET Flexible Space recently completed the supply and commissioning of underfloor air conditioning equipment for the new ninth floor at 55 Gresham Street situated near the Guildhall in the heart of the City. Designed by Fletcher Priest Architects, with mechanical, and other design services provided by consultant, Waterman Group, underfloor air conditioning was specified for the new ninth floor terrace in order to maintain the architectural vision. By placing services within the floor void, the remaining available space and floor to ceiling heights were maximised by eliminating the need for ceiling based pipe and ductwork.

01342 310400 www.flexiblespace.com

New commercial heat recovery unit



Vortice has launched the Vort HRI Phantom, a brand new, slimline, void mounted heat recovery unit ideal for commercial applications. Fresh air is 100 per cent fully filtered even in bypass mode improving the indoor air quality within the room. The quality of the air can be further advanced by using the new Vortice NOX filters. The centralised ventilation units each have a high efficiency counter cross flow heat exchanger with frost protection and easily accessible filters. The units come complete with a wired remote control unit with LCD allowing initial configuration and commissioning, speed selection, display of the time, room temperature and filter status.

01283 492949 www.vortice.ltd.uk

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Kaldewei to exhibit at ISH Frankfurt 2019



NexSys shower surface is an innovative new 4-in-1 complete installation ready system, consisting of a waste channel, sloping support, sealing and an enamelled shower surface enabling ultra simple and fast installation. The elegant design of the narrow waste channel, with brushed stainless steel cover, complements the floor-level shower surface's minimalistic look. All Kaldewei steel enamel bathroom solutions are 100 per cent recyclable and are supplied with a 30 year guarantee. Kaldewei will exhibit its iconic bathroom solutions at ISH Frankfurt 2019 – Hall 3.1, Stand D79.

01480 498053 www.kaldewei.co.uk

T: 01400 263310 | E: sales@hurlinghambaths.co.uk | W: www.hurlinghambaths.co.uk

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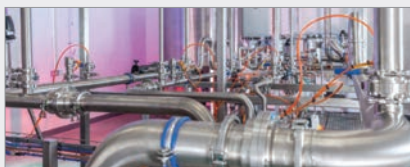
Classics

Radiator Collection

BoilerMag Invests in £250,000 State of the Art Filtration Testing Facility

BoilerMag has opened a brand new testing facility to carry out sophisticated filtration analysis for central heating system filters. Located at BoilerMags' Sheffield headquarters, this state of the art laboratory will provide customers with performance guarantees for flow rates, contamination levels, and filter efficiency.

The quarter of a million pound investment has enabled BoilerMag to incorporate a fully automated PLC controlled test rig, including laser particle counters and digital pressures differential gauges pre and post filter, as well as real time data logging. Strict testing criteria means that BoilerMag can provide Architects and Specifiers with detailed data on the performance of magnetic heating system filters with regard to HVAC pressure drops, flow rates, as well as accurate contamination and particle analysis determining efficiency levels. The rig incorporates numerous delivery pumps, each controlled via fully adjustable inverters enabling precision test flow rates



between 30 to 1,500 litres per minute to be achieved. This wide flow rate capability enables domestic, commercial and industrial sized filters to be fully put through their paces, including side stream units, strainers, and delineating systems.

Although designed and developed by filtration experts Eclipse Magnetics, the BoilerMag range of heating protection products is now marketed under the world renowned Spear and Jackson brand name. Both Spear & Jackson and Eclipse Magnetics are part of the Spear and Jackson Group, therefore the BoilerMag range not only benefits from the expertise of innovative magnetic filtration technology, it also carries

the strength and heritage of the Spear & Jackson name.

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.

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.

0114 225 0624 www.boilermag.com



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The highs and lows of hospitality seating



Designed to fulfil a variety of spaces, Lyndon's handcrafted Agent and Callisto collections of stools combine comfort with flexibility and are particularly useful for venues where space is at a premium. Whether it's a high or low stool, each bears the infamous Lyndon

guarantee of handcrafted luxury; bringing style and personality to any establishment. For added flexibility, they can easily be moved from one space to another, and for a powerful design impact, a combination of both high and low stools can be staged; offering differing heights at which to eat, drink or relax.

www.lyndon.co.uk

Hunter Douglas ceiling creates continuity



A Girlguiding activity centre in Cheshire had Hunter Douglas Architectural's innovative felt ceiling installed in the second development phase after the architect was so impressed with its performance in the first building. John Piercy Holroyd, Associate Director of Walker

Simpson Architects, had specified Heartfelt® in the first building at Pettypool. When the second phase was under construction, Heartfelt® was specified again for the common areas of the bedroom block, instead of gypsum plank, which had been originally earmarked, because of its superior acoustic performance and aesthetic qualities.

