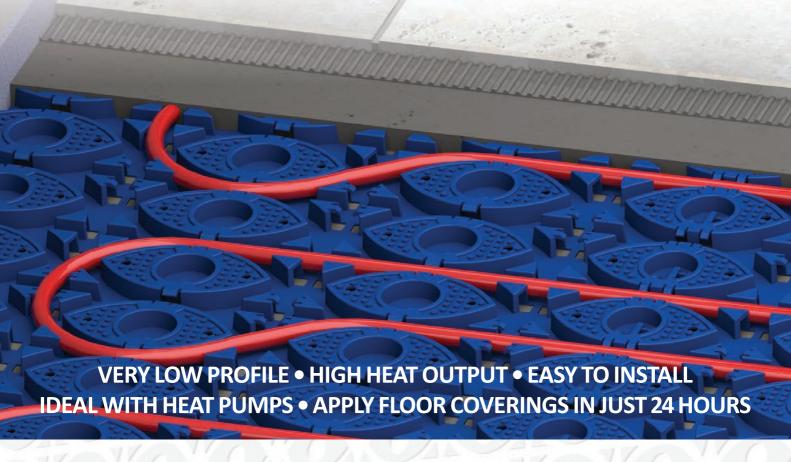
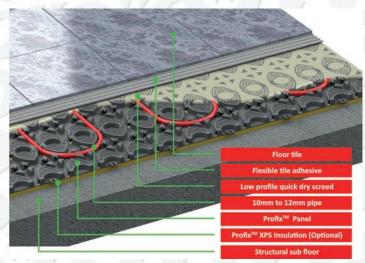




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#### Managing Editor

James Parker iparker@netmagmedia.co.uk

#### Publisher

Anthony Parker aparker@netmagmedia.co.uk

#### Editorial Co-ordinator Shelley Collyer

Sileney Conyer

#### Editorial Assistant Tom Boddy

Editorial Contributor Jack Wooler

#### Studio Manager Mikey Pooley

#### Production Assistants

#### Georgia Musson Kim Musson

#### Account Manager Sheehan Edmonds

#### Sales Executive Steve Smith

#### PR Executives

#### Suzanne Easter Kim Friend

#### Audience Development Manager Jane Spice

#### Managing Director

#### Advertising &

t 01435 863500 info@netmagmedia.co.uk

#### Press Releases editorial@netmagmedia.co.uk

#### Subscription circulation

#### enquiries info@netmagmedia.co.uk

#### netMAGmedia Ltd Cointronic House Station Road, Heathfield East Sussex, TN21 8DF







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# FROM THE EDITOR



his year continues with a depressingly familiar feel, presenting little more concrete than a series of questions about when, but more often than not, if, life is ever going to return to normal.

Depending on who you ask, some architects are anticipating a return to the office once, as we have to hope, the vaccines begin to suppress the spread of this resilient, and worryingly quick-to-mutate, virus. Others have accepted that they will be working from home for the foreseeable future, meaning years possibly, not months.

While this might be good news for the environment, and for the pocket of those forced to shell out large sums for public transport, it's not going to be easy to confront a future without face-to-face client meetings, for example. In a seemingly frivolous example, the recent Texas lawyer going viral in a Zoom case with an animated cat where his face should be, actually shows the real risks to credibility of relying on apps and online networks to support your often critical and delicately balanced business operations.

You can ride the balance of such situations much more easily when you can read people's expressions in the flesh, and understand that they are perceiving the humour in such a situation, for example. The simple fact is that we need to get accustomed to navigating around such glitches, much as in the 'past' we'd have to show flexibility when the Underground (or perhaps our ability to find our way around a city) let us down.

It's a sad fact (and I confess I may be part of the problem here), that a certain couple of generations in the middle-aged and above bracket might be able to surf these new waters less adeptly than colleagues many years younger. Twenty-somethings are more likely to have been working with apps, not to mention multitasking across several IT platforms, their whole professional lives, so the new realities are less likely to cause them the consternation that Texan lawman, albeit in cat form, clearly experienced.

It's up to everybody to adapt however, as the future remains terribly uncertain, not to mention what Brexit is going to throw at the industry in the coming months.

The ONS reported that construction activity fell by nearly three per cent in December, the first decline since April for a sector that has seemed to ride out the stresses of the pandemic until now. The housing element has propped construction up, however, and with the end of the stamp duty holiday looming, its Covid-busting health appears to be dipping alarmingly.

With uncertainty being the on-trend flavour this year so far, and with commercial clients in particular unlikely to commit to projects, it's going to be a bumpy ride for architects.

James Parker Editor



#### ON THE COVER...

The dramatic curves of ZHA's Beijing Daxing International Airport are as much the result of a need to provide maximum throughput, as aesthetic aspiration.

Cover Image © Hufton+Crow
For the full report on this project, go to page 28.



#### **HOSPITALITY**

# Scott Brownrigg to design East Ayrshire wellness resort

Scott Brownrigg have been appointed to design the 44 hectare masterplan for The Barony, a wellbeing and cultural visitor facility in East Ayrshire, Scotland.

Transforming the site of a former coal mine, The Barony will host 344 holiday 'villas', plus a reception, a visitor centre and spa areas, alongside ecological sites that will generate produce and research from an ambitious re-wilding programme.

Led by board director Neil MacOmish, Scott Brownrigg have created a concept that "embraces the challenging topography of the site," commented the practice. There is a substantial level change from the access road to the north down to the famous Lugar Water, a river at the southern end of the site.

Guiding the design concept was a desire to "convey a sense of place throughout." said the architects. The design makes use of the 'A' frame of the previous colliery to convey the site's original heritage, and to mark out a series of zones within the site and a "processional arrival sequence." Continuing with this idea, the reception building will be "articulated by a transitional, gabion basket stone wall that

acts as the threshold between one world and another."

Working with international tourism consultant Professor Terry Stevens, the design envisages a "dispersed hotel," comprising a mix of villas, tree houses and geodesic domes. It is a concept "adeptly suited to the site's pastoral setting," said the architects, allowing guests to step out and instantly enjoy their natural surroundings and community.

Following the appointment, a full planning application will be submitted in the first quarter of 2021.



#### **SUSTAINABILITY**

# Arup partners with Changing Streams to reduce plastic use

Arup's is collaborating with environmental pressure group Changing Streams to help drive forward its mission to reduce the use of plastic across the construction industry.

The partnership will bring together sustainability experts at Arup's Liverpool office and Changing Streams' researchers to identify where sustainable plastic-free alternatives can be used in the construction industry's supply chain to "help the sector tackle its plastic problem," commented Arup. The teams will also explore circular economy principles to ensure that existing materials are being repurposed and reused "when plastic use is unavoidable," thereby reducing the amount of new plastics going into the system.

The construction sector is currently the second largest producer of plastic waste in the UK, after packaging. It is estimated the building trade generates 50,000 tonnes of plastic waste each year, 40 per cent of which is sent to landfill.

Established by building entrepreneur Neal Maxwell, in partnership with The University of Liverpool, Changing Streams aims to reduce the use of plastics in



buildings and throughout the built environment supply chain.

Arup Liverpool will also support Changing Streams' new workshop programmes, which focus on "implementing behavioural and educational changes across the sector." They aim to "help people understand the problems associated with the current and future forecasts of the use of plastic, and recognise



how they can help make a difference."

Neal Maxwell, founder of Changing Streams, said, "Arup shares our vision for creating a better world for future generations, and we are delighted to have them on board. We are already discussing a series of exciting joint research projects which will help catapult Changing Streams into the next phase and hugely accelerate our growth and impact on the industry".

#### **NEW APPOINTMENT**

### Marchese Partners recruits later living specialist

One of the architecture industry's leading specialists in the field of design for older people, Anne-Marie Nicholson, has joined Marchese Partners's UK office as principal to help grow the firm's portfolio of later living clients in the UK.

Nicholson will jointly lead the UK studio alongside fellow principal Stewart Dean, and joins the firm from PRP where she established herself as a "leading figure in the design of housing for older people," said the firm. Nicholson has overseen the delivery of 11,000 housing units, many of which have been recognised by award bodies including RIBA and Housing Design Awards.

Marchese Partners, an international firm with offices in the UK, Australia, New Zealand, Asia, and Spain, is "widely recognised for setting and enhancing the standard of later living design across the globe," said the firm. Nicholson will focus on developing an already diverse client base that includes Riverstone Living. Guild Living, Loveday, Frogmore and Red and Yellow.



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#### **MIXED USE**

# BDP schemes designed to resist York floods gain planning consent

BDP's 2018 masterplan for the development of Castle Mills in York's historic Castle Gateway area has been granted full planning consent.

The City of York council approved the scheme for a brownfield site facing York Castle, comprising 106 apartments, ground floor commercial space, a new bridge for pedestrians and cyclists across the River Foss, and an area of public realm around the base of the castle walls.

This was followed by approval of BDP's designs for the new multi-storey car park on St George's Field - a building designed to respond to significant environmental and heritage related challenges. The site sits in the active flood plain of the River Ouse and within the setting of York Castle and St George's Templar Chapel; both scheduled ancient monuments. Vehicle access is via the first floor of the car park, meaning the ground floor can be closed safely in the event of a flood. The adjoining flood wall will also be raised as part of a wider project by the Environment Agency. Once complete, 80 per cent of the car park will remain accessible and useable if the site floods in the future.



The BDP team produced flood risk assessments for both developments which informed the design of flood resilient landscaping, along with civil and structural solutions. Flood water storage tanks will be buried in newly landscaped river banks that will include a floating planting bed system to maintain and increase habitats for local wildlife.

The new bridge is also designed so that its soffit will be above flood water levels, with allowances for climate change.

Both developments will enable the relocation of car parking away from Clifford's Tower and the Eye of York, so that this key historic and civic space can be given a new lease of life, for the benefit of residents and visitors alike.

#### **NEW APPOINTMENT**

## **Bauman Lyons Architects founders** step down

Bauman Lyons Architects said it is "embarking on a new era" as it announces that partners Irena Bauman and Maurice Lyons are standing down from the Leeds practice they founded 30 years ago.

The practice, which has a strong ethos of collaboration, has successfully been transferred over to the existing long-term team via an Employee Benefit Trust agreement which puts two thirds of ownership in the hands of the employees. Director Guy Smith, who has been with

Bauman Lyons for 17 years, will be joined by newly-promoted Tom Vigar who also becomes a director.

Bauman Lyons earned its reputation for its work with local communities, collaborations with artists, public realm projects, creative repurposing of listed buildings and sensitively designed new builds. Amongst other projects, the practice is currently in the latter stages of delivering a highly collaborative £16m refurbishment and extension project for the Museum of Making at



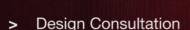
Derby Silk Mill, where the team and client have embraced an innovative new procurement method known as Integrated Project Insurance.

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**AWARD** 

# MVRDV's Munich mixed use project named Germany's best new building

WERK12, a mixed use building designed by MVRDV which serves as "the focal point in Munich's Werksviertel-Mitte district," has been named the best new building in Germany, winning the 2021 DAM Preis.

This year's award, made by the Deutsches Architekturmuseum, will see the building featured in an exhibition, which is yet to open due to Covid restrictions, and also in the German Architecture Yearbook 2021.

Completed in 2019 by co-architects N-V-O Nuyken von Oefele Architekten, WERK12 forms the "nucleus" of the former industrial area close to Munich's East Station that is being regenerated to house creative industries, leisure and other functions. The building contains restaurants and bars, as well as offices and a threestorey gym plus pool.

It stands out thanks to a bold and expressive facade, featuring five metre-high lettering, an "urban art piece" developed by the architects together with local artists Engl&Engelmann. Expanding on MVRDV's proposal to add lettering to the

facade, they selected verbal expressions found in German comics to bestow a "playful attitude" to the project.

WERK12 combines "a simple form, honest materials, and transparent facades." The design's external circulation core on the building's north-eastern side is supplemented by 3.25 metre wide terraces that surround each floor. They are connected by external staircases that connect these generous open spaces, in a "playful reference to one of MVRDV's early projects, the Dutch Pavilion at the Expo2000 in Hanover."

These features create a building that is "extremely flexible," and which can be adapted to future uses with different layouts. With storey heights being 5.5 metres, the building can accommodate mezzanine levels if required for future uses. This "design for longevity" is a key part of the client's strategy to make a "long-term, sustainable contribution to the district," said the architects.

The annual DAM Preis award is claimed to be the most prestigious architecture

award in Germany. Each year, the museum selects a list of 100 nominees, with a jury composed of architects, critics and other experts shortlisting the finalists during a series of judging stages.

MVRDV founding partner Jacob van Rijs commented, "It's an honour to receive the DAM Preis, especially for a building like WERK12 which presents itself in such a light-hearted way." He added, "The architecture world can be quite serious, even dull sometimes, so it's reassuring that the jury was able to appreciate the value of WERK12's fun addition to Werksviertel-Mitte."

The architect added, "I'm proud they were able to see beyond the facade to understand that it also deals with some very relevant topics in architecture underneath." Anne Femmer, jury member for the 2021 SAM Preis, commented, "If architecture can speak, it cannot all be just background noise. WERK12 shouts out, but has important things to say: if you really want to, you can be flexible, universal, robust, open, sculpted, and still be cheerful."















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#### RESIDENTIAL

# In harmony with nature in the Czech mountains



A house has been completed in a remote part of the Czech Republic's Krkonoše mountains which is "an example of a harmony between people and nature," according to its architect, Zdenek Fránek.

Being designed in a "pristine" environment such as this was "an exciting challenge," said the architect, who founded Fránek Architects in 1989, and who worked as dean of the Faculty of Art and Architecture at the Technical University of Liberec until 2018. A further challenge, said the architect, was that the house was designed for his "long-standing friend and his young family – for a person who loves nature, art and life."

The design replicates the proportions of a house "which had been standing in this protected area since ancient times, as the only structure as far as the eye can see." As a result of the responsibility of designing in such circumstances, and against strict regulations, the

result was an "archetypal form," said the architect.

The client required a "sophisticated approach towards the space, which would be spiritually focused, unusual, and pure." The building was constructed using reinforced concrete and timber, and has larch cladding.

The house has been "inserted" into the sloping site so that the basement has an entrance from the lower floor, facing towards the outdoor pool. The main entrance and driveway are on the upper level. The basement is made of reinforced concrete and above this is a timber structure. The truss consists of four frames – glued 'full bindings,' inside which are three pairs of convexly curved "pillows" for better use of space, acoustic comfort, and lighting.

The exterior of the building, including the roof, is fully cladded with glued larch laths. By contrast the interior is "pure white," even down to the floors.







This serves as a "white canvas for incorporating art in the form of positive thinking," said the architect.

The house is "appropriately sized," benefitting its favourable economical use and maintenance, said the designers. Over time, a carport equipped with solar panels as well as a vegetable greenhouse will augment the sustainability provided by the heat pump.

Fránek commented that such "formally pure houses" tend to be "demanded by strong personalities who have their own idea of their direction, their place in this world and the values their family represents." He added, "The exterior is characteristic with its artistic beauty, the art of ageing and immersing itself into greenery. It expresses a kind of harmony with the universe."

In the interior of such houses, he commented, this purity "allows thoughts to flow and makes their personalities and intellect stand out."



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#### **CULTURAL & HERITAGE**

# Pritchard Architecture creates tribute to D-Day in Portsmouth

Pritchard Architecture has completed a project that has seen the only surviving tank landing craft from D-Day conserved and made part of the public realm on Southsea seafront, creating a "unique visitor experience and new cultural landmark in Portsmouth."

Pritchard Architecture were responsible for the contemporary new canopy and the surrounding landscape which has created a welcoming visitor entrance that "connects both physically and materially" with the adjacent D-Day Story museum.

The cantilevered canopy, which follows the form of the landing craft, LCT 7074, is supported by steel columns that relate to the piers of the historic wall behind, keeping one side of the ship clear of visual distraction and providing clear uninterrupted views from Southsea Common.

The canopy "maintains a simplicity that is sympathetic to its sensitive surroundings while still having a presence that physically relates to the robustness and mass of the ship itself," said the architects. Marrying old and new, the patina of the ship's metal work and the texture of the historic brick wall contrast with the clean lines of modern



steelwork and tensile fabric.

Visitors arrive at the ship via a ramp bounded by grass bunds and enter via the bow ramp which provides level access. A new exhibition inside portrays the "significant and largely overlooked" story of Royal Navy landing craft and their crews at D-Day. There's new external lighting and interpretation, to enhance the experience for the 4.5 million visitors to Southsea Common, helping them to engage with the ship's story.

The project has secured a sustainable future for this important piece of WW2 history, completing the conservation that began with its salvage in 2014, and its new location and setting allows visitors to "properly understand her place in the bigger picture of Operation Neptune."



LCT 7074 was moved by barge from a ship hall at HMNB Portsmouth, where she had been undergoing conservation work. Six years after she was salvaged from the docks in Birkenhead, LCT7074 arrived on Southsea beach in August 2020 after many years of restoration. The project was made possible thanks to £4.7m of National Lottery support.

Nick Hewitt, head of collections and research at the National Museum of the Royal Navy, and project director said, "From the outset the project team were thrilled by Pritchard Architecture's graceful, innovative canopy design, which complements the ship beautifully and ties the ship sympathetically into the landscape and built heritage of Southsea Common."

