

January 2015

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First BREEAM Outstanding for high-rise office building in China

No. 1 Shanghai, a 180m tall, 34-storey commercial tower created by state developer the Shanghai International Shipping Service Centre (SISSC) has achieved an Outstanding design rating under BREEAM, the world's foremost sustainability standard for buildings.

The building will act as the flagship for SISSC in the £4 billion marina development located on the

bank of the Huangpu River, which is comprised of offices, retail, and other amenities. The building is a steel-concrete structure and provides over 64,000m² floor space and uses water from the Huangpu River for its water source heat pump and ice storage cooling systems. For more information, please visit www.architectsdatafile.co.uk and enter reference number 24066.

RESIDENTIAL DEVELOPMENT

Miller Homes to launch new commuter development in Kirkliston

Miller Homes is preparing to launch an exclusive range of prestigious two, three and four bedroom terraced, semi detached and detached homes in Kirkliston this New Year.

Launched in January the much-anticipated Glen Almond development, which is being built in the semi rural location of Kirkliston on the outskirts of west Edinburgh, will initially offer four different house styles.

Not far from the Forth Rail and Road Bridges, Edinburgh Airport and the M9 motorway, the development will be in an ideal location for commuting to Edinburgh, Glasgow and other towns along the central belt.

The development is perfect for buyers in search of a home set in a rural suburb with a range of local amenities and a good primary school.

PROJECT

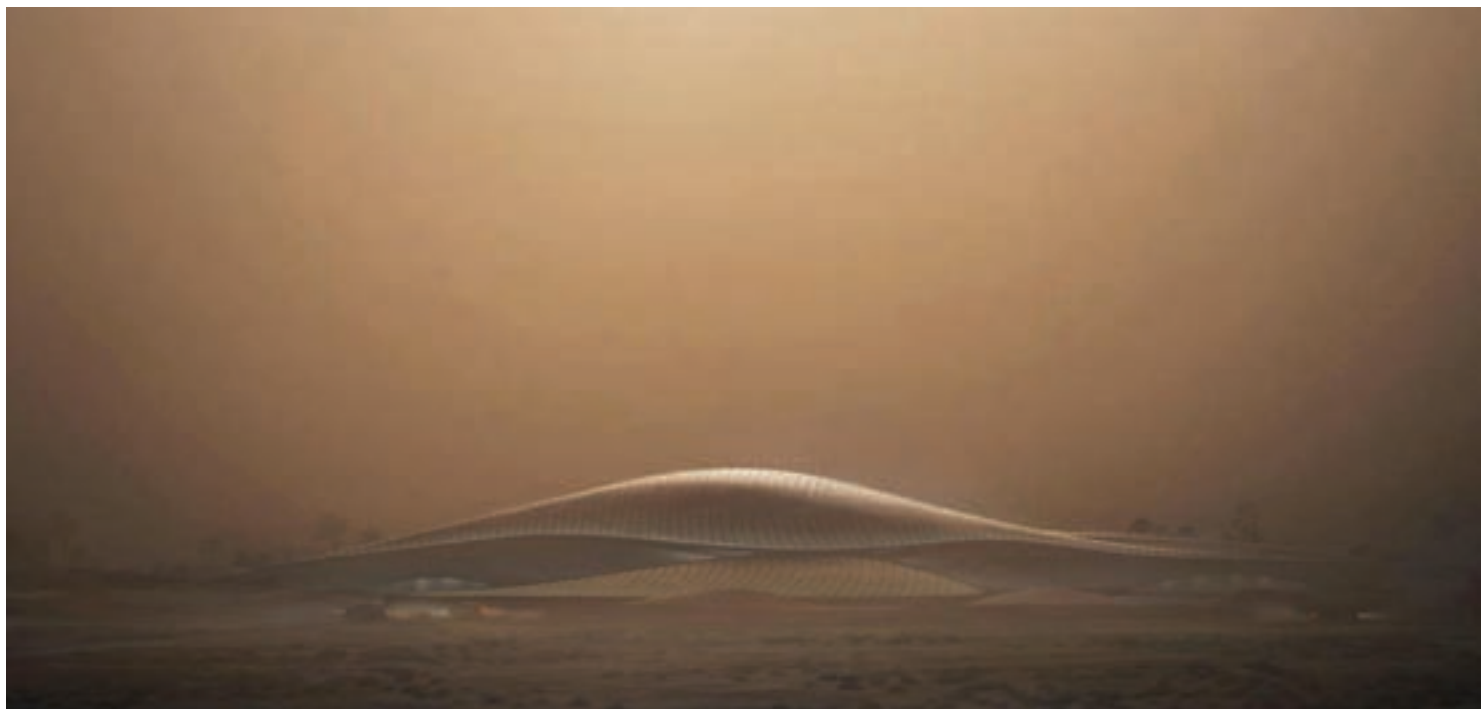
Garden Bridge approved by Mayor of London's office

Construction of a new Garden Bridge over the River Thames could begin next year after the scheme was given the green light by the Mayor of London's office.

The Garden Bridge will provide a dedicated crossing of the Thames for pedestrians in central London, helping to contribute to the Mayor's strategy for making central London a more attractive and accessible place for walking. The bridge is set to support economic growth and planned regeneration on both sides of the river.

Designed by Thomas Heatherwick – who created the cauldron for the London 2012 Olympic and Paralympic Games – the Garden Bridge will be 366 m long and will connect Temple on the north bank to the South Bank. It is estimated that the bridge will attract seven million trips per year using it as a new way to cross the river. The bridge will include a major new public space and garden that will be free to access and will feature 270 trees as well as shrubs, climbing plants, hedges and flowers. It will be fully accessible, with two lifts at each end and will be open from 6am to midnight. It will be free of charge.

Bee'ah Headquarters, Sharjah, UAE by Zaha Hadid Architects



Bee'ah, the Middle East's leading fully integrated environmental and waste management company, has commissioned Zaha Hadid Architects to build its new headquarters building in Sharjah, UAE, following the 2013 international competition.

The new headquarters building is part of Bee'ah's ongoing investment to transform attitudes and behaviours in individuals, communities, businesses and cities by providing the infrastructure, tools and support to achieve their environmental goals. Working towards its zero-waste to landfill, cleaner air and water, renewable energy and sustainable future targets, Bee'ah is developing coherent and sustainable environmental solutions to meet the challenges of the community it serves.

Bee'ah, as an organisation, is converting waste from being something that is a consumptive by-product of society to something that can be core to society's future. This has been achieved by transforming both materials (though recovery and energy generation) and society (via social outreach and educational programs) to create an integrated ecosystem for the future.

The Bee'ah Headquarters building embodies these principles by providing the company with an administrative centre of sustainable construction of LEED Platinum Certification, with ultra-low carbon and minimal water consumption in operation and minimised material consumption in construction. The new building and site will also be used as a learning resource to demonstrate practical environmental awareness to the

wider community.

Designed in response to its natural environment to provide comfort for visitors and staff alongside minimising energy and resource consumption, the formal composition of the new Bee'ah headquarters building has been informed by its desert context as a series of dunes orientated to optimise the prevailing Shamal winds and give its interiors high quality daylight and views while limiting the quantity of glazing exposed to the harsh sun.

The two central dunes of the headquarters building intersect and connect via a courtyard – an 'oasis' inside the building enhancing natural ventilation and maximising indirect sunlight to the spaces within.

The building systems of the new headquarters have been developed to minimise both the energy required for cooling and the need for potable water consumption, while its structure reduces material consumption through architectural and structural integration, as well as recycled material recovery.

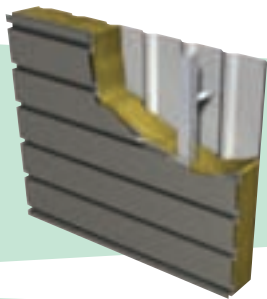
The new Bee'ah Headquarters building is defined by the principles that are the foundation of the company's mission to provide integrated environmental and waste management services to meet the future challenges of its community. Bee'ah is leading by example in creating a work environment that continues its commitment to deliver coherent and sustainable environmental solutions.

'Bee'ah is leading by example in creating a work environment that continues its commitment to deliver coherent and sustainable environmental solutions'

Always moving forward

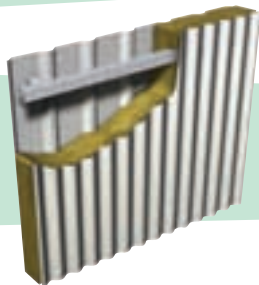


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AWARDS

Shortlists for BREEAM Awards 2015 announced

The shortlists have been announced for the BREEAM Awards 2015, the winners of which will be announced at a gala dinner at the London Marriot Hotel in Grosvenor Square on 3 March 2015.

Drawn from highest scoring buildings in 2014 – under the BREEAM schemes for assessing building sustainability – the shortlists include many of the most innovatively sustainable buildings in the UK and countries across Europe, including the Czech Republic, France, Norway, Romania and Sweden.

Gavin Dunn, director of BREEAM, said: “This year’s shortlists represent an extraordinary variety of inspirational buildings that are setting the standards for sustainability in the design, construction, refurbishment and management of our built environment.

“Ranging from city towers to factories, shops, schools, hospitals, homes and much besides, they demonstrate that the many benefits of sustainability can be gained from virtually any type of building.”

The shortlisted buildings are grouped into the following types: office, retail, industrial, healthcare, education, residential,

and mixed-use and other. There are awards for new construction in all categories, and for refurbishment and fit-out and in-use in the office and retail categories. The shortlists can be viewed on the BREEAM website.

The winners will be selected by an independent judging panel of eminent industry figures, chaired by Alan Yates of BREEAM, including architect Bill Gething, Claudine Blamey of the Crown Estate, Alan Cole of the Home Office, Mike Smith of BSRIA, Louise Sunderland of the UK Green Building Council and Thomas Lane of Ecobuild and Building Magazine.

There are also BREEAM Awards for the most successful BREEAM assessors and assessor organisation, and for those introducing BREEAM into countries where it has not previously operated.

The winners will be announced at the BREEAM Awards 2015 ceremony on the first evening of Ecobuild on 3 March. A champagne reception at the London Marriott Hotel, Grosvenor Square will be followed by the awards presentation and dinner. Ecobuild is the awards partner for the event this year.

‘This year’s shortlists represent an extraordinary variety of inspirational buildings that are setting the standards for sustainability in the design, construction, refurbishment and management of our built environment’

Gavin Dunn, director, BREEAM

RESIDENTIAL DEVELOPMENT

Edinburgh housing development receives top marks

An Edinburgh housing development has received an excellent rating from the nationwide construction awards body.

Pennywell Living development – which is currently under construction by Urban Union who were appointed by the City of Edinburgh Council – received an overall score of 43 out of 50 by the Considerate Constructors Scheme.

The Considerate Constructor Scheme is a nationwide initiative set up by the construction industry to improve and enhance relations with communities where construction is taking place. The scheme encourages sites to adopt best practices beyond what is set out within statutory requirements and the main areas of concern are: general public, workforce and the environment.

The Pennywell development was reviewed in five categories, including appearance, respecting the local community, protecting the environment, safety and valuing its workforce. The development received a score of 9, which is an exceptional score, in three areas; respecting the community, appearance and site safety. The high score reflects the exceptional work which goes on at the development. Pennywell Living is one of Scotland’s largest housing-led regeneration projects, which is set to provide 356 social and mid-market rent homes, along with 363 new properties for private sale.

The extensive development, which is being built by developers Urban Union, is a result of a major investment of £42 million by the City of Edinburgh Council and includes £7.9 million grant funding from the Scottish Government.



PRIMARY SCHOOL REDEVELOPMENT

Green light for Nine Elms primary school and 290 new homes

‘Local people will look forward to seeing so many of these interesting spaces brought back to life’

Planning applications committee chairman Sarah McDermott



news bytes

Visit the website www.architectsdatafile.co.uk and enter the reference number for more information

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Ref: 33308

Britcon on-site for £2.6 million science park...
Ref: 33084

International architects appoint new director...
Ref: 58244

SPARK release Rail Baltic Parnu Passenger Terminal designs for architectural competition...
Ref: 37122

Wandsworth Council has approved plans for 290 new homes in Nine Elms and the redevelopment of St Mary's Primary School.

The application for Battersea Park East, by Taylor Wimpey Central London, comes with approximately £7.8 million towards improving transport infrastructure and local community services. The developer will also cover the costs of building the brand new St Mary's Primary School. Twenty one per cent of the new homes will be reserved for qualifying Wandsworth residents to rent or buy at a reduced price. The 4.5 acre site is currently home to a series of commercial and light industrial buildings, the existing primary school and is sliced into sections by two Victorian railway viaducts.

The approved scheme would reconnect the site with a network of pedestrian and cycle routes, including four links through the viaduct arches. A series of new buildings ranging in height from 1 to 18 storeys would be created as well as a new public square. In total there would be 5,440 sq m of public space. A new pedestrian link between Queenstown Road and Battersea Park Stations will run through the site from north to south. A second entrance to Queenstown Road Station would also be created. At ground floor level the development would be brought to life with shops, cafes, bars and galleries – many of which would be provided in a series of newly refurbished railway arches. As with all Nine Elms projects, the applicant

will agree a detailed cultural strategy with the council setting out how to animate the site and create a variety of commercial and community uses. Once complete the development could support up to 425 more jobs than it does today. The final number will depend on the final mix of commercial uses. The new state of the art St Mary's will include a 60 place nursery and capacity in the main primary school will increase to 420 pupils. There will be a new ground floor play space and a multi-use games area on the roof which will be available for local people to use outside of school hours.

Planning applications committee Chairman Sarah McDermott said: "This project will stitch together a badly disjointed corner of Battersea. The new routes through the railway viaducts will be of great value to communities on all sides and commuters will benefit from the connection between Battersea Park and Queenstown Road stations.

"The new public spaces are very welcome and the refurbished railway arches are an exciting feature. Local people will look forward to seeing so many of these interesting spaces brought back to life and we will work with Network Rail and the developer to attract a lively mix of uses.

"A fully redeveloped primary school, 60 affordable homes and a £7.8 million contribution to improving infrastructure completes an impressive package of benefits for Wandsworth residents."

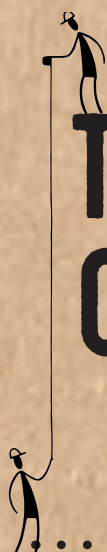
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EXHIBITION

'Architectural drawings have a profound ability to record and articulate the various design discussions that occur within an office or between an architect and a client'

Abraham Thomas, director,
Sir John Soane's Museum

Building a Dialogue: The Architect and the Client

Sir John Soane's Museum presents *Building a Dialogue: The Architect and the Client*, an exhibition exploring the delicate, complex and sometimes difficult relationship between clients and architects, charting the development of the architectural profession from Elizabethan to Victorian times.

Analysing exemplary projects by Sir John Soane, and the work of and influence on the profession by some of the most illustrious British architectural pioneers – Sir Christopher Wren (1622 – 1723), William Chambers (1723 – 96), Robert Adam (1728 – 92) and his brother James Adam (1732 – 94) – *Building a Dialogue* will look at the intrinsic dynamics of architectural commissions, in an unprecedented display of rare pieces from the museum collection.

The commissioning process for Soane's buildings, including Dulwich Picture Gallery and Holy Trinity Church, and Wren's Royal Naval Hospital will be presented through a unique body of work, which includes never before seen drawings, private and public documents, letters, correspondence, and models, in one of the most comprehensive surveys of the architecture profession ever displayed at Sir John Soane's Museum.

A key area of interest is the client's role within the process; client typologies will be examined through a series of historical case studies, focusing on different types of commissions: the private client; the public client; the State as a client; and, unusually, a posthumous client commission.

One of the exhibition's highlights, a recently discovered drawing of the facade of the museum, will be displayed for the first time. Conservators found the drawing in 2014, hidden behind a painting within a frame in the Museum. Soane produced very few drawings of his home at Lincoln's Inn Fields, as typically these were part of the presentation process to the



client; this newly discovered drawing is thus a rare and precious depiction of the architect's own vision for the building.

Sir John Soane's work at Dulwich Picture Gallery forms one of the exhibition case studies. The project and its construction presents a unique client-architect relationship, as Soane designed the gallery to the posthumous specifications of his friend Sir Francis Bourgeois. Bourgeois stipulated in his will (following his death in 1811) that Soane be given the commission to design and execute the gallery.

Problematic client relationships will also be explored through projects such as Soane's Holy Trinity Church, Marylebone and Wren's Royal Naval Hospital. Both these state-sponsored projects were characterised by radical changes to the architect's initial vision brought about by the strong opinions of the patrons. In particular Wren's initial concept of the Royal Naval Hospital envisaged demolishing Inigo Jones' Queen's House, something vetoed in the strongest manner possible by the King. Wren's initial vision will be illustrated by drawings by Hawksmoor and Knyff, which have previously not been shown to the public.

