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The UK and France sweep the board at this year's BREEAM Awards



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The best performing buildings of 2013 assessed under BREEAM (the BRE Environmental Assessment Method) were recognised at the annual BREEAM awards presentation at Ecobuild.

BREEAM was the world's first environmental assessment method, created in 1990 and now used in over 70 countries around the world, providing a range of social, environmental and economic benefits to clients. Over a million buildings have been registered for assessment since then. Ratings are calculated against a range of criteria by independent BREEAM assessors, with the results expressed as a percentage score.

This year saw a new format to select the award winners. Previously, awards were given to the building with the highest score in each category. This year a panel of eminent industry judges selected the winners from a shortlist of the five highest scoring buildings in each section. Comprising Alan Yates, BRE Global (Chair); Cat Hirst, UK-GBC; Claudine Blamey, The Crown Estate; Phil Heenan, Cabinet Office; and Hywel Davies, CIBSE, their decision was based on the particular circumstances, challenges and achievements of each development as well as the very high BREEAM scores achieved.

Projects from across the UK and France have triumphed for 2014. At the gala event at Ecobuild, compered by TV wildlife presenter Michaela Strachan, UK projects won six of the scheme categories. The BREEAM Retail and BREEAM In-Use categories were won by projects in France, with the latter an all-French shortlist, highlighting the country's remarkable uptake of BREEAM In-Use.

The winners in the scheme categories:

- BREEAM Offices: Quadrant
 2 South, London
- BREEAM Retail: So Ouest, Levallois-Perret, France
- BREEAM Industrial: Bombay Sapphire Distillery Process Buildings, Hampshire
- BREEAM Mixed Use and Other Buildings: Prince Charles House, St Austell, Cornwall
- BREEAM Education: Energy Technologies Building, Nottingham University
- BREEAM Healthcare: Elective Orthopaedic Theatres, City Hospital, Nottingham
- BREEAM In-Use: Cité Europe, Calais
- BREEAM Residential: Fourways House, London

Another first for this year's awards was the brand new 'Your BREEAM Award'. Decided by over 5,000 public votes, selecting from a shortlist published by the online journal Building4Change, the award went to The Cooperative headquarters building, 1 Angel Square in Manchester.

"The outstanding quality of this year's winning projects has set the sustainable development bar even higher," said Gavin Dunn, director of BREEAM.

"The outstanding quality of this year's winning projects has set the sustainable development bar even higher"

Gavin Dunn, director of BREEAM

"They are not only testament to incredible technological ingenuity but also to the resourcefulness and vision of the teams that brought them to life and their ability to put people at their heart."

Companies, countries and individuals were also singled out for prestigious BREEAM awards. European company Grontmij was named 'Assessor Company of the Year', and Rob Baker of RSK Group, Oriane Dugrosprez of ALTO Ingénierie and Stefaan Martel of Bopro received individual 'Assessors of the Year' awards.

Three awards were also presented to pioneering assessors who were the first in a country to have conducted a BREEAM certified building assessment. The winners were:

- Viviane Cunha of Viviane Cunha Associados for a residential development near Rio de Janeiro in Brazil
- Jérémie Cottin of Le Sommer Environnement for the Villas du Larvotto development in Monaco
- Andrew Caistor of Prague-based green-gain for a business centre in the Slovak Republic

UEL students get global architectural award

Three University of East London students have beaten off global competition to win "honourable mentions" in a leading architecture award.

The competition, called Cebada Community Centre, focuses on a community centre in Madrid which needed to be redesigned. The competition aimed to highlight students' skill in repairing run-down areas of the inner city town.

The winners had to find architectural solutions to reactivate the community centre, while taking advantage of its potential, and to design somewhere to offer something to everyone, as well as keeping an open public space.

The UEL students were given honourable mentions in three different departments. These were: urban integration (Ahmed Elsirafi), sustainability (Tomohiro Himeno) and architectonic design (Esther Peyrovi).

UEL's architectural senior lecturer. Michele Roelofsma, said: "We saw this competition could reinforce the aims of our course by providing the opportunity for our students to work with genuine



inner-city urban issues.

"As the competition was open to entries from all over the world, it's a great honour to have our students' work recognised in this way."

Student Esther Peyrovi added: "We're all very pleased to have our work and ideas recognised like this. It was really interesting to see the wide array of architectural ideas developed for the competition. The project was really engaging, and dealing with an existing building in a thriving Spanish culture pushed our creativity."



Re-establishing neglected space by Esther Peyrovi (above). Both images courtesy of the University of East London

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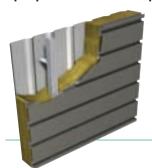
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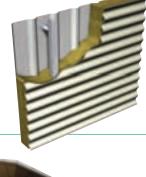
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SELF STORAGE



Birmingham unveils huge HS2 redevelopment plan

Birmingham City Council has unveiled the Birmingham Curzon HS2 Masterplan, which will see 141 hectares of the city centre transformed.

The centre-piece of the plan is a stunning glass rail station for the 250mph HS2 trains designed by award winning architects Wilkinson Eyre. The ambitious plans form one of the biggest urban regeneration schemes in Britain, and by far the biggest redevelopment so far announced on the back of HS2.

The new developments will be focused around the brand new city centre station – Birmingham Curzon – where HS2 terminates on its 49 minute journey from London. The station will place the city at the heart of the new national high speed network.

Plans include the creation of over 14,000 jobs, 600,000 sq m of new employment floorspace and 2,000 new homes. The regeneration will boost the city's economy by £1.3 billion each year.



GUIDANCE

UK takes the lead as first country to develop Smart Cities standards

BSI, the business standards company, has recently published new guidance to help support UK cities in becoming smarter. In the UK alone, eight out of 10 people now live in cities, and the United Nations predicts cities will grow by 70 per cent by 2050. As they become more complex, an intelligent standardised structure for using and sharing existing data and resources becomes vital. This is echoed in the findings of the government's Information Economy Strategy published in June 2013.

BIS (Department for Business Innovations & Skills) has worked with BSI to develop and launch an agenda around the smart city standards, in what is an emerging market still in its infancy. The Publicly Available Specifications PAS 180 and PAS 181, address the standardisation gaps in the smart city market by pro-viding a guidance framework and common language.

Scott Steedman, director of standards at BSI, said: "Smart cities need standards. The UK leads the world in shaping business standards. If we are to make the most of the global opportunities from smart cities, we need to work fast to structure the knowledge that can help city leaders, communities, innovators and technology providers recognise what good looks like and how these concepts can bring benefits for all. I'm

delighted that the UK is the first country to publish a set of standards that will help us navigate the governance and leadership challenges that smart technologies bring for cities everywhere."

PAS 180 Smart cities – Vocabulary was developed to improve communication and understanding of the smart cities field by providing a tool to ensure developers, designers, manufacturers and clients use a common language when talking about smart cities helping the industry to work more efficiently and effectively.

It is the first version of a "smart cities vocabulary", the beginning of a process to collate the diverse range of terms and expressions used in day-to-day discussions about smart cities. The vocabulary aims to provide an agreed set of working terms to enable practitioners to better share a common understanding.

PAS 181 Smart city framework – Guide to establishing strategies for smart cities and communities was developed to guide decision-makers and assist them to develop, agree and deliver smart city strategies that can transform cities' abilities to meet future challenges and deliver future aspirations.

The framework does not describe a one-size-fits-all model for the future of

UK cities. It focuses on the enabling processes by which innovative use of technology and data coupled with organisational change can help deliver the diverse visions for future UK cities in more efficient, effective and sustainable ways.

Universities and Science Minister David Willetts said: "There is huge potential for the UK to be the world leader in smart cities and to achieve a strategic advantage for UK cities and industry as international markets develop. Industry standards are key to achieving world leadership status for the UK and hence I welcome the publications of the first two BSI smart city standards. These standards will help to address barriers to implementing smart city concepts and promote uptake of smart city solutions at scale."