#### PRACTICE

# CPMG keeps HQ in Nottingham

CPMG Architects has announced it is relocating to a new home in Nottingham, following more than two decades in another office in the city.

A Grade II listed two-storey building at St Peter's Gate, previously a bank and a bar, will be completely refurbished by CPMG with a design that captures the company's mission to design "places that feel better."

Overlooking St. Peter's Church, the premises will bring the team together in a

single studio environment with newly installed mezzanine, along with subterranean meeting spaces occupying former bank vaults. The entrance space will incorporate a co-working and coffee area.

Managing director Richard Flisher said, "This move is a vote of confidence in our home city and in the future vitality of the city centre. Everything we do at CPMG is driven by our core values of people, purpose and place – and our move to St Peters Gate is no different."

The practice has a flexible workplace approach, and, said Flisher, the move "gives the firm the opportunity to instigate new ways of working for staff, based on choice, and supported by

flexible workstyles and cloud-based IT systems."

The firm has committed to the 'RIBA 2030 Climate Challenge' and is driving towards making all its designs zero carbon. It has designed the new offices to eliminate fossil fuel use whilst continuing to offset the remainder of operational carbon use via Forest Carbon.

Flisher added, "We have been working towards a more flexible and varied approach to working for a while and there is no doubt that this has been greatly accelerated by the effects of Covid-19. Needing to move due to the expiry of the lease at the previous HQ has given us the perfect opportunity to look afresh at the way we want to work in the future."



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#### **SITE LINES**

# DfMA: the great offsite hope

With productivity in construction a more acute problem than other sectors, Nigel Ostime of Hawkins\Brown says that architects need to embrace offsite Design for Manufacture and Assembly as the panacea which also delivers the quality they want

Productivity in the manufacturing sector has grown year on year, whereas in the construction industry it has been flatlining for decades. This poor productivity has reduced the margins needed to finance inward investment and improvement, compounding the poor value delivered compared to other sectors. The consequential lack of financial reward is also a disincentive for new entrants to the market.

Quality has been hobbled by lowest price rather than best value procurement, and through a lack of appetite for learning and improving through structured, post project completion review.

These issues pose an existential threat and should be addressed if we are to create a built environment that provides wellbeing, sustainability and growth.

#### Modern methods of construction

The building industry has been advocating modern methods of construction (MMC) for some time. Its benefits are known: it is faster, safer and often allows for better quality than traditional on-site construction due to its factory-led production. But take-up of MMC has been slow, particularly in the housing sector.

The difficulty is usually associated with a lack of capacity and the cost of entry into the market, as well as the stigma against modular building – whether for practical or aesthetic reasons.

Recently though, some big players have taken the plunge and invested heavily in modular housing, including L&G and Goldman Sachs as well as Japanese giant Sekisui. On the whole though, offsite construction is still seen as an 'alternative' to traditional methods, rather than a 'business as usual' approach.

Architects and other designers need to have a comprehensive knowledge of the offsite systems available and then select the right one for the specific site and building type.

The term pre-manufactured value (PMV) has started to be used to describe the percentage of a building that is pre-manufactured in a factory and brought to site for assembly, as opposed to traditional forms of construction.

A high level of PMV would be about 75-80 per cent for a fully volumetric (Cat 1) building. But good levels of PMV can be achieved with the other categories. Hawkins\Brown's 524-unit build to rent scheme at Plot N06, East Village in Stratford (split across two towers of 26 and 31 stories), uses a variety of systems (not including Cat 1) and is achieving around 70 per cent PMV.

Plot N06 uses an innovative system brought over from Australia that combines prefabricated floor slabs with curtain walling and this, along with a precast structure, bathroom pods, pre-fabricated

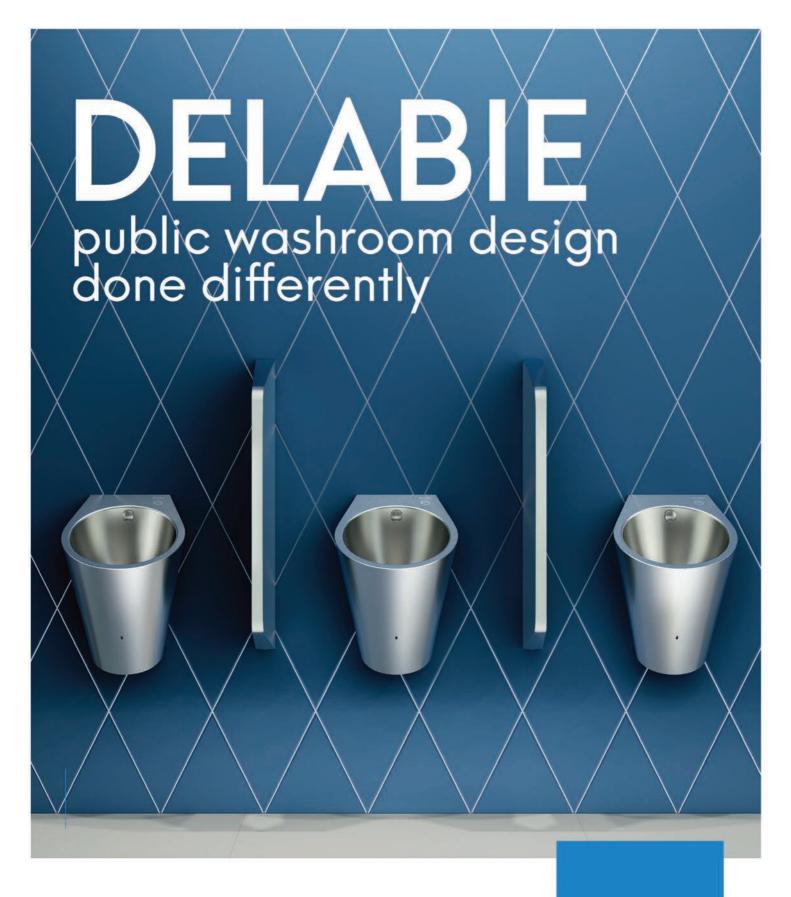


#### EAST VILLAGE

A modular offsite Build to Rent project at East Village, Stratford designed by Hawkins\Brown for Qatari Diar/Delancey and Get Living London

service risers, pre-fabricated internal wall systems as well as other offsite methods has taken months off the programme.

Contractor Mace's High Rise Solutions system used on the project employs parametric modelling tools and artificial intelligence to construct buildings, safer, faster and to a consistent high level of quality. It draws from a catalogue of components to design and manufacture the structure and facade sub-assemblies



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#### **CONSISTENT QUALITY**

The East Village project is being built by Mace using their High Rise Solutions system that employs parametric modelling tools and artificial intelligence to construct buildings safer, faster and to a consistent high level of quality

offsite, which converts site activities to an assembly process by installing modules concurrently with bathroom pods, utility cupboards and MEP service modules.

The process drastically reduces programme and improves productivity by up to six times compared to current industry performance. The construction programme has been reduced by 18 weeks with 20 per cent fewer workers onsite compared to a traditional building approach.

With the impending demographic skills shortage, not to mention the impact of Brexit, the construction industry needs to find ways of reducing its reliance on labour. MMC, aligned with digital tools and a more collaborative process, will provide this.

#### **Standardisation**

Closely aligned to a manufacturing-led approach is standardisation, which can both improve productivity and free up designers to focus on the areas they can bring greater value, like placemaking and improved functionality. There has been disquiet voiced by some architects regarding the aesthetic challenges modular construction can bring, but this should not be a barrier to good design, providing it is considered at an early stage.

It is critical that architects get involved in the current conversation about offsite rather than protesting a perceived loss of design freedom. This requires a proper understanding of the



#### It is critical that architects get involved in the current conversation about offsite rather than protesting a perceived loss of design freedom

Nigel Ostime of Hawkins\Brown

process of designing for offsite and the opportunities it presents. If the use of MMC is to be sustained it must be introduced at an early stage in architects' careers and as such needs to be addressed during their education.

One way to address these issues is for architecture courses to teach the fundamentals of offsite design and manufacturing. This would include the Design for Manufacture and Assembly (DfMA) approach set out in the RIBA's DfMA Plan of Work Overlay (which is currently being updated for publication in mid 2021), followed up with integration into the students' design projects. This would be aligned with more detailed learning on the MMC categories and how to assess which would be appropriate for a particular site and project brief, and might also include an understanding of market capabilities, enough to undertake a light-touch optioneering assessment at the start of the design process (RIBA Stage 2).

It would ideally be accompanied by a closer relationship with industry, specifically with manufacturers, as well as consultants. This does however require a change in mindset. Designers need to integrate the method of construction at the start of the design process, not merely after planning approval. In the real world there are procurement barriers to this approach, but as a design philosophy it is an important starting point. Designers need to understand these procurement barriers – particularly with Design & Build – and be armed with the knowledge of how to persuade clients of the benefits of a DfMA approach.

Architects are key to initiating change through their involvement at the start of the design process, and their education needs to address the transformation required to make this sustainable in the long term.

#### Collaboration

It is essential that the construction industry improves productivity and achieves a step-change in procurement processes and approach to design. This will require collaboration between architects, engineers and manufacturers and better understanding of the manufacturing process by architects and their clients. It will also require recognition of the importance of design quality and placemaking by manufacturers.

Construction needs to learn from manufacturing, and it is time for change.

Nigel Ostime is a partner at Hawkins\Brown



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# ASK THE ARCHITECT

Damien Lee of WGP Architects answers *ADF's* questions about what drives him, and how he has tackled the challenges posed by the pandemic



Damien Lee

## WHAT MADE YOU WANT TO BECOME AN ARCHITECT?

I grew up with architecture in the blood. I was fortunate to travel for holidays in Europe as a child with parents (one of whom was an architect) who opened my eyes to my surroundings, and started the process of teaching me to look. My mother jokes that if my father had lived until I was older, he might have put me off architecture because he knew first-hand what a tough profession it was – blissful ignorance is often the best way to start!

# WHAT ARE THE BEST AND WORST THINGS ABOUT PRACTICING IN LONDON?

The worst things about working in London (and the UK) – the restrictive, almost stifling controls over development – are what drives one of the best things: the ingenuity and creativity of the responses.

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

Responding to this question at what appears to be approaching the height of Covid's second surge, and being one half of a working couple, holding together home school and professional roles, I am finding it a long haul. There is no doubt that the



DISRUPTING THE TRADITIONAL CARE HOME MODEL

WGP Architects' contemporary scheme in Southwark has a fabric-first approach and "slick" interiors

new skills we have learnt in the last year are helping us be more effective this time round, and it will be interesting to see how the changes influence work habits in the post-pandemic future. However, for me, nothing compares to the buzz of working together in a creative environment – I cannot wait to get back into the studio!

## WHAT IS YOUR FAVOURITE SECTOR TO DESIGN FOR CURRENTLY?

I believe the skills of good architects are transferable between sectors, and transcend the trend toward professional specialisation. Involvement in a range of sectors keeps things fresh and stimulating. This approach accepts a reliance on the specialist knowledge of the consultant team to deliver excellent buildings, but buildings are so complicated that this is inevitable even for those that limit themselves to a specialisation. My time at Eric Parry Architects has given me a broad spectrum of experience, including residential developments, schools, and commercial developments. At WGP I am enjoying a

change of diet, including a push to advance the quality of design in the care home sector – a typology that I feel has not received the attention it deserves.

## WHAT MADE YOU WANT TO JOIN WGP?

I had known (directors) Phil Waind and Sonya Gohil for a long time, and had admired what they, and partner James Potter, had achieved – building up the firm from nothing over the last 15 years. They have plans to expand to the next level, and saw me as having the experience of a larger practice, and design pedigree, to help them achieve that goal. After more than 14 years at Eric Parry I was ready to spread my wings. It's not the sort of offer that comes up often, so I took the leap.

# DO YOU ENJOY GETTING INVOLVED WITH SUBCONTRACTORS ON SCHEMES TO GET THE DETAILS RIGHT?

I find working with and learning from the craftspeople and technicians who are at the



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coalface hugely rewarding. One of the great thrills of being an architect is seeing, from the centre, this great web of interconnected organisations and people, all striving towards a common goal. It also focuses the mind when working up a detail late into the night that if you get it wrong, you can cause a lot of people a lot of difficulty! The best contractors are the ones who see that value in bringing the architects and the craftspeople together and actively facilitate that process.

## ARE YOU A 'BIM JUNKIE' OR IS IT AN OBSTACLE COURSE?

Having been closely involved in the transition to BIM in my previous firm, I am well placed to support WGP Architects on their journey. It is a challenging process, but an inevitable shift, which will undoubtedly pay dividends in quality and efficiency if we are able to manage the misconceptions that remain prevalent in the industry. The key is to understand BIM as an information management tool that reinforces the core architectural skills which remain unchanged. At its best, it brings the design team closer together in the collective endeavour of designing and delivering buildings.

## WHAT'S THE BEST PROJECT YOU'VE BEEN INVOLVED IN?

The opening concert for the Brighton College Music School, designed by Eric Parry Architects, was a hugely cathartic and emotional handover for a project that I had poured my heart into for the better part of four years. It taught me hard lessons from both the best and worst the construction industry has to offer. The end result is a jewel of a building that I am proud to have been involved in designing.

#### DO YOU THINK THAT RESTORING AND REUSING OLDER BUILDINGS SHOULD BE CONSIDERED AS 'ARCHITECTURE' AS MUCH AS CREATING SHINY NEW LANDMARKS IS?

There's no question about this. Not least because in the 'old' countries of Europe, new buildings account for only a fraction of the built environment. So if we are going to address the societal issues of housing, deteriorating school and hospital infrastructure and so on, whilst minimising our impact on the environment, we must work with what we already have. The ingenuity and creativity of the architects working in the UK, as

created by the restrictive boundaries within which we operate, mean that we have developed the skills to lead the way in adaptive reuse.

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

It requires both these things, along with many other complementary skills. The best are polymaths, who recognise architecture is a collective enterprise. It requires the complementary skills and knowledge of others to help architects to achieve their vision. Of course, all the effort is not worth much if the work doesn't stand up to critical scrutiny. It is way too hard a business to waste the effort on delivering mediocrity.

#### WHAT'S YOUR BIG GOAL FOR 2021?

We've had such a bleak year, but I am confident that the glimmer of light on the horizon will materialise as one of the brightest springs in living memory. The pandemic has slightly delayed WGP's plans for expansion, but we are aiming to come out the other side running.

Damien Lee is a director at WGP Architects

# space to insulate



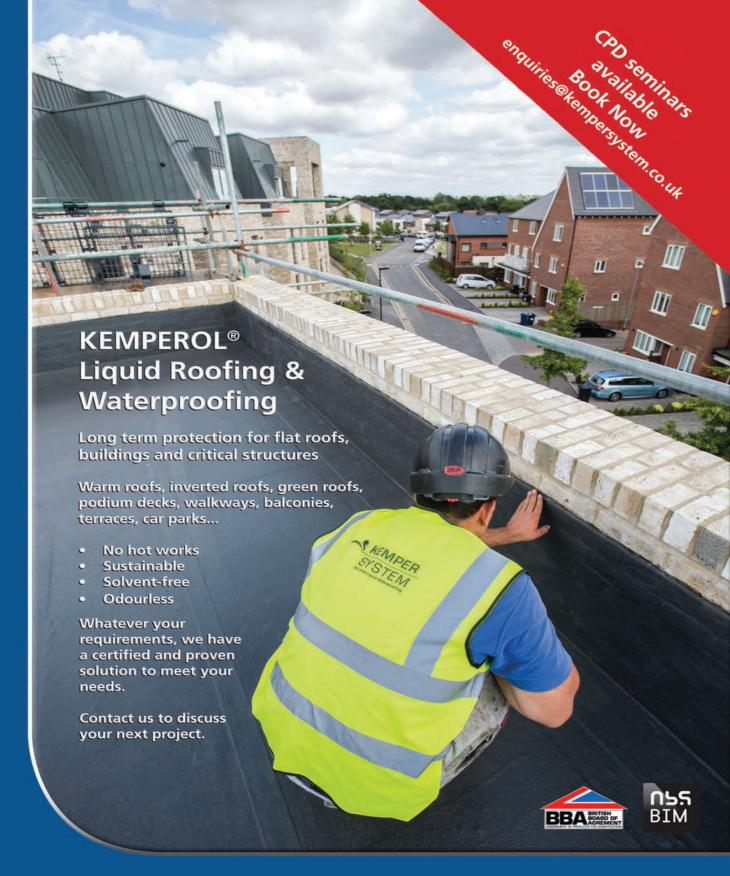
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**CUPA PIZARRAS LAUNCHES ONLINE CPDS FOR ARCHITECTS & SPECIFIERS** 



CUPA PIZARRAS, a world leader in natural slate, is now hosting two online CPDs. The first of the CPDs will discuss the technical and design criteria for specifying slate, while the second will cover the benefits of using a natural slate rainscreen cladding system. Both are free to attend with tickets available via eventbrite. Terry Collins, specification manager at CUPA PIZARRAS commented, "We have developed the online CPDs to ensure specifiers can still access key information during the pandemic and for when they are working from home." www.eventbrite.co.uk/o/cupapizarras-world-leader-in-natural-

slate-29672279119

THE MAGIC OF GLASS -**HOW TO SPECIFY** 



As part of its 'How to specify' series, George Barnsdale has launched its latest CPD - 'The Magic of Glass' which will explore the importance of glass specification in achieving the best outcome for any given project. It will investigate how glass was developed over centuries into the highly technical product it is today. Available free of charge for architects and specifiers by webinar on Wednesday 20th January 2021 at 1pm. Sign up at www.eventbrite.co.uk/e/themagic-of-glass-how-to-specifyglass-for-architects-tickets-132338729703 01775 823000

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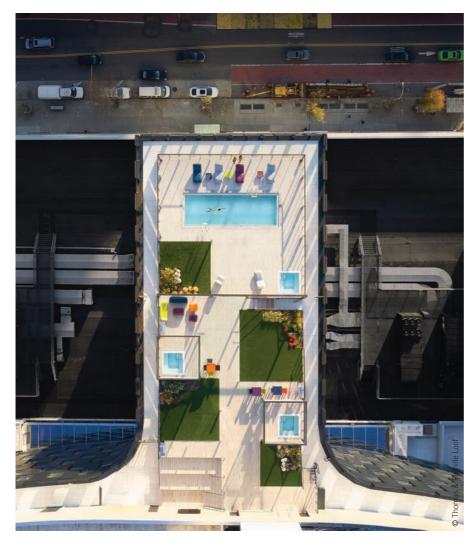
Stelrad Radiators has announced the launch of its latest CIBSE and RIBA approved CPD courses covering the subject matter of towel rail radiators. It can be found at www.stelrad.com. This new CPD course will help attendees understand the history and background behind the evolution of the central heating system and the use of tubular radiators. The UK market for tubular radiators is around the one million mark, so a not an unsubstantial slice of the marketplace - it's certainly more than simply a niche market nowadays. 01709 572279 www.stelrad.com



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# INTERNATIONAL FOCUS

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# THE SMILE, NEW YORK BJARKE INGELS GROUP (BIG)

The Smile, designed by Bjarke Ingels Group (BIG), is a 260,000 ft² mixed-use residential development in Manhattan's East Harlem neighborhood. Set between two existing buildings, The Smile has been designed to gently curve inwards as it rises upwards to bring ample daylight into the residential streets while enlivening and connecting to the lively Harlem neighbourhood. The facade takes inspiration from the moon's surface, and blends with the black and red brick of the existing buildings. The blackened stainless-steel interlocking panels handmade in Germany are configured so that each element reflects the sky and light slightly differently, resulting in varying shades of black. The interlocking checkerboard pattern facade panel system allows for floor-to-ceiling windows in each unit, creating exciting views of the city in all directions.