01604 648229 www.hunterdouglas.co.uk

Bradite offices primed and ready to go



The new head office and distribution centre for Bradite is now being protected by using one of the company's most successful products. Steel girders in the 3,000 sq metre building just outside Manchester have been coated in the firm's EP92

Surface Tolerant Primer. The product is a high performance, two-pack epoxy solvent-based coating with a surface drying time of just two hours. Recommended for use as part of paint system or internally as a two-coat application, it can be applied in temperatures of 0°C and above but should be 3°C above dew point. Once mixed it has a pot life of up to 8 hours and can be applied by brush, roller or spray.

01248 600315 www.bradite.com

Custom-made ceiling for new office



A technically complex custom-designed leaf canopy, made possible thanks to the engineering prowess of Hunter Douglas Architectural, is one of the highlights of the new Dutch Charity Lottery Office. The scheme saw Hunter Douglas Architectural design and produce a flat

ceiling, using 3,500m² of roof panels and ensuring both the inside and outside panels had the same dimensions. The panels comprise four square tiles of 650mm x 650mm, which are fixed to an aluminium profile, made by Prometal, and the sets of four leaves are fixed to the ceiling with 58 different types of mounts to form one complex puzzle.

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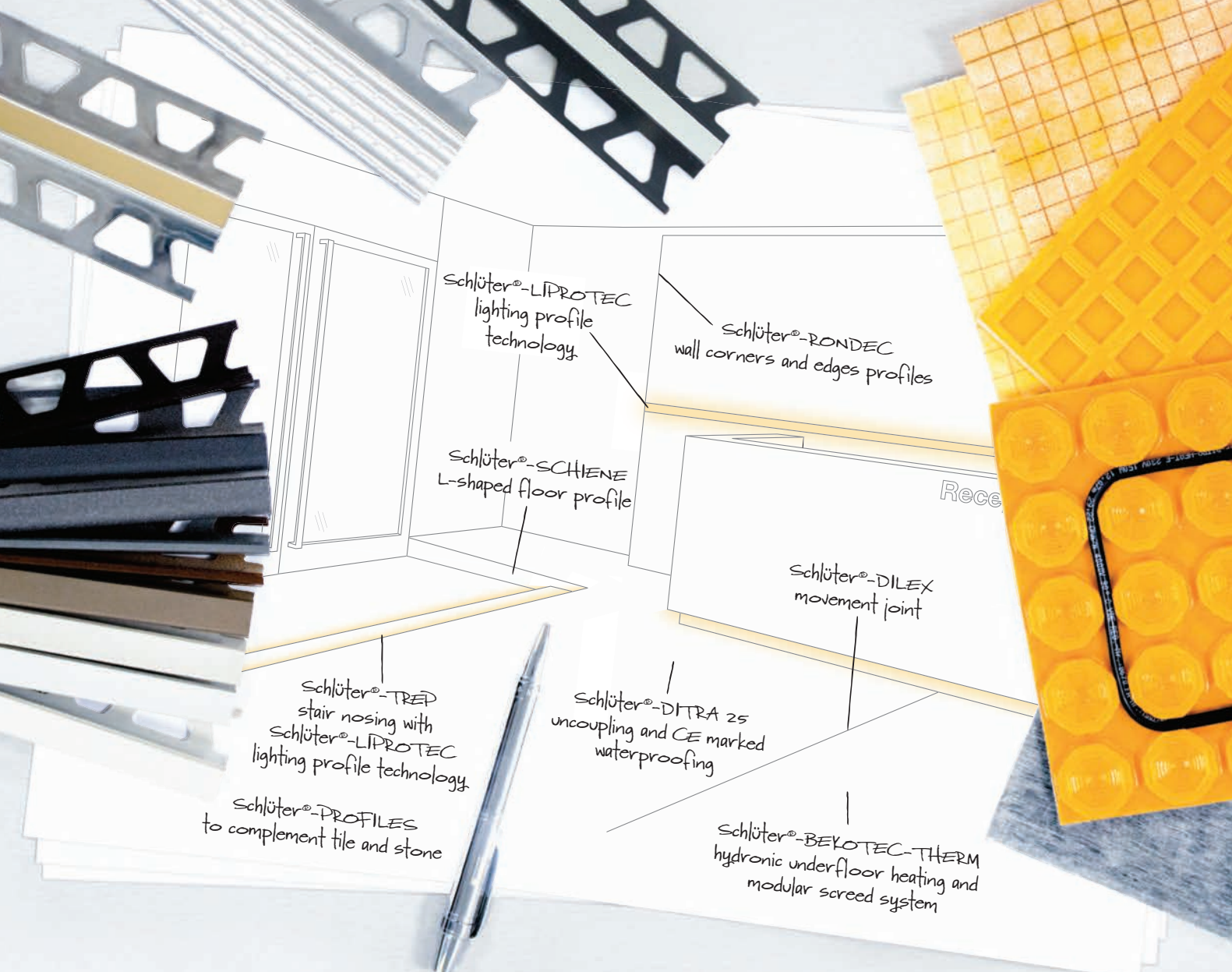
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Armourcoat on the menu for new restaurant