Some of the organisations involved in the development of PAS 180 include: Department of Architecture, Department for Culture, Media and Sport (DCMS), Cambridge University and University of Westminster. Some of the organisations involved in the development of PAS 181 include: Balfour Beatty, Birmingham City Council, BRE, Fujitsu, Future Cities Catapult, IBM, Leeds City Council, Royal Borough of Greenwich and The Technology Strategy Board.

'Developed to improve communication and understanding of the smart cities field by providing a tool to ensure developers, designers, manufacturers and clients use a common language'

news bytes

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Pringle Brandon Perkins +Will tops interior architect rankings... Ref: 23925

Chilean architect Smiljan Radic to design Serpentine Galleries Pavilion 2014... Ref: 93046

Desert states' students fresh ideas to develop Derby green site... Ref: 16201



Bigger & better for 2014

The Eco Technology Show will be open from 9.30am - 5pm on Thursday 26 June and 9.30am - 4.30pm on Friday 27 June. Registration is free

he Eco Technology Show returns to the South East this summer, with a focus on the practical business benefits of innovation and low carbon solutions. Speakers at free workshops and over 140 exhibitors will be showing



visitors how they can save money and reap benefits for cities, businesses, and communities.

Now in its third year, the Eco Technology Show is firmly established as the UK's premier event showcasing ideas and innovations from across Europe and highlighting how they can save money and deliver genuine benefits to cities, businesses and communities. The 2014 event has attracted Greg Barker, Minister of State at the Department of Energy & Climate Change as a keynote speaker.

The show focuses on: energy management, build, transport, technology & resource efficiency.

Nicola Gunstone, commercial director at the Eco Technology Show comments: "The powerful drivers of carbon reduction, the need to tackle fuel poverty, spiralling energy costs and increasing consumer demand have combined to drive market growth. Eco technology is no longer on the margin – its mainstream business now.

"The products and services we'll be showcasing provide significant opportunities for improving resource efficiency, energy management and making real differences to the towns and cities we live in. For anyone with focus on energy management, new build or maintaining, improving existing buildings, low carbon transport and resource efficiency, a visit to the Eco Technology Show will be a day well spent."

There will be an opportunity to meet and network with industry and thought leaders face to face. The programme will be announced online in March.

Further information can be found on the website www.ecotechnologyshow.co.uk



AWARD

Winner of the World Design Impact Prize 2013-2014

The International Council of Societies of Industrial Design (ICSID) awarded the 2013-2014 World Design Impact Prize to A Behaviour Changing (ABC) Syringe, developed by Dr David Swann from the University of Huddersfield during an awards ceremony at the World Design Capital® (WDC) International Design Gala in Cape Town on 28 February. There are numerous issues related to the unsafe use of syringes, but rather than create a new type of syringe (where a single £0.03 device can take years to get FDA approval and millions to produce), the ABC Syringe is an intelligent label that provides an easy way to recognise which syringes have been used versus those that have not and costs closer to £30,000 to create and takes only three months for FDA approval. It is a universal communication tool regardless of literacy.

Visit www.architectsdatafile.co.uk and enter ref: 59297 for more information.



Barbara Weiss Architects completes the UK's largest single-site GP practice

Barbara Weiss Architects (BWA) has completed the extensive refurbishment, extension and change of use of a redundant 1990s office block into the new Wokingham Medical Centre, to create the largest single-site GP practice in the UK.

The 1,600 sq m NHS building provides new facilities for up to 16 GPs (currently home to 11), and five nurses, along with a new pharmacy and flexible medical suite. The relocation from two separate sites now occupies a site in the heart of Wokingham's town centre in Berkshire, a key area for the continued regeneration of the town.

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PLANNING



UK housing shortage latest: icing here with cake to follow

By Paul Graham, MD of cost-effective, bespoke project lead provider Planning Pipe (www.planningpipe.co.uk)

news bytes

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Awareness and usage of BIM among architects is growing. British and Dutch architects have the lead...

Ref: 12013

Assael Architecture makes the Sunday Times '100 Best Small Companies' list... Ref: 24651

Government must slash refurb VAT to boost economy by £15 billion... Ref: 74192

New Eco Open Houses trail launched... Ref: 85883

> Healthcare Estates: Spring seminars in run-up to Manchester event... Ref: 22201

JDS Architects wins the International Award At The Belgian Building Awards 2014... Ref: 57249

> Floating villages, rain gardens and pedalos – 20 water sensitive ideas for London's Royal Docks... Ref: 82569

he go-ahead on what could be a pioneering model for reform in the UK's housing supply was announced as Cherwell Council purchased a 187ha MOD site and offered up to 1,000 homes solely for self-builders. There has not been a self-build project of such a scale in the UK before – but does this innovative scheme in fact reveal as much about what is not happening to help solve the UK's housing shortage?

Self-build has been seen by many as a significant but untapped source of new homes. While small scale and pioneering in the UK, self-build is just how most (and in fact more) homes are built in Europe.

Taking inspiration from Europe, Cherwell are encouraging a variety of approaches for development on the site in Bicester – from kit homes and single unit custom builds through to terraced housing and apartment blocks. The council hope that around 30 per cent of the homes will be classed as 'affordable' and want to attract a mix of sole-owned, part owned and rented properties. The approach is markedly different to the current, developer-dominated UK housing market. Can self-build be that significant?

The self-build icing

There certainly appears to be substantial unmet demand for self and custom build in the UK. The National Self Build Association estimates that six million of us expect to research how to build a home for themselves in the next 12 months. Self-build is also viewed as an accelerator in the speed of construction – with less likelihood for landbanking.

Proponents also argue that more self-building can help to defuse some of the toxic planning arguments of NIMBY versus developer. With more individuals involved in building houses, they argue, local support for new homes will increase with more desirable houses built.

Government has supported self-build. November 2013 saw £30 million in loans set aside for self-builders. In February 2014 it was announced that each self-builder is set to benefit by around £15,000 per build as Community Infrastructure Levies are removed.

Cherwell Council's Graven Hill project may change the view that self-build cannot promise new houses in any significant numbers. However, critics could rightly claim that such schemes are mainly a substitute to traditional developer-led large schemes – and don't really enhance the housing cake overall.

Follow the incentives

For many, the main portion of the housing supply problem stems from the incentives in the current market. The incentive for developers to build houses is too often less than the risk/return of land acquisition and sale. There is every incentive for individuals to be a NIMBY rather than support large numbers of new homes nearby. There is virtually no incentive for local authorities to exceed local housing targets in the short term – and every incentive to listen to the local community and often object to new schemes.

With all these incentives pointing in the same way, it came as no surprise that following the abolition of centrallyimposed regional housing targets, local councils have almost universally set theirs lower. With relatively stable land and house prices (at least compared to many other countries) UK house-builders and developers have been only relatively annoyed.

Many believe significantly more homes will be built only when the incentives are right at the local level. Those incentives must focus on land supply and prices. Community Land Auctions (CLAs) – competitive tendering auctions similar to those used for 3G mobile phone networks – were backed by the Coalition in 2011 and a pilot scheme was promised. The potential of CLAs were viewed as significant precisely because they created significant incentives at a local level to build new homes.

The losers from CLAs would be existing developers and landowners. Their current profits from land would be in effect transferred to local authorities and local communities. CLAs also promise "build-ready" sites, which encourage more competition for existing developers. As a final blow, CLAs would see the value of developers' current land banks fall. There is every incentive for existing developers to oppose this new auction model.

The Graven Hill project could well be a pioneering model for self-build in the UK and hence an important contribution to the UK's future housing supply mix. However it remains on the surface of the issue.

The political incentive to tackle perhaps the single biggest issue in housing supply – that of land prices – appears to be less than the incentive to keep the status quo. Self-build at scale may be here now but we still await even a pilot for CLA.



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01604766251 www.faberblinds.co.uk

enq.108



enq.107

Griff Rhys Jones denounces interpretation of national planning system

Appearing on the Daily Politics Show, Griff Rhys Jones, president of Civic Voice, has spoken out about the ambiguity of the National Planning Policy Framework (NPPF).