Abraham Thomas, director of Sir John Soane's Museum says: "Architectural drawings have a profound ability to record and articulate the various design discussions that occur within an office or between an architect and a client. I'm delighted that this exhibition not only draws upon gems from the museum's collection of over 30,000 architectural drawings, but also reminds us that Sir John Soane's home was the site of a busy architectural practice, embedded in the heart of the building, where such conversations happened every day. The exhibition also makes a connection between historical and contemporary contexts, by exploring the multi-faceted ways in which architects, especially Soane himself, have always engaged with, and redefined, the notion of a 'client' – showing us how design ideas have continued to express themselves through the drawing process, from Soane's time through to the present day." *Building a Dialogue: The Architect and the Client* will be on display at Sir John Soane's Museum from 17 February to 9 May 2015.





Young talent creates lasting accolade

To celebrate Franke Sissons' 230 years of design, innovation and manufacturing in Chesterfield, the company has commissioned a stunning new stainless steel sculpture for the town. Working with the company's design and engineering apprentices and the children of Parkside Community School, Franke Sissons' invited the students to come up with concepts and designs for the project estimated to be worth in excess of £5,000. The final design was formally unveiled as part of Chesterfield's Made in Chesterfield Event. The new sculpture is situated in the pocket-park donated to the town by the District Civic Society. Managing Director, Andy Dukelow explains: "The Year 10 students at Parkside have been wonderfully creative and focused on this project. We wanted something that truly reflects the manufacturing pedigree and history of the area, our own excellence in stainless steel but that most importantly engaged with young people and inspired them."

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BOOK

Phaidon to publish *Brick* – a fresh look at the world's oldest manmade building material



Technical Administration Building of
Hoechst AG, Frankfurt, Germany, 1924, Peter Behrens

Brick takes a fresh look at the world's oldest manmade building material, collating remarkable and beautiful brick buildings from around the world.

Published by Phaidon following the success of *Concrete* (William Hall, 2012), *Brick* is an insightful and often surprising look at a humble material which has been an architectural staple for centuries. Yet as William Hall points out, no illustrated books have been published on the subject for over a decade, suggesting that despite its ubiquity brick architecture is distinctly under appreciated.

As well as showcasing extraordinary early works of architecture, such as the strange remains of the Ziggurat of Ur (dating from 2100 BC) and the vast Baths of Caracalla in Rome (216 AD), *Brick* features some of the most celebrated architects of the 20th century, such as Mies van der Rohe, Alvar Aalto, and Frank Lloyd Wright – for whom bricks were integral to his vision of an American vernacular. Equally striking and memorable works are featured by innovators working into the 21st century, such as Frank Gehry, Peter Zumthor, Kazuyo Sejima, and many lesser-known newcomers.

Arranged to promote comparison and discussion, the selected projects take the reader on a global tour of intriguing and inspiring structures: an American arts centre sits next to an English castle, a French war memorial is shown alongside a Russian cathedral, and a Uruguayan church next to a school in Burkina Faso.

Illustrated with extraordinary photographs, each project includes an extended caption providing a commentary on the building. An essay by the historian and BBC television presenter Dan Cruickshank sketches the fascinating history of this enduring building material. "There's an alchemy about brick," he begins.

"Through fire, a soft, ephemeral and 'base' material – mud – is transmuted into the hard, the eternal, and the beautiful."

Brick is a handsome and informative visual exploration of a material that is often overlooked but is actually full of spectacular potential.

COMPETITION WINNER

OAC wins UNESCO heritage site 'Daming Palace' regeneration masterplan in Xi'an, China

London-based practice Office for Architectural Culture (OAC), led by Charles Phu, has won the design competition for the regeneration of an area of approximately 300 hectares in the heart of the City of Xi'an, China. This mixed-use project covers part of Daming Palace Heritage Park, a UNESCO World Heritage Site, as well as the site of the large early-20th century Dahua Wool Spinning Factory.

Xi'an, home of several UNESCO Heritage Sites including the world-famous terracotta warriors, is considered the historical and cultural capital of China. It was the capital for 13 Chinese imperial dynasties, including the most powerful ones such as the Qin, Han, and Tang Dynasties, and was the world's first city to reach a population of one million in the 7th century. It was the most important and influential city along the ancient Silk Road and Daming Palace, the imperial palace of the Tang Dynasty (618 – 907 AD), was the political and cultural centre of Silk Road cultures at its peak. With its 3.11km² area, it is the biggest known imperial palace complex in the world.

In OAC's design proposal, the core area of the project, which will be the first phase to be developed, is an area of approximately 580,000 sq m. It has a mixture of developments including culture-themed retail, galleries, class-A corporate offices, creative offices and live-work studios, two five-star hotels, apartments and large public outdoor spaces. A 12,000 sq m Silk Road Museum is proposed, part of which falls in the Daming Palace Heritage Park. The museum will form a centre and platform for cultural exchange across Eurasian continents, along with an adjacent area

where bi-annual global expo events showcasing cultures and art will be held.

OAC's winning scheme adopts an approach of maximising urban green space and verticalising public realms into layers. Its architectural solution ties Daming Palace Heritage Park, Dahua Wool Spinning Factory, and the surrounding areas together.

Charles Phu, design director and founder of OAC, explains: "At the beginning of design process we realised that this urban regeneration project, because it includes part of the Daming Palace Site, meant a profound responsibility for the architect to integrate the urban, historical, cultural and archaeological contexts and transform this into a liveable environment. So, how to address both the macro and micro scales of the regeneration became a key to our concept. Our response connects the medieval Tang Dynasty's civilisation, Silk Road/Eurasian culture and influences, last century's industrial achievements, the present and the future. Whilst aiming to bring the site's already world-famous status to the next level, I believe that it is even more important to encourage people to interact and enjoy a socially and culturally sustainable, human-friendly urban environment by breaking down the scales of buildings and spaces and providing freedom of movement and experience to pedestrians."

The design proposal also includes a 300m tower. This follows in the tradition of beacon towers which once helped way finding along the Silk Road and, by providing multiple storeys for offices and apartments, will release area around it for public realm and low-density, pedestrian-friendly environments and buildings. The tower will also accommodate

a series of sky garden lobbies and an observation deck.

Charles Phu said: "The urban structures of the regeneration areas in OAC's designs refer to the principles of primeval settlements, which can still be found in many villages and towns across Eurasia.

"People, not vehicles, should be the master of the place where they live, work and play. Our aim is to counteract the wide-spread trend of urban developments dominated by cars. I knew this would be a big challenge for Xi'an as well as for China and many major cities around the world but I believe that, in order to construct something, you sometimes need to 'break the rules' and challenge trends. It is not only about the grand vision; it is about human wellbeing. It is more than a design or urban issue; it is a social, human issue."

'People, not vehicles, should be the master of the place where they live, work and play'

Charles Phu, design director and founder of OAC



TRAINING ACADEMY

'We are delighted to announce the launch of the HLM Academy, which will provide all staff with a unique blueprint for their career.'

Karen Mosley, a director at HLM

HLM to invest £250,000 in new training academy launch

HLM, a leading architectural practice, has announced the launch of HLM Academy – an in-house professional excellence programme which will help ensure that all employees have the opportunity and resources to reach their full potential.

The training academy will be available to all 200 staff – management, design and administration – based across the company's eight offices and to the subsidiaries within the wider group. Every employee will be provided with a personalised career development plan, which will identify and enhance their strengths, while working on those areas where further support and training is required. The academy will also help those who wish to develop specific aspects of their role or take on additional responsibilities.

Commenting on the new academy, Karen Mosley, a director at HLM, said: "We are delighted to announce the launch of the HLM Academy, which will provide all staff with a unique blueprint for their career.

"We've always taken the development of our staff seriously but the academy will provide the structure for individuals to

really excel. We have recently re-affirmed our mission and vision, which will be embedded in everything we do, and the academy underpins our core values of people, quality and Clients. Critical to our success is everyone playing to their strengths – doing what they do best – as well as being recognised for the value they add to our business.

"All existing and new employees will be enrolled into the academy and because everyone is unique – with different strengths and aspirations – we will design a tailored career path with them. At HLM we know that every person matters and everyone adds value, and that everyone needs to be valued.

"The launch of the HLM Academy will put training and development at the heart of our business and will become an integral part of life here at HLM. It is a very clear demonstration that we are committed to not only providing a great place to work, but a place where everyone can grow and develop."

HLM's commitment to staff development has already been recognised by the industry: in a recent survey conducted by Building Magazine, HLM came out as one of the top 50 employers in the UK's construction sector.

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MUSEUM CONSTRUCTION

Skanska constructs museum in Miami for \$101 million

Skanska has signed a contract to complete the construction of the Patricia & Phillip Frost Museum of Science in Miami, Florida, USA. The contract is worth \$101 million, about SEK 690 million, which will be included in order bookings for Skanska USA Building for the fourth quarter of 2014.

The new 23,000 sq m Frost Museum of Science is located in Museum Park in downtown Miami, and will replace the existing museum that opened in 1960. The museum is targeting a LEED Platinum rating. For more information, please visit www.architectsdatafile.co.uk and enter reference number 75506.



MUSEUM CONSTRUCTION

Benoy announces exciting Bahrain marina masterplan

Benoy, an international, award-winning architecture, masterplanning, interior and graphic design firm, is thrilled to announce the first phase of the Bahrain Marina Development in Manama, Bahrain.

The firm has just completed the concept masterplan for this luxury scheme which will reinvent the current marina with a 150,000m² mixed-use design including the prestigious Bahrain Marina Yacht Club.

State-of-the-art facilities across several sectors, comprising residential, entertainment, leisure and hospitality will further develop this bustling capital city. With a 5 star hotel, serviced apartments, retail, a cinema and a wide variety of food and beverage options; the Benoy Masterplan creates a landmark community anchored by the Bahrain Marina Yacht Club situated at the heart of the project.

Subtle aspects of the design, such as the wide promenade which will encourage meandering through the retail area as visitors enjoy the beautiful water features accenting the vibrant atmosphere, along with more prominent amenities combine to create this new lifestyle icon which will completely transform the current waterside area of Manama into a premier destination reaching far beyond the Gulf Coast region.

Working with the real estate investment arm and a wholly owned subsidiary of Bahrain's Social Insurance Organisation (SIO), Amlak, Benoy is proud to visualise its first project for them.

Further commenting on the development, a spokesperson from Amlak stated that: "This Masterplan not only meets our brief of driving further investment into the Kingdom, but

Benoy's design brings a world-class development all residents and visitors can thoroughly enjoy. We are very keen to position the Bahrain Marina Development as a National Landmark."

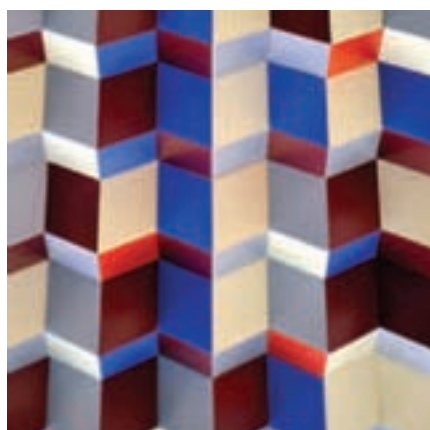
Paul Priest, Benoy Director and Head of MENA Studios, commented that: "The Bahrain Marina Masterplan has been inspired by the beautiful natural environment blended with the energy of the Capital.

"With the support of Amlak on this stunning and diverse project, we are sure it will quickly become an iconic development in the Benoy portfolio," Paul added.

'Benoy's design brings a world-class development all residents and visitors can thoroughly enjoy'

Spokesperson from Amlak





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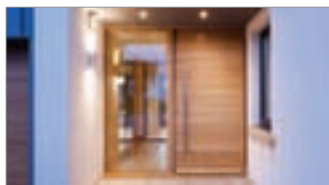
#SDS15



cpd focus

continuing professional development
Maintaining and improving professional competence, skills, abilities and knowledge

URBAN FRONT ANNOUNCES NEW WORKSHOP TOUR



Urban Front has announced its Workshop Tour, launching early next year. The workshop tour will run for just over an hour and incorporate the following learning outcomes: A good understanding of how a contemporary hardwood door is manufactured; a better understanding of the types of hardwood and their benefits; a good ability to interpret CADs used for manufacture; a better ability to specify doors correctly; and an understanding of the various issues related to making doors.

01494 778787
www.urbanfront.co.uk

enq. 107

NEW CPD SEMINAR FROM ZEHNDER

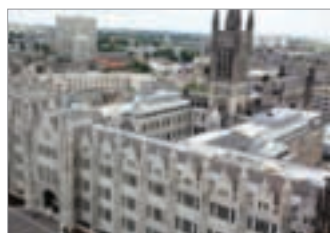


Zehnder, a leading manufacturer of indoor climate solutions has updated its RIBA and CIBSE approved Radiant Heating and Cooling CPD as part of its on-going commitment to train and inform the Architectural, Engineering and Construction Industry. The CPD seminar explains the principles of radiant heating and cooling, how they affect comfort levels for building occupants, and examines the usage and installation benefits of radiant technology.

01276 605800
www.zehnder.co.uk

enq. 108

SELECTING EFFECTIVE AND SECURE FLAT ROOF SYSTEMS



Sika Sarnafil is pleased to announce the new RIBA approved CPD for Sika Sarnafil entitled *Selecting Effective and Secure Flat Roof Systems*. This CPD introduces the key components for a successful and effective roof system, covering design, materials and workmanship. An outline of additional areas included is below:

- typical application areas
- key factors in roof design and product selection
- key standards and guidelines
- sustainability
- typical challenges
- quality assurance
- history and group information

For over 50 years Sika Sarnafil has provided high quality single ply roofing solutions, backed by decades of expertise and market leading guarantees. Sika Sarnafil's exemplary commitment to training is widely recognised in the roofing industry, and this commitment extends to the Continual Professional Development of construction professionals. The company's range of RIBA accredited CPD seminars support specifiers, contractors and clients' understanding of the issues surrounding the specification of single ply roofing. If you are looking for assistance for selecting an effective and secure flat roof system and require further information on this seminar please contact Sika Sarnafil.

01707 394444
sarnafilroofing@uk.sika.com

enq. 109

SOLID SURFACES - FOR INTERIOR AND EXTERNAL ARCHITECTURE



CD (UK) - The seminar is structured as follows: Development of Solid Surface from 1960's to present day; Raw materials, adhesives and composition; Solid Surface characteristics and benefits; Manufacture: Sheet, Matrix sheet and shape product; Comparison of Solid Surface characteristics; From production to fabrication process; Properties of Solid Surface; Architectural and Design possibilities; Current applications (visuals); Environmental considerations; Support, warranty and service infrastructure.

0113 201 2240
www.cdukltd.co.uk

enq. 110

SWISH BUILDING PRODUCTS CPD SEMINARS



Swish Building Products is one of the UK's leading suppliers of PVC roofline and cladding. This includes fascias, bargeboards, window boards and trims, internal and external cladding, and rainwater. Swish is accredited with Energy Management Certification ISO50001 in addition to the responsible sourcing certification BES6001, ISO9001, ISO14001 and OHSAS18001. Swish holds CPD Seminars focusing on sustainability and the low-maintenance benefits of cellular PVC.

01827 317 200
www.swishbp.co.uk

enq. 111

events

CONFERENCES & SEMINARS

Don't Move, Improve!

Until 12 February, London
www.newlondonarchitecture.org/exhibitions.php

Greener Buildings:

Common Sense, Innovation and Things to Avoid

19 February, Cambridge
www.architecture.com/whatson

EXHIBITIONS

Chamberlin, Powell & Bon Architects

Until 22 March, London
www.barbican.org.uk/artgallery

FESTIVALS

Clerkenwell Design Week

19 - 21 May, London
www.clerkenwelldesignweek.com

London Festival of Architecture

1 - 30 June, London
www.londonfestivalofarchitecture.org

TALKS, LECTURES & DEBATES

Planning Law Update

22 April, Nottingham
www.architecture.com/whatson

TOURS

How Historic Buildings Work

5 March, Lincoln
www.architecture.com/whatson

TRADE SHOWS

Surface Design Show

10 - 12 February, London
www surfacedesignshow.com

UK Concrete Show

25 - 26 February, Birmingham
ukcs2014.businesscatalyst.com

Ecobuild

03 - 05 March, London
www.ecobuild.co.uk

editor's focus

Premier Loft Ladders

Pictured below is the the Premier Loft Ladders Supreme stairway, available with a wooden or steel (F30 or F90) trapdoor – electrical operation. These are bespoke ready to fit units made to suit the customer's specifications, though minimum opening hatch opening lengths and widths apply. The stairway is operated by a 24 volt low noise motor with an emergency power supply supplied by two standby batteries. There are numerous optional accessories which can include a telescopic handrail to one or both side, remote control, a lock switch to prevent unauthorised and so on.

enq. 112



Flight Design Projects

Flight Design specialise in the design and installation of architectural features such as staircases, balustrade, mezzanine floors and furniture. It undertakes work for both residential and commercial projects, working with architects and interior designers, as well as private clients. Working with a wide range of materials, it looks to stretch the boundaries of both material and design, to produce fascinating structures. Every installation is bespoke, and carefully built in its workshop to your specifications. Its experience with materials and processes, coupled with a strong design ethos, ensures a project with stunning impact.

enq. 114



The Deck Tile Co.