## MARTIN MODERN, SINGAPORE ADDP ARCHITECTS

ADDP Architects have unveiled the design for Martin Modern, an ambitious urban project consisting of two 30-storey towers that they say will "uphold the highest standards of sustainable architecture." Surrounded by gardens, the structures are limited to a 20 per cent footprint of the 1.6 hectare site. The tower blocks are orientated to allow for unobstructed views toward the internal landscaped space, while the higher floors provide a distant view of Singapore's Marina Bay. In addition, both towers host rooftop gardens that provide "enhanced greenery" to the already verdant roof space. Within each unit, generous window heights promote air ventilation, while private enclosed spaces and balconies will allow for an extension of indoor-to-outdoor living space.



# ZHONGSHAN OCT HARBOUR MALL & APARTMENTS, CHINA LWK & PARTNERS

LWK + PARTNERS have revealed its winning designs for two of the most prominent components of Zhongshan OCT Harbour, the riverfront retail mall, which is expected to be the site's visual landmark, and the apartment blocks, which define the topmost part of the overall skyline. Last year, the practice completed the masterplan based on a 'One Ring, Two Hearts, Three Belts, Six Zones' concept. The architecture of the mall and apartments pays respect to the local waterscape through a "sensible mix of tradition and modernity," said the architects, with the aim to "recreate Zhongshan's version of the glamorous Shanghai Bund."



#### HUANGGANG PORT AREA, CHINA ZAHA HADID ARCHITECTS

Zaha Hadid Architects have revealed the masterplan for Huanggang Port Area in Shenzhen. The masterplan will be an important node of the Guangzhou-Shenzhen Science and Technology Corridor. Reconstruction of the Huanggang Port building will enable the port's 1.67 km² of parking lots and cargo inspection areas to be redeveloped as a national centre for technology innovation. Centred around two large public plazas, the Huanggang Port Area masterplan defines three interconnected districts: the port hub, collaborative innovation area, and port living zone. In addition to the two civic plazas, each smaller cluster of buildings has its own 'nucleus' of an outdoor communal square ensuring spaces for nature are integrated throughout the masterplan that will also create a green belt of parklands and wetlands along the Shenzhen River.



## 150 EAST 78TH STREET, NEW YORK ROBERT A.M. STERN ARCHITECTS

A new exclusive condominium development designed by firm Robert A.M. Stern Architects is currently under construction in Manhattan's Upper East Side. Located on the corner of Lexington Avenue and East 78th Street, 150 East 78th Street's facade features distinctive handset Indiana limestone, patterned brick, and ornamental metalwork. The 16-storey building's overall aesthetic is "refined and distinguished" said the architect, featuring arched windows, limestone pilasters, and rich green metal and glass conservatories. Ranging from three to five bedrooms, the building offers half-floor, full-floor, and duplex residences, each with direct lift access into a private entry vestibule.



BUILDING

BEIJING DAXING INTERNATIONAL AIRPORT CHINA

# Fluid dynamics

Aiming to set a new standard for air transport, the dramatic curves of ZHA's first airport are as much the result of a need to provide maximum throughput, as aesthetic aspiration. The project's lead architect tells Jack Wooler how the team explored the evolving role of architecture on the project

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he new terminal for China's capital,
Beijing Daxing International Airport
– designed by Zaha Hadid Architects
(ZHA) in collaboration with French
planners ADPI is a triumph of highly
functional design which demonstrates the
value of architectural involvement
throughout major infrastructure projects.

Despite the striking forms achieved by the practice working with Buro Happold and a range of other consultant firms, the design was above all else, a product of the Government's desire to 'process' passengers as quickly as possible, in the smallest footprint practicable.

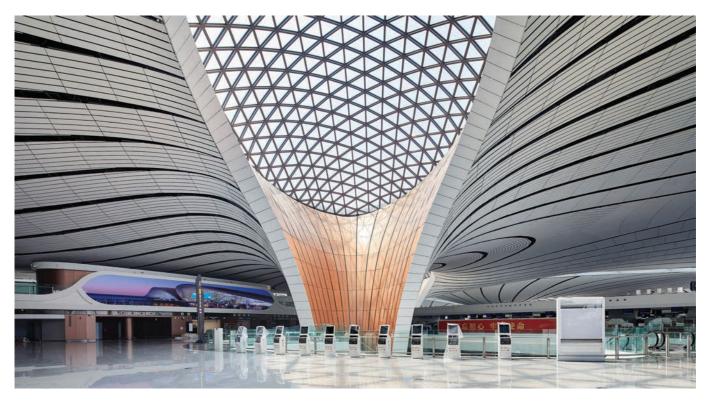
This high throughput requirement, briefed to ZHA via the Chinese Government's Local Design Institute, led to the practice producing a relatively compact, radial configuration. This would mean passengers on foot could reach the farthest boarding gate in less than eight minutes from the central terminal area.

Opening in 2019 after less than five years of construction, the terminal (which forms part of a £50bn airport project) is intended to be seen as an example of sustainable, functional design, and to serve as proof of concept that when architects and designers are involved throughout an entire project, good design means not only beautiful aesthetics, but dramatic savings of time and money for clients and users alike.

#### Flowing forms

Having been nicknamed 'the starfish,' which it resembles viewed in plan, the airport consists of a central hub, where four

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stacked levels provide the typical terminal functions of a modern airport, and five piers extend to the apron, and surrounding taxiways beyond. Three of the piers have aircraft stands on both sides, the remaining two – those closest to the main entrance which faces a major road, have stands only on their rear sides.

A further covered 'leg' extends northwards landside of the hub, providing circulation to the car park, rail station and a landscaped public realm on the other side of the major road abutting the airport's frontage.

Covering the entire structure is a vaulted 'shell-action' roof with the long sweeping curves and flowing organic shapes that are a hallmark of ZHA projects.

Inside, huge sculptural columns (eight in total, with six arranged in a circle and two closer to the entrance) hold up the space frame structure and bring natural light in, thanks to skylights forming the roof of their hollow, C-shaped forms. These are complemented by linear skylights running from the central dome along the piers, augmenting the daylighting levels and providing an intuitive, simple aid to navigation throughout the building, guiding passengers to and from the central courtyard.

Intended to echo traditional Chinese architecture - which often has

interconnected spaces organised around a central courtyard – the terminal's design offers generous public spaces created by the roof's huge structural spans – up to 100 metres – providing a high degree of flexibility for any future internal reconfiguration.

Furthermore, by separating and stacking each subset of the airport's functions vertically – with departures, international and domestic arrivals each placed on their own floor – convenience for passengers and flexibility in operations has been maximised. In addition, the overall central processor footprint has been kept as compact as possible as a result.

Thanks to this design, as well as the integration of a transportation hub in the basement levels, Beijing Daxing has reportedly saved 1.6 million hours for nearly 30 million passengers every year since opening, compared with previous provision.

#### The tale grew in the telling

Taking things back to the very beginning, however, to explain how the concept became reality Cristiano Ceccato uses the adage, "the tale grew in the telling."

The spark of the project was first ignited through the exponential growth of aircraft usage in China, he says, particularly around Beijing.

The existing airport in Beijing hosted over 100 million travellers last year, believed to only be surpassed globally by Hartsfield-Jackson Airport in Georgia, US. Because of air traffic and congestion in the skies, however, there was only so much throughput available in the existing airport, "so it made sense to start from scratch."

While these embers burned among the Chinese air transport authorities, ZHA was already busy working on other developments in the centre of Beijing. The Government was reportedly impressed, and asked the practice if it would participate in the design shortlist for a new Beijing airport.

With part of Ceccato's personal remit being to expand ZHA into other sectors it hadn't yet established itself in, he says the practice pulled out all the stops to win the project, and gain a foothold in the aviation space.

The team saw it not just as a chance to contribute to a "new national gateway," he says, and thus attain a high profile in the sector, they also had a strong affinity with the project due to the practice's highly international nature, and therefore familiarity for regular global air travel, meaning they knew the issues to resolve for passengers.

"Air travel is a unifying and democratising experience, one that all at ZHA have a connection to," says the architect. "Unless you're using a private jet, everyone who travels in this manner goes through the airport together – and we wanted to change this experience for the better."

Zaha herself was intimately involved for the same reasons, he tells me: "She really cared about this project – when we entered the competition, she personally came to Beijing and presented it herself, with all its technicalities and functionality. It really is one of her legacy works."

The client was impressed with her efforts, and with a masterplan from Netherlands Airport Consultants (NACO) already commissioned the previous year before, the practice was asked to merge with another competitor, French team ADPI, and produce a full design submission. With ZHA leading the architectural design integrating ADPI's planning principles, the partnership would work alongside the Chinese Local Design Institutes (BIAD and CACC) to realise the project's aims.

ZHA, from this point on, was involved at different stages of the design process, working on the interior fit out as well as the exterior, retail planning and other facets of the project, through a series of different agreements.

Ceccato believes this deep partnership, with the architects being involved essentially from the ground up, helped to create a "truly unified" vision with what he says was a "very generous and visionary" client.

#### A clean slate

The client had acquired a large, empty greenfield site in Daxing District, south of Beijing, for the project, providing a "clean slate," says the architect.

Unlike at Beijing's existing main airport – and most urban infrastructure developments – they were not overly restricted by space, though it remained a goal for the project design to remain compact for ease of passenger navigation and efficient aircraft operations.

As a result of the compact nature of the terminal, instead of designing something long and thin to fit alongside the necessarily lengthy strip of land needed for runways, here the team could design a system of branching runways from a central hub of taxiways. This was the pragmatic key to forming the splayed "hand"-like shape of the building, which Ceccato prefers to 'starfish,' – having five widespaced 'fingers.'

"We came upon this hand shape very intentionally," says Ceccato. "The way you start looking at the morphology of a terminal is dominated by runway spacing; the greater surface area you have between the 'fingers,' the more aircraft you can park."

With more aircraft able to park relatively close to the centre of the terminal without excessively long piers, passenger walking time across the building is minimal. This eliminates the need for automated trains to each gate, an idea the client was particularly keen on.

Such transport is expensive to build, to maintain, and, "most importantly," says Ceccato, "it becomes the weakest link in the chain."

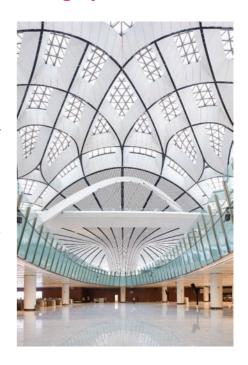
And, past removing the need for such transports, the hand shape enabled the team to improve the airport experience in the most appreciated way possible – by increasing the speed of user navigation.

#### Stacked functions

In order to further increase the speed of navigation, it was vital that the airport's many functions be arranged carefully.



"Zaha really cared about this project — when we entered the competition, she personally came to Beijing and presented it herself, it really is one of her legacy works"





Functions all come together as a layer cake, speed around the building is increased, and the walking distance becomes much less



As such, instead of placing the airport's functions on a horizontal plane as in many airports, at Beijing Daxing they are stacked on top of each other, with vertical connectivity where necessary.

The uppermost Level 4 is the conventional departure level, including the check-in island and bag drop off. Level 3 is a higher throughput departure level from which frequent and domestic fliers can pass through security faster using smart, 'self-processing' gates with digital boarding pass technology. Level 2 is for domestic arrivals, Level 1 for international arrivals, and below that is a basement level for regional bus, taxi and rail transport entrances, and a further level below with the railway station and platforms.

Due to the stacked approach, "functions all come together as a layer cake, speed around the building is increased, and the walking distance becomes much less," explains Ceccato.

#### Tempered & tailored

The project is the largest single building the practice has ever taken on before (and could be for some time), in a location of climatic extremes – Beijing's continental climate going from -20 degrees in the winter to 40 degrees in the summer.

For these reasons alone, realising the team's design aims was no easy task. While ZHA had already built several projects in China and "knew how Chinese contracting worked," the architect says there were many challenges working in this location.

Though working so closely with the client proved beneficial in the long run, Ceccato says it proved difficult to meet the speed of programme they desired, to navigate national politics, and to ensure continued authorship and design fidelity throughout the project.

"In any country, while the work needs to have a hallmark and identification of your practice, you must always temper and tailor your project to the capabilities and desires of that location," notes the architect, explaining the methodology used to address these challenges.

First, a risk management procedure was undertaken to identify buildability with the technological capabilities and budget that would be available, as well as produce a realistic project time frame "on the assumption that the entire shell and core would be procured on the Chinese construction market," says Ceccato.

Then, the entire building was designed and modelled in 3D, starting with physical

study models of different court areas and buildings, and eventually moving to full BIM construction models by the local partners which could be directly executed by contractors.

Once completed, this allowed every contractor, all the way down to earth movement simulations for groundworks, to work together off a single model, ensuring their "unified vision" was executed as designed, and allowing the project to be constructed at pace.

#### **Structure**

To achieve the project goals, it was necessary to prioritise use of materials most readily available to the team – largely concrete and steel.

The roof is perhaps the most impressive and challenging aspect of the design and construction, specified as a large scale steel frame built out of "cannon ball style" welded spheres.

Covering over 350,000 m<sup>2</sup>, this large-span structure is a complex hyperboloid steel grid containing more than 170,000 steel members, and supported by the C-shaped columns which seamlessly connect with the roof curvature.

Refining the design in conjunction with Buro Happold's structural engineers, the team studied the structural configuration, loading, vertical support system reactions, and the deflection and displacement, in painstaking detail. In total, 38 different cross section sizes were eventually employed in the superstructure.

#### Sustainable example

Amplifying the pressure on this high-profile project still further, Ceccato says the client wanted to use the airport in part as a "showcase example of China's achievements in sustainability."

As such, the project had to be designed and built to the China 3 Star environmental rating, which is the highest possible sustainability accreditation in China.

To enact this, PVs are installed on the airport's roof to provide a minimum capacity of at least 10 MW, and centralised heating with waste heat recovery is supported by a composite ground-source heat pump system incorporating a concentrated energy supply area of nearly 2.5 million square metres.

Complementing this, the airport also utilises a rainwater collection and a water management system that employs the natural storage, natural permeation and natural purification of up to 2.8 million



cubic metres of water in new wetlands, lakes and streams. This not only prevents flooding, but also counters the summer 'heat island' effect on the local microclimate.

In addition to these added measures, the terminal's design in itself benefits sustainability, by the "simple fact it is walkable," says its lead architect. Efficient aircraft operations and reduced taxi times further contribute by reducing the amount of time planes consume fuel on the ground.

"In this manner, the project truly lives up to our and the Government's ambitions to set an example," says Ceccato. "Our practice is very committed to environmental performance and safeguarding the environment, so we are very pleased that the completed project has been performing as desired."

#### Finished product

Despite the complexities and demanding goals, after only four years, the team landed a successful result in Daxing.

The airport opened on 25 September 2019, six days before the 70th anniversary of the People's Republic of China, in a ceremony attended by Chinese president Xi Jinping.