Griff said: "To have a presumption in favour of brownfield sites is not the same as having a policy that brownfield sites should be built on first. It is obvious that housing on 'greenfield sites' generates much more profit for developers, but planning policy should not be about helping developers to profiteer. But to the man in the street, this is exactly what the National Planning Policy Framework is doing."

For more information visit the website www.architectsdatafile.co.uk and enter ref: 82387.

EVENT

Clerkenwell Design Week announces festival programme

Newly appointed Show Director William Knight presented Clerkenwell Design Week's 2014 programme at the Crypt on the Green at St James' Church in early March.

Celebrating its fifth edition this year, Clerkenwell Design Week (20-22 May) will showcase the latest innovations by designers and manufacturers from the UK and around the world. Set against the historic backdrop of Clerkenwell, the three-day festival will be centred upon leading design showrooms in the neighbourhood, as well as four focused exhibitions; The Design Factory, Platform, Detail and Additions.

For more information visit the website www.architectsdatafile.co.uk and enter ref: 70946.

HEALTHCARE

Maggie's is coming to The Clatterbridge Cancer Centre

The Clatterbridge Cancer Centre has announced a new partnership with Maggie's, the charity that provides free practical, emotional and social support for anyone living with cancer as well as their family and friends, to create a Maggie's Centre on its main hospital site in Wirral, Merseyside.

The Interim Centre, designed by



renowned architectural firm Carmody Groarke, will significantly enhance the cancer care and support already offered at the Clatterbridge Cancer Centre.

On Saturday March 8, 'The London Dresser' – the first of the seven portable buildings which make up the Interim Centre – was delivered to the hospital. 'The London Dresser' was a project commissioned by the Mayor of London as part of the Wonder Installations series for 2012 during the London 2012 Olympics.

For more information visit the website www.architectsdatafile.co.uk and enter ref: 70553.

ACHIEVEMENT

Ryder highest ranking architect in top 100



For the second year running Ryder Architecture has made The Sunday Times 100 Best Companies to Work For. This year Ryder is the highest placed UK architect in the prestigious best small companies list. Nearly 900 organisations entered the awards and the opinions of 250,000 employees were canvassed, making it the largest survey of workplace engagement in the UK.

news bytes

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

London Festival of Architecture 2014 preview... Ref: 81953

Independent study reveals over 230 new towers planned for London skyline... Ref: 15807

Landscape and local centre plans approved for the North West Cambridge Development... Ref: 20087

Phaidon Atlas charts over 3,000 of the best buildings from around the world... Ref: 50341

Manufacturers launch collective effort to address UK flooding... Ref: 84075



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The Sunday Times British Homes Awards with the Passivhaus Trust, Kingspan Insulation, the AJ and Habitat First Group challenge architects to design "EcoHaus" - a home to Passivhaus standard.

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continuing professional development

Maintaining and improving professional competence, skills, abilities and knowledge

LRWA CPD SEMINAR



The LRWA (Liquid Roofing and Waterproofing Association) has announced the launch of its RIBA approved CPD, available online for specifiers, architects, and surveyors. "Continuing Professional Development is crucial for anyone working in the construction industry," commented Terry Wain, LRWA technical secretary. The CPD should take around 25 minutes to complete and includes information on the history of liquids and the various ways in which LRWA aims to promote best practice within the industry.

0207 448 3859 www.lrwa.org.uk

enq. 111

THREE WILO CPDS ON OFFER



A guide to Rainwater Harvesting Systems from Wilo discusses the options available with rainwater, regulations, standards and installation example. The benefits of high efficiency pumping helps you develop your knowledge as to the regulations concerning glandless and glanded pumps together with new motor regulations. Surge protection — designing out hydraulic shock explains hydraulic shock and corrects misconceptions of how to solve it.

01283 523000 training@wilo.co.uk

enq. 113

UNDERSTANDING AND SPECIFYING SECONDARY GLAZING



To mark Selectaglaze's 20 years at The Building Centre the company is hosting a CPD and Networking Event. This daytime event will include refreshments and give participants the opportunity to socialise with industry colleagues and present an opportunity to view Selectaglaze's permanent exhibition stand. The RIBA approved CPD Understanding and Specifying Secondary Glazing will be relevant to architects, designers and contractors working on refurbishment schemes particularly those involving traditional or listed buildings. These may include residential schemes, offices, hotels, museums, hospitals, all types of educational building and even churches. Issues such as energy performance, environmental noise issues and provision of security including certified levels will be fully covered and a Q and A session will allow more detailed discussions. Established since 1966 and a Royal Warrant Holder since 2004, Selectaglaze is a UK leading designer, manufacturer and installer of secondary glazing systems and submits products to rigorous independent tests. The company has worked with a wide range of public and private clients and in many fine buildings including those listed at Grade 1.

01727 837 271 www.selectaglaze.co.uk

enq. 114

HOPPE CPD TRAINING



A leading hardware manufacturer, HOPPE UK, now offers architects and other specifiers a RIBA-approved CPD training on Lever Handles and Liability. The training, which can be carried out as a seminar at any location, covers the importance of specifying the correct lever handles to comply with legislation, regulatory guidelines, building regs and fire regulations. It also advises specifiers of door hardware how best to limit their liability.

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enq. 112

SPECIFYING DOOR HINGES



SIMONSWERK's RIBA-approved CPD provides architects with the technical knowledge for specifying the correct hinge for the right application, offering guidance on door specification, legislation, building regulations, fire & safety in use, CE marking – MANDEC and the Equality Act. SIMONSWERK are a leading manufacturer of top quality brass, aluminium and stainless steel hinges. Ranges include the award winning fully concealed TECTUS and the outstanding solid brass TRITECH hinges.

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enq. 115

BENEFITS OF STRUCTURAL METAL WEB TIMBER FRAME COMPONENTS



ITW Industry, developers and system suppliers of SpaceJoist metal web floor joists, SpaceRafter metal web rafters and SpaceStud performance wall studs announced its RIBA Core Curriculum CPD Benefits of structural metal web timber frame components. ITW Industry's 45 minute RIBA CPD provides attendees with a foundation knowledge of structural metal web timber frame components. The CPD module falls within the RIBA Core Curriculum category of *Designing* and building it: design, construction, technology and engineering and covers the open web components' construction, thermal efficiency and sound performance to the latest standards, building codes and regulations, plus various informative case studies. ITW Industry, which includes the Alpine and Gang-Nail truss system brands, is well positioned to deliver such a metal web CPD with its long history and expertise in timber engineering. Alpine originally supplied Space-Joist back in the early '80s, while the Gang-Nail brand has to some extent established itself as a generic name for the punched nail plates used in timber engineered components such as roof trusses. Together as ITW Industry, its metal web timber frame systems have seen considerable research and development, culminating in producing the best performing metal web joist (Space-Joist) on the market and the pioneering performance wall stud system (SpaceStud).

01592 771132 www.itw-industry.com

GETTING THE BEST OUT OF ROLLED **LEAD SHEET**



The Lead Sheet Association's RIBA-approved CPD is an interactive way to find out how to get the best out of British Standard lead. It includes an introduction to manufacturing methods and the technical, life cycle and sustainability characteristics of lead. It also explores the main uses of lead sheet, looking at flashings and weatherings, roofing and cladding and the restoration of historic buildings. The CPD also uses real life examples from LSA site investigations.

01622 872 432 www.leadsheet.co.uk/cpd-andseminars enq. 117

WETROOM DESIGN & SPECIFICATION



As the popularity of wetrooms continues to grow, CCL Wetrooms have developed a Wetroom Design & Specification CPD to help guide Architects through the process of designing and specifying a watertight wetroom. The technical presentation covers the key considerations of designing and specifying a wetroom, including wetroom design and layout, waterproofing, drainage, floor build up and installation. It also includes a section on how wetrooms can help meet the Lifetime Homes Standard.