Surface finish specialists Armourcoat have been specified throughout the VIVI restaurant, a new 1960's inspired eatery opening in the Centre Point Building in London's West End. VIVI promises to deliver traditional British food with an innovative twist.

VIVI's 290-cover dining room serving delicious British favourites, has its interior design inspired by sixties colours and fabrics including a handmade chandelier by Danish designer Vibeke Fonnesberg Schmidt. The new restaurant, created by rhubarb – the team behind Sky Garden and Verdi Italian Kitchen at the Royal Albert Hall, is part of a wider refurbishment of Richard Seifert's celebrated Grade-II listed high-rise tower.

Armourcoat finishes have been used to spectacular effect in the entrance lobby, restaurant reception, bar and dining area, with close to 300m² of hand-finished polished plaster applied to the walls. In addition, 240m² of Armourcoat's new acoustic plaster system has been installed to the ceilings in the main dining room.

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 system was recently granted the Quiet Mark Award – the international mark of approval from the Noise Abatement Society Charitable Foundation.

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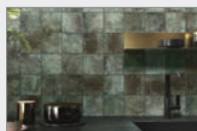


Crown Trade has launched a comprehensive new product performance guide to support its market-leading and recently expanded Clean Extreme range of high performance water-based paints. Last year Crown extended its popular Clean Extreme range to arm

professional painters and decorators with the tools needed to win the fight against stains, dirt, mould and bacteria. The new Clean Extreme product performance guide is packed full of information along with advice and tips to ensure specifiers select the most appropriate paint for each job and decorators get the very best finish every time.

info@crowntrade.co.uk

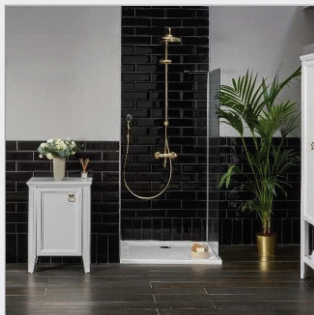
New Amazonia collection from CTD



A celebration and seamless marriage between rustic handmade influences and the trend for contemporary biophilic design, the new Amazonia collection from CTD Architectural Tiles is guaranteed to bring any residential, commercial or hospitality project to life. Versatile and unique, Amazonia combines botanical patterns with a pared-back, nature-inspired palette to enliven spaces of all sizes. Suitable for both walls and floors, the tiles are available in two shapes: a small square format (138 x 138mm) and a larger hexagon format (320 x 368mm), in five colourways and designs.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

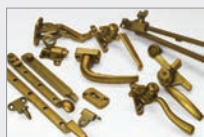
New Valarte Makes Classic Current



VitrA has announced details of a new bathroom range joining its Signature Collection during in March. A perfect complement to the contemporary designs associated with VitrA, Valarte introduces the popular Shaker design which combines simplicity with fine craftsmanship and functionality. Valarte is a modern take on a proven classic style that can be used in a traditional or a modern interior. The design, produced by VitrA's in-house team, takes its inspiration from Shaker and is available in three soft, nostalgic and on trend shades with circular metal ring handles. The comprehensive furniture range includes vanities, a statement towel cupboard and variety of dresser pieces in matte white, matt ivory and matte grey. The washbasin is also available with chrome legs bringing it bang up to date for today's bathroom styles. The vanity basins have an attractive double rim design with an upstand at the back and are available in one and three tap hole formats. The range also includes mirrors and illuminated mirror cabinets. The back-to-wall, wall-hung, and close-coupled WC pans complete the range.