Now in full operation, the project is expected to host 72 million passengers a year by 2025 with an additional satellite pier. It has been widely praised since its inception for its functional and practical design, and is deemed likely to set a benchmark for airports worldwide.

Ceccato fondly remembers the fact that

following the opening ceremony, British Airways were the first international airline to fly into the new terminal. This memory has no doubt gained some poignancy given ongoing restrictions on air travel.

"The somewhat intentional symbolic connection with the project's British architects made the client very happy, as did the entire finished product," he says. "Everyone was thrilled; the project had been a huge success."

#### Architecture in collaboration

Looking back on this success, the architect believes the key was a deep collaboration across teams, plus a holistic role for architects throughout the project.

"It's important to remember that the role of architecture has evolved," explains Ceccato. "Architects may sometimes do some planning and their bit of a contract and move on, and if they're lucky, that might result in something that simply looks nice – but I don't think this is good enough."

Instead, he proposes, by working tightly together with the client from start to finish, as was the case at Beijing Daxing, architecture can play a major role in "functionality and perception" also.

"Rather than only looking at what you're contracted for," he continues, "working in this way encourages you to take on a wider social contract and really help change the place you're creating for the better."

"If that gets remembered, as it was here," Ceccato concludes, "architecture can go so much further than aesthetics." "Air travel is a unifying and democratising experience – and we wanted to change this experience for the better"



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#### Tim Halls leads new build roofing team at Sika into the new year



Sika's Roofing team has appointed Tim Halls as National Sales Manager for New Build roofing in England and Wales. Tim returns to the UK after spending the last 10 years working for Sika globally in Saudi Arabia, China and Vietnam. Throughout this period he has promoted Sika's roofing products, systems and technologies to a vast number of worldwide customers. "Sika is a global company that has allowed me to have some wonderful adventures. I have worked with some of the world's largest consultants and contractors while at the same time experiencing other cultures and Sika businesses. But this position in the UK was a great opportunity and one I couldn't refuse, I'm looking forward to working with our strong team of 11 salespeople in the new build sector." Sika's Roofing team in the UK provides three distinct roofing solutions for its customers: single ply membranes, liquid applied membranes and bituminous membranes from its leading brands – Sika Sarnafil, Sika Liquid Plastics, SikaBit and Sika-Trocal. As well as market leading technologies, Sika has expertise within its technical and applications support for both new build and refurbishment flat roof construction.

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BUILDING

THE AABEN, MANCHESTER

# Social housing with a human face

A new Build to Rent project for a housing association in central Manchester saw Mecanoo use a difficult site cleverly to provide a mix of human-scaled dwellings. James Parker reports on how it avoids the anonymity of the area's previous social housing

Since its founding in 1984, Dutch practice Mecanoo has always had a strong drive to create good quality affordable and social housing projects, with a design ethos that housing that's cheaper to buy or rent shouldn't be precluded from being beautiful.

Continuing its focus on elevating social housing, a project in Hulme, a deprived

part of central Manchester enabled the firm to enact its founding partner Francine Holden's theory that "the present and future is still about urban renewal." The firm already has a large presence in the city, where it set up an office to support recent major schemes. These include the 2015-completed 'Home' theatre and cinema project, and the colossal Manchester

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Engineering Campus, currently under construction for Manchester University. This connection was one of the factors that helped Mecanoo win the competition for the Hulme housing project, but their long-standing reputation in housing design also spoke for itself.

The scheme in Hulme is humbler than Mecanoo's other Manchester schemes at 9,500 m², comprising a mixture of 85 apartments and 20 townhouses, both of which will be at 'market rent.' However, the way it provides a variety of human-scaled volumes at the client's required density on a long, narrow site – not to mention how it connects users to each other and landscaped areas to foster community spirit – renders it just as important.

#### The site

'Urban renewal' in the area around Hulme's Leaf Street has seen several large-scale attempts at housing Manchester's lower-income communities over the last century, making this the fourth generation of housing on the site. Its first regeneration was in the 1930s, with what project architect Dick Van Gameran of Mecanoo (also a housing professor at Delft University), says were "typical"

interbellum, relatively modest apartment buildings," replacing some of the Victorian terraces. However after the war, an "incredibly drastic tabula rasa approach" saw all of those terraces removed, the notorious Hulme Crescents erected in their place.

This project comprised four vast C-shaped, brutalist concrete blocks, connected by multi-level bridge walkways. However, following the death of a child falling from a walkway in 1974, they became abandoned by residents, and increasingly derelict until demolition began in 1993. Then some "very different, but not very appealing" housing was erected, which remains on the other side of Leaf Street, which the new scheme runs the length of. There is also new student housing, with the university encroaching further towards the residential areas of Hulme.

To the east 'rear' elevation of the new scheme (dubbed 'The Aaben' by the client, housing association One Manchester, after a local cinema demolished in 1993) is the sunken main thoroughfare, Princess Road. The large steel arch of Hulme Arch Bridge runs over the road, the new building's entrance placed to face this local landmark. The tight rectangular site, hemmed in by



streets on all sides, was the first challenge for the architects to grapple with.

#### **Brief**

The original brief included a parking garage for residents, and with a drive to include good outdoor space in the scheme, Mecanoo designed a raised, communal garden, retaining trees on the site, to cover it. This would have sat above a single-storey structure, and connecting low-rise apartment blocks.

However, despite the practice winning the competition on the basis of this scheme, the client then changed the brief. They decided they didn't want to include an enclosed car park, as they would reduce the number of apartments in favour of townhouses for families, with car parking space at street level instead.

#### Meandering

The architects had to "rethink the whole project," says Van Gameran, and revisited the site, deciding to maintain the approach of retaining trees and providing strong landscaping to the scheme, combined with private outside space for residents. So in order to avoid separating the townhouses and apartments, and therefore unifying the

scheme, the architects came up with the solution of a long, 'meandering' flat-roofed volume snaking its way across the slim site, and framing green spaces. This shape would keep apartments connected to those public external areas, which are also accessible for the wider community. The three-storey townhouses are arranged in a near-quadrant at the 'snake's tail,' the volume closing to form a courtyard of back gardens.

The undulating frontages particularly benefitted the eastern flank of the S-shaped volume, along Princess Road, says Van Gameren, which could otherwise have been a forbidding 'back side' to the building. "We wanted to avoid it being an anonymous and not very pleasant space because there's a pedestrian and bicycle route." The resulting elevations present "fronts on both sides," he says.

The building steps down from five- and four-level apartments at the south to three levels in the townhouses to the north, the massing here helping The Aaben blend with surrounding 1930s housing. The apartment blocks, common in Holland, can create density that competes with tower blocks in a more open setting, Van Gameran asserts. He says they "create a more urban feeling"

The apartment blocks, common in Holland, can create density that competes with tower blocks in a more open setting

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The Aaben is a conscious move towards something which smacks far less of ego, and is also somehow equally powerful for that

than terraced housing," and provide an "intermediary scale which is urban but still humane."

#### **Continued connections**

With social housing schemes having had a problematic past when it comes to outdoor spaces, Van Gameren says the designers were aware "it was very important to create safe outside space" at The Aaben. From the initial competition submission, connection to the outside was a major driver, and this remained in many aspects of the built scheme, such as how entrance halls open up to the exterior, says Dick. He adds that while safety was key, "we didn't want to fence the project off, you see that too much around housing in England."

The meandering shape aided this "defining of protected spaces," he says, with the 'snake's head' containing a glazed entrance lobby as a "welcoming gesture," whereas on the western, Leaf Street side, there's a courtyard garden with a playground. The landscaped public spaces are connected to each other via generous 'gates,' ie apertures in the building which also mark entrances to the apartments. The gate that effectively bisects the apartment section of the block at ground level is funnel-shaped, widening towards the larger central landscaped courtyard, to create what Van Gameren calls a "picturesque" view through to the more southerly courtyard. A further gate between the

apartments section and the townhouses both adds permeability and reinforces the connection of the upper stories as one volume.

The entrances were made as transparent as possible, with glass on both sides, to increase the sense of safety, and the gates between outdoor spaces being close to these light-filled areas avoids the former being "dark and creepy," says Van Gameren. It also means a greater volume of people using the entrances is likely, making them "spaces that are watched and used," reducing the likelihood of them becoming venues for antisocial behaviour.

The fact there are four entrance lobbies for the apartments not only reduces the long access decks or internal corridors of past projects such as the Hulme Crescents. It also further helps create movement through common spaces across the project rather than risking quiet corners. On the other hand, with broken-up volumes served by several entrances, a single, more anonymous lobby could be avoided. On each floor there are five apartments at most, "so at least you know the other people on your corridor," says Van Gameren. "More than 12-15 apartments per lift or staircase, and it starts to become anonymous, and people take less care of the communal spaces."

The site has new cycle and walking paths, helping connect the residents and the scheme with the wider city, and aiding the project's sustainability credentials. Further 'green' features include air source heat pumps, thick windows and insulation, and a district heating scheme.

### Playing with bricks

For the key material for cladding the project, initial conversations at Mecanoo saw ideas bandied around on a variation to London stock brick. But, following a discussion between Dick Van Gameren and practice partner Francine Houben, the project team went for a lighter colour to better fit the red brick vernacular of the nearby 1930s and 1990s housing. The Scala red facing brick is laid in both stretcher bond and a 'specialist bond,' with dark mortar and recessed joints. However, in contrast to many surrounding buildings, there is more colour variation within the brick itself, and therefore nuance to the new building's exteriors, says Van Gameren.

The most distinctive visual feature of the facades is the vertical brick fins, one brick wide but in groups of differing height, which cowls the entire length of the building. Changing as the shadows they create lengthen, the fins play against the horizontal rhythm of the overall volume and also bring down the scale further. "The contrast is nice, but also starting at different levels enhances the idea of the meandering change in shape, height and position," says Van Gameren.

In addition, nearer ground level the architects have here and there introduced a playful spottiness to the facades, with a sprinkling of darker bricks, and a 'hit and miss' section framing the gate connecting the public spaces that omits bricks at regular intervals to create a lattice effect. He says that the slightly experimental approach (although the architects have gone further on many Dutch projects for example, inspired by the Amsterdam School), represented a "big decision" to be made with the builder. Van Gameran says that they were unable to guarantee the facades, concerned about performance in freezing weather, but as he protests, "It's never happened before, so why should it happen now?"

Further research and demonstration of reference projects which had stood for many years in the Netherlands persuaded the builder however. While the contractor was challenged by the brick artistry required, the architects were taken aback by the decision to use a steel frame on the project "which I've never seen on a project like this in the Netherlands," says Van

Gameren. There, an in situ concrete structure would be poured, with services embedded into load-bearing internal walls, requiring very early decision making. However, in the UK, he says Mecanoo have "had to get used to" the fact that layers of material would be fixed to a frame of either steel or concrete.

#### **Balconies**

Residents' private external space is provided by sizeable balconies, which are present in most of the apartments and townhouses (some of the latter also having roof terraces which work as loggias). Van Gameren says the balconies are very important for relating the apartments to the world outside and the courtyards within the scheme, helping create a community feel.

"In low rise architecture I think it can work well, and economically, it's simpler to deliver the space with balconies than with internal loggia," he says. With the balconies facing into the courtyards as well as out to the streets, there is an opportunity for them to help foster communication and appreciation between residents, hopefully enhancing the cohesion already likely to be possible within what is a relatively small-scale scheme.

#### Conclusion

Taking its cues from the existing red-brick architecture of Manchester, this scheme however moves away from both the historic, yet problematic ranks of the city's past terraced housing, and the austere, isolated towers and monoliths of 20th century social architecture, to provide something more readable and friendly. Designed with care by an influential practice, it has potential to inspire designers of further affordable schemes, by providing a pragmatic halfway point that balances density with outdoor space, form and safety in a refreshing, even elegant way. It is far from showy, and yet shows the way to housing which embraces its community without trying to slavishly emulate the past, and celebrates its urban nature in so doing.

The major housing schemes of the mid-20th century, however well-intentioned, produced some of the most inhuman and anonymous architecture we have yet seen, much of which is reviled, but some celebrated albeit on its own terms. The Aaben is a conscious move towards something which smacks far less of architectural ego, and is also somehow equally powerful for that.





#### **PROJECT FACTFILE**

Client: One Manchester Architect: Mecanoo Project management: R-gen

Structural engineer: Renaissance
M&E engineer: Max Fordham
Brick manufacturer: Vandersanden

Group

**Acoustics advisor:** Max Fordham **Cost consultant:** Simon Fenton

Partnership







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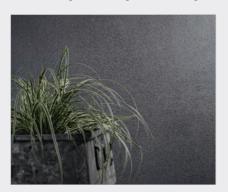


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## Armourcoat launches new clay lime plaster range

ecorative specialist Armourcoat have launched a new natural clay lime plaster range. Clime plasters are designed to improve the quality of living and working interiors and to minimize the impact of wall finishing products on the environment.

Armourcoat are regarded as a pioneer in creating stunning and original



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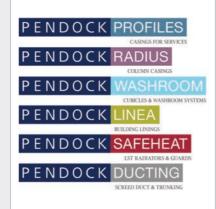
## Pendock rebrands product ranges for easy specification

eading decorative casing and enclosure specialist, Pendock, has introduced a new product branding structure, which groups key products together in six individual ranges to simplify specification and improve access to online product and technical information.

In line with the new branding, Pendock's website has also been refreshed and re-structured to enable architects, designers, specifiers and contractors to easily find the product ranges and information they need.

'Pendock Profiles' includes all pipe and fire sprinkler boxing products, as well as boiler casings, while 'Pendock Radius' brings together the company's six column casing ranges and 'Pendock Linea' covers its extensive building linings and architectural finishing products.

Alongside these, 'Pendock Washroom' provides a comprehensive range of cubicle and washroom systems to meet most washroom specifications and requirements,



whilst LST radiator guards and floor ducting products can be found in the respective 'Pendock SafeHeat' and 'Pendock Ducting' ranges.

Additional project images have been added in every section of Pendock's

re-vamped website to provide clear examples of the practical and aesthetic benefits while technical details, product brochures, drawings and national building specification (NBS) clauses for each of the six product ranges can also be quickly located and downloaded.

Pendock's technical projects manager, Gavin Byram, explained: "Prior to this re-structuring, all our products just fell under the Pendock name and had no clear distinction between the product types or relevant applications. Now they have specific identities, which eases specification and access to information. As we introduce new products, technical details and support information, we will ensure they are available online for viewing and download".

For further information, please visit Pendock's website.

01952 580 590 www.pendock.co.uk

## A new brand identity and logo for Schöck

Schöck will have a new look from January 2021. Innovation has always been a key part of the company's philosophy and the new branding is intended to represent a more authoritative and contemporary look going into the new decade. The 'Schöck seal', represented by two interlocking brackets, combined with the use of upper-case type, symbolises even more strongly the promise of delivering reliable, consistent quality; at the same time maintaining strong relationships between the company, its customers and its employees. The strapline will continue to be: 'Dependable by design'.





Schöck's primary focus is on the development of structural components that make a substantial contribution to building physics — minimising thermal bridges, preventing impact noise in buildings and reinforcement technology solutions. Mike Bucher, CEO of Schöck AG comments: "Schöck has developed very successfully over the last 30 years. Our company is now more innovative and international than ever — and we want to present this to the outside world."

The most striking feature of the new design is the logo. The blue used in the logo is darker and becomes the leading brand colour and

the Schöck name is now presented in uppercase type. "The new Schöck seal stands for a clear promise. It is a symbol of quality and value, of reliability and security" explains Mike Bucher. "These are values that are at the core of our actions, even in times of digital transformation."

For a free copy of the Schöck Thermal Bridging Guide; the Schöck Specifiers Guide or to view the range of downloadable software, contact Schöck or visit the website.

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### JACKON's ICF solutions for the UK market



New construction systems from JACKON are revolutionising the UK construction market. JACKODUR ATLAS Extruded Polystyrene (XPS) insulation and formwork system for constructing foundation slabs for energy-efficient houses.

THERMOMUR insulating concrete formwork system (ICF) comprises a robust pre-formed block manufactured from Expanded Polystyrene (EPS) with a hollow core, which is filled with concrete during construction. The systems enable fast and easy installation on site, bringing the advantages of very high insulation levels, elimination of thermal bridging, air tightness, moisture and mould resistance.

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### Thermoblocks support CLT structure



The redevelopment of a primary school for Central Bedfordshire Council has included the specification of **Marmox** Thermoblocks to tackle the critical issue of thermal bridging around the building perimeter, as

well as beneath cross-walls to the main structure. The Senior Architectural Technologist on the project for ECD, John Heaney, explained: "There are other insulation products available on the market, but none with the micro concrete columns which provide high load carrying capacity within the Thermoblocks and are therefore ideal for use in relation to the higher weight of a CLT structure."

01634 835290 www.marmox.co.uk

## Homes receive first-class protection



The new development of two residential properties at Lime Kilns has been provided with a high-quality VOC protection barrier in the form of Protech VOC Flex from the **A. Proctor Group.** Martin Taylor, Commercial Director of Structureseal

Services commented: "We have successfully used Protech VOC Flex on several VOC vapour protection projects. It offers high-performance protection in compliance with CIRIA C748, is extremely robust and has many benefits which make it easy to install on site." A. Proctor Group can provide safe, cost-effective and value-engineered solutions.