0844 327 6002 www.ccl-wetrooms.co.uk enq. 118

events

AWARDS

AIA UK Design in Excellence Awards Gala

27 March, London http://aiauk.org/

Greenbuild Awards

7 May, Manchester www.greenbuildawards.co.uk

British Homes Awards

19 September, London britishhomesawards.co.uk

CONFERENCES & SEMINARS

Growing Communities: Sustainable Education Buildings 29 April, London

www.buildingcentre.co.uk/events

EXHIBITIONS

Sensing Spaces:

Architecture Reimagined

Until 6 April, London www.royalacademy.org.uk/ exhibition/4

Buro Happold Emerging Architects Presents: 42 Architects

Until 11 April, London www.burohappold.com/events

Agnese Sanvito:

Absorb/reflect/scatter

Until 26 April, London www.buildingcentre.co.uk/ galleries/galleries_cafe.asp

Living Laboratory: Richard Pare on Le Corbusier and Konstantin Melnikov

21 March - 11 May, London www.ealing.gov.uk/ pmgalleryandhouse

The Brits Who Built The Modern World

Until 27 May, London www.architecture.com/whatson

New British Works:

Today - Tomorrow

Until 27 May, London www.architecture.com/whatson

Empire Builders: 1750 - 1950

Until 15 June, London www.architecture.com/whatson

John Pantlin: photographing the mid-century home

Until 29 June, London www.architecture.com/whatson

Venice Architecture Biennale

7 June - 23 November, Venice www.labiennale.org/en/ architecture/

FESTIVALS

Clerkenwell Design Week

20 - 22 May, London clerkenwelldesignweek.com

London Festival of Architecture

1 - 30 June, London www.londonfestivalofarchitecture.org

The International Festival for Business (IFB) 2014

June - July, Liverpool www.ifb2014.com

SHORT COURSE

The Drawing Gym for Architects and Spatial Designers

29 April, London www.buildingcentre.co.uk/events

The Craft of Concrete

20 May, London www.buildingcentre.co.uk/events

TALKS, LECTURES & DEBATES

Concrete Elegance: Buildings for Concerts and Council Tax 9 April, London

www.buildingcentre.co.uk/events

TOURS

Open House London

20 - 21 September, London www.londonopenhouse.org

Eco Open Houses

12-13 April, Worthing 27 April, Steyning 18-19 and 25-26 October, Brighton & Hove www.ecoopenhouses.org

TRADE SHOWS

Sustainability Live [including NEMEX, Energy Recovery and IWEX]

1 - 3 April, Birmingham www.sustainabilitylive.com

Greenbuild Expo

7 - 8 May, Manchester www.greenbuildexpo.co.uk

Design in Mental Health Conference & Exhibition

13 - 14 May, Birmingham www.designinmentalhealth.com

May Design Series

18 - 20 May, London www.maydesignseries.com

FIREX / IFSEC International

17 - 19 June, London www.ifsec.co.uk

The Eco Technology Show

26 - 27 June, Brighton www.ecotechnologyshow.co.uk

100% Design

17 - 20 September, London www.100percentdesign.co.uk

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Taplanes

Leading shower cubicle and bathroom pod manufacturer, Taplanes Ltd, provide pre-fabricated solutions to a variety of end users throughout the UK and Ireland. With a strong client base including universities, schools, housing associations and hotels, Taplanes pre-formed shower enclosures overcome the inherent problems associated with conventional bathroom areas. Durability and speed of installation, together with a guaranteed 'leak proof' construction, ensures Taplanes are the preferred choice within the accommodation sector. For additional service and product information please contact direct, or visit the company's website.

enq. 120





De Leeuw

Rooms overheating due to solar gain becomes more and more frequent. As insulation increases and leakage is minimised, any shortfall on ventilation quickly leads to overheating and occupant discomfort. To minimise this solar gain the most efficient solar reflector/window shade needs to be specified. With reflectance levels from 70 per cent to over 80 per cent Reflex-Rol s hading offers market leading performance of heat and light control. High in performance, discreet in appearance, Reflex-Rol makes you more comfortable.

enq. 123

editor's focus

Plumis

The Automist watermist suppression has been assessed and accepted as an LABC Registered Solution - Registered Detail RD171 to provide active protection for escape routes and facilitate open plan layouts in suitable loft conversion applications. The scheme enables much faster approval of most open plan layouts, allowing building control officers to approve loft conversion projects without a long and detailed investigation. For further information on Automist call Plumis or visit its website.

enq. 121

Vetrotech

Vetrotech is a manufacturer of fire-resistant products. Vetrotech also produce glass solutions for marine and security applications. With innovative research and development combined with state-of-the-art production technologies, Vetrotech creates bespoke solutions of high quality, consistency and complexity. All solutions are suitable for multi-comfort applications and meet the aesthetic demands of modern architecture. Every project has a unique criteria and if required the company can discuss every application case by case. It offers the optimal glass for every fire-protection demand while blending with non-fire glass types.

enq. 122

Polyflor

Expona marks Polyflor's continual evolutionary development of design-led flooring products. The Expona PUR and Expona Commercial PUR collections are meticulously aligned to today's material trends and the extensive range of colours, materials and surface textures meet the demands of heavy commercial applications. Expona's environmental credentials are impressive, achieving a BRE A+ rating and containing on average 40 per cent recycled content with 100 per cent recyclability via the Recofloor recycling scheme. For more information, including free samples, visit its website.

enq. 125



Rega Ventilation

Now with 30 years experience of manufacturing heat recovery ventilation systems in the UK Rega continue to develop new high efficiency products. The latest range of central air units achieve over 90 per cent heat recovery and specific fan power levels as low as 0.51~w/l/s. In addition to maximising efficiency special measures have been taken to ensure low noise operation including sound breakout lining of the central air unit and anti-vibration mounting cradles. When the air unit is combined with Rega's acoustic duct products a quietly running system is guaranteed.

editor's focus

Gainsborough Specialist Bathing

Gainsborough Specialist Bathing has launched a range of accessible wet rooms suitable for long term and acute care developments. These stylish wet rooms offer a versatile and durable solution that meets the unique challenges of assisted bathing. Suitable for new-builds or refurbishments, these wet rooms incorporate a level access wet deck area, choice of thermostatically controlled showers, integrated shower seat, half-height doors or flat glass screen plus a variety of wall paneling and safety flooring in a range of finishes. Gainsborough also provides a complete end-to-end service.

enq. 126

Innova Design Solutions

Innova Design Solutions is proving itself top of the class in laboratory design and installations with its Hot Corner concept, bringing a new dimension to science rooms and teaching. The Hot Corner lay-out creates a flexible earning environment that provides a working classroom and practical laboratory within the same space. Research shows that practical activity time within a laboratory amounts to no more than 40 per cent, making it important that both practical teaching and theory are optimised within the design. Hot Corners has provided the answer in numerous successful installations.

enq. 127

Todd Doors

Todd Doors has launched a brand new and exclusively developed range of classically styled internal doors. This highly anticipated range comprises eight solid and 11 complementary glazed options which feature either flat or raised and fielded panels in a variety of configurations as well as a 47mm inset solid timber moulding detail. The stylish Estates Range doors come in untreated American White Oak as standard. All designs in the Estates Range can be ordered as 40mm non-fire and 44mm FD30 fire doors (which also feature hidden Intumescent seals).