www.VitrA.co.uk

Bringing back brass



Give steel windows or doors a brand new personality with a handle from **Steel Window Association** member Steel Window Fittings in Antique Brass. Finishes on steel window fixtures and fittings can have as much of an impact on the visual aesthetics of the home as

the steel windows or doors themselves. This luxury finish has become a prominent colour in recent years. The new trendy tone is taking over from rose and yellow golds, and is ideal for traditional, modern and industrial schemes. The aged appearance of Antique Brass perfectly complements the industrial origins of steel windows and doors.

www.steel-window-association.co.uk

The name behind the perfect shower



Tissino's new range of Giorgio shower trays and wall panels combines Italian-inspired good looks with exceptional, long-lasting performance. For the bathroom specialists at Tissino, the challenge of creating exceptional products is one they embrace with a

passion. Their new range of shower trays and wall panels exemplifies their perfectionist approach. Tissino understands the pleasures of a perfect shower, and with the new Giorgio shower trays and wall panels, the company is proving it yet again.

0345 582 8000 www.tissino.co.uk

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Harvey Maria launches Master Craftsman Series

Harvey Maria has launched a new collection of ultra-authentic wood effects. The new Master Craftsman Series – also known as ‘the MSeries’ – includes four distinct collections of oak and wood plank designs, each with an incredibly realistic fine wood grain and highly tactile top surface. The new series is available exclusively to the UK consumer through Harvey Maria’s national network of Master Craftsman local retailers, for next day delivery from UK stock.

Renowned for its striking patterned and designer collections, the launch of MSeries signals Harvey Maria’s continued expansion into the volume ‘wood’ market. The collection has been designed to enhance its wood offer, giving wider choice at the premium end of the market, where customers are looking for greater quality and authenticity. The launch follows the introduction of Harvey Maria’s Premium Wood Collection in 2016, which is now



available in over 100 retail outlets.

The four new MSeries collections include Natural Plank, Natural Oak, Parquet Oak and Selected Woods. Natural Plank and Natural Oak include 14 decors, which each have a premium ‘registered emboss’ top surface. Natural Plank features the series’

most rustic designs, with strong graining and colour variation; six designs cluster around popular grey and mid oak tones, with bright, beachy ‘Cove’ and moody dark ‘Cinder’ at either end of the spectrum. Natural Oak has an elegant contemporary theme, in shades spanning from palest ‘White Oak’, through mid tones to rich conker-toned ‘Burgundy Oak’.

Parquet Oak replicates Natural Oak, in miniature scale. The six ‘mini-plank’ stave decors can be laid to create classic parquet patterns or combined with Natural Oak to form borders, thresholds and decorative features.

The fourth new collection – Selected Woods – is an eclectic mix of reclaimed pine and engineered oak decors, in a contemporary grey and mid-toned oak palette. It includes eight individual designs created and positioned for the residential market.

0330 330 1231 www.harveymaria.com

Antron® carpet fibre underlines its worth at Workplace House



Workplace House, a new collaborative showroom in the heart of London’s Clerkenwell district, home to the city’s thriving architecture and design community, recently opened its doors with INVISTA Antron® carpet fibre keeping textile flooring from Christy Carpets ‘showroom ready’ on a daily basis. Workplace House provides a place of inspiration and advice for designers involved in modern work spaces. Carpet tiles made with Antron® Lumena® carpet fibre welcome visitors to The Workplace House in the street-level reception and coffee bar. Chosen in pastel shades, Stressed Out (Hyper & Weary) and Relax (Soothed & Sublime) designs by Christy Carpets combine to demonstrate how flooring texture can work together to add interest. With the stain-resistance and soil-hiding capability of hardwearing Antron® Lumena® carpet fibre, these designs will also prove that the careful specification of fibre type ensures that carpet can withstand the demands of these intensive areas. Providing workspaces with a carpet fibre designed to cope in busy commercial environments, Antron® Lumena® carpet fibre offers outstanding soil resistance and enduring colour.

www.antron.eu www.INVISTA.com

Forbo provides flooring solutions



The recent fit out of Savills’ new Welsh headquarters saw commercial interior design and supply specialists, Imium, enlisted to create a modern-day, cohesive working environment, while still adhering to the brand’s traditional values. Forbo Flooring Systems’ striking Allura Flex

carpet tiles have played an integral role in the smart new interior. Allura Flex 0.55 loose lay tiles offers a high quality and dimensionally stable versatile solution in LVT. The striking and realistic designs reflect the latest flooring trends and allow for endless combination opportunities.