The LevatoMono Porcelain paver system from The Deck Tile Co. Ltd. is designed for fast, cost effective installation over most surfaces, including single ply waterproof membranes and other waterproofing systems using paver pads or height adjustable/slope correcting supports. The system is available in 40 plus colours and finishes in both realistic timber and stone effects. By combining 3D printing and mould making technology, identical copies of natural materials are reproduced and with up to 30 prints available for each paver range, the eye is unable to discern any replicated pattern.

enq. 115



GDL Air Systems

The GDL Intelivent Natural Ventilation Brochure has been updated to incorporate the latest product lines with a revamped style and is now available in either a hard copy or electronically via website. GDL's new brochure is packed with extensive technical information clearly explaining where its natural ventilation systems would be suitable and applicable with case studies throughout to demonstrate the case. GDL has significantly extended its product range to offer customers more choice of sustainable wind driven and solar powered ventilation with the option of incorporating natural lighting throughout all building types.

enq. 117

Consort Claudgen

Consort Claudgen, the UK manufacturer of electric heating products, has published its latest catalogue which introduces a host of new products. New additions to the range include wireless controlled air curtains, 1,500mm wide recessed and surface mounted air curtains, powerful commercial fan heaters, low surface temperature panel heaters, radiant ceiling tile heaters, the very stylish Tuscany radiator as well as a number of other new products. All of these are detailed in the catalogue along with panel heaters, convectors, fan heaters, downflows, towel rails and LST heaters.

enq. 116



The new Hitachi Intercity Express fleet will be built in Britain

Putting train manufacturing back on track

This summer a new factory opens in the North East of England – the first large-scale railway train building facility to be built in Britain for more than a century. Ray Philpott finds out what makes it special

A swathe of redundant farmland in North East England is being dramatically transformed into a high-tech industrial centre with a gigantic new factory at its heart.

This is where the country's next generation of express trains will be made by a resurgent British railway manufacturing sector, following a huge investment by the Japanese bullet train manufacturer Hitachi.

Next year, the gigantic Hitachi works at Newton Aycliffe will begin building a fleet of 122 hi-tech, electric Class 800 Super Express trains – each 140mph-capable train taking 35 days to build from start to finish. From 2017 they will replace the iconic, but rapidly ageing and diesel-powered High-Speed Train (HST) fleet, operating on the Great Western and East Coast Main Lines. Later, they will also supercede 1980s-vintage Intercity 225 electric trains.

The creation of the £82 million facility is a cornerstone of the £5.7 billion Intercity Express Programme (IEP) run by the Department for Transport (DfT) in partnership with Agility

Continued overleaf..

'The gigantic Hitachi works at Newton Aycliffe will begin building a fleet 122 hi-tech, electric Class 800 Super Express trains – each 140mph-capable train taking 35 days to build from start to finish'

‘Prior to the existence of this new factory, Britain’s once world-renowned train and locomotive manufacturing industry had been in rapid decline’



An archeological survey was carried out prior to work commencing



When completed, the vast building will be one of Europe's state-of-the-art train building factories

Trains – a joint venture between Hitachi Rail Europe and John Laing Investments.

Prior to the existence of this new factory, Britain’s once world-renowned train and locomotive manufacturing industry had been in rapid decline. By 2005 there was just one major rolling stock manufacturing base operating in Britain, the Bombardier Transportation plant in Derby.

Now there are two again. But make no mistake, Hitachi Rail Europe’s cavernous new 43,000 sq m building is much more than just a factory. It symbolises the company’s ambitions to win a significant slice of sales in the buoyant multi-billion pound UK and continental European train manufacturing market. Indeed, Hitachi has recently made London the HQ of its global rail business.

The firm is also locating its UK design office at Newton Aycliffe, further symbolising its investment of cash and confidence in the expertise, flair and innovation of Britain’s rail industry. The factory will also provide a much-needed shot in the arm for the North East’s long-struggling manufacturing sector, creating 730 new jobs in the factory and employing many of the region’s firms in the construction process.

Initially the works will build, assemble and fit-out trains using metal body shells shipped over from Japan but the company has strongly indicated that the body shells could also be made at Newton Aycliffe in the future.

Greenfield site

The factory is situated five miles from Darlington on a 127,000 sq m greenfield site that takes up a third of the 104-acre Merchant Park being created by developer Merchant Place Developments. With a direct link to the UK rail network, the facility at the industrial park also includes a 1km-long test track for newly built rolling stock and sidings outside the building.

Designed and developed by British architects Ryder Architecture, working closely with Masayuki Ninomiya, chief

architect for Hitachi Rail Europe, the factory not only has to fulfil practical and sophisticated industrial functions but needed to make a bold statement.

Martin Elliott, Ryder’s architectural director, says: “To deliver an advanced manufacturing base like this there has to be a close liaison during the design process with Hitachi and the developer. Our aim has been to create and deliver a functional, energy-efficient workplace that is intended to be one of Europe’s premium state-of-the-art train production facilities.”

Work began in November 2013, with topping out taking place in October last year and final completion and fitting out due this summer.

While building on a greenfield site might be considered to offer many advantages over a previously developed one, it also brings its own challenges.

The site was known to originally be on or part of an Iron Age settlement and home to some rare amphibians. Elliott explains: “While planning consent was granted in 2012, before any construction work could begin an in-depth archaeological investigation and study of the site was carried out in 2013 over a period of nine months. Great crested newts, a protected species, were also found there, and had to be relocated to the nearby Newton Aycliffe nature reserve. We also needed to divert a public footpath.”

The survey did find evidence of ancient settlement in the area, but archaeology was limited in the land directly under the factory site and any findings were preserved where possible and recorded for posterity.

Even with the planning green light given, it was obvious that such a large scale manufacturing facility would require a significant amount of essential services and utilities to be provided. The trouble was that virtually no infrastructure of this sort was in place on this undeveloped site, and most of these services have had to run to the site for the first time.

The ground had to be prepared and levelled, a mammoth

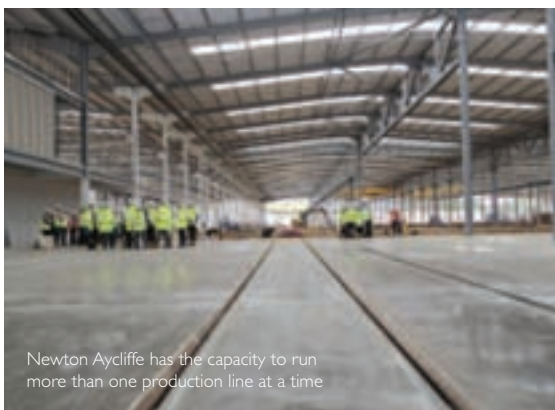


The building is constructed around a 2,000 tonne steel framework

task that saw 38,650 dumper loads of top soil shifted and 16,100 cubic metres of concrete laid down by a local company under the leadership of main contractor Shepherd Construction.

Striking

Essentially, the building is primarily constructed around a 2,000-tonne steel framework clad in fully insulated steel sheet.



Newton Aycliffe has the capacity to run more than one production line at a time

The metal roof comprises four gable-profiled roof spans supported by widely-spaced steel columns with skylights covering 10 per cent of the surface and providing natural daylight to the whole factory floor. It is also clad with photovoltaic panels with a combined generating capability of one megawatt, making a significant contribution to the building's energy supply. In addition, the building features dimmable LED lights with daylight sensors to minimise power consumption during daytime.

Anyone approaching the front elevation of the structure is faced with the striking facade under the first span, featuring two-tone low-E glass to the front and side and shaded by metal brise soleil to minimise solar heat gain. The offices and staff facilities are located behind this glass area which is internally separated by firewalls from the manufacturing areas.

"There's a cutting edge spatial arrangement for both office and production areas allowing for future flexibility," explains Elliott. "Workforce comforts and benefits are also carefully considered and there is strong provision for canteens, showers, locker space and excellent cycle storage space.

Next to the offices and staff facilities is the hardcore industrial part of the building where trains are actually assembled and rolled out. Studies of various manufacturing scenarios were undertaken, including associated activities such

Continued overleaf..

'Even with the planning green light given, it was obvious that such a large scale manufacturing facility would require a significant amount of essential services and utilities to be provided'



Pictured: The frontage of Hitachi's flagship European manufacturing plant makes a strong industrial statement

as material deliveries, vehicle shunting and worker movements. These scenarios have helped define and drive the key elements of the building.

The Newton Aycliffe facility has been designed to enable it to construct trains of varying size, design and complexity – not just the Intercity Express class of trains. In fact it will soon be operating simultaneous production lines for the Intercity Express and AT200 electric trains recently ordered for Glasgow to Edinburgh services. It also has the capacity to build double-deck rolling stock for potential export to continental Europe.

Two crucial pieces of equipment that facilitate that are the bespoke electrically-powered traversers – or transfer tables.

These huge pieces of moving equipment enable individual rail vehicles weighing up to 80 tonnes to be effortlessly shifted sideways from one track to the next during the manufacturing process. Developed and produced by specialist Sheffield company Mechan, they remove the need for a heavy lifting crane both inside the factory and outside.

In the rail industry safety is always a business-critical factor and, consequently, Hitachi Rail Europe has a 'no cables on the floor' policy for its new factory.

Elliott adds: "The facility needs well organised utility feeds to its 46 assembly workstations, and we utilised the overhanging pivot arms on the columns and other manufacturing structures



to deliver this. The service integration and movable working platforms allow for future flexibility and provide a tidy, organised manufacturing environment which can ensure products of high quality.”

Additionally, TwinTec ‘jointless’ slab flooring made from steel fibre-reinforced concrete has been installed to create a trip hazard-free surface for the assembly and test line areas, traversers and offices.

Hitachi takes environmental issues seriously and is aiming to achieve a BREEAM Excellent rating and an extended building life of at least 60 years. This is quite a challenge, considering the vast footprint of the building – 180m wide,

274m long and 13m high – and the power-hungry nature of a heavy engineering environment.

Flagship

Hitachi Rail Europe’s Chief Architect Masayuki Ninomiya is responsible for ensuring the factory meets all of the company’s manufacturing requirements for current and potential future designs. Ninomiya says: “Building a brand new train factory on a greenfield site in Newton Aycliffe has been a very interesting challenge for us at Hitachi Rail Europe. However, our close work with Merchant Place Developments and Ryder Architects

Continued overleaf..

**Architects:**

Ryder Architecture,
Hitachi Rail Europe

Main contractor:

Shepherd Construction

Cladding:

Northern Cladding

Floor slabs: TwinTec

Steelwork: Finley
Structures (Steel)

Foundations:

Rainton Construction

Consulting Engineers:

TGA

has been a very fruitful experience and the excellent progress on-site so far is testament to that."

He adds: "For Hitachi it's important that we get this right because Newton Aycliffe is going to be our flagship train manufacturing facility in Europe."

When the Super Express trains begin rolling off the production line in 2016 they will be the first true high-speed trains to be constructed in this country for over a decade. Yet,

even in the relatively short time since construction of the factory began, Hitachi won a further major order to build a fleet of AT200 regional trains for Scotland.

So, even before it opens, the factory at Newton Aycliffe is already helping to get British train manufacturing firmly back on track.

If all goes well, new British-made trains may soon run in Europe!

Remmers Floomix DQ – the ideal solution



The main production area of the Express Contract Drying factory in South Wales required refurbishment. The existing slabs created significant substrate challenges due to the mixture of old finishes and bare concrete. TPS360, the contractor for the project, was instructed to produce a new floor finish that

needed to be slip resistant with good chemical resistance while providing an attractive and highly durable finish. **Remmers Floomix DQ** flooring system was chosen for its special blend of decorative colour quartz aggregate and extreme durability which was ideally suited for this application. standard to avoid ponding.

0845 373 0103 www.remmers.co.uk

enq.118

Crittall announces significant investment



Significant capital investment in advanced production equipment and renewable energy has been announced by **Crittall**, one of the world's leading steel windows manufacturers. It comes at a time when the company's order book is looking extremely healthy both in terms of the home and US export markets. Heading up the

programme is an order for an advanced £140,000 Gianos CNC Machining Centre from leading Italian manufacturers MECAL. This will boost production efficiency and flexible machining operations across the entire range of products produced at Crittall's factory in Witham, Essex. This will be the first Gianos model to be installed in mainland UK.

01376 530800 www.crittall-windows.co.uk

enq.119

Fibre-Trowel protects bunds, sumps and floors



Archco-Rigidon, a division of Winn & Coales, has over 40 years of global experience in the field of resilient materials for heavy-duty coating and lining applications. It has now introduced its new medium-duty product, **Archco-Rigidon Fibre-Trowel 750**, a three-coat lining system designed for the protection of concrete bunds, sumps and floors. Designed specifically for spillages, Fibre-Trowel 750 is ideal for use where a continuous immersion

grade or heavy-duty lining would be prohibitively expensive to use or too labour-intensive to install. Fibre-Trowel 750 system can be quickly and easily applied. It is resistant to spilled water, oil, as well as certain solvents and chemicals.

020 86707 511 www.denso.net

enq.120

news bytes

Visit the website www.architectsdatafile.co.uk and enter the reference number for more information

Skanska constructs new healthcare building in Uppsala, Sweden, for SEK 1.2 billion...
Ref: 71993

Hope Construction Materials awarded industry's highest health & safety award...
Ref: 59361

Forty per cent of construction sites fail health and safety spot-checks...
Ref: 40785

Value in the vision of health architecture...
Ref: 32516

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Portakabin Group awarded hospital contract



The **Portakabin Group** has secured a £10 million contract for the off-site construction of two new buildings which will provide clinical services during the 3Ts Redevelopment of the Royal Sussex County Hospital in Brighton. Procured under the ProCure21 framework, the contract, which uses a Yorkon off-site solution, includes

construction of the Portakabin Group's first six-storey building in the health sector. By using a Yorkon modular solution for both schemes, the facilities will be built to permanent standards with a 60-year design life and in compliance with NHS requirements, but have the flexibility to be removed, recycled and relocated to another site or can remain in place.

enq.122

Pro-Tecting a new generation of mental health



The latest in an award-winning new generation of mental health hospitals is using advanced roofing technology to achieve a durable, quality building for the future. A key element of Mersey Care NHS Trust's £25 million, 80-bedroomed Clock View is its

focus on single storey buildings around courtyards, with all the areas roofed using single ply membrane. Richmond Roofing, for main contractor Farrans, utilised almost 7,000m² of Protan SE1.8mm single ply, mechanically fixed over a vapour control layer, to construct the facility's roofs. Protan SE membrane is certified to deliver, and potentially surpass, the energy efficiency requirements laid down in *Approved Document L*, and, under the *Green Guide*, achieve a A+ rating.

01925 658001 www.protan.co.uk

enq.123

Improving patient quality of care



Improving the quality of patient care is being taken to new dimensions at Leighton Hospital in Cheshire with the installation of a Changing Places assisted accessible toilet. With more space for manoeuvrability than a conventional wheelchair accessible WC, a Changing Places toilet also has as standard a hoist, adult-sized height adjustable changing table, and privacy screen. Supplied and installed by Clos-o-Mat, the Changing Places toilet also features a Palma Vita automatic shower (wash and dry) toilet, in place of a conventional WC, to further improve hygiene by eliminating the need to wipe clean with toilet tissue.

0161 969 1199 www.clos-o-mat.com

enq.124

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enq.125



New North Zealand Hospital – a blueprint for the future of healthcare

By Steven Bentley, Director, Ramboll UK

When the New North Zealand Hospital in Hillerød, Denmark, delivered its brief for the design of a new hospital, it asked for “creativity and innovation” and spoke of the opportunity to “build for the future”. Located in the region north of Copenhagen, the new £400 million hospital consolidates the area’s three existing hospitals, and is part of Denmark’s wider healthcare consolidation programme that includes the redevelopment of nine hospitals in total.

Following a 12 month international design competition, the architectural consortium of Herzog & de Meuron/Vilhelm Lauritzen Arkitekter were awarded the contract to design, while Ramboll were named as project management consultants and providers of engineering services.

The final design for New North Zealand Hospital will span over 128,000 sq m, serve over 310,000 people and hold nearly 700 beds. It is marked for completion in 2020. Interestingly, one of the main cruxes to its design is the need to ‘plan for uncertainty’ and ‘design for change’. The hospital must be

flexible enough to accommodate technology that is yet to be invented and handle epidemics that may yet be unleashed. In addition, as requested by the hospital board, the design is to be fully led by best practice in patient care.