enq. 128



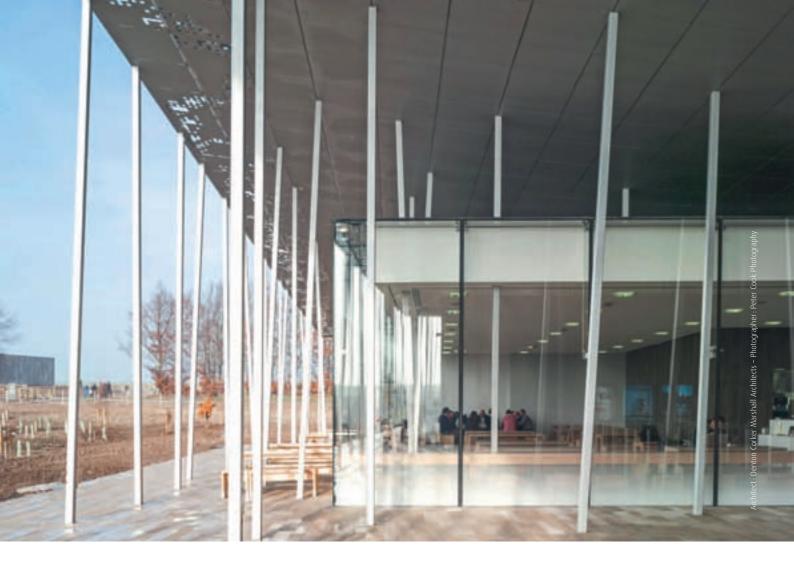




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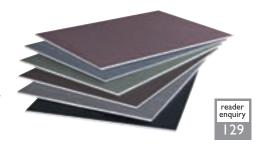
VMZ Composite

The new Stonehenge visitor centre canopy incorporates VMZ Composite in QUARTZ-ZINC®



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www.vmzinc.co.uk Call 01992 822288 now for more information or samples.





Dacatie launch new product selector app



Dacatie, market leaders in the cavity closer market, have launched a free product selector app to help make the selection of the correct product as simple as possible for both builders merchants and brickwork contractors. The app allows the user to quickly identify the correct Dacatie product for the job, as well as containing all the relevant information that may be required including datasheets and fitting guides. To celebrate the launch, Dacatie are offering one person the chance to win

two tickets to watch Manchester United at Old Trafford, as well as three-course meal, drinks and accommodation. To be in with a chance of winning download the app and submit a funny or interesting picture via the 'send us a picture' button.

0161 622 2042 www.quantum-ps.co.uk

Mixing it up with The VEKA UK Group



The VEKA UK Group was delighted to welcome Vince Cable back to the company's Burnley HQ to officially open the system supplier's impressive, new mixing plant. The Business Secretary enjoyed a tour of the Farrington Road site with the UK Company Directors and Global VEKA Group Board Member Boni Eichwald, who had travelled from Germany to attend the opening of the

state-of-the-art mixing plant, which has seen investment of £5 million. The VEKA UK Group's new facility is now the most technically-advanced mixing plant in the UK. It has been designed with future expansion in mind, which could potentially take capacity from the current 48,000 tonnes to a possible 72,000 tonnes.

01282 716611 www.vekauk.com



New software tools will help engineers

Engineering the best possible flood prevention control of surface water drainage systems is now quicker and easier for the majority of UK designers with the launch of important new software tools for the Hydro International Hydro-Brake Optimum® vortex flow control. With the inclusion of Hydro-Brake Optimum within the industry-standard Micro Drainage design tool, from February 2014, engineers now have the flexibility to tailor the size and hydraulic performance of flow controls to meet their design objectives. Available from XP-Solutions, Micro Drainage (formerly known as WinDes®) is used by more than 90 per cent of drainage engineers in the UK. Hydro International has also announced the launch of a complementary Hydro-Brake Optimum Design Tool providing integrated online support for engineers to validate and output detailed design drawings from the Hydro International website. The Tool also mirrors the capabilities within Micro Drainage, providing engineers with a flow control sizing engine allowing the ability to explore and visualise design options.

01275 337937 www.hydro-int.com

Kingspan leads responsible sourcing



To help specifiers make the most of its industry leading approach to responsible sourcing, Kingspan Insulation has now released updated technical bulletins explaining how its products can help to achieve credits for responsible sourcing in the relevant sections of Code for Sustainable Homes (C4SH) 2010 and BREEAM 2011. The updated technical bulletins which include information about all C4SH 2010 and

BREEAM 2011 credits which can be directly or indirectly achieved with Kingspan Insulation products are available for download from: www.kingspaninsulation.co.uk/literature/white-papers-and-technical-bulletins. as px.

01544 387 384 www.kingspaninsulation.co.uk

Ancon launches BIM object library



High integrity steel fixings manufacturer Ancon has launched a comprehensive BIM object library to support the industry's transition to digital building modelling. Available free from the NBS National BIM Library, the new BIM objects allow Ancon

products to be easily incorporated into a 3D building model and its associated component database. Ancon BIM objects cover a wide range of its products, including standard cavity wall ties and other masonry restraints, masonry supports, windposts and masonry reinforcement, tension bar systems, shear load connectors, stud rails and reinforcement continuity systems; all of which are critical to the structural integrity of a building and essential to an accurate BIM model.

0114 275 5224 www.ancon.co.uk

Quantum Flooring BIM models now live



Quantum Flooring has become the first flooring accessories manufacturer to create and distribute BIM objects for stair nosing's. Five key stair nosing

profiles have been created and are now available for free download. The models are available via the National BIM Library, the UK's first free-to-use and platform-neutral library of high quality BIM objects. The objects have been made available in five software formats (ArchiCAD, Revit, Vectorworks and Bentley, IFC). Quantum Floorings' move allows architects and specifiers to easily download and insert objects directly into a model.

0161 627 4222 www.quantum-ps.co.uk

Complete level access wetrooms



Wetrooms are the ultimate solution if a level access showering area is required. On The Level offer tailor-made complete wetrooms for the elderly or less able with added safety features such as non-slip sheet vinyl flooring to reduce the risk of slipping, further enhanced by accessories such as a grab rail and seat. On The Level design and manufacture its patented Birch ply underfloor trays in any shape or size to create unique wetroom solutions for care homes, private residences and hospitals. The trays are easy

to install, highly durable and guaranteed for 25 years, supplied ready to lay on any substrate including timber, screed and floating floors.

01525 373202 www.onthelevel.co.uk



Com-plete bathroom care delivers satisfaction

Automatic 'wash and dry' toilets are now regarded as the only "proper" hygiene solution by residents at a nursing home. Glenashling Nursing Home in Celbridge, Co Kildare initially installed two of the Clos-o-Mat toilets – one fixed height Palma Vita and one height adjustable Lima Lift, in a new extension. Reaction from residents and staff to the units, that automatically wash and dry the user after toileting, has been so positive that owner Garry Gavigan has now had a further three Palma Vita toilets installed, each with an accompanying Aerolet toilet lift, in communal bathrooms as part of an upgrade programme. The Closo-Mat Palma Vita looks like – and can be used as – a conventional WC, with additional, in-built douching and drying. Simply retaining pressure on the flush pad triggers simultaneous flushing and warm water washing, followed by warm air drying. The Aerolet toilet lift can be fitted over a standard WC or Clos-o-Mat.

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www.canopiesuk.co.uk

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Assisted showering. Solved.

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To assist architects and designers with the diverse challenges of specialist bathing specification, Gainsborough has introduced a new range of accessible wet rooms for assisted showering.

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History provides a future for the retired

Instead of a shining new development for the retired, Anchor Trust and English Care Village Partnerships are using design to invent a history for an assisted living development in Hampshire, as Steve Menary reports



nsuring good design can be achieved in a number ways, but in Hampshire the county council is using the planning system to safeguard new developments, such as the Bishopstoke Retirement Village near Eastleigh in Hampshire.

The first phase is due for completion by this autumn and will provide a retirement village that is rated both Excellent in the BREEAM system and level four in the Code for Sustainable Homes.

The scheme will feature over 170 homes and a 48-unit care home plus a Wellness Centre, swimming pool, hair and beauty salon, village bistro and delicatessen, but the idea behind the design for the scheme is not for a gleaming new residential project but a sense of gradual development that reflects the slow ageing of the residents.

Ian Knox, Anchor's Bishopstoke Park general manager said: "The architectural concept is to retain the charm and heritage of the original Mount building and create a new future for the historical building, which will remain at the heart of Bishopstoke Park retirement village community."