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

Altro is natural leader in biophilic design

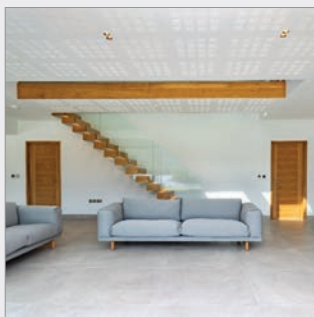


Altro is working closely with City of Edinburgh Council to enhance learning environments in schools by using the principles of biophilic design to increase wellbeing, calm and improve learning.

Interior designer, Lesley McMillan, has worked with Altro for a number of years, and has recently completed a number of school projects using Altro’s Wood Safety range to help ‘bring the outside in’. Altro Wood Safety is an attractive, general purpose 2mm wood-look flooring, available in a range of designs with different plank sizes and shades. It is designed to cope with medium to heavy traffic and has sustained slip resistance for the lifetime of the floor.

01462 489 516 www.altro.co.uk

Cutting Edge Tiling Adhesives for Ease of Specification



Kerakoll UK's Biogel adhesive range won the Tile Association prize for Best Innovation 2018. The revolutionary range uses gel technology to create a new type of adhesive, so smooth and easy to use that tilers love it. From a specifier's point of view Biogel adhesives' main plus point is the simplicity of choice with just three products, rapid set Biogel Revolution (C2 FTE S1), standard set Biogel No Limits (C2 TE S1) and hybrid gel Biogel Extreme (R2) as the same adhesives can be used for all tiling materials and all substrates, no matter how deformable. This allows you to avoid the specification minefield encountered trying to choose between all of the many formulations necessary when using standard cement-based adhesives to deal with deformable substrates and different types of installation, without sacrificing either performance or ecological considerations. Biogel No Limits and Revolution both have very low CFPs and VOC emissions and a high level of recycled content. Biogel Extreme is non-toxic, non-hazardous and solvent-free. The range has been used on many projects since its launch in 2017, one of which is this eco house in Cumbria where Biogel Revolution and No Limits were used both internally and externally.

01527 578000 www.kerakoll.co.uk

Benefits stack up with PRO-TEK™ WPC



Available in 40 wood and tile-effects, PRO-TEK™ WPC is a new type of engineered vinyl flooring now available in the UK. Combining an LVT surface finish with an integral water-proof core and acoustic underlay, the award-winning floor provides a robust finish and dramatically cuts installation time. The new designs are suitable for residential and commercial installation and are offered alongside a range of matching accessories, with a colour and décor-matched option for every floor. PRO-TEK™ WPC features a multi-layered construction that comprises six layers. The traditional LVT layers sit above a waterproof wood plastic composite or 'WPC' core. This middle core has an integral joint, which locks the boards together without adhesive. The bottom layer comprises an attached IXPE foam underlay base. The integral construction maximises the floor's versatility, reduces the amount of floor preparation required and speeds installation. It also eliminates 'telegraphing', where subfloor distortion can mirror to the floor surface. PRO-TEK™ WPC can be installed in all settings and there are design options to suit all interior styles.

020 3917 5550 www.pro-tek-flooring.com

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Sugatsune has set out to make shutting the door a premium experience. From commercial corridors to heavy duty wardrobes, its LDD and DC-200 range of soft close door dampers set a new standard in what you can expect from door closure technology.

Making use of innovative, adjustable late catch mechanisms, Sugatsune door dampers are compact, elegant and discrete, with fully concealed options available. They operate on doors weighing up to 100kg, guarding against slams and applying precision control every time you shut a door.

www.sugatsune.co.uk



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Commercial benefits

Catherine Helliker of Danfloor UK explains the many factors that specifiers must consider when selecting a high-performance commercial carpet

The floors of any building, whether commercial or residential, will be the surface that has most impact from footfall as well as routine cleaning and maintenance. It's therefore no surprise that floors are usually the first surface to reflect wear and tear. As such, it's important to invest in floors which will keep pace with the demands of the particular environment in question.