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## **Enhanced thermal performance**



The superior quality of Reflectashield® TF 0.81 breather membrane from the A. Proctor Group has been installed to ensure a highly efficient thermal performance for a series of new housing schemes on Salisbury Plain set to accommodate service personnel

relocating from Germany. Derek Gough, Senior Estimator for Taylor Lane explains: "We use Reflectashield TF 0.81 on all of our projects and in our experience believe it to be one of the best membranes on the market... The use of Reflectashield TF 0.81 enabled us to achieve the required U-value whilst using the minimum amount of insulation."

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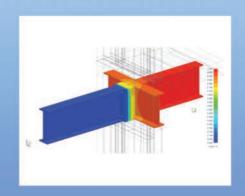
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## New Soffit system delivers fire protection at every level



An advanced and lightweight prefabricated brick slip soffit system from IG Masonry Support, manufactured to meet A1 fire rating regulations and suitable for applications over 18 metres, is now available. It is the B.O.S.S. A1, a prefabricated brick slip soffit system, designed to be quickly and easily bolted to IG's Welded Masonry Support (WMS) and meets a growing market need for improved fire safety on tall buildings. The prefabricated components are delivered to site complete with brick slips adhesively bonded and mechanically secured to the brick carrier unit using only A1 Fire-Rated materials making it Document B: Fire Safety compliant – suitable for all building heights. B.O.S.S. A1, is the first product of its kind to be carbon neutral, offering architects and building owners the ability to deliver visually stunning designs alongside a solution that offers zero environmental impact. Its impressive credentials, all of which are BBA certified, offer a technically advanced solution that meets the required aesthetics by hiding structural steelwork to give the illusion of unsupported brickwork.

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### Garador launches new GaraGlide roller garage door



The new GaraGlide roller door from Garador is electrically automated, so homeowners can open and close their door at the touch of a button. The door itself is powered by a tubular drive motor and is supplied with two remote hand transmitters as standard, with the option of either a standard (433 MHz) or bisecur (868 MHz) hand transmitter design.

The door features a wired optical sensor built into the floor seal to ensure that the door curtain stops, in the event of an obstruction. The optical sensor utilises light beam technology, whereby when the beam is broken the door will stop. The GaraGlide has been designed so that it is quick to fit, with a pre-assembled box cover system, pre-drilled guide rails and as little as 12 fixings all round. The GaraGlide has also been packaged so that it's easy to transport to site; the entire garage door fits neatly into just two double-wall cardboard boxes. Choose from 16 colours and two timber effect finishes.

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## Fixfast launches state-of-theart UK manufacturing facility

Fixfast, the leading supplier and manufacturer of quality building envelope fasteners, has added a cutting-edge manufacturing and R&D cell to its UK operations. The new facility in Rolvenden, Kent, allows Fixfast to design and produce its range of fasteners with industry-leading quality, accuracy and speed. The expanded, rapid-response production capacity is an investment in Fixfast's 'Maximum Reliability, Minimum Fuss' customer promise, making the company an even more reliable and responsive supplier of quality fasteners to the UK construction industry.

"We believed adding to our local manufacturing capacity was important and necessary, after seeing shortages from other suppliers during the coronavirus crisis. Now, more than ever, customers need a fastener partner they can depend on. That's why we've invested heavily in new UK manufacturing capability to ensure we're always here for customers when they need us," said

Ken Lynes, Managing Director of Fixfast.

"Everyone at Fixfast is focused on improving the way fasteners are made and used in the construction of better, safer buildings. We're doing that through three programmes; service excellence, technical leadership, and raising standards in our industry. Our new facility in Kent enables big steps forward in each of these areas," added Lynes.

"We've brought together best-in-class machines from around the world for each step of the manufacturing process. This, coupled with the kind of techniques normally only seen in highly advanced industries like aerospace and automotive, means we've created one of the most cutting-edge manufacturing and engineering environments in the UK construction industry" said Michael Edwards, Head of Engineering at Fixfast

The new manufacturing cell uses data to link Internet-of-Things enabled machines in





one of the sector's first Industry 4.0 grade facilities. This data allows close monitoring of each stage of the manufacturing process and deep insight into the performance of the cell. This ultimately gives unprecedented control, so fasteners can be produced with greater speed and accuracy than ever before.

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## Screening makes specification easy as ABC

The choice of screening and ventilation louvres is now as easy as ABC, claims Gilberts Blackpool. The company's new Series WK Kitform Screening Louvre represents a completely new approach to screening systems, that pulls together in one all the best features and benefits currently available on the market. Thus, one core system can form the basis of all screening design and specification. Ian Rogers, Gilberts Sales Director explains: "We have purpose-designed it to be as agile as possible in its scope to combine performance and aesthetics, whilst delivering best value for the installation contractor." Central to the system is a unique design of mullion, which enables screen sections up to 3 m high to be created without the need for intermediate support. A range of 50, 75 and 100 mm blade profiles brings an infinite choice of solidity, transparency, weather protection and ventilation to the screen as required, as blades can be set at variable points within the common mullion. The louvre system is the latest innovation from Gilberts, which has a heritage of pioneering commercial ventilation solutions that stretches back 60 years.

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## **Aluminium Day returns!**



Senior Architectural Systems' #AluminiumDay will be back on social media on Saturday 13th March 2021! This year's theme is 'Invention and Innovation' and Senior is inviting the industry to join in the conversation and

celebrate the versality of aluminium. There's more to aluminium than meets the eye and Senior will once again be celebrating this marvellous material in its dedicated social media event. There will be lots of informative content posted across Senior's social media platforms throughout the day and plenty of opportunity to get involved. You can join in by simply posting using the #AluminiumDay hashtag.

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Industry first as Deceuninck joins BFRC noise reduction scheme

emonstrating its commitment to cutting noise pollution, Deceuninck is the first window systems company to sign up to BFRC's new Noise Reduction Rating scheme. The scheme is designed to help systems companies and fabricators demonstrate the acoustic performance of their products. Using BFRC's recognisable and well-regarded 'rainbow' label, it gives manufacturers a clear sales advantage and makes it easier for homeowners to understand the acoustic benefits of their new windows.

Deceuninck Managing Director Rob McGlennon said: "Noise pollution is a growing problem. There is mounting medical evidence of the severe impact of prolonged noise on people's health, with higher instances of dementia, heart disease and strokes. In lockdown there was a huge reduction in road traffic and it reminded us how peaceful life is without excess noise.

"But with the right tools and technical

innovations the window industry can improve people's homes and wellbeing. BFRC's Noise Reduction Rating scheme is an important development in helping to cut the impact of noise pollution, and we are delighted to be the first systems company to join this scheme. Deceuninck understands the positive impact acoustic windows have on people's health and overall quality of life, and we've invested in systematic acoustic testing of our full product range.

"Much like energy rated windows, the scheme will let homeowners choose windows that cut noise and improve their home environment. We're really excited by this chance to make a difference and make it simpler for fabricators and installers to benefit from this huge opportunity."

Lis Clarke, Operations Director for BFRC, says she is delighted that Deceuninck has chosen to become an early adopter of the Noise Reduction Scheme: "In discussions with Deceuninck it became clear early on



that they had been looking for a system that would measure the acoustic performance of their windows. When we presented the details to Rob and his team they did not hesitate in signing up to ensure their products were the first to be able to demonstrate this increasingly important performance criterion for homeowners. For many homeowners, noise reduction is as important as energy performance."

www.bfrc.org www.deceuninck.co.uk





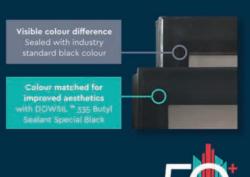
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## **Excellent marks on Cardiff school projects**



A trio of Welsh schools have received upgrades to their thermal insulation thanks to an integrated package of products provided by **Sto Ltd.** Ysgol Glan Morfa, Howardian Primary School and Ysgol Hamadryad have

all had the company's StoTherm Mineral external wall insulation system applied to significantly improve their thermal performance. StoTherm Mineral external wall insulation system features mineral fibre insulation boards and combines unrivalled fire protection and high thermal performance with excellent impact resistance, making it ideal for both new-build and refurbishment projects.

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## Magply puts in strong performance



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exposed to rugged use, as well as the worst of the Kent weather. Specialist sub-contractor Surrey Screed & Renders Ltd applied K-Rend system across the Magply boards as well as an area of insulation panels. With the roof extending to 23m in length, the total parapet is some 160m² in area, with another 40m² of the 12mm Magply boards having been rendered to create a bin store at the rear of the building.

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## The Thames and transformation



07584 680262

redevelopment many years ago. Where men with calloused fingers used to load wood and bulk cargos, more and more residential and office towers have been built over the last thirty years or so, and with them property prices have soared. These properties compete for the best, unobstructed view of the River Thames.

The Greater London population is

approximately nine million and more

people are moving into the city every

year. But building land remains scarce, despite

the Docklands regeneration project which

provided a great deal of inner-city space for

Offering river views was also crucial for the architects of New Pier Wharf. They have staggered and tiered the building in such a way that all residents in the slender tower either have an unobstructed view of the river or look out over the city centre skyline and can see treetops in the local park.

Most of the flats even offer a vista of both. This is thanks to the unusual, step-like and staggered format of the volume, which ensures well-lit, very functional floor plans and makes the absolute most of the space and views.

The architects chose a slender, yellowbrown, brick for the facade, typical in London and similar to the material used in neighbouring buildings and numerous workers' homes on the outskirts of the city. They opted for brass-look ALUCOBOND® tray panels cladding for the window parapets and the sides of the balconies to add a sophisticated shine and to contrast with the rough brickwork.

The architects' facade design has touched on the essence of the Docklands transformation: new, chic and gentrified properties in areas of London which were once rough and dirty. They have fused the myth of the down-to-earth, rough and ready working class city with the capital which is simultaneously traditional and class conscious yet hip.

Anyone who takes the kilometre-long river promenade following every loop of the Thames, inevitably passes this building. Visitors can take a break on the ground floor terrace of the Tower, look across the Thames to Canary Wharf on the opposite bank and marvel at how London has grown and reinvented itself within a mere three decades.





Paul Herbert, Sales Manager www.alucobond.com

#### PROJECT DETAILS

Project: New Pier Wharf, London **Architect: Burwell Deakins** Architects, London Fabricator: RCM Roofing and Cladding Materials Ltd, **Newcastle under Lyme** 

Installer: Dmitro Facades Ltd,

London

Facade System: Tray panels screwed

Year of Construction: 2018 Product: ALUCOBOND® A2 naturAL Copper & anodized

look C32

Photos: Clive Sherlock







New 126,000ft<sup>2</sup> Factory



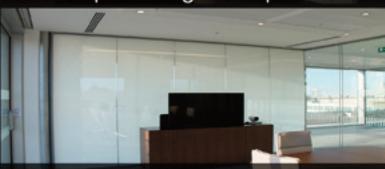
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## **Sustainable and Ethical Design**



There is, rightly, a continuing trend towards sustainability and sustainable design being spearheaded by architects and designers and building product manufacturers in the construction industry. One of the manufacturers which has been championing this is wood wool panel manufacturer **Troldtekt**. Both FSC® and PEFC™ certified, the company has set strict environmental targets for its manufacture and products culminating in a transparent roadmap in its 2013 CSR report. This has led the company to be one of Europe's most vociferous advocates for sustainable design and one which contributes positively to BREEAM, WELL, LEED and DGNB-certifications. It was recently awarded the Danish Industry Award for Green Transformation. Troldtekt's green stance has not gone unnoticed among designers and ethical designers such as Sibley Grove which pioneer strategies that deliver sustainable interior schemes. For example, when they were appointed to re-design The Chamberlain Hotel's public areas, they specified as many sustainable and Cradle-to-Cradle certified materials as possible, including Troldtekt's panels Cradle to Cradle-certified to silver level.

www.troldtekt.com/environment-and-csr

### Providing a smart, thermally-proficient finish



Specified as part of a waterproof system, Gradient's Powerdeck® F and Deck VQ® boards' superb strength and thermal capability helped ensure the Courtyard Centre for the Arts' roof terrace extension met the regulatory U-value, as well as provide it with long-term protection against instances of cold bridging. Powerdeck® F boards offer high-compressive strength and excellent thermal performance. This ensures a supremely flat

surface finish required for optimum performance in a range of watertight systems in new-build and refurbishment projects.

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### **Future Fires introduces installation service**



Future Fires has introduced a new installation service for their contemporary wood burning stoves. It has a dedicated team of installers that are Hetas registered that travel the whole of the UK. Making over 95 per cent of installs to be completed within one day are covered by a 5-year

guarantee. All installs are carried out to the highest quality possible, they use the industry's best flue pipe (Pojoulet), and do not employ contractors. Future Fires have invested in the latest production techniques to stretch what is possible in design. Providing hand designed bespoke hearth options from Quartz to Granite and Glass.

01709 581168 www.futurefires.co.uk



## =||=

## FUTURE FIRES

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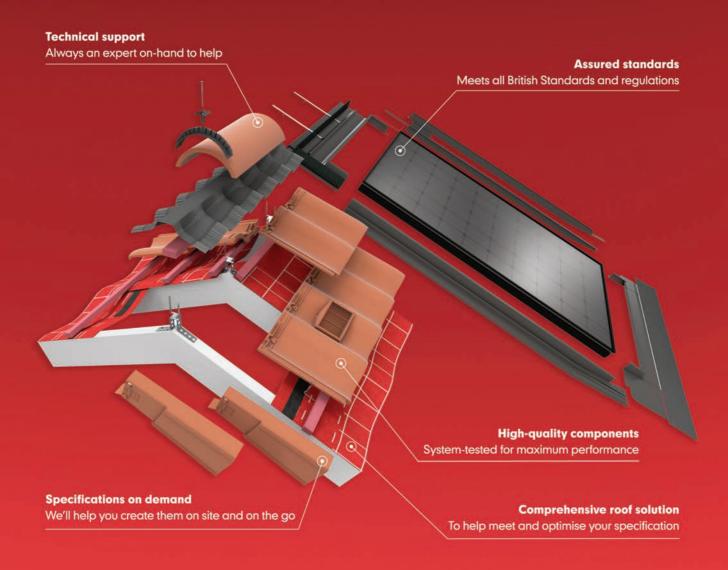
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## Ventilation sales sky-rocket to serve digital demand



The surge in digital demand as a result of Covid is seeing a corresponding acceleration in specialised ventilation from Gilberts Blackpool. Britain's leading manufacturer of commercial ventilation supply options is reporting growing interest at home and abroad in its internal floor grilles and external ventilation louvres for data centres, specifically its GF Series heavy duty floor grilles and new WK Series kitform screening louvres. Inside the data centre, Gilberts' GF Series delivers air volumes up to 500 l/sec with a jet velocity of 3 m/sec. Able to withstand point loading of up to 4.5 KN, the GF grilles are available with slimline hit/miss dampers that are position lockable to give finite control over airflow without hot or cold spots. The dampers are attached to the body grilles and the grilles engineered to replace 600 mm square floor tiles to simplify on-site installation and handling. "Good ventilation is critical to address the internal heatload generated from banks of servers. We have remained open for business throughout the various Lockdowns and have a reputation for quality product and service" explained Gilberts' Sales Director Ian Rogers.

01253 766911 info@gilbertsblackpool.com

### Panasonic introduces CONEX



Panasonic has developed a new IoT remote controller: CONEX. Offering next generation solutions for the Panasonic Commercial Air Conditioning line-up, this advanced system brings a host of benefits for compatible units through your smartphone or tablet.

CONEX is accessible, flexible, and scalable with accompanying Apps tailored to meet requirements for installers, service engineers, and end users alike. Panasonic's CONEX can also be used to control nanoe<sup>TM</sup> X where this advanced technology is installed. Watch CONEX at www.youtube.com/watch?v=lNdMA\_oP9ZI&t=4s

01344 853 393 www.aircon.panasonic.eu/GB\_en

## **Game-changing active air filtration**



Is air conditioning providing a way to spread viruses? There is no simple answer, as some systems work by recirculating the air in the space, while others help to introduce fresh air. Many HVAC manufacturers are now looking to upgrade their offerings, and AET Flexible Space is

no exception. Its Active Air Filtration uses high grade filters to catch any particles, and eliminates viruses with UVGI lighting, to offer a far safer method of supplying fresh, treated air into the office space.

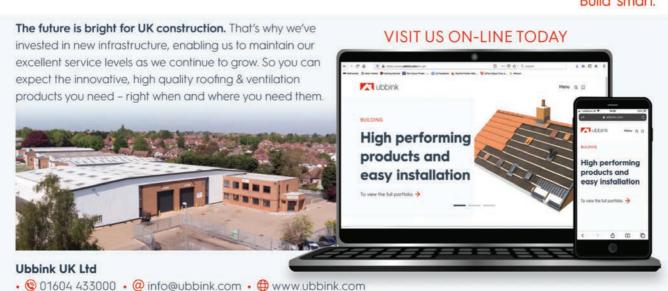
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## Rapid waterproofing with Mapei's Mapelastic AquaDefense Tanking Kit

he new Fast Track Ready tanking kit from Mapei provides rapid waterproofing of bathrooms, wet rooms and showers without the loss of Mapei's emblematic quality. Mapelastic AquaDefense Tanking Kit components are supplied ready to use, and areas can be ready to tile after just 4 hours without the need to prime.