Peter Kilby, the senior design co-ordinator on the project for design and build contractors (D&B) Willmott Dixon, says: "There are so many finishes out there from different bricks to different renders and roof tiles and Flemish bond Continued overleaf...

BUILDING



'The idea was to make it look as though it had been developed over time. The swimming pool is very modern but attached to the Victorian section'

Peter Kilby, senior design co-ordinator on the project, Willmott Dixon and stretcher bonds.

"The idea was to make it look as though it had been developed over time. The swimming pool is very modern but attached to the Victorian section. They didn't want it to look like speculative box-housing. Even the flat types are different. It's more about a sales type and a level of finish."

The idea for the scheme was created by the English Care Village Partnership and is being developed and will be run by Anchor, England's largest not-for-profit provider of housing and care to older people.

The initial design was developed by award-winning Gloucestershire-based architects Tyack, which has a track record in residential designs. The outline service design was initially put together by Environmental Services Design (ESD) as part of the pre-planning stage. This outline design was then developed further by Urban Edge to enable the trust to secure planning permission.

To build out the scheme, Anchor opted for the D&B route. After using the initial plans to put the job out to tender, in April 2013 the trust chose Willmott Dixon ahead of bids from Galliford Try, GB Building Solutions and Leadbitter for the contract.

Willmott Dixon has a track record working on projects in the care home and retirement sector for clients ranging from Housing 21 and Catalyst to Chevin Housing Association. The group had also previously worked for Anchor Trust elsewhere on projects such as the £63 million Denham Garden Village in Buckinghamshire.

The site of the Bishopstoke project was a former healthcare



BUILDING

facility, the Mount Hospital. Although nearly 15 hectares in size, the plot is dotted and surrounded by trees, such as Copper Beech, that had tree preservation orders and had to be retained.

The main central building featuring 36 units from linked assisted living units to close care units and a care bed section is deemed a commercial building as this will also include shops and a commercial kitchen. As a result, this part of the scheme falls under the BREEAM system and the outlying apartments are rated under the Code for Sustainable Homes.

To secure BREEAM Excellent and code level four, the design specified features including a combined heat and power (CHP) plant powered by gas and underfloor heating throughout.

Kilby adds: "Ultimately, you would go for a biomass boiler but you can still achieve level four in the code with a gas powered CHP, which provides a 25 per cent improvement on Part L, which is what we need to achieve.

"You can also do the heating with radiators but underfloor is better. The rest of the credits come through areas such as waste control. That's our company policy anyway and we are diverting waste from landfill with bricks, block, timber and metal all sorted. Between 90 and 95 per cent of the waste from the scheme has been diverted from landfill, which is an exemplar credit, which is good to achieve."

The scheme includes meters for the heating, hot and cold water and electric in the main building to help identify any leaks or excessive usage. "That leak detection is great for BREEAM," says Kilby.

Storm water on the site is diverted from the sewers into infiltration tanks, while permeable paving has been specified between the car parking spaces to also aid the drainage. There is no grey water recycling but rainwater is harvested from the swimming pool building and used to flush the toilets.

After a record breaking January 2014 for rainfall, there has been no shortage of water on the actual building site. Apart from the rain, perhaps the biggest obstacle for contractor Willmott Dixon has been retaining an existing Victorian tower at the heart of Bishopstoke Park.

Continued overleaf...





BUILDING





"It was almost a façade retention," jokes Kilby about the derelict building, which was without a roof for two years and was retained as part of the planning permission. With the building set to link to other new elements, saving the tower was also central to preserving the history of the site, however the design proved problematic.

Senior Build Manager Ben Alford says: "Because of dry rot, everything had to come out and it's been a bit tricky. Literally every bit of timber, including the bits they originally drove between the brickwork to secure the doors, had to come out as they harbour the spores from dry rot in the walls. At one point, there were three storeys without floors that were unbraced."

The building has since been secured with scaffolding by sub-contractor Harsco working for Willmott Dixon at Bishopstoke Park. The tower windows have all been replaced, providing a test for John A Russell Joinery.

For Willmott Dixon, the supply chain has been key to building out such a complicated design. Kilby adds: "It's quite a complicated build as there's so many different interfaces and you need quality sub-contractors, not house-bashers. The quality has to be there to match the bricks and the roof tiles. It's not just about bashing up a house then leaving."

After Willmott Dixon won the contract, Urban Edge was novated to work with the contractor on the D&B project and Kilby says that relationship is what has proved important to the successful delivery of the project.

He adds: "The designers took the initial design and developed it to conclusion. That's part of the checking. There's a lot of elements on the site that talk to each other like the warden call system or the BMS [Building Management System], which counts towards BREEAM.

"You also have to be a lot more careful in selecting materials. The architects had to work with the BREEAM guide to achieve the credits. Some of the roof tiles did not have good ratings, but need to be an A or A+. The timber also needs to be responsibly sourced.

BUILDING PROJECTS



'It was almost a façade retention'

Peter Kilby, senior design co-ordinator on the project, Willmott Dixon

"It's the due diligence on what's going in, then the minimising of waste on-site that goes to landfill. It's all interlinked. That's why you need a design and build contractor so that we can put our experiences into it and say 'you don't want to do that."

Although a record-breaking January in terms of rainfall delayed work on-site, the scheme is expected to be complete by October 2014, but off-plan sales for units in the first phase began in May 2013. The cost of the units at Bishopstoke Park range from £198,000 for a one-bedroom, assisted living apartment right up to £689,000 for a penthouse apartment in the Pullman, Bristolian, Fenman or Caledonian range.

Services charges are £110 a week on top of that, with buyers essentially buying a package of care as much as a new home. Even on the relatively affluent South Coast, those prices are not cheap but with a design aspiration way ahead of the units churned out by volume housebuilders, the scheme has quickly found demand.

By the end of February 2014, a total of 52 per cent of first phase purchasers have bought off-plan doubling the figures for sales expectations, with almost 80 per cent of all village apartments being reserved. With a design that found favour with the planners, a second phase is in the pipeline to expand Bishopstoke Park. Phase two has planning approval and, though the contract will go out to tender again, Willmott Dixon's team will hope that their work so far is enough to secure the job.



Project: Bishopstoke Park Retirement Village

Location: Eastleigh, Hampshire

Cost: Circa £22 million

Client: Anchor Trust

Architect: Tyack/Urban Edge

Planning consultant:

Planning consultant: Pegasus

Environmental consultant:
Environmental Services
Design

Landscape consultant: Portus & Whitton

Structural engineer: Farrow Walsh

Cost consultants: Mace

Acoustic consultant: Hoare Lea

Design & build contractor:
Willmott Dixon

Kitchen supplier: Moores Furniture

Lift: Otis

Redring pumps up Selectronic range



Showering and hot water expert Redring has added to its bestselling Selectronic Premier range with the Selectronic Premier LAP. The Selectronic Premier range of showers has been specifically designed to meet the needs of the care sector thanks to its revolutionary technology and design. The new Selectronic Premier LAP (Level Access Pump) bolsters the range with the option of an integral LAP. This allows waste water to be removed even when a gravity drain is not available. The

Selectronic Premier LAP controls the level access drain pump directly, removing the need to fit a separate flow switch and associated wiring.

0844 372 7750 www.redring.co.uk

enq.143

KI supplies chairs to The Bushey Academy



KI have supplied its new range of Postura+ chairs to The Bushey Academy's new building, designed by Architects Co-Partnership. The innovative building provides state of the art accommodation for 1,350 students including 300 post-16 students. KI's Postura+ range of seven sizes of stackable chairs

provided for the new academy, are available in a variety of colours and are manufactured in the UK. The chair is ergonomically designed to promote good posture and provide exceptional comfort for students.