Incorporating nature

The greenfield site offers an ‘optimal physical setting’, with the structural design intended to work alongside natural space to maximise recovery times – such as ‘on’ and ‘off’ stage zones to separate patients from functional hospital aspects. The designers drew on outside studies, including a report by Dr Robert Ulrich, Professor of Architecture at the Center for Healthcare Building Research in Sweden. Ulrich’s work revealed patients recover significantly faster in single bed wards, and that bringing patients closer to nature improves their sense of well-being and thus speeds up recovery. In an inverted population pyramid there will be fewer resources available for an aging population, so single bed wards provide a key

Continued overleaf...



'The hospital has been envisioned as a pavilion set within the surrounding forest and the design brings together all the hospital's necessary functions within one clover-shaped structure'



opportunity for patient care to be provided by immediate family member visitors.

In response to studies such as this the hospital has been envisioned as a pavilion set within the surrounding forest and the design brings together all the hospital's necessary functions within one clover-shaped structure. The low-rise building reaches out horizontally into the landscape, surrounded by trees and native plantation, in a "soft, flowing form".

Unlike many large scale hospitals, the inviting and welcoming facility maintains a human scale, arranged around an expansive and secure roof garden set above the main diagnosis and treatment floors. The low building is intended to foster better exchange between staff and patients, improving communication and well-being within a building that is sustainable, safe and welcoming. The bed wards will be constructed from prefabricated modules made from either metal or wood, as a means of both reducing on-site waste and embracing modern methods of construction.

The future of medical treatment

The recent Ebola outbreak highlights the importance of the need for hospital design to accommodate and contain disease as effectively as possible. The bottom two storeys of the building are comprised of diagnosis and treatment facilities, and have thus been designed to be fully flexible in order to accommodate any changes to disease prevention that might take place between now and 2020. For example the design allows for either full isolation of immuno-suppressed patients or fully open plan treatment.

Demountable walls and regular span floor plates accommodate for any changes in usage and function, including

expansion. This ensures that construction processes are as straightforward as possible. Off-site prefabrication of the upper storey ward blocks will reduce waste, ensure uniform quality, allow beta-testing of new innovation, and allow a large proportion of the hospital to be constructed in a safe and weather protected environment.

There will also be a focus on automated logistics with the introduction of self-driving automatic goods vehicles (AGVs) to distribute goods, food and waste from a purpose designed service village. A separated lower-level service floor will allow the AGVs to distribute to localised vertical distribution cores across the hospital, with goods arriving and departing close to their use, before a human focus on the "last 30m of travel". Electronically tagged beds will even be automatically delivered to a central bed-washing facility after each patient use – with technological assistance becoming ever more adopted in the operational aspects of the hospital.

A blueprint for the world?

A pioneering scheme, the New North Zealand Hospital focuses on exploring the key roles that intelligent design and a positive environment can have within healthcare provision and in seeking sustainable design solutions. It raises serious questions about how the UK approaches upgrading its hospitals, and whether, as the Danes have done, in order to become more efficient in the future we must increase our investment today. Architects and engineers are becoming ever more central in determining the future of responsive healthcare, and New North Zealand Hospital has the potential to act as a blueprint for how this relationship is determined.

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few surfaces on which dust and potentially harmful detritus can accumulate. Their low mounting height also simplifies inspection and cleaning procedures. Where safety is concerned, it is ideal for anti-ligature and anti-barricade applications in post-natal depression and psychiatric care facilities as well as secure units. Their concealment also means that they are less likely to be vandalised..

0121 766 4200 www.perko-powermatic.co.uk

enq.128

TTA Awards – time to send your entries in!



One of the industry's most prestigious award events is benefitting from an enhanced judging panel and online support for 2015, including a new microsite. The TTA Awards are fast approaching, and the deadline for getting your award nomination in is 31 January. The awards are returning to the Midlands this year and will

be held at St Johns Hotel, Solihull, on 18 April. This will be the night the whole industry comes together to recognise the brightest and best individuals, the most innovative new products and the sector's best and most interesting projects. Once again it promises to be a highly memorable occasion attended by the majority of tiling companies and many leading figures within the industry.

0300 265 8453 www.ttaawards.com

enq.130

Schueco UK achieves IIP gold status



The UK Commission for People and Skills, the body responsible for Investors in People – the UK's premier people management standard – has awarded Schueco UK Limited, Britain's foremost specialist in

aluminium systems for the building envelope, IIP Gold Status. Achieving the prestigious Gold status further enhances Schueco's reputation as a highly successful, well-run company that achieves ambitious business goals while being totally committed to the well-being of its staff. The company became an accredited IIP organisation in 2010 and achieved Silver Status in 2012. Managing Director Mike Lane sums up: "Investing in people is central to our culture, values and success."

01908 282111 www.schueco.co.uk

enq.132

Bathroom flexibility makes the difference



The ability to adapt its bathrooms to meet the needs of each resident has been fundamental at Blind Veterans UK's centre in Ovingdean, Brighton, Sussex, where they have opted for height adjustable products from Pressalit Care. As part of a refurbishment of 14 en suite bathrooms, height adjustable wash basins and shower chairs have been installed along with toilet support arms and shower rails. Jackie Greer, Blind Veterans UK's head of care services says: "The Pressalit Care bathrooms

enable our veterans to be as independent as possible, whether or not they require the assistance of a carer."

0844 880 6950 www.pressalit.com

enq.129

Levolux catches the eye in Manchester



The Former Royal Eye Hospital in Manchester has been dramatically transformed into a new biomedical centre of excellence, with a decorative, bright red, perforated screening and solar shading solution, courtesy of Levolux. Levolux worked collaboratively with the architect and the client to design a custom external screening solution that not only shades the building's glazed openings, but also creates a bold

visual statement. The solution comprises perforated, extruded aluminium screening panels, set against a series of integrated walkways, all secured back to the curtain walling system using Levolux's Trinitri Bracket. Levolux also installed its 950 XL Screening Louvres around two roof plant areas.

enq.131

Signbox branding for stylish refurbishment



Signbox has collaborated with interior designer Resonate Interiors to implement an eye-catching refurbishment of the commercial reception area at the Paternoster House office complex in Paternoster Square, City of London. The architectural

sign specialist was fundamental in executing a challenging signage project that has greatly enhanced the property's conspicuousness in a historic area within the British capital. The pallet of the design was minimal and stylish, with the use of timber, copper and grey stone. The vivid colours of the glass manifestation juxtapose with the light cream interior brickwork and neutral grey tile floor.

01784 438688 www.signbox.co.uk

enq.133

Elementary my dear... "SIMONSWERK"



The TRITECH solid brass hinge from SIMONSWERK has been used on the entrance door to the home of the Sherlock Holmes museum. The museum has over 100,000 visitors pass through the doors each year, which over time had worn out the existing hinges on the door. The TRITECH solid brass hinge was specified as the ideal solution due to its unique concealed bearing and suitability for heavy traffic doors. Opened in 1990 the museum gives visitors the chance to sit in Sherlock Holmes' fireside armchair and enter his bedroom adjoining the study with Doctor Watson's room on the second floor. According to the stories written by Sir Arthur Conan Doyle, Sherlock Holmes and Doctor Watson lived in the Victorian lodging house at the world's most famous address, 221b Baker Street, from 1881-1904. The TRITECH solid brass hinges incorporate a 25-year performance guarantee, high performance, maintenance free concealed bearings and a weight carrying capacity of 160kg – Grade 14. TRITECH hinges are available with CE marked and 60- or 30-minute fire rated options. The comprehensive range of finishes now includes a corrosion resistant PVD finish ideal for entrance doors which have to withstand the many varied effects of weather. SIMONSWERK is one of Europe's leading hinge manufacturers with a history spanning over 125 years.

0121 5222 848 www.simonswerk.co.uk

enq.134

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Hardwood Flooring

Stand 116 at The Surface Design Show

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www.wlwest.co.uk

enq.136

Inspiring graphic tiles



surface design show stand no 250

Solus Ceramics introduce Illustrate, a brand new range of floor and wall tiles that capture the most exciting and current trends for colour and pattern. Inspired by concrete and cement textures, each tile in the range is full of character and features beautiful tonal effects, shadows and speckles and delicate stains. Six chalky options provide a solid core of neutral colour, while a variety of exciting decors can be used to create graphic patterns, geometric displays and patchwork designs. Illustrate will be available to view in person at the Surface Design Show, 10-12 February.

0121 753 0777 www.solusceramics.com

enq.137

Gerflor launches new 2015 LVT collections



surface design show stand no 132

In February London's Business Design Centre will see international flooring and interiors specialist Gerflor showcasing its brand new 2015 collection of high quality luxury vinyl tiles and plank products. With more than 70 years' experience Gerflor's expertise in luxury vinyl tile design and development is second to none. Visual appeal is paramount for specifiers and householders. Inspirational design coupled with exceptional quality are trademarks of Gerflor's flooring. These are qualities which will be showcased this year highlighting the 170 strong design collection of Creation ranges of luxury vinyl tile and plank flooring.

01926 622600 www.gerflor.co.uk

enq.138



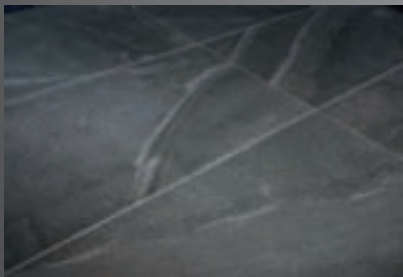
SEE US ON STAND 404

**SURFACE
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**BUSINESS DESIGN CENTRE
LONDON – 10-12 FEB 2015**
www surfacedesignshow.com

Surface Design Show
 10th to 12th February

RAK
 ceramics



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From the world's largest ceramics manufacturer **RAK Ceramics**
 RAK Ceramics UK Ltd. Tel Sales or Marketing: 01730 237850 or visit us www.rakceramics.co.uk

enq.139

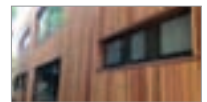
Discover the latest innovations in surface design at Surface Design Show 2015



Surface Design Show is the only event in the UK that focuses solely on interior and exterior surfaces. With an 80 per cent increase in exhibitor uptake the breadth of new products to discover in 2015 will be astounding



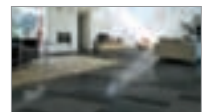
Look out for



With 150 years experience in the timber industry, **W L West & Sons' (Stand 116)** ethic is to work with its clients to solve their timber issues.

W L West & Sons Ltd often work with clients for many months before the culmination of a project. Its portfolio includes cladding, machined profiles, hardwood flooring, hand cleft oak & larch shakes and bar and worktops in hardwoods.

enq.238



RAK Ceramics is the largest tile producer globally and a specialist in porcelain large format wall and floor tiles. As a manufacturer historically their products have been used in the construction of Wembley Stadium, the O2 Arena, Alberta House and numerous hotels.

Four new ranges to excite any interior designer or Architect can be seen on **Stand 404**.

enq.239

Since its inception in 2005 the show has become the destination for industry people to see, touch and explore the latest materials for the built environment, gain new insights and network with like-minded designers, architects and suppliers.

This year's event is already proving to be a huge success. All of the ground floor and mezzanine has been filled with key exhibitors leading the organisers to extend the show to the BDC's balcony area to meet the demand for space. There will be over 120 exhibitors including Mundy Veneer, specialists within the veneer industry and the exclusive UK distributors of Tabu products, CD (UK) who for over 30 years have been the sole distributors of Corian in the UK. Knauf whom

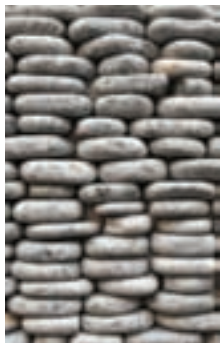
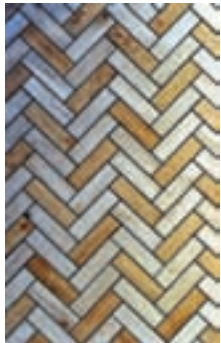
specialises in limestone, lime, chalk and cement related products, and Spectral, a lighting company whose luminaires have received coveted international awards including iF and Reddot, will too be among the selection of top quality exhibitors.

Surface Design Show is also delighted to be welcoming new exhibitors to the show including RAK Ceramics, the world's largest ceramics manufacturer, Hi Con, a leading European brand of high performance concrete whose properties are used to create super thin balconies and staircases, as well as Jotun, the world's leading manufacturer of paints, coatings and powder coatings, which have been used for a number of prestigious international projects including the Eiffel Tower, the Petronas Twin Towers in Malaysia and the Burj Khalifa in Dubai.

Where:
Business Design
Centre

When:
10-12 February

The awards recognise examples of progressive design and the use of innovative surfaces in projects both in the UK and internationally



“This year we’ve seen an 82 per cent increase in sales which proves that Surface Design Show is getting bigger and better year on year. It’s great to see the enthusiasm of all those involved, the inspiration it provides and the creativity that comes out of the show”, said Event Director Christopher Newton

There will also be a packed programme of events and entertainment including the Preview Evening’s Live Debate hosted by RIBA Journal on 10 February. The ever popular PechaKucha Evening will take place on 11 February and will provide an informal and fun presentation of inspirational slides for the onlooking architects and designers.

BIM4FitOut, a special interest group to the government BIM Task Group, which represents the finishes and fit out sector, will again be organising an engaging workshop at the show. New event highlights to the show include Materials Speed Dating, the 2015 version of Future Thinking, hosted by Materials Council which is a fun and interactive way to be rapidly introduced to new surfaces and finishes, and in-turn meet your ‘perfect materials match’.

Light and surface are inseparable partners; the interplay between light and surface can change a building’s interior or exterior dramatically creating breathtaking results. Hosted within Surface Design Show and presented by Light Collective and the Institution of Lighting Professionals is Light School, an area dedicated to lighting. Light School consists of three parts: the School Room; Product School; and the School Newspaper, all of which are designed to educate and inspire visitors about the latest in lighting design and lighting products. Sponsored by iGuzzini, there will be more than two days of lessons in the School Room featuring hands on demos with top UK lighting designers who will be taking on the role of lecturers.

Global Color Research™ will also return to the show. Following the success of the 2013 and 2014 Trend Wall, the influential consultancy and creators of colour forecasting publication MIX Magazine will work with acclaimed surface designer Giles Miller to present Colour Collaborations. The exhibit, located in and outside the Business Design Centre, is designed to inspire and give insight, focusing on the vital colour and material trends for 2016 and their importance within design.

Part of the outstanding success of the show is the commitment to recognising excellence with the Surface Design Awards. The awards recognise examples of progressive design and the use of innovative surfaces in projects both in the UK and internationally. Categories cover projects in retail, commercial, housing, public building, light and surfaces and temporary structures. Launched in 2013, the awards have grown quickly both in stature and the number of entrants. This year, 181 projects were entered, a record number increasing by a staggering 62 per cent with a third of entries from overseas making it the UK’s leading award scheme to identify innovation in surface design. The awards presentation will take place on 12 February 2015 at the Business Design Centre in London on the last day of Surface Design Show.

Registration to attend is free for professional visitors via the Show website:

[www.surfacedesignshow.com](http://www surfacedesignshow.com)

Check out the twitter page for Surface Design Show:
[@surfacethinking](https://twitter.com/surfacethinking)

Lathams all set for Surface Design Show

The UK's biggest independent decorative panel distributor **James Latham** is all set for the Surface Design Show 2015 (stand number 206) where it will unveil a number of exciting new products which are certain to create plenty of interest among visiting architects and interior designers. James Latham will be showcasing the following products:

With almost 100 colours in the portfolio, HI-MACS® solid surface is a highly versatile and extremely durable material which can be easily machined and thermoformed to almost any 3D-shape imaginable, offering endless design possibilities and producing a surface that is flowing, functional and visually seamless.

A revolutionary new wood material, Luminoso wood panels transmit light, allowing designers to create visually stunning effects. The special process utilises fibre optics that allow natural or artificial light to be transmitted. When the panel is unlit it appears to be a solid piece of wood as the fibre optics are only visible upon very close inspection but once illuminated.

James Latham will be showing a number of new additions to its already extensive range of Egger decors. With the growing popularity of textured wood grain frontals and panels, six new textures have been added to its ZOOM collection.

Part of the Kronodesign range, Natural Touch is the first 'embossed-in-register' melamine board where the grain texture precisely matches the surface finish.

Other products on Latham's stand will include: DecoGloss, a vibrant range of high-gloss acrylic panels which are exclusive to James Latham; Shinnoki 2.0, a range of ready to use veneered panels that are supplied already stained and lacquered; Valchromat, a coloured engineered fibreboard in which the colour runs throughout the entire board; Décor Eco, an exciting new range of coloured plywood panels; plus Accoya® LathamCLAD, a modified, highly durable and dimensionally stable certified timber cladding and UPM Profi Deck, an environmentally sustainable wood plastic composite decking requiring minimal maintenance.