The tanking kit comprises of Mapelastic AquaDefense and Mapeband PE 120, which is used to form waterproofing layers before applying ceramic, stone and mosaic coatings to areas in contact with moisture and running water. The former's second coat can be applied 1 hour after the first coat, and 3 hours after the second coat; when applied on a suitable substrate, such as dry screed with less than 3 per cent residual moisture, tiles may be bonded after 4 hours. The kit is also suitable for application on

concrete; cementitious screeds and screeds made using special binders – including Topcem, Topcem Pronto, Mapecem and Mapecem Pronto; internal applications to plasterboard; to existing coatings in ceramic, terrazzo and stone, and cementitious render.

Mapeband PE 120 is a waterproof tape made from polyester mesh and PVC fabric; elastic and deformable, it is used to waterproof corners between adjacent walls, and between walls and floors to be treated with Mapelastic AquaDefense. When working together, the kit creates a highly waterproof system.

For use on substrates that have been wellcured, and are sound, clean and free of substances which could compromise the bond. Tiles installed on floors waterproofed with Mapelastic AquaDefense Tanking Kit can be opened to foot traffic within 12 hours from the start of installation.



For more information on Mapelastic AquaDefense Tanking Kit, please visit the company's website.

0121 508 6970 www.mapei.com/gb







It's what's underneath that counts

## Delta Membranes introduce Koster BD Wetroom Tanking System

walk-in-shower or wet room can add a beautiful open space to any home, the level-access is popular for both its style and practicality. The benefits for homeowners include:

- Easy Access
- Flexible Design
- Attractive Modern Designs and perfect for creating a contemporary look
- Great for Maximising Space
- · Ease to Clean
- A wet room can increase the value of your home

The key to the success of any wet room or walk-in shower is a complete and resistant waterproofing system.

Delta Membranes are proud to be exclusive distributors of the CE certified Koster BD Wetroom Tanking System in the United Kingdom.

It is important to install a trusted product from specialist waterproofing manufacturer to ensure all continually exposed areas are kept dry and protected. If done properly, your floor is better protected than it would be in a standard bathroom!

The Koster BD System has been developed to prevent water leakage from tiled areas, such as: Wet rooms, Shower Areas, Bathrooms and Kitchens. The Koster BD System comes in a convenient tanking kit everything you need in one box! The Koster BD System compromises of:

- BD50 Primer
- BD50 Compound
- Koster Super Fleece
- Outlet sleeve







One tanking kit will cover approximately 10 M². Benefits of the Koster BD Wetroom Tanking System include:

- Fully Waterproof
- Breathable (water vapour permeable)
- Flexible
- CE Marked
  - KOSTER 80 20 Invention

- Easy to tile with all waterproof tile adhesives
- Simple to apply
- Silicone compatible
- Compatible with underfloor heating
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The entire BD System is 100 per cent waterproof! Simple and safe to work with – tested by those in the waterproofing industry.

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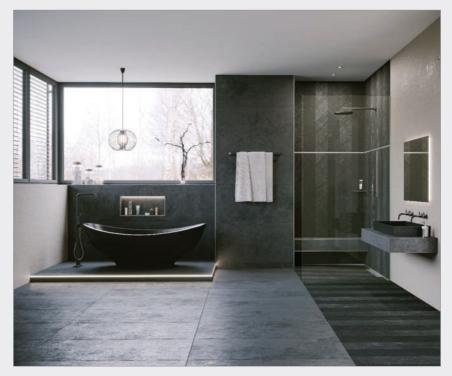
## New shower trays from Schlüter-Systems

orking closely alongside a wide range of architectural practices over the years has given tile and stone protection specialists Schlüter-Systems an insight into common pain points faced within the industry.

A challenge often raised when specifying a wetroom project in a multi-storey building relates to height build up. It is no secret that making the most of the space available is an important factor to consider, with building upwards often being the most practical way to get return on investment. Having the potential to create an additional floor by using a low height drainage system could make all the difference – and Schlüter's latest product can provide just that.

Schlüter-KERDI-SHOWER-LTS is a range of shower trays with a preformed slope, one of which is low in height and has been specifically designed to integrate with Schlüter-KERDI-LINE-G3 drain as part of a low height wetroom system. The drain stands at just 78mm in height, and the low height version of the Schlüter-KERDI-SHOWER-LTS tray works within these perimeters to create a single source solution.

As per BS EN 5385, falls should be between 1:35 and 1:80. Any shallower than 1:80 means water will not drain effectively, whereas any steeper than 1:35 would be considered a slip hazard. Most shower trays sit comfortably in between this point at 1:50, but Schluter's low height shower tray is unique in that it has a fall of 1:80. This means that rather than rising 20mm for every meter gradient (as per a standard 1:50 fall), it will be 12.5mm, saving the difference between 20mm and 12.5mm. This is a massive 7.5mm



every meter, which will be extremely valuable in keeping build-ups low.

When the Schlüter-KERDI-LINE-G3 drainage system was launched in early 2020, it was just one part of the low height puzzle – the next step was to introduce a compatible shower tray to allow for level access. This also makes a single source solution from one manufacturer far easier to achieve and offers the knowledge that the two products go hand in hand

The low height shower tray will be an asset to any architect's toolkit, working seamlessly alongside many of Schlüter's wide range of solutions to provide a low height, fully warrantied system that will stand the test of time. To find out more about the products and services offered by Schlüter, please visit the company's website.

01530 813396 www.lowheightdrain.co.uk

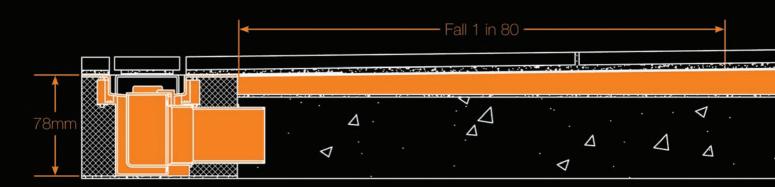




## Think wetrooms.

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## Adding space, made easy

Ann Boardman of Saniflo highlights how, despite the uncertainty of the past few months, homeowners have carried on investing in upgrading their properties, and drainage connections are key to how their spaces can be reconfigured or added to

omes and gardens have never looked so good after a boom in 'lockdown projects' over the last year. The good spring and summer weather spawned a generation of gardeners, while autumn and winter witnessed a renovation frenzy including extensions, conversions and room upgrades. A trend that also gathered pace was the addition of garden buildings – whether as offices, home gyms, workshops, salons or simply as a place to relax outdoors.

A survey published by Lloyds Bank in 2019 highlighted that the average British worker spent 492 days of their lives travelling into work - or around 10 days per year. Working from home - or the garden office - at least a couple of days per week was already becoming popular prior to the pandemic. Add in the work-fromhome mandate and the situation was quickly compounded. For many, the financial benefits from travelling less meant the cost of new facilities could be quickly recouped. Ditto for one-man businesses that benefit from a dedicated work space at home while saving rental costs for offices, studios or workshops.

One of the most important considerations when converting or

adding any space is the need for a water connection for a cloakroom, bathroom or kitchen. Emphasis on work-life balance is driving the trend for self-contained spaces that include a WC, basin and small kitchens – helping to keep work distinct from home.

These extra facilities mainly rely on the availability of pumps, lifting stations and macerators for drainage solutions. Garden rooms will often be situated too far away from the existing drainage infrastructure and may not have sufficient gradient for the installation of gravity drain pipes. Moreover, garden-sited buildings can sometimes sit below the level of the manhole or mains drains. In both situations an underground lifting station can provide



a quiet, seamless solution to discharging black and grey waste.

Designed to be quick and easy to install, a lifting station simply requires a water and electricity supply and can then be connected to multiple points such as WC, basin, shower, kitchen sink etc. The unit is activated automatically by incoming black water which switches the pump on to discharge the waste to a septic tank, water treatment plant or the nearest manhole.

One householder in Norfolk was able to erect a boat shed with holiday accommodation thanks to a 110-litre lifting station that was installed adjacent to the structure. Self-contained in its own compact manhole, with the cover flush to the ground, it was installed unobtrusively yet with exceptional access for servicing and maintenance. Waste is pumped to a treatment plant some 50 m away and 4 m above the location of the boat shed.

A similar underground lifting station rescued the extension on a stone property in Lancashire when the builders discovered the fall on the drainage pipes was insufficient to reach the property's septic

One of the most important considerations when converting or adding any space is the need for a water connection for a cloakroom, bathroom or kitchen





tank. The unit was retrofitted just outside the extension and connected to multiple kitchen and bathroom fixtures and provides the power to push the waste out through the drainage pipes to the septic tank.

Basement conversions in prime cities and built-up urban areas have also continued to boom – especially new kitchen diners that lead out to garden areas 'bringing the outside indoors'. These spaces usually feature multiple appliances including dishwashers, washing machines (often in adjacent utility rooms), wine fridges, sinks and even ice makers.

Pumps are the enablers for these projects because waste will always need to be lifted up to street level drains. A whole host of solutions are available including small, compact pumps for grey water waste only, that can be concealed within a kitchen island or under a sink. Alternatively, for larger conversions that include a cloakroom or bathroom, a larger floor-sited pump can be simply positioned on a flat surface (usually concealed in a cupboard or behind a wall) and connected to a range of kitchen and bathroom appliances. Models with twin pumps are particularly suitable to ensure continuity of service, while it is also advisable to pick a solution that features an alarm system to provide early warning in the unlikely event of a failure.

Whatever the lockdown project, there is almost always a pump that can help overcome drainage issues.

Ann Boardman is head of marketing and product development at Saniflo UK



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## VitrA publishes fourth Design Update: The Wellness Issue

TitrA Bathrooms has published its fourth Design Update Magazine. Focusing on Wellness, VitrA invited a number of high-profile designers and architects to contribute to this increasingly influential design-led publication.

These include Professor Sadie Morgan OBE, who focuses on her motivation behind the Quality of Life Foundation and Arik Levy, the internationally renowned designer of



VitrA's Voyage bathroom range, who examines bathroom spaces for wellbeing. Charles Holland, a respected architect, and commentator reflects on the 'smallest room', and Public Health and Design is discussed with hygiene expert Dr Lisa Ackerley. Childcentred design is explored with Cristiana Caira of White Arkitekter and Seyhan Cicek of VitrA's Innovation Centre. Readers are also treated to a pre-launch glimpse of the new Global Flagship Showroom VitrA is opening in Clerkenwell, London.

Margaret Talbot, European Marketing Manager, for VitrA: "Wellness is at the front of many people's minds at present, whether that be physical health and safety or making better use of time at home or work – relaxing, unwinding, and practising self-care. There are vital areas where psychological Wellness and physical hygiene come together. This Design Update is aimed at finding those touchpoints and creating thought-provoking content from some of the leading voices."



Read VitrA's Design Update 4 The Wellness Issue at www.vitra.co.uk/UPLOAD/ VitrA\_DU04\_Complete.pdf

01235 750990 www.vitra.co.uk

## Fly Forbo competition is NOW OPEN



Forbo Flooring Systems (@ForboFlooringUK) is giving architects and interior designers the chance to win a luxury UK staycation worth up to £6,500. The annual Fly Forbo competition recognises the creme de la creme of commercial projects, featuring an inspirational use of Forbo's

products. However, due to Covid-19, Forbo has adapted this year's competition to make the prize more accessible without compromising on luxury or excitement. As such, Fly Forbo 2020/21: The Staycation Edit will allow the winner to choose a UK staycation from a series of edits – all of which include lavish handpicked locations. #FlyForbo

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

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## Adhesive-free flooring is a winner



Altro Wood™ adhesive-free flooring is providing a Bedford care home with a homely, practical and safe new surface for their dining room; and it was installed in under a day. Altro Wood adhesive-free is a safety wood-look floor with easy cleanability; perfect for

decorative, homely or biophilic areas. Jackie Ballinger, registered manager at Henrietta House care home, says: "The safety and physical and mental wellbeing of our 25 residents is paramount, so we strive to use fixtures and fittings that will bring maximum benefit."

01462 489 516 www.altro.co.uk

## **Duravit Casa/Studio Passive House**



Regarded as the first of its kind anywhere in the world, "Passive House" is the name given to buildings that significantly reduce ventilation-induced heat losses and do not require a conventional heating system. This extraordinary building includes, amongst other things, the Duravit lines ME by Starck, Starck 1, L-Cube, Happy D.2, Luv, and Sensowash® Slim. A highlight is the DuraSquare washbasin with metal console

in Black Matt, which stands out with its clear, pared-down design.

01908 286680 www.duravit.co.uk

## **New Doors for a New Age**

ith the world in turmoil, changing attitudes, social and economic upheaval everywhere, you could be forgiven for thinking that innovation within the interior doors market was likely to be on hold for a while. However at Vicaima the desire to move forward and push boundaries in design and performance has never lost momentum, even in the face of such challenges. And so, with the introduction of the 2021 Interior Door Selector; Vicaima bring new doors for a new age.

Their latest brochure contains over 100 pages of inspiration for professionals looking to transform homes, hotels and other private



and public spaces, fit for tomorrow. With its easy to navigate layout, ideas and solutions go hand in hand. Whether the criteria is for cost effective simplicity or high end performance and trend-setting designs, the 2021 Interior Door Selector (IDS) has something for everyone.

#### What's new in the 2021 IDS?

While some existing ranges have been developed, Vicaima have also taken the opportunity to introduce some striking new interior door products for 2021. Using their expertise and understanding of design trends and modern build requirements, this fresh approach allows specifiers the opportunity to expand their senses, with ideas that engage in both sight and touch; either capturing nature or taking it to another level. These new ranges include:

- Naturdor Stained Extra Vertical and horizontal semi-translucent stained veneers
- Heritage Oak Real Oak veneer with random grain and knots
- Dekordor 3D Vertical Embossed face in 2 new Oak designs



- Dekordor SD Touch Subtle textured foil in rich tones
- Visual Sensations Cross Directional Woodgrain in Forest and Alpine designs

Download your copy of the 2021 Interior Door Selector today or for further inspiration and new age ideas, visit the Vicaima website.

01793 532333 www.vicaima.com

## Care home upholds high hygiene standards with the help of Yeoman Shield Handrail



Lambton House Care Home, County Durham, has taken extreme care in designing a home that caters for the lifestyle of their older generation clients by creating beautiful decor, relaxing lounges and spacious light living areas. With the onset of the Covid-19 pandemic, as part of their infection control improvement projects, Lambton House engaged with Yeoman Shield to carry out the replacement of damaged wooden handrails with a PVCu alternative. Yeoman Shield supplied their Guardian 50 mm diameter handrails as a hygienic alternative replacement. Manufactured from a rigid PVCu the handrail is resilient to impact damage and scratching that can promote the growth of bacteria. Its non-porous surface allows for easy cleaning with commercial strength cleaners without affecting colour or finish. Yeoman Shield Guardian 50mm Diameter handrail is available in a choice of colours that help to achieve a homely, less sterile, ambience. For more information on the replacement of wooden handrails with durable, easy clean Yeoman Shield alternatives please visit the website.

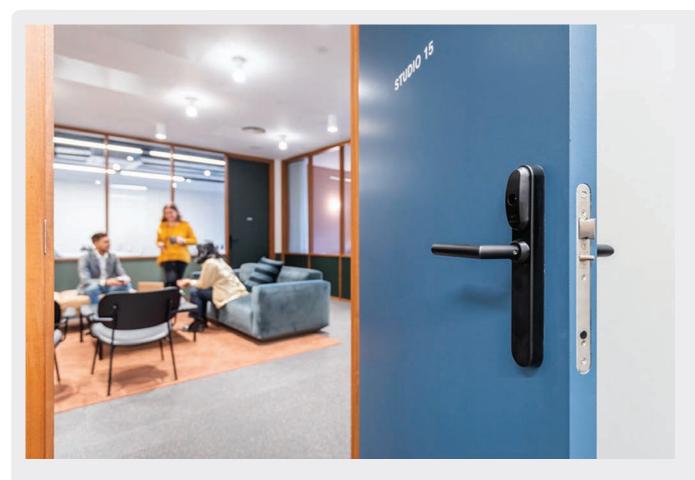
0113 279 5854 www.yeomanshield.com

## **IVC Commercial Inspires Students at University of Plymouth**



Floors from IVC Commercial have helped to transform a 'pop up' style breakout area for the reception of the University of Plymouth's Roland Levinsky Building. Designed by third-year students at the University of Plymouth's interior design course, the breakout space of the Roland Levinsky Building features in the large ground floor atrium and is home to a 'pop up' style café housed in a converted shipping container. Along with relaxed seating and cafe tables the breakout provides a destination and meet-up spot for the surrounding lecture theatres, Art Institute and Jill Craigie Cinema. IVC Commercial's Luxury Vinyl Tiles have been used throughout the area in a dynamic layout that involves a bold, abstract flooring design. Made from hardwearing Moduleo 55 Desert Crayola, Desert Stone and Moduleo 55 Expressive Shades, the floor is an important element of the space with users involved directly in its design. All from IVC Commercial's 55 Luxury Vinyl Tiles specification, these floors deliver a hardwearing and easy to maintain Protectonite® finish suitable for heavy use. The floors are a high-performance solution to the challenge of the busy space.