There are hundreds of flooring options to choose from, and when it comes to selecting carpet there are so many which appear the same, but due to their composition, may not perform in the same way, or last as long. There are a number of elements to consider and the following will give an indication of what to look for when specifying a high-performance commercial carpet which still delivers a touch of comfort and luxury.

Pile composition

To ensure the best possible product and protect your investment, one thing you can look at is the pile height. In a commercial environment the pile height should be no greater than 5 mm, to allow the use of wheeled items such as trolleys and wheelchairs. Shorter pile height also makes for a more durable carpet, which is easier to clean and less prone to crushing. The total pile weight should exceed 1000 grams per square metre and for tufted carpets the pile density should be greater than 180,000 tufts. As a result, the greater tuft density will also resist crushing and increase longevity. Finding such a combination will provide you with a carpet that will perform, and last in such demanding environments.

Yarn shape and structure

It's important to select a carpet constructed with a 'trilobal' yarn, which acts like a prism to refract light and defuse the visual effects of soiling. A heat set twist yarn will also hold its appearance longer than other yarn types due to the finishing process, which help to minimise yarn fraying.



Dyeing techniques

There are many dyeing techniques for producing the wide variety of colours and designs available on the market. Dyeing methods affect carpet performance and stain resistance, so it's important to understand the difference between two of the most common techniques – solution and piece dyed.

In solution dyeing, colour is added to the liquid state of the fibre components, before the fibre is actually produced, meaning that the colour is found throughout the carpet fibre; a little like the appearance of a carrot. The solution dye method produces the most colourfast carpet yarn because the dye is added during the manufacturing process before the fibres are extruded, meaning the colour is locked in. As a result solution dyed fibres are particularly resistant to prolonged exposure to UV light.

Piece dyeing is done after the carpet is made. This method yields bright tones and more of a variety of colours, however the dye only penetrates the outer surface of the fibre, like the appearance of a radish.

Solution dyed carpets maintain their colour even with the use of harsh cleaning chemicals such as bleach



An antimicrobial coating will help with the reduction of mould and mildew, that can also lead to odours

Piece dyed products, due to their dyeability, can stain more easily than solution dyed products. It should also be noted that solution dyed carpets maintain their colour even with the use of harsh cleaning chemicals such as bleach.

Impermeability

An impervious membrane is another added benefit; it sits beneath the carpet substrate and above the carpet backing, and will ensure that any liquid spills stay on the surface of the carpet and will not seep through to the sub floor. If liquid does reach the subfloor it can lead to bacterial or fungal growth, and may cause odour problems and deterioration of both the carpet backing and floor underneath. As liquid spills remain on the surface of an impervious carpet, this also makes them easier to clean; minimising the risk of staining and allowing the use of wet cleaning techniques such as carpet shampooing, without compromising the carpet or subfloor.

Antimicrobial

An antimicrobial coating will help with infection control concerns and the reduction of mould and mildew, that can also lead to odours. Selecting a carpet that includes such a coating is important for anyone needing to eliminate odours and increase health protection. It's ideal for sectors where carpeting is used around food and drink, such as in the healthcare and hospitality sectors. A non-migrating

antimicrobial coating on the carpet fibres will start to kill micro-organisms, including those that cause MRSA, when they come into contact with the fibre. A non-migrating coating will not lose its strength over time and creates an environment, which microorganisms can't adapt to.

Certification & colour

It's important to check a carpet's specification to be aware of its classification for use and certification to ensure it meets relevant British Standards. For fire retardancy in the UK carpets should comply with British Standard BS4790, which assess the ease to which a textile floor covering would ignite under certain practical conditions, for example a burning cigarette. All classifications and certification should be clearly visible on product labelling to show that they comply with the latest safety guidance.

Finally, colour selection is not only about what fits in with the interior design, it is also strongly recommended that care be taken in choosing colours to suit particular locations. Medium to dark coloured carpets disguise soiling more effectively than plain, light shades and should therefore be considered for high traffic areas such as corridors.

Taking all of this into account should mean you've selected a carpet, which is fit for purpose and will provide a flooring solution that is built to last.