Material: HI-MACS® solid surface. Design: AR-TRE

0116 257 3415 www.lathamtimber.co.uk

enq.140

surface design show stand no 206, 208, 304

Fila treatments take centre stage at SDS



surface design show stand no 348

Natural surface care specialist, **Fila** will be showcasing its award-winning Green Line and new innovative treatments at the Surface Design Show 2015. Product focuses will include LEED-approved, solvent-free sealer – FILAMP90 ECO PLUS – which protects polished and unpolished stone and polished porcelain, as well as Fila's range of high performance cleaners. A new protective dirt-barrier – FILASTOP DIRT – will also be on show, demonstrating the breadth of Fila's high performance range, which recently received ISO 14001 certification – and is the 'number one' surface care solution, recommended by 200 leading brands.

01584 877286 www.filasolutions.com

enq.141

RAK innovations and designs at SDS 2015



surface design show stand no 404

RAK Ceramics is set to launch a series of new tile innovations and designs at the Surface Design Show 2015. Exhibiting at the event for the first time, the world's largest ceramic manufacturer will be showcasing monster-sized porcelain slabs, rain-effect mini-mosaics and uber-luxe platinum-effects. All designs feature new technological processes and will be shown alongside other stunning natural-effects from RAK's best-selling Tile Collection. RAK Ceramics' Chairman, Rob Jull commented: "We believe that our new technologies, which were first unveiled at Cersaie in Bologna, will be of real interest to designers and specification teams."

01730 237850 www.rakceramics.co.uk

enq.142

Heradesign is an architect's favourite at the Surface Design Show



surface design show stand no 408

Heradesign from **Knauf AMF** was selected by Stuart Finnie, NorthSeven Architects, as among one of his favourite finds at last year's show. Visit Stand 408 to see for yourself why Heradesign is becoming a favoured choice for specifiers. Heradesign is a range of sustainable, modern wood-wool based ceiling tiles and wall panels, which are cost effective and easy to install. Architects specify Heradesign for a variety of projects because it is a unique product that can help create truly original eye-catching designs. Snook Architects specified Heradesign to help transform a dated 1980s office block into an aspirational working environment for a firm of solicitors. Neil Dawson explains: "We wanted an alternative to the traditional suspended ceiling. Heradesign ceilings are clever because, although a panelled system, the concealed grid disguises the fact that it is suspended (particularly with the nice chamfer detail on the edge of each panel). Moreover, their natural colour and size softens the feel of the space." The refurbishment of the London Imperial War Museum is a huge success. Architects, Foster and Partners designed the overall concept. Clive Semark, ITC Concepts, said: "Heradesign was a perfect fit. The finished ceilings look excellent." Visit Knauf AMF Ceilings at Stand 408 to see what sets it apart.

0191 518 8600 www.amfceilings.co.uk

enq.143

Kinspan Tarec®'s model for success



Kingspan Tarec® is pleased to announce that its Kooltherm® FM Pipe Insulation and Insulated Pipe Support Inserts are now available as a freely downloadable BIM object from the BIMStore, www.bimstore.co.uk. Kingspan Tarec's Kooltherm® FM Pipe Insulation object is the first product specific pipe insulation to be included on the BIMStore

and includes a range of pipe lengths and sizes in the leading Revit format. The product object provides a far greater level of technical detail than a generic BIM object. This allows specifiers, mechanical engineers and installers to maximise cost savings by taking full advantage of the benefits offered by Kingspan Tarec®.

01457 890400 www.kingspantarec.com

enq.144

New handmade clay tile to launch



A new range of premium handmade clay tiles is due to launch from Marley Eternit at the beginning of 2015. Marley Eternit is bringing back traditional skills to provide a genuine handmade tile that architects are looking for in today's market. The new Canterbury tiles will be available in three

colours; Chailey (orange), Loxleigh (antique) and Burford (brown) with its own handmade fittings range. Premium projects and heritage sites can benefit from the high quality aesthetic of the richly coloured tiles, particularly in areas subject to specific planning requirements and where handmade roof tiles form part of the architectural vernacular, such as the south east.

01283 722588 www.marleyeternit.co.uk/handmade

enq.146

Laureate Heights gets A+ treatment



Laureate Heights, a recent Persimmon Homes development in Devon, features approximately 40,000 Westerland slate from Cembrit, which give a natural, authentic appearance to the properties. Supplied in Blue/Black, the slates are attractive, durable and a perfect fibre cement

alternative to natural slate. "This is not the first project where we have had Westerland slates installed" says a representative of Persimmon Homes. "We aim to work with sustainable products, and since Cembrit's fibre cement range was awarded a Certificated Environmental Profile with Green Guide ratings of A and A+, these slates were our first choice. In addition, the dressed edge of Westerland gives a perfect natural look to the project."

enq.145

Sika Sarnafil specified for NHBC head office



As part of National House Building Council (NHBC) building works the upper roof now includes 800 sq m of Sarnafil Plus roofing system with a 20 year guarantee. Installed by experienced Hertfordshire based roofing expert, Itch Roofworks and main contractor Winter Refurbishments, the new roof tops the organisation's Milton Keynes head

office. NHBC wanted to ensure a full guarantee was included with regard to waterproofing the building which led to Sika Sarnafil being specified, as it comes with a single point guarantee, making it easy to manage whilst giving peace of mind with the backing of Sika, a major worldwide group.

01707 394444 www.sarnafil.co.uk

enq.147

Structural stabilisation enables demolition



A growing use for Helifix masonry reinforcement systems is to stabilise existing buildings during a new construction phase or a significant restoration, enabling works to be undertaken safely and cost-effectively. In Williamson Square, Liverpool a number of dilapidated Victorian buildings were to be demolished to make way for some new retail units.

However, a laser survey showed that the adjacent concrete frame building, had been built into the gable end wall of the properties to be demolished, with the two adjacent 9 inch walls in effect creating a solid party wall which had to be tied together and retained. Helifix designed a suitable structural solution and a scheme was devised using grouted CemTies and SockFix grouted sock anchors.

020 8735 5200 www.helifix.co.uk

enq.149

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Langley was recently appointed to provide a single ply system to replace St John's Health Centre's failing zinc roof

Single ply roofing systems – a sustainable alternative to metal

Hard-wearing and aesthetically pleasing, metal roof surfaces have long been a popular choice for refurbishments and new builds alike. However, these systems also include a number of potential drawbacks. Paul Martin, architectural sales manager at Langley Waterproofing Systems Ltd, looks at the use of single ply roofing systems, particularly with simulated standing seam detailing, as an alternative to metal roofing and the advantages these can offer to a wide range of projects

Specified for its durability and desirable appearance, metal roofing has been in use for hundreds of years and continues to be used for modern and heritage projects around the world.

Unfortunately, metal roofing appeals to more than just architects and building owners, with metal theft becoming an increasing issue. The costs of these thefts extend far beyond the replacement of materials, often resulting in the failure of the

roof system and the potential closure of a building while the issue is dealt with.

With their comparable aesthetics, reduced risk of theft and a host of performance benefits, single ply roofing systems are increasingly being selected as alternatives to traditional metal.

Available in most RAL colours, single ply membranes can mimic the appearance of a building's previous roof surface, making them ideal as a replacement for damaged, failing or

Continued overleaf...

Single ply systems are available with a simulated standing seam detail, allowing architects to replicate a traditional metal appearance



‘Building owners are also understandably concerned by the risk of fire that is introduced when using some roofing systems, a worry that has been emphasised by a number of recent cases which have made headlines’

stolen metal roofing. The systems are also available with a simulated standing seam detail, allowing architects to replicate a traditional standing seam metal appearance without any of the drawbacks associated with lead, copper or zinc.

Single ply systems often prove to be a more cost-effective alternative, consisting of a single ply cap sheet or membrane laid above insulation and a vapour control layer. Vapour control layers are installed at an early stage of a project, allowing a building to be watertight far sooner than when working with metal. Once installed, the single ply membrane provides continuous waterproofing even through awkward architectural detailing, reducing the risk of water ingress throughout a building’s lifetime.

Building owners are also understandably concerned by the risk of fire that is introduced when using some roofing systems, a worry that has been emphasised by a number of recent cases which have made headlines.

By opting for single ply systems, which offer safe, flame free installation, as well as easy maintenance and repair, architects can offer their clients the reassurance that all possible steps are being taken to ensure the safety of both the project as a whole and the roof itself.

Manufactured in a variety of roll widths and thicknesses, single ply systems offer low roof zone depth as well as speedy installation. In addition, the membranes’ flexibility simplifies the creation of architectural features such as barrel, curved or gullwing roofing, which would require the pre-bending or on-site bending of metal surfaces and increase construction

times. Elements such as box guttering can also be formed easily in one continuous membrane, removing the need for installers to weld multiple joins.

For buildings where weight is an issue, single ply roofing systems are considerably lighter than their metal counterparts, allowing architects to realise their visions without being restricted by structural constraints.

In cases where environmental impact is a priority, clients can be assured that some single ply membranes are 100 per cent recyclable and don’t contain chlorine, plasticisers or heavy metals, offering an eco-friendly solution without sacrificing performance. The absence of plasticisers can also help to ensure the longevity of a roof, allowing the membrane to retain its flexibility without the risk of migration, which can lead to cracking, flaking and ultimately the failure of the roof surface.

Due to their construction, these membranes are also highly UV and root resistant, minimising the growth of algae and other micro-organisms which allows the roof to retain its appearance over the course of the building’s life. This makes single ply systems particularly useful for green roofing applications, where the membrane can be easily installed around landscape features and contours.

Whether a client’s goal is to replicate what went before, add a traditional touch to a new building or simply to keep material and construction costs low without sacrificing quality, single ply systems are a reliable and time-tested alternative to metal, and can form an essential tool in an architect’s roofing arsenal.

enq.150



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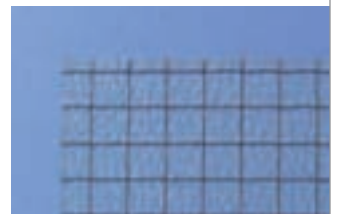
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TWINFIX

enq.153

Firestone host Master Contractor Event 2014



December saw Firestone Building Products hosting the eighth Master Contractor Event in Dubai. A select group of Firestone roofing contractors who achieved Master Contractor status for the 2012-2014 period attended. The selection was based on performance, both in volume of materials and quality of installation. The event also marked the 25th anniversary of Firestone's presence in Europe and the Middle East. Firestone's UK Master Contractors Phil Redfearn from SBS Roofing and Jonathan Forbes-Brown from Imperial Waterproofing were invited and were presented their awards by the Firestone International and UK Management Team. Pictured left to right are John Vasuta, James Cave, Phil Redfearn, Jonathan Forbes-Brown and Michel De Knop.

enq.154

VMZINC roof for World Heritage site



As part of Austin Smith Lord's design for the full renovation of Liverpool Central Library, the original zinc roof of the Picton Reading Room, dating from 1879 has been replaced. 800m² of VMZINC® QUARTZ-ZINC PLUS® was installed over much of the 135-year old boarding, a combination of batten cap and standing seam panels being used to satisfy English Heritage requirements for the Unesco World Heritage Site. Original details were replicated with the help of VM ZINC's heritage service in a design which has provided an energy-efficient, sustainable 5-storey building to replace those built in the 50s and 70s.

01992 822288 www.vzmzinc.co.uk

enq.156

SIGA Slate specified to replicate local slate



Exclusively chosen to replicate slate that was once quarried locally in North Wales, SIGA slate has been used to adorn Cwrt Gloddaeth, a private residential retirement new build development in Llandudno. In keeping with the local landscape, it was important that the roofscape mirrored the

roof coverings originally used in the area as closely as possible. SIGA slates were specified as their North Wales origins best replicate the original and extinct Ffestiniog slate both in texture and colour. The Local Authority accepted SIGA 32 in light of its approval by Snowdonia National Park. SIGA slate offers a warranty of up to 75 years on selected ranges.

enq.155

Pro-viding means to help architecture win



Advocates Close, in Edinburgh's Old Town, has attained the 2014 RIAS Andrew Doolan Best Building in Scotland Prize. Much of the new, mixed use scheme is now roofed with Protan single ply membrane, because of its flexibility to accommodate roof types while delivering the quality required for the prestige project. Several of the new and refurbished listed buildings feature warm roofs created from Protan G single ply membrane for ballasted roofs laid over Protan VB250 vapour control layer, Protan AM membrane, and Protan F2B protection fleece, installed by Curtis Moore for main contractor Interserve.

01925 658001 customercare@protan.co.uk

enq.157

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enq.158

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www.alucobond.com

NVELOPE supports estate transformation



NVELOPE, the rainscreen cladding specialist, has provided effective structural support to the Packington Housing Estate in Islington with the vertical helping hand system and timber rails. Approximately 1,200 sq m of timber cladding were used as part of the £130 million regeneration project. "There are many great advantages working with NVELOPE" commented Carl Chapman, contracts director of Roles Broderick Roofing Ltd. "One

of the primary advantages that we have found working with NVELOPE is the flexibility to overcome tolerances in building substrates before overcladding." Manufactured in the UK and developed using the highest specification alloys, all NVELOPE products and systems are BBA certified.

enq.160

Comar 6EFT Curtain Walling



Due to demand from architectural and fabricator clients, Comar Architectural Aluminium Systems is pleased to launch additional new mullions and transoms for its innovative Comar 6EFT Curtain Wall system, with the highest Ix and Iy values available on the market today. As Comar 6EFT has developed to be one of the specifier preferred

system in the UK, demands for larger transom spans in excess of 3,000mm and unsupported multi-storey mullions are a possibility. Where there are different glazed areas in the same envelope Comar has also extruded high span mullions and transoms in the most popular box sizes.

020 8685 9685 www.comar-alu.co.uk

enq.162

Kawneer systems help lift a royal landmark



Work is drawing to a close on a landmark residential project which makes extensive use of leading architectural aluminium supplier Kawneer's new lift/slide door. Kawneer's AA*3572 lift/slide door was used at Redrow London's stunning £46 million Kingston Riverside development in the Royal

Borough of Kingston Upon Thames, alongside the manufacturer's flagship AA*720 single-action door, its AA*543 tiltturn windows and AA*100 curtain walling. As well as the Kawneer windows, doors and curtain walling, the 6,000 sq m facade comprised rainscreen cladding with ceramic tiles and powder-coated aluminium feature projecting beams and pilasters.

01928 502500 www.kawneer.co.uk

enq.161

Farmfoods opens new frozen food warehouse



ISD Solutions, a leader in composite panel cold store solutions, is completing work on a new frozen food distribution centre for frozen food retailer Farmfoods. With steel and concrete work undertaken by main contractor Winvic Construction, ISD Solutions was chosen for its expertise in the latest single envelope composite panel construction

techniques and ability to deliver a high performance, sustainable solution, with extremely low running costs. The design requires significantly less supporting steelwork to conventional cold storage warehouses, and build time and costs are further reduced as the cold store is formed as the building envelope is constructed.

01452 520649 www.isd-solutions.co.uk

enq.163

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CD7767

enq.164

Alu-Timber complete Dormer Wells School



Alu-Timber and its approved fabricator Fleetwood Architectural Aluminium Ltd completed a new build school in Southall, London. Alu-Timber EFT is a 60mm aluminium/timber curtain walling system, which offers capped, two-sided structural glazing with vertical or horizontal capping and four-

sided structural glazing. Alu-Timber EFT provides internal thermally efficient Larch timber with time tested external aluminium for protection. To maximise spans and centres, a wide range of timber mullions and transoms are available. All profiles are kept in stock, which means site deadlines can always be met.

0208 685 9685 www.alutimber.co.uk

enq.165




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www.architectsdatafile.co.uk

We'll look after the outside while you look after the inside



The A. Proctor Group can take care of the external cladding choice of your school, providing a portfolio of products with low maintenance programmes and guarantees to suit refurbishment of the old and building of the new

Since entering the timber cladding market, the A. Proctor Group has focused on providing high quality and durable cladding systems, combining superior aesthetics with reduced maintenance requirements. This combination of beauty and robustness led Staffordshire County Council to specify the Canjaere Classic cladding system on Rocklands Primary School in Lichfield.

The project was aimed at co-locating a facility for pupils with special needs alongside a mainstream primary school. The redevelopment of the former infants block at Charnwood has allowed improved facilities for the Rocklands pupils including additional classrooms, external play areas and car parking facilities.

Installed by contractors Thomas Vale Construction, the 368 sq m of Canjaere Classic Golden was chosen due to the standard 30-year warranty against rot and decay, leading to reductions in both time and cost for maintenance, particularly important in school applications where durability is a major concern.

After installation in 2009, the A. Proctor Group was invited to use the project as a showcase for the aesthetics of the Canjaere Classic System.