01332 851 500 www.ivc-commercial.com



## TOG (The Office Group) go secure with SALTO

OG (The Office Group) has chosen Opem Security to install SALTO access control technology to secure its newest flexible work space located in the iconic One Canada Square.

Founded in 2003, TOG strives to create beautifully designed buildings, making the spaces (and contracts) flexible to allow businesses to thrive. They know everyone works differently so each location and space reflects this, with different designs, aesthetics, and workspaces for clients to choose from. Each location is chosen for convenience, always within easy walking distance from transport links, and today the company has over 50 buildings across the UK and Germany (with more in the pipeline) and over 20,000 members.

"Flexible work spaces create a convenient, easy to access space that is both a pleasure to use and secure for clients and staff whilst doing so. To achieve this means investing in

the appropriate technology to sit alongside other building systems so that our access control is reliable, long-lasting, and scalable" says Alex Walters, Group Head of Facilities at TOG.

### **Background**

With many clients coming and going to make use of the new office space, hot desks, spacious lounges, and meeting rooms, choosing the right security system for this Canary Wharf location was a major priority. Having worked with Opem Security as their preferred supplier for the past 12 years, TOG was confident in their supplier's experience and ability to deliver innovative, future proof, security solutions, aimed at enhancing operational efficiency and optimising building management.

Alex continues: "Having had SALTO systems, previously installed across our various sites, we had an in-depth

understanding of the product's capabilities, and how it could be utilised to best serve the space and our commercial users. Opem Security was instrumental in recommending the most relevant, cutting edge, smart SALTO KS locks for our building and excelled in demonstrating how it could be tailored to our exact requirements."

#### What did they need?

With office, meeting room, and access doors to secure, TOG was looking for a technologically modern locking solution that would satisfy the needs of both the business and its customers. Key requirements were the ability to grant access rights instantly for new customers and revoke them in real-time when required. No hassle, unwarranted costs or security issues were wanted, plus they needed an audit-trail overview of who accessed which door at which time. Topping off the list was an easy,





wire-free configuration without complicated software or IT configuration.

### Solution and benefits

Having made the decision to standardise access control on the SALTO solution, the installation got underway with some 103 doors being secured. Product fitted includes XS4 original handle sets, mortise locks with projecting latches, strike plates, and simple to use SALTO SPACE software. The latter is a fully integrated electronic locking and software solution that brings seamless access to all TOG doors in an efficient, secure, and easily accessible way.

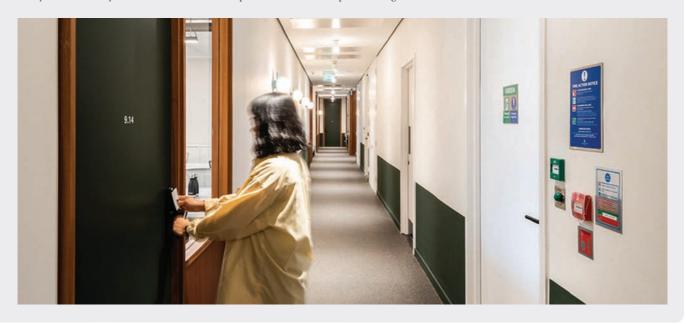
Sara Chegwidden, Chief Operating Officer (COO) of Opem Security says: "When you're providing smart and secure workspaces to a range of sectors and verticals it's important to have a holistic view of space management and the vital role that access control plays. Security, efficiency, and design were all essential aspects of the brief when we recommended SALTO as the optimal access control solution for this project.

The client now has an easy to use, sleek product that continually adapts to the market needs and incorporates new technology to help safeguard and future proof their office space and gives them

comprehensive 24/7 access control that covers their entire property."

01926 811979 www.saltosystems.com





# University of Huddersfield's new School of Art, Design and Architecture, showcases bespoke Polyflor Expona Flow PUR patterns

ollaboration and innovation are central themes at the new, £30 million Barbara Hepworth Building at the University of Huddersfield. The faculty comprises flowing spaces set around an internal atrium, which is easily adapted to meet the varied needs of the multidisciplinary faculty.

Polyflor collaborated closely with AHR, Morgan Sindall and Phoenix Flooring using a variety of vinyl flooring products to create a flooring specification which properly reflects the building's artistic and practical aspirations.

The multi-floor central atrium is set around a feature staircase and the design team were eager for this space to be attractive and easily navigable whilst also encouraging interaction between the different disciplines housed in the building. To help support these goals, Polyflor worked with the project team to create a bespoke flooring design using Expona Flow PUR.

The vinyl sheets beautifully recreate the aesthetic of wood and concrete floors and provide excellent durability in this high traffic area. AHR and Polyflor's technical team designed and developed a bespoke pattern for each atrium area, combining Warm Limed Ash, Steel Blue and Light Industrial Concrete colours. These patterns are both attractive and help students to intuit and navigate the surrounding open-plan spaces and adjoining rooms.

As well as Expona Flow, several other Polyflor products were also utilised to provide a high-quality flooring finish



throughout the new building. Polyflor Finesse SD was chosen for the communication and infrastructure rooms where static build-up needs to be carefully controlled and Polysafe Stone FX PUR and Wood FX PUR were also specified in areas where there was potential for water spillage. The specification was completed with the use of hardwearing Bloc PUR in Classic Black and Urban Chic. By specifying Polyflor products across the building, flooring maintenance is streamlined.

The complex site layout and atrium space posed a key challenge during the installation phase. Matt Brown, Director at Phoenix Flooring commented "Polyflor's technical staff were on hand throughout the installation period to provide aftersales service by telephone and in person if required to support our supervisor

and operatives on site."

From the outset, the scheme was designed to achieve BREEAM 'Excellent' and the Polyflor products are expected to contribute towards the award of credits under this scheme.

The sheets achieve a BRE A+ rating and are certified as 'Excellent' under the BES 6001 responsible sourcing standard. In addition, the products feature recycled content and are 100 per cent recyclable at end of life through the Recofloor scheme – supporting the circular economy.

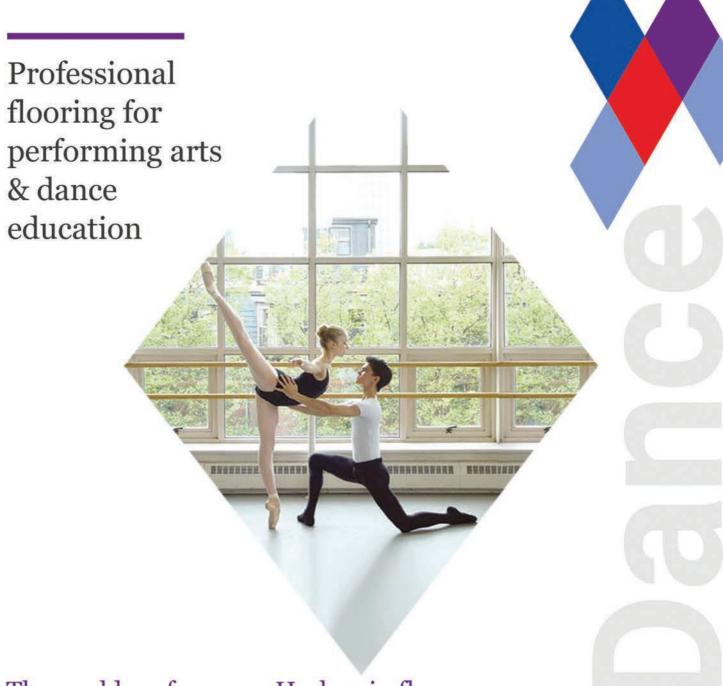
Further details of Polyflor's extensive range of resilient vinyl flooring are available from Polyflor Ltd.

0161 767 1111 info@polyflor.com www.polyflor.com









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If you are interested in booking a CPD please contact cpd@harlequinfloors.com













# Luceco's Contour at The Sydney Jones Library, University of Liverpool



Luceco has supplied energy efficient LED Contour luminaires to the Sydney Jones Library at the University of Liverpool. Opened in 1976, the building was extended in 2007 by annexing the former University administration building and has now been refurbished with cost effective LED lighting. Brent J Sansom Lighting Design Services Ltd based in Warrington specified dimmable continuous runs of recessed Contour luminaires. The LED lighting system consists of connectable modules offered in 600 mm, 1200 mm, 1500 mm and 1800 mm lengths that can be surface mounted, suspended or recessed as at The Sydney Jones Library. Contour has a full range of illuminated interconnecting modules including corner connectors, T junction and cross pieces, as well as an integrated driver with quick electrical connectors for ease of installation. Contour has a 5-year extended warranty available and offers over 100,000 hours operational life, making the luminaire ideal for education commercial environments. Contour is also available with DALI and emergency Self-Test specifications.

01952 238 100 www.luceco.com/uk

# Two new antibacterial collections



New for 2021, CTD Architectural Tiles introduces two new collections to its portfolio: Anthology and Delight. Manufactured by LEA Ceramiche, the ranges boast exceptional aesthetic and practical qualities, namely the PROTECT antibacterial solution. Using Microban® Technology, a world-renowned

3rd party accredited antibacterial system, the tile surfaces have been finished with this ground-breaking coating, which eliminates up to 99.9 per cent of bacteria. Anthology and Delight offer a luxurious surface solution, whilst delivering on practical performance.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

# 8888

# Style delivers partitioning solution

Ninety One, previously known as Investec Asset Management, recently relocated to impressive new offices in the heart of London's business district. Creating adaptable and agile working space, Style collaborated with HLW architects and main contractor Overbury, to install three Dorma Hüppe Variflex moveable wall systems, giving freedom to create two individual meeting rooms, or one large open area off the main reception. Maximising light flooding into this beautifully designed office building, one operable wall is glass, whilst the other two are finished respectively in a truly stunning Kvadrat Maharam Merit fabric and Fluted Timber veneer to match surrounding joinery. Ensuring meetings can run concurrently, entirely undisturbed, the walls provide impressive 59dB acoustic integrity. This installation not only offers tremendous levels of space flexibility," said Michael Porter, Style's sales director for the South, "it also brings style and panache to an outstanding office development.

www.style-partitions.co.uk

# Sandtex breathes new life into conversion



Sandtex Trade's X-Treme X-Posure® masonry paint has helped transform a 100-year-old warehouse to create an atmospheric furniture and interior store and a cosy new coffee shop. X-Treme X-Posure® was ideally suited for use on the solid stone walls and ceilings thanks to its microporous

properties. X-Treme X-Posure® has excellent adhesion properties which makes it suitable for even the most challenging of substrates. Sandtex's X-Treme X-Posure® is available from leading independent merchants and the nationwide network of Crown Decorating Centres.

0330 024 0303 www.sandtex.co.uk

# An architectural masterpiece



Dating back to 1089AD, Gloucester Cathedral is a magnificent example of an English Cathedral built in the Romanesque and Gothic styles. As part of a major refurbishment and conservation programme a new creative direction for the cathedrals disability access was agreed. Bespoke platform lift designers and manufacturers Lyfthaus of Cambridge, England

were contracted as the new platform lift suppliers. One lift to be located adjacent to stone steps in the North Ambulatory with a raised height of 750mm and the second to access the North Transept via a Lyfthaus built bridging link and with a 1050mm lift travel.

01440 731111 www.lyfthaus.com

# Create a spectacular kitchen with Königstone



Königstone, with an impressive reputation for high-quality surface materials and worktops, now supplies stunning semi-precious materials for kitchens. Königstone has access to beautiful materials from across the globe and these breathtaking surfaces will truly set the kitchen apart

from the rest. The intricate patterns and transparency of the materials allows these one-of-a-kind pieces to be backlit. The illumination creates a striking effect by highlighting the captivating natural characteristics of these beautiful features. Three unique colours are available: Amethyst, Smoky Light (pictured) and Smoky Dark.

info@konigstone.co.uk

# The future is contactless

Paul Smith of Häfele discuss how remote access control is central to the future of hospitality design, in a future which has to function with Covid

The announcement of a new national lockdown has added yet more strain on hospitality operators to review the changes they may need to make in order to reopen safely, once the time comes to lift Coronavirus restrictions again.

The notion of a 'contactless society' had become widely acknowledged before Covid-19. But the pandemic accelerated the need for hotel, bar and restaurant providers to implement remote access control systems into their buildings, and at pace. In the summer of 2020, it was these technologies – which minimised physical touchpoints and facilitated social distancing across hospitality and leisure settings – which better enabled the safe reopening of premises.

Now, in the face of another extension to closures, the industry must rethink how guests and customers will come to use their spaces in the future. Now more than ever, designers must enable clients to think about how hands-free technology can play a vital role in keeping users safe, while also contributing to design schemes which meet their expectations.

For example, some advanced door and furniture locking systems have Bluetooth connectivity, which works in combination with a third-party smartphone app to act as digital keys.

In hotels, this technology cleverly enables users to lock and unlock doors to their room, gym locker or furniture, while also seamlessly tying into hotel management platforms to allow for easier booking, ordering and paying for goods and services. In restaurants and bars, as well as communal areas such as hotel reception areas and meeting rooms, there is likely to still be a need to break up spaces to facilitate only small groups of people. Remote access door technologies which work in partnership with automatic sliding or swinging door systems, as well as flow control technology, limit the number of people who are granted access to a space at any one time, ensuring operators can easily



meet social distancing regulations should they remain in place.

Attention must still be paid to ensuring that while buildings are made Covid-secure, they don't fall down in other areas when it comes to safety. Holding doors open may improve ventilation and movement around a space and minimise 'touchpoints' of surfaces, but many are safety-critical fire doors. If held open without the correct products in place to close them in the case of an emergency, this poses a huge risk. One such product that can be used to keep fire doors held open safely is an electromagnetic hold-open door closer, which keeps doors open in a safe and compliant manner until an alarm is triggered; from that point, the power to the hold-open unit is cut and the door automatically closes, providing a barrier to the spread of fire.

For spaces where physical contact with handles and levers is unavoidable, ranges of newly configured door handles have been designed to facilitate use with an elbow, rather than with a hand. Meanwhile other Now more than ever, designers must enable clients to think about how hands-free technology can play a vital role in keeping users safe





ironmongery items have been manufactured using anti-microbial, natural materials, such as copper and bronze. These materials are EPA registered and could be used to minimise transmission of Covid-19, with copper ironmongery having previously been used to reduce the spread of MRSA and E. Coli.

The long-term impact of the coronavirus is forcing businesses to look at how to conduct large scale renovations using costefficient technologies, and suppliers that deliver value for money. Many manufacturers and distributors have quickly adapted to the new needs of the sector, to offer grouped product solutions which work in harmony to easily modernise hotel and leisure spaces at an efficient price tag. For example, several lighting, remote access and door solutions on the market complement one another, providing operators with sleek technology solutions that can be retrofitted to existing furniture, but which also create a more engaging experience with added elements of comfort.

Furniture lighting systems can be programmed in conjunction with remote access and door technologies to switch on and off as and when a user enters or leaves a hotel room, for example. Entirely app controlled, the guest can gain access then change the colour and brightness of a room, depending on their mood, time of day or activity, via their smartphone, minimising physical touchpoints and therefore the spread of bacteria.

When there's such an urgent need to review the fit out of hospitality spaces, these technologies – that simultaneously improve health and safety but also create designs which will be relevant long after the pandemic has passed – are set to be in high demand.

The last 12 months have taught us that the world is subject to change, and at very short notice. However, there are several design and technology considerations and themes which look set to last the long haul. If operators choose to use the time available to them now – when travel and leisure are restricted once again – to make necessary changes to their environments, they will come to reap the benefits when guests return to their truly safe and future proofed spaces.

Paul Smith is head of specification sales at Häfele

# A gamechanger for the fire door market



The new Guardsman Fire Door slab from ODL Europe gives architects and specifiers the fire safety credentials they require. The door eliminates the unknown elements of a composite fire door's performance and stability. Nathan Barr, Managing Director at ODL Europe said: "Our Guardsman Fire Door has been tested in glazed and unglazed versions and across multiple manufacturers. And in the most recent tests to EN 1634, we have achieved an average of 100 per

cent overrun past the 30-minute mark." "We believe the Guardsman Fire Door is the first in the next generation of composite fire doors".

0151 933 0299 europe.odl.com/the-guardsman-fire-door

# Pyroguard's multi-functional fire safety glass



Leading independent fire safety glass manufacturer, Pyroguard, has launched a campaign to raise awareness of the multi-functional benefits its toughened fire safety glass offers. Through the informed specification of additional counterpanes, architects, specifiers and

contractors can create beautiful and bespoke glazing systems, without compromising on fire safety. As specialists in fire safety glass for over 30 years, Pyroguard now manufactures and supplies the widest range of tested and certified bespoke system solutions on the market.

01942 710 720 www.pyroguard.eu/en

# Clearview takes partnership with Quelfire



For the construction of the 22-storey Build to Rent Accommodation, ClearView Communications has chosen and installed Quelfire's 'one-stop-shop' QuelStop Firestopping System to effectively fulfil the passive fire protection requirements of the high-rise project. Alan Ward, Sales Director at ClearView Communications said: "We have used the QuelStop Firestopping System on a few projects, including on our largest project to

date, Gatwick Hilton Hotel. We really enjoy using Quelfire products, they are of higher quality, durable and better to install than other passive fire protection products that we have experienced."

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# Nittan EV-DPH with Dual Optical technology

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Multi-Sensors help reduce false alarms, but not in all cases. Put a standard Multi-Sensor close to a source of steam, such as a bathroom, and the chance of it false alarming rise considerably.