Catherine Helliker is marketing manager at Danfloor UK

Expona provides stylish finish to store



A selection of Expona Commercial Stone and Wood effect Luxury Vinyl Tiles from Polyflor were used in the recent renovation work completed at Elverys Sports' Bridgewater Store in Arklow, Ireland by Tom Walsh Flooring Contractors, Limerick and distributed from Provincial Floor

Coverings Ltd. Expona Commercial was the ideal choice as it is suitable for high traffic areas such as a store or commercial shopping area. The contrasting designs also allowed the contractor to highlight certain areas of the store positioning the wood planks around the tills and the Cool Grey Concrete tiles to fill the rest of the area.

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Polyflor for indoor market transformation



Polysafe and Expona products were the floor of choice for H Bell and Sons as they undertook the transformation of a former bank building into a stylish new indoor market, complete with cafe and fresh food stalls. The three storey,

1920s property has been turned into a brand new shopping and eating hub alongside the River Roch. Extensive work has been undertaken with the creation of a new atrium, a new roof and installation of lifts before reinforcing the floors ready for a selection of new Polyflor floor coverings including Expona Commercial Aged Elm, Polysafe Apex Chromite, and Expona Flow Smoked Oak.

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Norcros pushes into flooring market



Norcros Adhesives, manufacturer of a wide range of preparation, fixing and finishing products for tiling and flooring installation, is extending its presence in the flooring market by forming a new partnership

with Headlam. Headlam is one of Europe's largest distributors of floorcoverings, with 63 individual businesses in the UK, France, Netherlands and Switzerland. The new three-year agreement between the two companies means that Headlam will stock key products from the Norcros Adhesives range – principally levellers, floor preparation products and Norcros Pro Gyp Base for tiling on to anhydrite screeds.

01782 524140 www.norcros-adhesives.com

Gerflor's fast track solution for Terminal



In 2017 Ports of Jersey announced a progressive plan to create an integrated arrivals and departures terminal. The project could potentially have caused major passenger disruption and possible closure of some airside and landside businesses. International flooring

specialist Gerflor were on hand to supply their high-quality GTI Max fast track flooring solution that would provide a quick and effective solution with no need for any shutdown of the airport operation. Maria Le Tiec, Passenger Services Manager for Ports of Jersey said: "It looks amazing, and has completely transformed the terminal.

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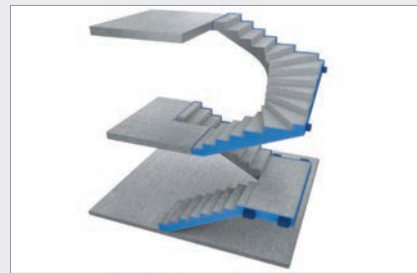
New staircase impact sound insulation system from Schöck

In the UK, Schöck is best known for its market leading Isokorb structural thermal break range (thermal insulation); but in Europe, insulating stairs and landings against impact sound (acoustic insulation) has also been a high priority. This is largely due to the differences in dwelling types. In the UK only 14 per cent of the population have traditionally lived in apartments, whereas the average across the Euro area is 48 per cent and sometimes higher. However things are changing in the UK. Apartment living is

dramatically on the rise, resulting in a marked increase in residential density. And in the interests of noise health protection, existing mandatory soundproofing standards are coming under ever-increasing scrutiny.

As a result, Schöck has developed an integrated impact sound insulation solution for all structural subsections on both straight and winding staircases. Known as Tronsole, it is a system that combines dependable sound insulation with straightforward installation. Providing optimum standard-compliant soundproofing in apartment blocks and multi-use buildings. With conventional solutions, such as an unsecured individual elastomer support under the stairs, any displacement can result in a broken concrete edge due to incorrect support.

This means the risk of dirt and gravel getting into gaps between staircase and floor slab, which can easily reduce acoustic insulation performance by around 10 dB. Schöck Tronsole, by contrast, is a



system that envelopes the entire staircase, totally minimising the risk of acoustic bridges. It consists of seven main product types that can be mixed and matched to form a fully integrated impact soundproof system either on-site, or in the prefabricating plant. It is suitable for emergency exits and complies with the requirements for fire resistance class R90 (subject to appropriate on-site additional reinforcement of the landing).