Schlüter provides perfect formula

The University of Oxford's Mathematical Institute has factored in a top supplier of essential tiling protection, Schlüter-Systems, during its £220 million development of new facilities- adding up to a first-class installation of the very best degree. Aimed at providing a modern, state-of-the-art facility to 500 mathematical researchers and support staff, the new building will also be a centre for the academic life of over 900 undergraduates. Therefore, with such heavy pedestrian traffic, it's no surprise that movement joints from the Schlüter*-DILEX range, along with stair nosing profiles from the Schlüter*-TREP have been installed to provide the ultimate in flooring protection. A complex conundrum to some, the security, durability and protection of tile flooring can be a minefield of calculations. However, thanks to the innovative profiles, trims and stair nosing products from Schlüter-Systems, the new flooring at the Mathematical Institute will remain sturdy and firm even under the feet of thousands of students. Carl Stokes, head of Marketing and Customer Service, commented: "We are extremely honoured to become part of a new chapter in the UK's oldest university."

01530 813396 www.schluter.co.uk

enq.147

AluK specified for University of South Wales



AluK's aluminium building systems have been supplied for the new main entrance building at the University of South Wales, to create a new focal point. Combining design flexibility with functionality, the SL52 Curtain Walling System in RAL7038 Matt colour was fitted in two areas in the

main entrance of Block B. This system helps to create impressive glass façades that enhance the aesthetics of a building, but also provides the performance required to meet and exceed current standards. Meanwhile, 13 structurally enhanced aluminium swing door framing systems (GT55 NI) were used for heavy traffic areas where no insulation was required, providing the ultimate in security.

01633 81 04 40 www.aluk.co.uk

enq.144

Specialists for artificial grass in schools



When children's play areas have become synonymous with mud, Nomow Artificial Grass can transform those areas into beautiful, green and safe play areas that can be used year round, regardless of

poor weather. Black Firs Primary School in Cheshire realised the benefits of Nomow and had over 700m² of Play 365 artificial grass installed. Nomow also installed brand new drainage solutions eliminating the problem of floods, and installed its Shock Safe impact pads system, giving a 3m critical fall height around the play equipment. Nomow's technical team can assist with all aspects of product specification and pricing, design, landscaping and groundworks.

0800 587 0380 www.nomow.co.uk

eng.146

Tarasafe[™] safety flooring exclusively specified



More than $8,000\text{m}^2$ of **Gerflor's** Tarasafe range of slip-resistant vinyl safety flooring was specified for a £37.1 million Scottish school building programme. The hard-wearing flooring was specified for The Lasswade Centre, the second building constructed in the £1.25 billion Schools for the Future pro-

gramme, along with Eastwood School in Renfrewshire. Both have utilised Gerflor flooring for its aesthetic appeal and hardwearing durability. All the Tarasafe flooring was impregnated with Sanosol* fungistatic and bacteriostatic treatment, incorporating Gerflor's unique SparClean* treatment, which eliminates dirt traps and cuts maintenance costs by reducing the need for cleaning materials.

01926 622600 www.gerflor.co.uk

enq.148

Gilgen under-floor door operators chosen



Gilgen Door Systems has installed a number of bespoke automatic sliding doors and swing door operators as part of a new extension to Oxford Brookes University Headington Campus. The Gilgen SLX sliding doors incorporate a unique under floor door operator which is concealed from view leading to a clean aesthetic design.

The under-floor operator can be used with a variety of door designs and is hidden from view by a removable floor cover which enables unrestricted service access. Gilgen supplied and installed a total of nine bi-parting sliding door systems and five heavy duty swing door operators over the project duration.

0800 316 6994 www.gilgendoorsystems.co.uk



Titan in its tomb

The country's second largest ever concrete pour was needed to create a building for Cambridge's materials scientists in which vibration could be kept to a minimum. Mark Smulian reports

It must have been a remarkable sight when 120 lorries drove up to a site on the western edge of Cambridge and over 24 hours deposited enough concrete to constitute the second largest pour of the material seen in the UK after London's Shard.

The concrete was needed for an unusual purpose too, not just for a normal building base but one that would – as far as possible – eliminate vibration from the structure that would stand on it. Using concrete on such a vast scale for the new building for the University of Cambridge's Department of Materials Science and Metallurgy was a challenge.

Project architect Rebecca Mortimore, senior associate and science and education projects director at architectural practice NBBJ, says: "We pushed what orthodox construction

can do to the limits here."

Requirements for vibration and the accommodation of large and complex equipment were imposed by the department, which wanted an environment in its new £48 million home where its electron microscopes could be protected from interference – including also from sound and thermal currents – that disturbs their readings.

In addition to some 500 staff and students, the building would be home to what is known jokingly as 'The Tomb', home to Titan, more formally the FEI Titan 3 Electron Microscope. This device allows scientists to analyse structures less than one-half the size of a carbon atom and more than a million times smaller than the width of a human hair.

It would also house a variety of other machines, including Continued on page 33... 'We pushed what orthodox construction can do to the limits here'

Project architect Rebecca Mortimore, senior associate and science and education projects director at architectural practice NBBJ



The main entrance from the road

VELUX Modular Skylights

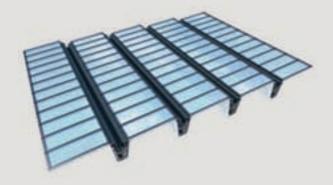
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VELUX Modular Skylights

Designed in co-operation with Foster + Partners





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You can also watch our film of the DSV installation 'Building a Modular Atrium' online.



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BUILDING PROJECTS

'So complex were the demands that design alone took some two and a half years, and construction another two years'

smaller scanning electron microscopes, and the scientists wanted a building in which they could advance knowledge by pushing these devices' performance further then ever.

Their work is frontiers of knowledge stuff and projects include the study of 'nanowire' proteins that cause conditions including Alzheimer's and Parkinson's diseases. Researchers are also investigating lighting devices that could work for 60 years and how to purify water using ultraviolet lights to kill bacteria and viruses.

All this made for a demanding design brief for Mortimore. True, she has a greenfield site little encumbered with neighbouring buildings to work with, but how could she produce the building the department wanted?

So complex were the demands that design alone took some two and a half years, and construction another two years. The solution was a 1,000 sq m building for the electron microscopes, which appears from both the outside and inside to be part of the whole, but is in fact separate from the main 10,700 sq m materials science building. These structures are joined by a thin movement joint so that "inside you cannot tell when you move from one to the other", Mortimore says.

Electron microscopy sits on a concrete base two metres deep, while the main building needs only a one-metre depth base.

"A high water table in the area means the electron microscopy suite could not be completely underground and that would also have been expensive," Mortimore explains.

So sensitive are the electron microscopes to vibration that a road outside had to have its pavers removed and given a smooth surface because passing buses disturbed the machines, even though they ran some 35 metres from the building.

Indeed, the microscopes can detect vibrations from the M11 motorway, which is not even visible from the site.

"Vibrations go round the Earth and you cannot do anything about them, so the vibration and sound and thermal problems cannot be eliminated but you can design the building to mitigate them out of the critical range of each instrument," Mortimore says.

Both buildings are constructed from structural concrete with brick cladding over the laboratory areas and curtain walling where offices and a refreshment area are located. The site slopes four metres from north to south. Laboratories are on the north and east sides and occupy the whole of the lower ground floor, for vibration stability.

Office mezzanine floors are to the south and west. Both parts of the building are accessed via open staircases and separated by a narrow atrium, which gives light over the *Continued on page 35...*



The library is lit by the narrow atrium (above) and the brick pattern reflects shapes familiar to metallurgists (opposite)



New School steeled for success with Kingspan



Ebbw Fawr Learning Community Secondary Phase, parit of a £300 million regeneration project, is on course to achieve a BREEAM 'Excellent' rating with the help of products from **Kingspan Insulation**. Kingspan Insulation's high performance Thermataper TT46 LPC/FM and Thermaroof

TR26 LPC/FM were specified for the school's flat roof by architects BDP, forming part of its passive design approach for the building. Thermataper TT46 LPC/FM has been developed with integral falls to eliminate water ponding which can lead to deflection of the deck and reduce the lifespan of a roof. TT46 and TR26 hold the highest possible Green Guide 2008 summary rating of A+.