Revisited

In 2014, the group returned to Staffordshire to revisit the project. After five years of service, including several of the harshest winters in recent memory, appearance of the hard wearing Canjaere Classic system is virtually unchanged from when it was installed.

The unique treatment used in the Canjaere Classic system gives the softwood base timber physical properties closer to those of hardwoods, increasing the water resistance and stability, thereby enhancing durability even in the most demanding applications. This enhanced base wood provides a solid base for the coloured finish, ensuring the system remains as beautiful long term as it does on day one.

Available in a range of colours and profiles, the Canjaere Classic system provides a cost effective, low maintenance alternative to natural timbers where a rustic, grained appearance is required. FR grades are also available for use on boundaries, or in projects with specific fire classification requirements.



'After five years of service, including several of the harshest winters in recent memory, appearance of the hard wearing Canjaere Classic system is virtually unchanged from when it was installed'

Alongside Canjaere Classic, the A. Proctor Group also offers the Silverwood Inspire system, with a highly durable solid colour factory applied paint finish. Silverwood Inspire is available in a wide range of colours across two classic profiles, giving a number of options for adding a unique splash of colour to any project.

You can learn more about A. Proctor's range of timber cladding systems and see more example school and college projects at its website.

www.proctorgroup.com
sales@proctorgroup.com 01250 872261

enq.166



Healthy Residential Concept®

With its Healthy Residential Concept®, RENSON® is able to provide complete solutions for a healthy and comfortable home. When designing, building or renovating a property, the inclusion of increased insulation and better air tightness has knock-on effects to the property. You need to consider the risk of increased condensation, moisture and poor indoor air quality, all of which will affect your health. Basic ventilation guarantees an adequate indoor air quality. DCV will constantly monitor and adjust the ventilation rates as per the changes in indoor air quality. When the contaminated air is extracted, a natural airflow through the window vents will ensure the supply of fresh air. Further energy can be saved by maximising the use of daylight in the building. That is why we can observe an increase in the glass surface of the buildings. However increased glass areas combined with tighter airtightness leads to higher inner temperatures along with the issues of glare and possible disturbing light reflections. The most efficient sun protection system stops the sunrays before they pass through the glass and enter the house and therefore minimises overheating.

01622 754123 www.rensonuk.net

enq.167

Warmcore stands up well to testing times



Synseal's new WarmCore aluminium folding sliding door system has been undergoing extended extreme weather testing in Portugal along with structural strength and enhanced security testing, which has been carried out by UKAS testing laboratories, with both tests regimes yielding excellent results. A 5-sash WarmCore unit was installed

in an outdoor location in Lisbon, Portugal back in July 2014 and this continental climate exposure testing programme will continue indefinitely to prove the technical performance of the aluminium framing. The WarmCore folding sliding door continued to function perfectly unaffected by the extreme temperatures.

01623 443200 www.synseal.com

enq.168

Steel windows are for life



Aesthetically pleasing, high performing, and with a heritage dating back to the 1920s, steel windows are strong and durable and, with their slender glazing bars and characteristically large areas of glass, can be expected to last the life of the building, if properly maintained. Modern steel windows made by

Steel Window Association Members are double-glazed, thermally-efficient and benefit from good security, durability and ease of maintenance. The steel frames are generally hot-dip galvanized and have a high quality, factory-applied, polyester powder coat finish to ensure they remain rust-free and will not need to be painted for at least twenty years.

enq.169

Introducing ARP's Rainfall Calculator -Available shortly for use with your PC or Tablet



As one of the UK's market leaders in Rainwater Systems ARP recognise the importance of working in partnership with specifiers to ensure that the most effective aluminium roofline and rainwater drainage solution is provided.

Our service levels are second to none and with the launch of our new rainfall calculator we are empowering you to produce drainage calculations tailored to your particular project quickly and efficiently.

Our network of experienced external Sales Managers or our friendly in house sales team can support you with a small amount of training to obtain the information required or on the installation of this free and easy to use application.

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enq.170

Lanes solves drain problem at tube station



Lanes Group has used its pipe relining expertise to help preserve the original look of one of the world's oldest underground railway stations. Its engineers were called in to reline the inside of Victorian cast iron roof columns which, for more than 150 years, had taken rain water from the roof of Farringdon

Station to below ground drainage systems. The Rail Division of Lanes Group, was commissioned to carry out the downpipe work as part of a major refurbishment. Lanes Group carried out the work, using a technique called CIPP, cure in place pipe lining. Each of the 12 pillars now has a tough, smooth, waterproof inner wall, designed to extend the life of the roof drainage system by 120 years.

0161 788 2261 www.lanesfordrains.co.uk

enq.171

Swish revamps roofline and rainwater



Roofline and rainwater products from Swish Building Products have been specified by Broadacres Housing Association for installation on over 350 homes. Black half-round gutters and round downpipes are being supplied alongside white fascias and soffits through local stockist, Quay Plastics to contractor and installer, Newlife Windows. Broadacres wished to align the rainwater system with the roofline supplier; the Swish products proved to be the best value, high quality option. The housing

association conducts value for money reviews on its technical specifications prior to tendering for all planned maintenance projects.

01827 317 200 www.swishbp.co.uk

enq.172



Crash tested snow load gutters

Following testing of its snow loading gutter brackets by test house CERAM, where a standard 3m length successfully supported the weight of 12 grown men, Guttermaster decided to check out the strength of its direct fix extruded ranges. Half Round and Serpentine gutters were passed over to the Intelligent Design Centre, based in the North West, where the systems were put to the test on a purpose designed rig to simulate both static snow loads and moving snow mass from a specified height. No one at Guttermaster expected the outcome they were presented with. In static tests, the gutters withstood a total weight of one metric tonne without damage or noticeable deformation. Then in dynamic testing (Crash testing) the same piece of gutter was unshaken by launched test weights in excess of 150kgs from a height of 1m. Guttermaster MD, Mike McKee reported that the entire gutter range has now been tested and proven to be more than capable of supporting anything the British winter has to throw at it.

enq.173

Crash tested Snow Loading gutter systems from Guttermaster



1000kg weight test



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enq.174

Multi-chambered options now available



Multi-chambered options for outer and sash frame profiles are now available for all three of Synseal's market-leading 70mm PVC-U window systems – Legend, Shield and SynerJy – to extend customer choice. These new frame profile configurations are thermally efficient and can achieve A-rated WERs when glazed with 28mm DG units without the need for Low Iron glass. Synseal's Legend, Shield and SynerJy systems can all deliver the latest A+ and Certass A* WERs and the

multi-chambered profile solutions will typically secure a U-value of 1.3W/m²K using warm edge spacer bar with Total+/Argon/Low Iron glass.

01623 443200 www.synseal.com

enq.175

IKOslate a real 'hit' with Kingswood Golf Club



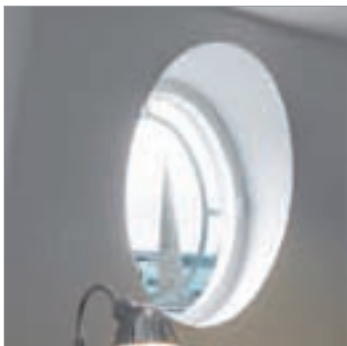
Tired of golf balls damaging the slates on the main golf club house roof, owners of Kingswood Golf Club in Surrey chose IKOslate composite roof tiles for the pitched roof of 'The Lodge', a new wing to the club. IKOslate not only met local planning criteria but also replicated the traditional slate tiles of the

existing buildings while providing a robust, sustainable alternative to slate, which is golf ball proof. IKOslate tiles, manufactured from mineral reinforced, 99 per cent recycled and re-engineered materials, have the same aesthetic qualities as slate because they are made in the same moulds, however, they benefit from being 80 per cent lighter, which makes transporting to and around site much easier.

01257 488011 www.ikogroup.co.uk/ikoslate

enq.176

Warm and peaceful living above the 24/7 Society



Many of the properties in Regent Street are being rejuvenated. A recent example is the conversion of two Grade II listed disused office buildings; Albany House on Regent Street and the other in Mortimer Street. These have been redeveloped to create 24 high-spec luxury apartments. The original single glazed sash windows had to be retained, so careful thought was given to dealing with traffic noise, drafts and heat loss associated with older windows. MSMR architects approached Selectaglaze to assist in developing a solution. Secondary windows fitted with a gap of 100-200mm will achieve noise reductions of at least 45dB. The frames are bespoke and tightly sealed which almost eliminates uncomfortable drafts and the use of thermally efficient low emissivity glass reduces heat loss, giving a U-value of around 1.9. One particularly noisy balcony was treated with large hinged secondary doors glazed with 10.8mm laminated glass. The inclusion of Selectaglaze secondary glazing contributed towards the properties being awarded an Eco Homes Excellent rating. Established in 1966 and granted the Royal Warrant in 2004, Selectaglaze is one of the UK's leading secondary glazing specialist with extensive experience of working in buildings of all styles, including listed properties.

01727 837271 www.selectaglaze.co.uk

enq.177

enq.178



Nordan windows for Sadlers Bridge Studios

The new enterprise centre Sadler Bridge Studios in Cathedral Quarter, Derby, opened this year with high specification timber windows from NorDan. The £4.4 million building is part of the £14.2 million Connect Derby scheme, owned and developed by Derby City Council. NorDan's tilt/turn timber windows were supplied with solar controlled glazing to manage the heat of the sun on a warm day – creating a more comfortable, safe working environment for staff at their desks. Fixed lights and outward and inward opening glazed doors were also supplied. "Using our infrequently specified inward opening French casement style windows, featuring a tilt and turn master sash, and a side hung slave leaf, helped achieve the initial design brief, further demonstrating the breadth of the range of products we can offer," says Ian Dowdeswell, regional manager for NorDan UK Ltd.

01452 883131 www.nordan.co.uk

enq.179

SFS systems: improving insulation while saving space

The demand for increasing levels of thermal performance is driven by both the market and regulatory pressures and can be answered by innovations in Structural Framing Systems (SFS) technology, writes Knauf

The advantages of SFS methods of construction in terms of speed and efficiency on-site are well-established; but the latest contemporary systems are taking this even further with advances that offer far greater levels of insulation without sacrificing usable space. 'Through the wall' building facade systems incorporate insulation within the frame itself and can provide a range of U-values from 0.32 to 0.15 W/m²K depending on the materials and thicknesses used.

In conventional systems, insulation is applied externally and so adds to the thickness of the walls, decreasing the amount of usable space within. 'Through the wall' SFS avoids this problem through placing the insulation in the frame itself so that it is sandwiched between gypsum-based sheathing boards and the internal plasterboard lining.

Clever thermal stud designs reduce thermal transfer through the steel by offsetting rows of slots which effectively interrupt the conduction of heat through the metal, creating a far longer path for the heat to travel that results in far greater thermal efficiency.

To allow for different thermal, acoustic and structural requirements, the steel framework and the insulation is supplied in three different thicknesses – 100mm, 145mm and 195mm. Even greater thermal performance is possible using an additional layer of earthwool on the inside of the building. Sandwiched between two layers of liner, the interior insulation is available in 45mm, 70mm and 95mm thicknesses and can boost U-values up to 0.15 W/m²K.

Continued overleaf..





'The beauty of 'through the wall' SFS is that it is possible to meet the U-value required without the need for any additional external insulation, which can sometimes interfere with the supportwork required for the finishes or cause condensation'

The benefits of the system are not simply in terms of thermal performance – health and safety is improved because it reduces the amount of time operatives have to work outside at height. Once the sheathing boards are attached to the steel frame the building is weathertight and the insulation is fitted from the inside – there is no need to crane up the insulation as there would be in other systems. Using a proprietary 'through the wall' SFS also means there is a single source of supply, a full system design and on-site assessment, complete with a system warranty.

Any number of different architectural finishes can also be accommodated. A ventilation channel, fixed on top of the gypsum sheathing board, allows for 25mm and 50mm ventilation cavities to be created for residential applications. From there the finishing possibilities are endless. In the case of render, a carrier exterior cement board is fixed to the ventilation channel as a base for direct render application. Tiles, bricks, glass, timber and metal rain-screening are also easy to achieve, with the cladding material fixed or tied to the facade with suitable fixings secured directly back into the stud.

Similarly, leading proprietary 'through the wall' SFS can achieve exceptional U-values of $0.15\text{W}/\text{m}^2\text{K}$ in practice, so meeting the thermal performance proposed for as standard for

new-build in the Building Regulations 2016. And accommodate wind-loadings of more than $1.0\text{kN}/\text{m}^2$ and, for example, carry the deadload of terracotta rainscreen.

Such excellent thermal performance can also be realised without complicating the installation. When an architect is looking for a very low U-value, this would traditionally be achieved with a standard metal framing and then insulation built up the on the outside of the studs. The beauty of 'through the wall' SFS is that it is possible to meet the U-value required without the need for any additional external insulation, which can sometimes interfere with the supportwork required for the finishes or cause condensation.

Another big plus is that this also provides a 90-minute fire resistance that would otherwise mean the installation of dense products such as mineral wool insulation or cement particle board.

Ultimately, such an SFS design specification can be chosen over alternative SIPS and traditional SFS systems because it can meet all performance specifications for structural, thermal, fire and acoustic levels and remain competitively priced. It is lightweight, flexible in design, and can accommodate a number of differing external finishes without compromising its core performance levels.

enq.180

IKO launch academies brochure



IKO PLC has launched a new marketing initiative to promote the importance of maintaining the watertight integrity of school roofs. A dedicated academies brochure aimed at head teachers, school managers and local education departments, supports the campaign. IKO has a wealth of experience in the

design, manufacture and installation of school roofs, be it refurbishment or new build. IKO take a proactive approach to roofing problems, assessing a roof's condition early to spot problems and schedule in the right solution in order to safeguard the asset and in turn the future waterproofing performance of the roof. A copy of the brochure can be downloaded from the company's website.

01257 256091 www.ikogroup.co.uk/flat-roofing

enq.181

Endurance solid & secure composite doors



Rocal, the manufacturer of UK-made solid core composite doors is predicting a growth in sales of its Endurance Solid & Secure range in 2015 and is introducing a number of customer support initiatives to help the process along. Commercial Manager Correne Bratley said: "We're very

excited about the prospects for Endurance Solid & Secure going into 2015 and beyond. We have the flexibility and capacity to cope easily with an upturn in demand, though, as the doors themselves are made in the UK, and we work with great suppliers who we can rely on. For example, much of the hardware, including hinges, handles, security profile cylinders and Keyfree are supplied by VBH."

01652 659259 www.endurancedoors.co.uk

enq.182

Copper memories



Corrugated Nordic Brown copper, from **Aurubis Architectural**, defines the character of a new secondary school in Strømme, Norway, and is reminiscent of the town's industrial heritage. White Arkitekter's competition-winning design is a rigorous interpretation of its programme. Conceived as a hilltop plateau, the entrance level is open in character with extensive full-height glazing, accommodating specialist areas including a library, workshops and studios. Floating above is the more introverted copper box, housing all the classrooms and related spaces, organised into three different grades. Copper satisfies the client's requirement for a 100-year lifespan school and its sustainability credentials are important in this low-energy building. But the unique visual characteristics of the corrugated Nordic Brown copper proved central to the design, both as a thoroughly contemporary material changing over time and as a memory of the riverside sawmills and later heavy industries in the town. Nordic Brown products are pre-oxidised at Aurubis' factory to give straightaway the same oxidised brown surface that otherwise develops over time in the environment. The thickness of the oxide layer determines the colour – either Nordic Brown Light or the darker Nordic Brown. The darkening oxidation process continues in the natural environment.

01875 812 144 www.aurubis.com/finland/architectural

enq.183

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enq.184

Kingspan OPTIM-R at the seaside

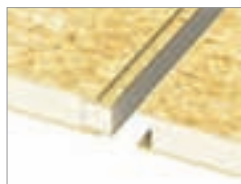


The owners of an idyllic former farmhouse on the Cornish coast can now sit back and enjoy views out across the bay thanks to a new roof terrace, insulated with the **Kingspan OPTIM-R Balcony & Terrace System**. To minimise heat loss through the roof terrace project architects Charles Green Design targeted a U-value of 0.16 W/m².K. The thickness of conventional insulation needed to achieve this would have required the terrace to be raised higher than the floor level in the internal rooms, creating an awkward step. To solve this potential problem, the Kingspan OPTIM-R Balcony & Terrace System was specified.

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

enq.185

Thicker Kingspan TEK® panels announced



The **Kingspan TEK®** building system and Kingspan TEK® cladding panels are now available in a new 172 mm panel thickness, delivering out of the box wall and roof U-values of 0.16 W/m².K and below. Both Kingspan TEK® building system panels and Kingspan TEK® cladding panels comprise two layers of oriented

strand board type 3 (OSB/3) either side of a high performance insulated core. With the addition of a 65 mm insulated lining of Kingspan Thermawall® TW55, the thicker panels can easily achieve U-values as low as 0.10 W/m².K, far surpassing the requirements of the Building Regulations.