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# Multiple benefits

With different fires presenting different challenges for buildings and occupants, Barry Sargent of Nittan looks at the factors that make multi-sensor alarms a safe choice

Pires come in different forms, and different alarm sensors perform different functions; in addition, false alarms need to be minimised in order to reduce disruption for facilities. To answer these needs, multi-sensor alarms' popularity has increased dramatically over recent years, having an attractive range of benefits.

They combine two sensor types within one alarm, most frequently optical smoke and heat sensors. As different sensors detect different types of smoke and heat, and therefore different types of fire, combining more than one sensor in a single unit potentially makes for an improved response to real fires (as opposed to false alarms). It also reduces unit and installation costs, makes alarm specification far easier and, let's face it, looks a whole lot better than having two alarms on the ceiling.

That much you may well already be aware of, but below are four aspects that you may not have considered before.

### 1. Design – and capability varies

Not all multi-sensor alarms are 'born' equal! Just because you have specified one, don't assume it will perform better than all single-sensor detectors. A good quality optical alarm that has been correctly specified and installed will more than likely outperform a low cost, basic multi-sensor; and by outperform I refer to their ability to detect fires whilst discerning false alarm sources.

That's because, like most things in life, you get what you pay for. The sensors vary dramatically in design, from basic models where the system provides only limited cross evaluation of the sensor values, through to highly sophisticated devices featuring advanced algorithms to assess the variation in values from each sensor in order to determine the nature of the potential fire.

The Building Research Establishment's Briefing Paper 'The performance of multisensors in fire and false alarm tests' is quite clear about this, stating: "the use of multisensor technology has the potential to reduce certain types of commonly encountered false alarms. However, the extent to which this

can be realised depends on the particular implementation of features designed to improve false alarm immunity. It cannot be assumed that use of simply any multi-sensor detector will impact significantly on the occurrence of false alarms from every form of fire-like phenomena."

If you want to reap the benefits a multisensor can bring, it's imperative you invest your budget wisely and don't automatically go for the lowest cost option.

## 2. Potential to reduce false alarms

According to official fire and rescue incident statistics in England from the year ending March 2020, of all incidents attended by fire and rescue services, false alarms made up 42 per cent compared to actual fires at 28 per cent. That's 231,431 wasted visits; a waste of precious resources. And if that doesn't bother you, then consider the cost implications for end users: problems that stem from false alarms are estimated to cost UK businesses around a billion pounds a year!

Reducing false alarms is therefore a major task the fire industry has been attempting to address over the years and one of the reasons for the development of the multisensor approach.

The BRE Briefing Paper, reporting on a test of 35 different optical heat multi-sensor detectors, estimates that 38.1 per cent of observed false alarms could have been reduced if multi-sensors had been present. That means a potential reduction in UK business losses of £381m per year.

# 3. Multi-sensors' limitations

While offering improved performance over standard optical detectors, multi-sensors have limitations. In fact, the BRE research demonstrated that, although delayed somewhat, in all cases alarms were given in the presence of 'non-combustion materials' such as steam, dust or aerosols. The delay might allow for any transient false alarm sources to disappear before the fire threshold is reached, but it does not entirely stop a false alarm in these instances. Furthermore, to ensure this delay, some multi-sensor



Problems that stem from false alarms are estimated to cost UK businesses around £1bn per year



Just because you have specified a multi-sensor, don't assume it will perform better than all single-sensor detectors

detectors have been configured (or can be configured by the installer) to be less sensitive, which is a compromise that is not always acceptable or ideal.

It should also be noted that not all known causes of false alarms could be tested by the BRE. False alarm tests covering long-term dust build up, condensation, cigarette smoke, synthetic smoke and insect ingress were not possible due to difficulties with developing repeatable tests.

E-cigarettes have proven particularly problematic. They generate water vapour which, in an enclosed space where there are a number of people vaping, can have the same effect as steam i.e. can cause a sensor to go into false alarm. A standard multisensor will struggle to identify this.

## Sensor combinations

While smoke and heat sensors are the most common combination, there are others available, including some that include carbon monoxide sensors and some that use more than two technologies. One of the less well-known combinations, but highly effective, is a heat sensor and two optical sensors, albeit each using very different sensor technologies.

Some multi-sensors feature dual optical

alarm technology plus a heat sensor. The dual optical alarm technology is based on particle light scattering theory, but instead of just using the standard infra-red light found in optical alarms, it also employs blue LED to provide a more accurate measurement of particles within the chamber. Using a complex algorithm to calculate the ratio of these light sources, which operate at different wavelengths, the detector can determine the particle size and thus distinguish between smoke and non-combustion products such as steam, aerosols and dust. As we have seen above, this is where most typical multisensors struggle. Using this method, there is no need to lower the devices' sensitivity to actual combustion products.

So, what can we learn from this? multisensors can indeed be a good solution, especially in areas prone to false alarms, but only if you buy sensibly. Look for devices from reputable manufacturers that have specific features designed to improve false alarm immunity, rather than units that simply contain two sensors that essentially work separately from each other.

Barry Sargent is product support manager at Nittan

# Advanced's new EvacGo makes meeting the BS 8629 Code of Practice easy

Pire protection solutions manufacturer, Advanced, has launched EvacGo, its evacuation alert system designed to meet the recommendations of BS 8629:2019, relating to buildings containing flats with a storey over 18 metres above ground level.

Available to the UK market from November 2nd, EvacGo has been designed to support any evacuation strategy chosen by the fire and rescue service. The panel, developed alongside fire industry leaders, combines EN54-2 and 4 approved MxPro 5 technology with clear, easy-to-use manual controls to ensure firefighters can quickly and effectively identify and operate alert sounders to support the safe evacuation of tall residential buildings.

EvacGo provides a simple, at-a-glance overview of a building's evacuation alert zones, along with LED indication and manual toggle-switch controls for operating evacuation alert devices in each zone. The panels are available in 8, 16, 24 or 32 'fire



fighter evacuation alert area' variants and are expandable from 1 to 4 loops – or even further, when using Advanced's highly robust, fault-tolerant network.

The EvacGo panel is housed inside a robust, security-rated enclosure meeting the STS 205 class BR2 security rating with patented BS EN 1303-compliant lock. This minimises tampering and restricts access to fire and rescue service personnel only, who

are able to access the controls using a patented key, as stipulated in the BS 8629 code of practice.

Ken Bullock, Advanced's Business Development Manager – Emergency Evacuation Systems, said: "We appreciate that new standards can be confusing, so we've carefully designed EvacGo to take away the hard work for building owners, end users and, importantly, frontline fire and rescue services. Our system provides a robust, effective and reliable evacuation management system that can be trusted to work as intended at all times."

Advanced, owned by FTSE 100 company Halma PLC, protects a wide range of prestigious and high-profile, high-rise buildings across the globe – from London's Shard to Dubai's Landmark Group HQ and Miami's Sands Pointe development.

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# EverEdge continues to be the preferred choice for Monks Bridge Estate

hris Dunn is estate manager at Monks Bridge, a former vicarage in rural Warwickshire. He's been responsible for the redesign and running of the property's Victorian grounds since 2015, transforming them from a dilapidated state into stunning gardens that blend tradition with contemporary design. Chris used EverEdge steel edging in the estate parterre and was kind enough to write the following:

"As an experienced horticulturist, I was already familiar with lighter-grade EverEdge products, but it was during our 'Parterre' project in 2017 that the benefits of its heavier-duty EverEdge became particularly clear.

EverEdge is great in a straight line, but really comes into its own defining the design elements that the project demanded. From perfect circles and crisp edges, to sweeping curves and tight corners, the product was a dream to work with.

In terms of budget, the simplicity and speed of installation meant EverEdge was more



cost-effective than stone edging, and its longevity justified any increased costs against a timber edge. We opted for 150mm deep edging with sleeves and pins for our paths, which regularly facilitate ATVs and tractors. This option was robust enough for us to install a sub-base and work from these paths when needed.

Fast-forward to today, and the gardens are now maturing. EverEdge continues to



prevent gravel seepage, providing a perfectly smooth edge to keep a crisp edge to the lawn. I'm confident that the product will perform for many years, and that EverEdge will continue to be my preferred choice. Not only is the product great, but the company's knowledge is exceptional and its customer service excellent."

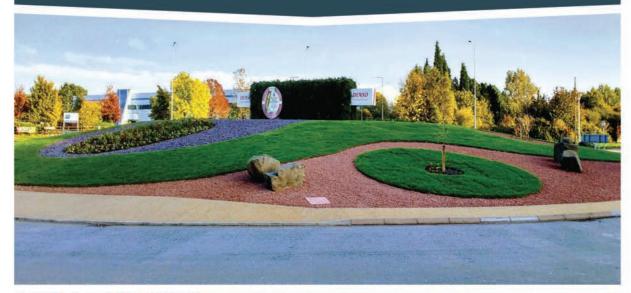
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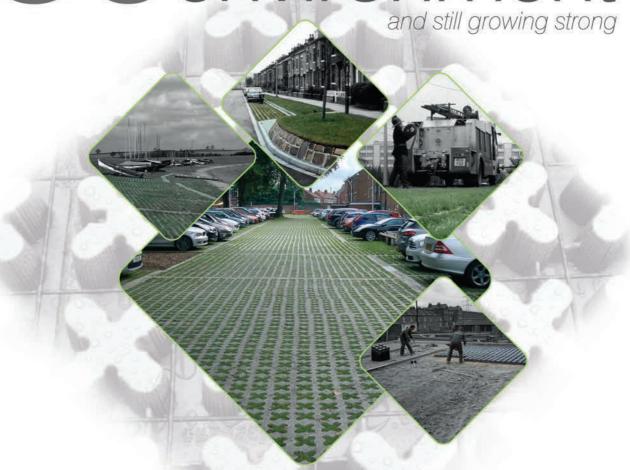
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# Porcelain performs inside and out

Jamie Gledhill of Brett Landscaping looks at how porcelain paving can deliver on aesthetics and function in both domestic and public realm settings in the context of Covid

hen creating community or shared spaces, architects are balancing a raft of overlapping priorities: from place-making, community cohesion and connectivity to sustainability and even public health.

The Covid-19 pandemic has added a sense of urgency to long-pondered questions about what civic leaders and property owners want our buildings and public realm to do. Architects and designers need to look at how building and space design must adapt to accommodate a future where people can gather, live, work and socialise, while the building design at the same time forms a part of an airborne disease control strategy.

The easy answer may be to sacrifice form for function, but with architects challenged to create schemes and homes that can have true longevity, they understandably do not want to compromise a reduction in aesthetic finish.

In this environment, the use of porcelain paving can provide building designers with an answer to maintaining quality while ensuring that floor space, inside and outside of a property, can adapt to many different functions.

## Why porcelain?

Porcelain paving has long been used for high-end garden patios but advances in technology mean that large developments can benefit from the low-maintenance qualities of porcelain paving – inside and out

Porcelain paving uses the aesthetic of natural stone while adding the benefits of modern paving manufacturing. Using innovative manufacturing techniques, a composite porcelain unit can be made at a thickness of 60 mm, which makes it suitable for use in areas with very high pedestrian traffic.

Originally an Italian development, porcelain tiles are made by selecting suitable raw materials, such as fine clays, ground to make them incredibly fine, combined with a suitable mix design and a



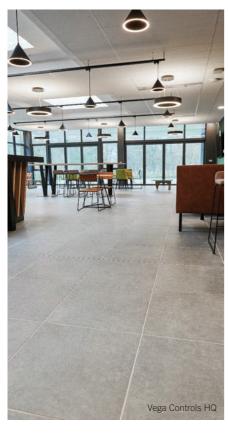
precisely controlled manufacturing process. This includes finely grading the right type of clays and firing them at an extremely high, controlled temperature in a kiln.

Porcelain is increasingly popular for large projects due to its stylish appearance. However the material's lack of water absorbency also helps with stain resistance which means that porcelain tiles are easier to clean and maintain. Having a very low porosity, this enhances the frost resistance and provides longevity to the installation.

Porcelain is ideally suited to use outdoors as it is extremely strong, hard-wearing and low maintenance. Using such paving can bring a unique aesthetic, with a mixture of light and shade. A premium finish can be achieved which will retain its looks for years to come. Its versatility in working in an indoor and outdoor setting also provides architects with an elegant way to design large flexible spaces that can adapt to environmental factors.

Modern manufacturing techniques mean that there is now a solution for large projects without compromising on the quality of finish





# Modern manufacturing

Modern manufacturing techniques mean that there is now a solution for large projects without compromising on the quality of finish: a composite porcelain and concrete paving flag tile with a pre-bonded, cementitious, waterpermeable drainage layer.

This system is supplied as a porcelain tile with a concrete backing so it can be installed using a similar method to normal block paving. This also allows for the creation of different layouts and features while retaining one construction detail below the pavement surface.

Some products available are permanently and inseparably bonded to a drainage mortar base which offers excellent stability, strength, drainage and adhesion. Prebonded flag units have integrated nibs on all four sides which help to protect the porcelain face during transit and installation, along with providing a consistent joint width when the slabs are installed.

# Versatility inside & out

Two recent developments that used hybrid porcelain were the headquarters of tech

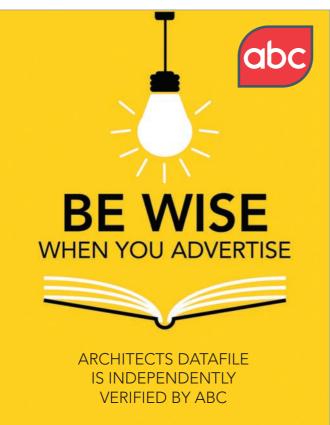
company Vega Controls and Greenford Quay – a £151m development overlooking the Grand Union Canal in London.

At the Vega offices, in Uckfield in Sussex, a cafe with a continuous inside/outside area and also a large walkway that starts outside the building and passes through it were completed in porcelain.

This allowed for a consistent design with a high quality finish that will be hardwearing and easy to maintain and a large workable area that can be adapted for the different requirements of the company.

At Greenford Quay, porcelain was used for the roof terraces and public spaces as it could meet the loading requirements and ensure its suitability for the building's design. The project developers said that they chose GeoCeramica due to the aesthetic requirements of this landmark luxury development, without compromising on the technical brief of providing a roof space for residents that demonstrated structural durability, reliability and quality of the installed system.

Jamie Gledhill is engineering technical manager at Brett Landscaping



# Norcros capitalises on tile trends



Norcros Adhesives is launching a new three-part system for fixing increasingly popular 20mm external porcelain and stone tiles, called Norcros Rock-Tite Exterior Porcelain & Stone System. The Rock-Tite system comprises a Primer, a Mortar and a Brush-In Grout. It is

designed for use by landscapers and garden designers, as well as tile fixers, and capitalises on a key trend in the tiling market currently. This is where internal tiled space is being extended to terrace or patio areas outside a building, which is part of a long-term lifestyle trend to enhance living areas by making better use of external space.

01782 524 140 www.norcros-adhesives.com

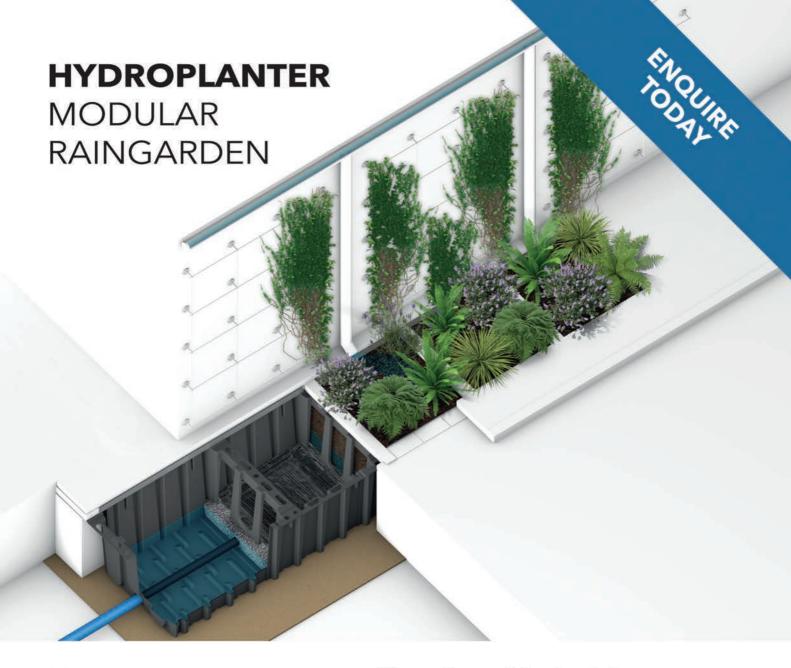
# Resiblock and McDonalds, we're loving' it!



Resiblock have been specified as the go to Paving Sealer for new McDonald's restaurants across the UK. This relationship began in 2019 with the sealing of McDonalds, East Belfast, where Resiblock '22' was

utilised to seal and stabilise Concrete Block Paving (CBP) on both pedestrianised footpaths and the block paved Drive-Thru lanes. Resiblocks' formulation ensures the CBP in the Drive-Thru remains stable under vehicular traffic, whilst the pedestrian footway benefit from stain and oil protection from food and drink spillages.

mail@resiblock.com



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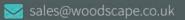
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