01865 290 890 www.schoeck.co.uk



Resiblock celebrating 15th anniversary



Resiblock and Rialto Homes are celebrating the 15th anniversary of the successful sealing of the Hewetts Quay site in Barking. Barking and Dagenham Council had anticipated that any flooding from the local River Roding would lead to removal of jointing

sand and the potential for destabilisation of the bedding sand. With the use of Clay Blocks at Hewetts Quay this risk was further heightened. Resiblock liaised with both Rialto Homes and Barking and Dagenham Council and Resiblock '22' was installed in the Spring of 2004. In the 15 years since, Resiblock '22' has withstood all minor flooding that has occurred in the area, while also protecting against trafficking in the area.

mail@resiblock.com

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Hauraton drainage systems at Bonus Arena - Hull Venue

Built on brown-field land located on the edge of the main shopping district in Hull and adjacent to Princes Quay, the Bonus Arena – Hull Venue and its associated multi storey car park were opened in August 2018. The £36 million development progresses the legacy of the social and economic impact generated by Hull's 2017 UK City of Culture status.

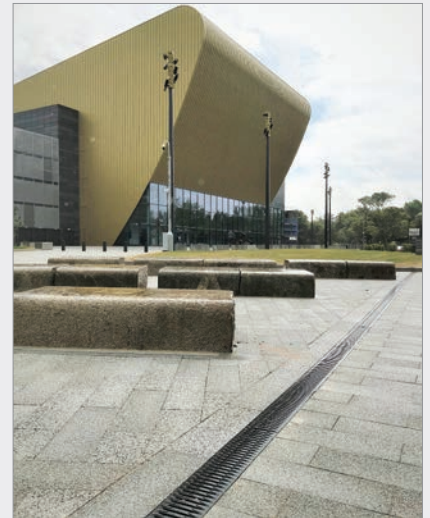
The Arena, designed by AFL Architects, is a state-of-the-art music and events complex with a flexible capacity of up to 3,500 people. The facility can provide a venue for concerts or corporate conferences in an 800 seat auditorium. A 2000m² adaptable space can be utilised for sporting events or exhibitions and trade shows.

Surrounding the Bonus Arena is a public realm laid with grey stone paving and landscaped by re-form Landscape Architecture Limited with trees, lawns, flowerbeds and permanent stone seating.

An effective surface water drainage system

was essential to ensure all weather access to the venue. 140 metres of Hauraton RECYFIX® PRO 100 channels with FIBRETEC® heel-safe gratings were chosen for the job which blended well with the stone paving and would resist damage from applied grit rock salt in freezing weather.

The material, PA-GF used to make the FIBRETEC® grating, was especially developed by Hauraton; the tough, UV resistant, fibre reinforced moulding offers high stability and huge strength for its weight. Complying with loading category Class C250 (BSEN 1433) the grating can easily take the weight of commercial delivery vehicles. The design is a real innovation as its non-corrosive material provides a visually appealing surface finish that retains its colour. The slots are super smooth, elliptical openings with the moulded bars having slightly raised triangular bosses along their outside edges. As well as providing an elegant appearance, the feature ensures surface water



is directed into the slots.

The RECYFIX® channel component is made from 100 per cent recycled PP. The PRO 100 model is factory fitted with the FIBRETEC® grating and only weighs 4.6kg, so the unit was easy to handle and quickly installed on site.

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Kerakoll chosen for eco-friendly house



Kerakoll's Laminate No Crack system was specified for the external tiling at Water End House, Portinsale. This uses the Green-Pro membrane and Biogel adhesives, and allows tile installation even when substrates have problems such as cracks, movement or vapour pressure from insufficient curing. The system forms a laminated surface composed of adhesive, membrane, adhesive and tiles with a very high shear strength of $\geq 1.8 \text{ N/mm}^2$. It can be used for both uncoupling and waterproofing over all screeds including heated ones.

01527 578000 info@kerakoll.co.uk

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(below) **GEOCELL®** was used at the multi-storey AFG Football Arena, Switzerland

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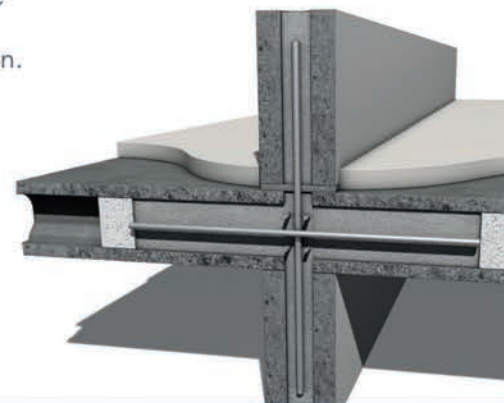
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