01544 387384 www.kingspantek.co.uk

enq.187

Nationwide LABC approval for Kingspan Tarec®



Kingspan Tarec®'s premium performance Kooltherm® FM Pipe Insulation can now help to speed up installations and cut down paperwork both north and south of the border having become the only dedicated pipe insulation product to hold an LABC Warranty. Combined with its existing LABC Registered Detail,

the new LABC Warranty confirms that Kooltherm® FM Pipe Insulation has been rigorously assessed by building control surveyors and complies with the relevant requirements of the English and Welsh Building Regulations and Scottish Building Standards. Kingspan Tarec® Kooltherm® FM Pipe Insulation features the most efficient insulation commonly used in pipework applications.

01457 890400 www.kingspantarec.com

enq.186

Kingspan Insulation for 18th century church



A number of products from the **Kingspan Insulation** Kooltherm and Therma ranges were used in the resurrection of a dilapidated old church in the Western Isles, which was featured in Channel 4's *The Restoration Man*. The stone walls of the Grade B listed building were insulated using two layers of 60

mm thick Kingspan Kooltherm K12 Framing Boards combined with a layer of Kingspan Kooltherm K18 Insulated Plasterboard. Kingspan Kooltherm products are the most thermally efficient insulation products commonly used today offering a thermal conductivity as low as 0.020 W/m.K. Their closed cell structure resists the passage of water vapour and is unaffected by air infiltration.

01544 387 384 www.kingspaninsulation.co.uk/quickguides

enq.188

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enq.190

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Vortice records double digit growth again

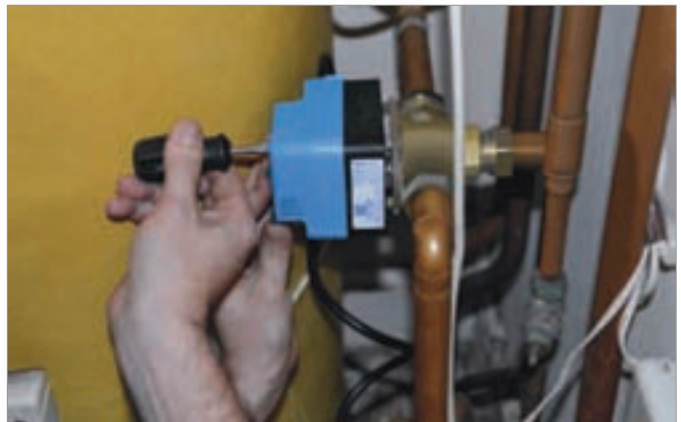


Vortice is delighted to report that it has recorded double digit growth once more in its UK turnover for 2014 resulting in a record year for the UK. Further growth is forecasted for 2015 and 2016 driven by the expansion of its product range and excellent customer service.

General Manager Kevin Hippey says: "Our customers have rewarded us with excellent order levels as a result of the new product development strategy we put together five years ago." The company has another exciting year ahead with several new products launching in the heat recovery sector and it continues to deliver BPEC training for installers from its Burton on Trent showroom.

01283 492949 www.vortice.ltd.uk

enq.192



Reliability is the key to valve specification

The reliability of **Horstmann ZonePlus Z** series motorized zone and diverter valves is making them the first choice for new installations, upgrades and maintenance replacements in Bournemouth Borough Council. "Our housing stock consists of approximately 6,200 household properties plus a number of corporate buildings that we maintain and over the course of a year we would install approximately 300-400 Horstmann valves," explains Jamie Riggs, senior gas & plumbing supervisor for the Council. ZonePlus Z Series motorised spring return zone and diverter valves were completely upgraded by Horstmann a few years ago and are now widely recognised for their reliability. The valves are all supplied with a 1.4m electrical connection cable (to accommodate easier installation in inaccessible areas) compression fittings and a removable quick change actuator. They are also covered by a two year guarantee.

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Red Kite flies in to tackle fuel poverty



A housing organisation is aiming to tackle fuel poverty for its tenants through the use of renewable air source heat pumps, which are helping save hundreds of pounds a year on heating for each home. Red Kite Community Housing installed 32 of Mitsubishi Electric's Ecodan heat pump systems over a year ago in homes that have

previously been using solid fuel, and the organisation is now looking at extending this programme to tackle its remaining properties off the gas network. "We offered our tenants a choice for their new heating system and we chose to go with Ecodan based on the predicted savings and the comprehensive support available from the manufacturer," explained James Brownbill, project manager for Red Kite.

01707 282880 www.ecodan.co.uk

enq.196

Developer sings praises of EnviroVent system



The Sunday School on Grove Road in Harrogate has undergone a sympathetic restoration and the occupants will experience all the benefits of a Mechanical Ventilation with Heat Recovery (MVHR) system from ventilation specialists EnviroVent. EnviroVent recommended an energiSava 380 MVHR system for the stunning

3,500 sq ft home, which stretches over three floors. Part of the award-winning Lifetime Range®, the energiSava 380 is a whole house heat recovery system, which provides all-year-round healthy indoor air quality. The system is extremely easy to use, with its 'set and forget' controls and it intelligently tracks and monitors humidity levels, detecting any rise in humidity.

enq.198

Domus Thermal duct insulation extended



Polypipe Ventilation is pleased to announce that its unique Domus Thermal duct insulation range is being extended to cover its 220 x 90mm Megaduct Rigid Duct System. Megaduct is a range of large capacity rectangular ducting, suitable for larger installations. The system is particularly appropriate

for applications which require higher air flow rates associated with whole-house ventilation within larger domestic properties and light commercial environments. The demand for this duct insulation system has been such that as from early next year Polypipe Ventilation will extend it to cover the 220 x 90mm Megaduct size. Domus Thermal is a patented system that significantly improves the thermal insulation of ventilation ducting in domestic properties.

enq.197

BIM@Pentair



Pentair's Thermal Building Solutions has expanded its online information resource – the Raychem Engineering Toolbox – with the addition of a new section dedicated to Building Information Modeling (BIM). The section provides useful information about the Raychem BIM families and the Revit Software add-in. Pentair Thermal Building Solutions recognises that getting the right

information from manufacturers quickly and easily is of paramount importance. The Engineering Toolbox is an invaluable online resource, enabling customers to find exactly what they need, quickly and efficiently. The Engineering Toolbox provides a comprehensive guide to a range of applications.

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enq.201

Under floor air conditioning



Under Floor Air Conditioning has proved to be a flexible and modular approach for the iconic Tricorn House building situated on the Hagley Road in Birmingham, for more than 10 years. In 2014 AET Flexible Space supplied and commissioned their under floor air conditioning systems to two additional floors in the 12-storey building; the 7th floor and the 9th floor as well as fit out equipment for the 9th and 10th floors. The AET Flexible Space system utilises the plenum as the ventilation duct, eliminating the need for ceiling based duct work, making it easy and economical to adapt to changes in the workplace.

01342 310400 www.flexiblespace.com

enq.202

Stelrad LST radiators



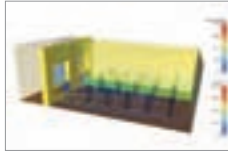
Stelrad's range of low surface temperature radiators has grown with the addition of the LSTi. It offers the perfect solution for heating systems where vulnerable people need to be protected from the levels of surface heat emitted from a standard radiator – in particular children and older people. LST radiators respond to the strict requirements of the NHS Guidance Note for 'Safe hot water and surface temperature' and can be installed in

domestic, commercial and public buildings running heating systems with total public safety assured. For more information on the LST range visit the website.

0870 849 8056 www.stelrad.com

enq.204

Test service eliminates 'guesswork'



Building services engineers can be assured their ventilation strategy will deliver, even before a single component is installed, through state-of-the-art testing services. Gilberts of Blackpool, one of the UK's leading independent suppliers of natural ventilation solutions, and commercial

grilles and diffusers offers, in house, a full Computational Fluid Dynamics (CFD) service. Thus, any proposed system can be computer modelled, to ensure not just regulatory compliance, but that the scheme delivers the expected performance in terms of air movement and thermal requirements. All Gilberts' natural ventilation systems are engineered to order, in the UK.

01253 766911 www.gilbertsblackpool.com

enq.203

Low noise high performance with Xpelair



Xpelair has extended its family of new Simply Silent™ Contour fans with the launch of a constant volume (CV) range incorporating Intelligent Adaptiflow™ Sensing, a smart technology which senses changes in airflow and adapts the fan speed intuitively to maintain a constant volume of extracted air. The new range of dMEV fans operate in a trickle mode, constantly ventilating the property but with a boost facility to

automatically increase the airflow when required, either by the integrated active humidity sensor or when manually operated by the light switch. It is available in round or square fascias, giving a choice of four products in total with low voltage options, bringing the total Simply Silent™ Contour range to 12.

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Making the right choice

In influencing the choice of heating and ventilation systems architects can ensure these systems support their designs while delivering optimum building performance.

Phil Brompton of Powrmatic explains



'There are very strong reasons to opt for natural ventilation to minimise the building's carbon footprint, as the only energy consumption required is to open and close the ventilators'

As regulations require improved thermal performance of buildings – through better thermal insulation and more airtight construction – the interplay of the building's design and its services becomes increasingly important. For example, tightly constructed buildings with little or no natural air 'leakage' are reliant on ventilation systems to maintain suitable indoor air quality. In parallel, there are very strong reasons to opt for natural ventilation to minimise the building's carbon footprint, as the only energy consumption required is to open and close the ventilators.

Also, of course, many such buildings will have a requirement for smoke ventilation systems, either separately from the day-to-day ventilation or as a dual purpose system.

Of necessity, these ventilators will need to penetrate the building envelope so this is an area where the architect's understanding of the options will play a key role in terms of both building performance and aesthetics.

In selecting an architectural solution for smoke and natural ventilation there are a number of factors that should be taken into account. Clearly the ventilators should be fully tested and certified (to EN12101-2) for the application while also offering a design that provides seamless integration into the building fabric to complement, or possibly enhance, the architectural design. For example, there are glazed ventilators for both natural and smoke ventilation that also provide an excellent source of natural daylight and can be integrated into inclined and vertical glazing systems.

Engagement with suppliers should also include discussions around installation options for the type of application (e.g. turn down base for upstands, glazing adapters for curtain walling, fixing flanges or direct fixing to masonry) along with choices of finish to match the building.

Other factors to consider when specifying ventilators are their light transmission and U-value specifications, along

Continued overleaf...



'A major benefit of the air rotation heating approach is that it is able to provide excellent temperature control (typically no more than $\pm 1.5^{\circ}\text{C}$ of the set point) irrespective of the layout of the space'

with independent verification of low air permeability, weather tightness and wind resistance to maximise energy efficiency. The design of the ventilator should also include thermal breaks to prevent cold-bridging, as well as the use of durable materials. These materials should be from a sustainable source, recyclable at the end of life and be manufactured using sustainable processes.

There are additional sustainability benefits to sourcing from a UK manufacturer, as this reduces the overall embedded carbon of the project. Local manufacture also enables a more flexible and responsive approach with the ability to manufacture standard and bespoke sizes to suit each project's requirements and construction schedules.

Air rotation heating

In the majority of buildings, once the heating system has been designed and installed there is relatively little change to its configuration. However, this is not the case with many 'shed-type' buildings such as warehouses, factories and some retail outlets. In these situations the building operator may have a requirement to occasionally – or even frequently – change the layout of the space and if this results in a need to reconfigure the heating system it can prove to be an expensive exercise.

In these circumstances it makes sense to opt for a heating design that does not impose such constraints on the building layout. It was in addressing this challenge that a new technology called air rotation heating was developed – initially in the USA but now gaining popularity in the UK.

Air rotation heating works by using high efficiency axial fans to move large volumes of air at relatively low temperatures and velocities through the space with minimum energy consumption, while low temperature operation helps to maximise condensing for further energy savings.

A major benefit of the air rotation heating approach is that it is able to provide excellent temperature control (typically no more than $\pm 1.5^{\circ}\text{C}$ of the set point) irrespective of the layout of the space. This also means that any re-configuration of the space does not impact on the heating or require the heating system to be redesigned, as might be the case with fixed systems.

Meeting the challenges

For all of these reasons, there is a strong incentive for architects to give careful consideration to ventilation and heating as a key part of the design process, potentially working closely with other disciplines and specialist suppliers to arrive at the best solution for the end client.

enq.208

Combined fire safety, natural ventilation and energy efficiency at new DEA HQ

One of South Africa's most energy efficient and innovative buildings is using precision actuators and controls from SE Controls to ensure the natural ventilation and smoke control system operates effectively at the Department of Environmental Affairs' (DEA) new head office in Pretoria.

The DEA is the first government building in South Africa to be awarded a 6 Star Green rating from the Green Building Council of South Africa (GBCSA). It also achieved the highest score for a large commercial office space of this scale, due to the highly energy efficient sustainable design and the extensive use of 'green' technologies.

The three-storey head office provides more than 27,000m² of floor space and uses solar shading, water recycling and extensive photo-voltaic arrays in the north car park and on the roof, which provide more than 10 per cent of the building's annual energy load. An energy efficient mixed



mode natural ventilation system is also installed to manage indoor air quality and temperature, which provides a comfortable working environment for staff.

The building's internal space is separated into several self-contained 'pods' each of which is naturally ventilated by atrium vents and automatically opening windows. The vents and windows are operated by 104 SE Controls' SECO N 24 40

600mm stroke length chain actuators and controlled by 20 OS2 Type 21 control panels supplied by SE Controls' South African operation, which has offices in Durban and Johannesburg.

In addition, SE Controls Africa also supplied PIR sensors for each automatically opening window to avoid the risk of finger entrapment during operation.

The natural ventilation system, which also operates in 'night purging' mode to cool the building and reduce the need for artificial cooling during summer months, is linked to both the supplementary evaporative cooling system and the smoke control system via the central BMS.

This integrated approach not only allows the ventilation system to operate in different modes, to maintain cooling and comfort, but also provides effective smoke control to ensure escape routes are kept smoke free, if a fire should occur.

01543 443060 www.secontrols.com

enq.209

Wilo small circulators



The family of ErP compliant Wilo small circulators continues to offer a leading solution for UK heating systems – in new installations in particular where an energy efficient heating system is paramount. Reliability, ease of installation, along with low energy bills and low emissions, the Wilo Yonos-PICO is a popular choice with housebuilders, specifiers and installers. Visit the company's website for more information on these energy efficient pump options.

01283 523000 www.wilo.co.uk

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Luxurious enamel from Mendip Stoves



Mendip Stoves manufacture wood-burning heaters and stoves that embody the very best materials to deliver super performance and heat output. Mendip specify a tough British made steel body and cast iron door to provide many years of service while optimum performance is achieved via an internally insulated chamber for temperature combustion. Being a British manufacturer, the company has a special awareness of what a wood burner should be in the English and British home – particularly the quintessential character of the country home and the period cottage. Two popular Mendip stoves are the Mendip 5 Ivory and the Mendip 8 Claret.

01934 750 500 www.mendipstoves.co.uk

enq.211

Timóleon systems warm Palmerston Fort



The famous Palmerston Forts arranged along the South Coast of England were built to be solid enough to resist invasion by Napoleonic forces, but the resulting thermal mass and exposed locations make them very hard to heat. It is, however, a challenge that has been effectively met using a selection of products

from Timóleon's Hydronik range linked to a hybrid renewable energy source. In order to achieve the most efficient transference from the heat pump to the occupied spaces, Wetherick Plumbing and Heating specified the use of Timóleon's ToronFloor Batten, ToronFloor Suspended and LowBoardTM systems.

01392 363605 www.hydronik.co.uk

enq.212

Special design removes need for leak detection



The installation of new air conditioning system into a Buckinghamshire hotel – The Crowne Plaza, Gerrards Cross – is demonstrating how the clever use of design and specification can remove the need for leak detection equipment in occupied spaces.

Turn Key Air Conditioning Ltd (www.tkac.co.uk) installed a Mitsubishi Electric City Multi heat recovery system into the hotel, to offer guests the ultimate in modern complete comfort and style. In close association with Mitsubishi Electric Value Added Reseller PACAIR (www.pacair.co.uk) Turn Key designed the system with the minimum amount of refrigerant in each bedroom to comply with EN378 legislation.


01707 282880 www.mitsubishielectric.co.uk

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Encasement adds style at new flagship Debenhams store

Debenhams' new 50,000 sq ft flagship store at the Coliseum Shopping Park in Cheshire Oaks, Merseyside, is using bespoke design square 'Forma' aluminium column casings from Encasement, to help create a stylish retail environment for shoppers, while also concealing structural steelwork.

The new Debenhams store is the first to adopt the retail park format and has two-floors housing a cafe, men's fashion and a health and beauty hall as well as offering a range of exclusive womenswear.

Working directly for the project's major contractor, Simon's Group, Encasement's metal column casings were chosen by the company to conceal structural columns within the store as part of the extensive, high quality refurbishment and interior refit programme they undertook for Debenhams.

All of the metal column casings were manufactured from 3mm thick aluminium, which combines strength with low weight and were finished

in a Tiger Drylac textured PPC coating in matt white RAL 9003, to give an aesthetic finish while resisting scuffs and damage in high traffic areas.

Although all of the 23 Forma casings measure 375mm square and stand 3,100mm high, three of them incorporate a full-length mirror on one side, while a vertical full colour LCD display screen is integrated within a further casing to promote special offers and products to shoppers.

Encasement's Managing Director, Martin Taylor, explained: "While we undertake a significant amount of work in the retail and shop fitting sector with a range of well known high street brands this new Debenhams store is among our most prestigious projects and is the first to incorporate LCD screens within the column casing design.

"One of the strengths of Forma casings is that even though aluminium provides a light weight and easy to install casing solution, it is also strong



enough to enable elements such as mirrors, LCD screens and promotional displays to be integrated within the design."

01733 266 889 www.encasement.co.uk enq.217

nora's rubber flooring in Innovation Centre



nora systems has installed 3,600m² of its 3mm thick noraplan signa acoustic flooring, which completely absorbs footfall noise, throughout the Danone Innovation Centre in Utrecht.

nora rubber floorings present the ideal solution for sustainable buildings in industry; characterised by its durability

and very dense material, nora rubber flooring is extremely robust, very easy to clean and does not contain any plasticisers (phthalates) or halogens making it a low emissions material promoting a healthy indoor climate.

01788 513 160 www.nora.com/uk

enq.218

Luxury developer chooses Wetrooms UK



Luxury house developer Octagon Developments required waterproofing and drainage solutions for its prestigious £17 million house in Virginia Water. Wetrooms UK was approached to supply and install wetroom systems and waterproofing solutions into the Master

Bathroom, Gym and three further En-Suites. Wetrooms UK recommended the installation of Linear Screed Drains into each of the wet areas of the development, capable of coping with flow rates of up to 29 L/min. Falls were created within the screed before the Linear Screed Drains and solid linear grills were installed.

0845 045 6001 www.wetroomsuk.co.uk

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Saniflo unveils the new Kinemagic models



Saniflo has extended its range of Kinemagic shower cubicles to include Serenity, Design and Style, giving customers a more comprehensive range. Perfect for less able people, Serenity fits in the same space as an old bath, features integrated thermostatic shower control, a comfortable fold-down seat (up to 150kg), anti-slip flooring and secure grab bars. Design features sleek glass panels, an attractive anodised finish, 30mm shower tray

threshold for easy entry, cool-touch thermostatic shower and two options for height of overhead rain shower. Style is an attractive glass cubicle that can be customized to suit an individual's home. Style can be fitted with any shower valve.

020 8842 0033 www.saniflo.co.uk

enq.220

Rodeca partitions help win awards



Translucent internal partitions by Rodeca have helped a new, award-winning innovation centre in the shell of a Grade 1 listed old station building to achieve "phenomenal and measurable" results. Some 390 sq m of Rodeca's 40mm PC 2540-4 Kristall polycarbonate wall panels usually used for external cladding and roofing were specified by childs+

sulzmann architects for the Engine Shed at the Old Station Building at Temple Meads in Bristol. The polycarbonate Rodeca panels, which are fully recyclable and manufactured from up to 30 per cent recycled material, were installed onto an aluminium grid over a month by specialist sub-contractors Tremlett & Turner.

01268 531466 www.rodeca.co.uk

enq.222

Inspirational doors: JB Kind's 2015 Collection



Whether it's an innovative, contemporary or classic door design you are after, you will be able to find it in JB Kind's new 2015 brochure. With 37 new additions and more than 200 door styles, JB Kind's superb quality products and undeniable value, ensures you will be able to find something to suit your project and budget. Don't forget, if it's individually tailored doors you require, JB Kind

can also create affordable bespoke solutions. Fully accredited FD30 fire doors and FSC® chain of custody certified products are all available. To request or download a copy of the brochure, please call the company or log on to the company's website.

01283 554197 www.jbkind.com

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Its time to come together!



Cottage Craft Spirals has been rebranded as 'British Spirals and Castings' following the decision to merge the three brands of Cottage Craft Spirals, Tilley's London Castings and Milton Aluminium Castings. Richard Harding, managing director of British Spirals & Castings commented: "We are delighted to introduce the new

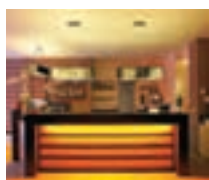
brand to our existing and prospective customers. We took the decision to merge the three individual brands to present a more cohesive offering, whilst still being able to provide the personal and bespoke service we have always delivered." As part of the rebrand British Spirals and Castings has launched a new website where customers can find detailed information on all the products and ranges available.

01663 750 716 www.britishsc.co.uk

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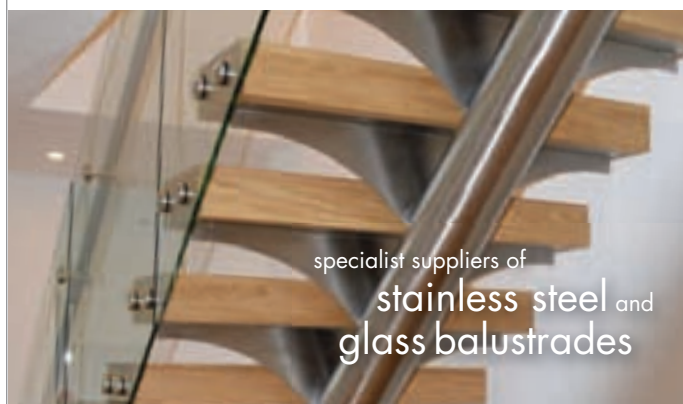
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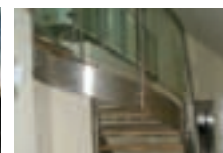
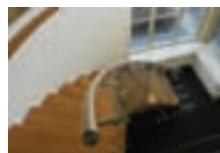
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The art of stairs

Architectural engineering elegance and intelligent design integrates into its surrounding environment transforming architecture into art. CANAL Architectural explores the art of stairs



Every piece of architecture should be as unique as the person who initially designed it. The ability to take an initial concept and nurture this into something spectacular and highly distinguishable from more standard counterparts is an architectural art form in itself.

With an ever increasing population of houses being erected, developed or restored it is has become increasingly common for people to play an active role in designing different aspects of their homes by integrating their own personality and character into the surroundings and features their property has to offer.

One of the main features within a property that often gets neglected – but when given attention can transform even the most standard house into one to be desired – is the staircase. With limitless design possibilities the staircase has transformed from a feature that is taken for granted to one that demands the admiration in the architectural world.

Over recent years one design has emerged and increasingly grown in popularity among architects, designers and property developers providing this architectural art form: the cantilever staircase.

Continued overleaf..

‘Every piece of architecture should be as unique as the person who initially designed it’

‘With various technical considerations and design possibilities it is imperative that architects select the right manufacturer, supplier and/or installer with experience and expertise’

Concept

The cantilever staircase might sound elaborate, but it is merely just a flight of stairs running up an inside or outside wall. A cantilever is a beam anchored at only one end allowing the protruding construction to overhang without any external bracing. Cantilever structures are most commonly found within building structures, towers, bridges and aircrafts but the concept can be incorporated into staircase design by applying the same principles.

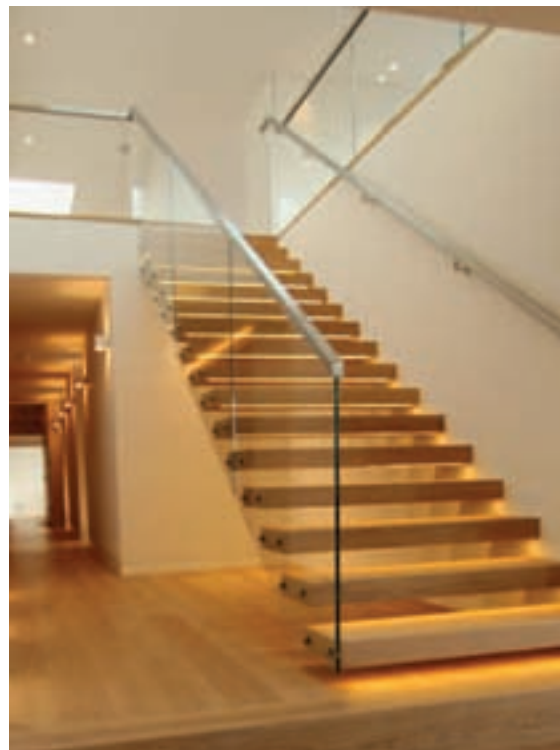
The simplistic design of the overhanging tread has allowed designers to create some very interesting design concepts to date. The transformation from a standard stair into one that needs no support underneath or between the treads creates a vision of open space and demonstrates a particular ‘floating’ appearance that is aesthetically pleasing.

Construction

A cantilever staircase is a particular design that is incredibly reliant on the structure. Due to the nature of the stair, it is a necessity that the wall is strong and reliable enough to take the load. The application method is dictated by the wall in question. For new build properties it is easier to design the new wall to take the load of the staircase, however for existing properties the wall will need to be evaluated by a structural engineer to determine the loadings.

The main construction of the staircase is initially dependant on material choice. There are many weight saving methods to consider if the existing wall does not have the capabilities to take the new stair. Using a hidden steel structure, with solid treads, no riser bars and a single handrail has allowed architects and developers to use this staircase in a minimalistic and inexpensive manner on various existing applications while providing optimal access.

The concept of the cantilever staircase and its structurally sound properties creates the ideal base suitable for any application or environment. The stair design is not restricted to a straight flight style, only by the walls within a property. Helical, curved styles and even tight spirals are possible, releasing the staircase’s original modest design to limitless design possibilities.



Materials

With any architectural project the choice of materials on offer is near infinite. The cantilever staircase can incorporate a wide variety of materials to suit. Along with the standard construction, the choice of materials can be broken down by each aspect of a staircase. The treads, riser bars, balustrade, handrail and other detailed fixings can be fabricated from a number of materials to produce a unique design or complement an existing one.

The use of glass balustrades is popular with residential homes as it helps to create the appearance of space by allowing more light to travel around the stair and throughout the property. The choice of stainless steel, timber, stone or concrete is also popular due to the number of different finishes that can be offered to match any existing décor within a property.

Material choices are subject to norms, similarly to the ever changing fashion trends throughout the world. Recently, there has been a sudden rise in demand for brass and leather/animal skin which has been incorporated into handrail systems and intricate balustrade detailing.

Performance

Achieving the correct performance of this particular staircase design is about more than its aesthetic appeal. With various technical considerations and design possibilities it is imperative that architects select the right manufacturer, supplier and/or installer with experience and expertise. It is invaluable to complete a staircase project successfully as in time this will determine its performance, durability and appearance.

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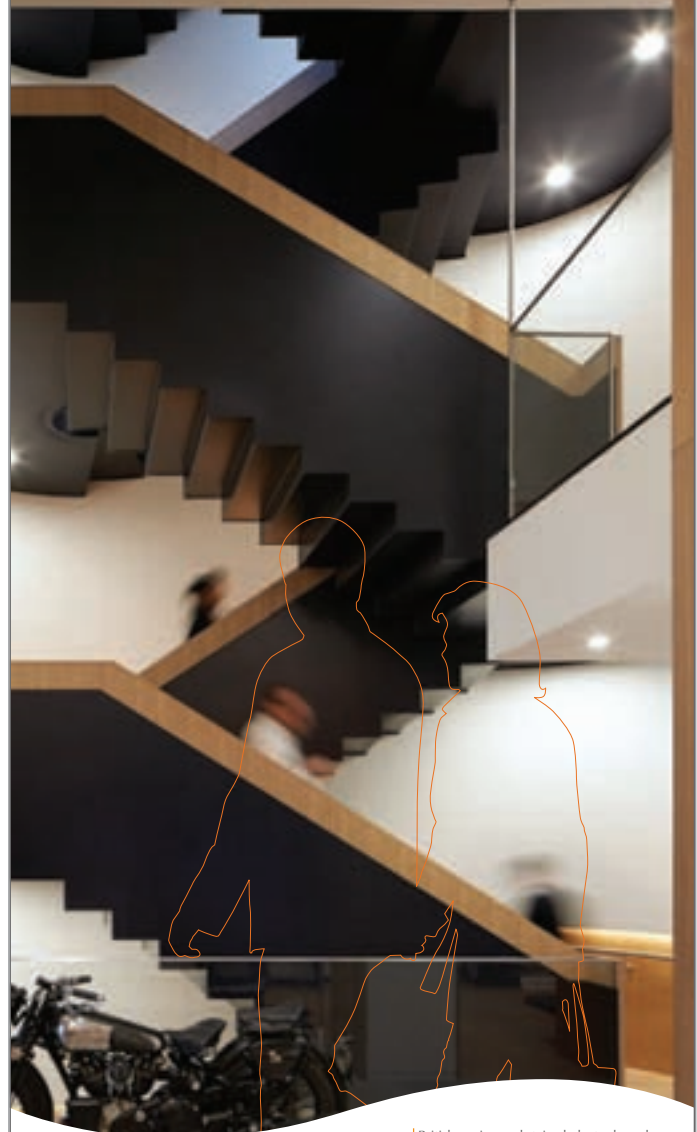
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Abloy gains UK first padlock standard



Security expert **Abloy UK** is proud to add a new padlock standard to its already impressive and comprehensive list of padlock achievements by gaining certification to Loss Prevention Council Board (LPCB) LPS 1654 Issue 1.0. LPS 1654 Issue 1.0 is the latest LPCB standard for physical security and is seen as the ultimate test for padlocks incorporating the most stringent physical attack tests, intentionally designed to meet the security needs of the UK

Infrastructure. Padlocks that achieve LPCB approval to LPS 1654 have performed effectively in rigorous test programmes conducted by the BRE's highly experienced team of attack testers.

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Step up safety with Crown Trade Timonox



Specifiers overseeing winter maintenance schedules can introduce **Crown Trade Timonox Flame Retardant Coatings** to underpin fire safety management programmes. The system reduces the risk of fire spread on walls and ceilings, where multiple layers of conventional paint can create a flammable

surface if they have built-up. Multiple layers of conventional paint coatings – whether water or solvent borne – can make a previously non-combustible surface dangerous by their potential to burn, spreading fire rapidly and turning circulation and communal areas, or escape routes, into a mass of flames in seconds. However, Crown Trade Timonox offers a cost effective solution to address the situation.

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Living walls are key to improving London's air quality



London's air quality presents a huge problem for residents and now contributes to a death rate of 10-18 per cent from illnesses caused by pollutants. The principal source of air pollution is traffic and despite the UK government enforcing low emission zones in London the air pollution levels have not fallen as much as expected. Research at universities across the UK highlight living walls as key to the improvement of air quality in cities. Kings College and Imperial College highlight the impact plants play in reducing nitrogen dioxide and particulate matter – two of the key components in poor air quality. The University of Lancaster found living walls to be more effective than street level trees at reducing nitrogen dioxide in dense urban areas with high pollution levels. This is due to the nature of city landscapes, the tall buildings create 'street canyons' which traps pollution at street level, living walls can increase the deposition rate by as much as 40 per cent of nitrogen dioxide and 60 per cent for particulate matter as the cleaner air from above the street canyons is introduced. **Scotscape Landscaping** is committed to working with councils, schools, businesses and individuals to install living walls and improve the air quality across London. For more information on the additional benefits of living walls please visit the company's website or get in touch.

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Waitrose discovers the wonders of Natratex



Waitrose has used **Bituchem's** Natratex Cotswold product to provide the surfacing for the car park at its Malmesbury store in Wiltshire. Applied to over 3,000 sq m of the supermarket's parking space, Natratex Cotswold is a durable surface course that has a distinctive natural looking finish.

Bituchem's Natratex Cotswold has a fast and simple application that allows for easy and clear demarcation making it an easy specification for private and public sector projects such as car parks, highways, footpaths and cycle lanes. Wide ranges of natural coloured aggregates are available to suit any colour scheme to complement or contrast with the landscape.

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Hauraton surface drainage projects website



A case studies website, www.drainage-projects.co.uk has been activated by **Hauraton Limited**, a leading provider of surface water drainage systems in the UK. Utilising the latest software, the new website can be viewed on all digital devices using responsive technology – i.e. the new website automatically resize fonts and images so they can be easily read on iPhone, iPad, Mac computers, android phones, tablets and Windows computers

via the internet. The website also incorporates a customer support portal and links to Twitter, Facebook, YouTube and Hauraton's product website.

www.drainage-projects.co.uk www.hauraton.co.uk

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