01544 387 384 www.kingspaninsulation.co.uk

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Lanes Group chosen for maintenance



Lanes Group has been selected to carry out drainage surveys and remedial repairs at schools in Birmingham. Galliford Try has commissioned the work as part of its full facilities management service to 11 schools across Birmingham. Engineers from the Lanes Birmingham depot at Minworth have carried out camera surveys,

cleaning and remedial work at three schools. Across all three schools, the teams have carried out nearly 400 patch repairs to underground drainage pipes. They also supplied drainage survey reports, with supporting HD quality underground images, that will help Galliford Try develop long-term maintenance programmes.

01617882261 www.lanesfordrains.co.uk

enq.154

Sliding solutions open doors for more students



Education Secretary Michael Gove recently announced increased funding for more places in schools in 2014. P C Henderson advises on how it is vital that space is used intelligently to provide the ideal environment. Fergus Pickard, product development director for P C Henderson commented:

"When considering school building it is essential to utilise space in a clever way whilst ensuring the materials specified are durable. Increasing school places means more footfall and therefore more general wear and tear. P C Henderson sliding door hardware is tested to withstand over 100,000 cycles. Our sliding door hardware can be used to save space and can create a flexible learning environment."

0191 377 0701 www.pchenderson.com

enq.155

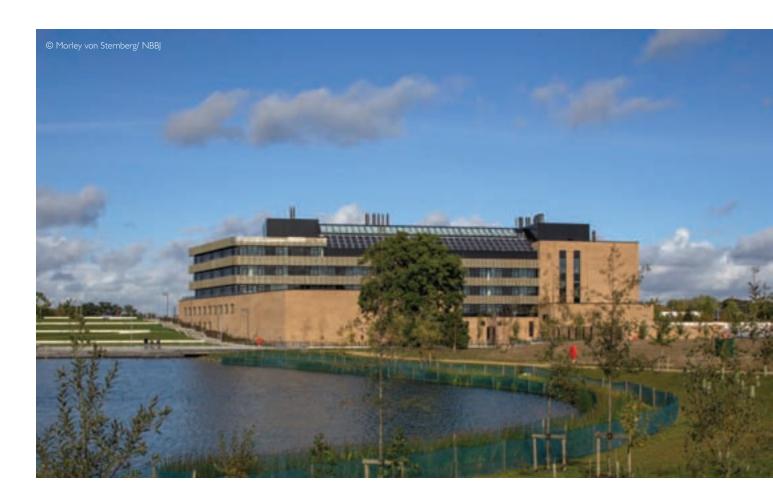
RigiSystems provides finishing touch



RigiSystems Ziplok aluminium standing seam roofing has been used to provide the crowning glory to St Albert the Great Catholic Primary School in Hemel Hempstead. The Ziplok was site rolled in single lengths from eaves to eaves, in lengths of 46m on the main roof in a combined

convex and concave wave format. The roof was supported on acoustic structural decking in 0.75mm thick steel x 100mm deep trapezoidal profile, with thermal insulation material to achieve 0.23 U value. RigiSystems Micromatt finish was used on the Ziplok to provide a pre-weathered appearance to the whole building. RigiSystems Ziplok continues to be used extensively in the education sector.

01905 750500 www.rigisystems.org





library. Staff offices have external balconies that form horizontal bands across the facades, reflecting the mezzanine floors inside.

Offices are organised into clusters with mixes of flexible open-plan and cellular space per floor and staircase landings widened to accommodate collaboration hubs. Furniture is

modular to allow for reconfiguration, and accessible risers and oversized ceiling voids facilitate modification.

Outside the office areas, bespoke gold-anodised aluminium uprights enclose access walkways for maintenance staff and provide privacy and sunshade for occupants.

Although the subject groups in the department collaborate closely, each needed its own teaching and research area since they use different equipment and methods and so no two laboratories could be designed the same way.

"All the laboratory suites are different to match the needs of academic groups," Mortimore says.

Disciplines include basic metallurgy biochemistry and electrochemistry, microscopy, nano-science, coating and ceramics technology. Their equipment's bespoke spaces include, for example, a process laboratory that contains all the largest equipment, and a testing laboratory for rigs and crushers.

A 'sputter' laboratory (pictured above), in which layers of materials only an atom thick are laid on each other, contains what looks to the layman like an intimidating array of devices inspired by science fiction, with an extraordinarily complex

Continued on page 37...

'Water provides an attractive visual feature but the lake is an integral part of the site's drainage and was dug as part of the project'

Complex M&E equipment in the sputter laboratory (left) and an artificial lake sits at the rear of the building

Kemper System helps Huddersfield Uni build on bio-diversity



iquid roofing and waterproofing specialist, Kemper System, has helped enhance both bio-diversity and energy efficiency at Huddersfield University by working collaboratively with roofing contractor and green roof specialist on a series of new build green and warm roofs.

Huddersfield University has invested in the

construction of four new buildings designed by architects Watson Batty, including a new sports hall, Dean's office and corporate suite. Constructed with a single steel frame, all the buildings adjoin each other but rise to different heights. Green roofs were specified for three areas, including the new sports hall, and a warm roof was selected for the corporate suite.

Kemper System worked closely with the architects, the roofing contractor, Cawston Roofing, and green roof supplier, ABG, to develop a series of warm roof and green roof systems that would take account of different roof levels, aspect and bio-diversity of the planting required to meet the university's objectives.

The green roof solution was to use Kemper System's Kemperol V210 cold liquid-applied waterproofing membrane and an innovative 'blue roof' drainage system, designed by ABG. The blue roof puts a high density polyethylene (HDP)

reservoir under the growing medium to replace the more conventional SuDS and avoid costly and time-consuming excavation of separate drainage tanks. The roof build up was inverted by applying the FLL certified root-resistant Kemperol V210 waterproofing membrane first, followed by the insulation, the blue roof drainage reservoir and then the growing medium.

Explains Nick O'Mara from Cawston Roofing: "For the waterproofing membrane, using Kemperol V210 meant that we could be more flexible with the programme and more creative with the roof build up as well as providing an FLL certified rootresistant and robust waterproofing membrane with a BBA certified service life in excess of 25 years."

Contact Kemper System today on **01925 445532** or visit **www.kempersystem.co.uk**



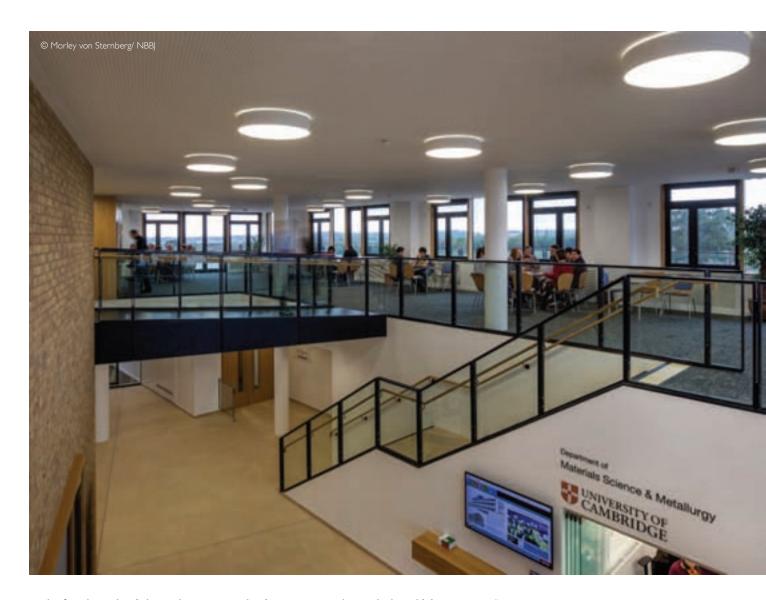


Bison's precast is smart choice

Bison Manufacturing has secured a significant order to supply its precast concrete components for the construction of two new campuses at the City of Glasgow College. The project will see Bison design, manufacture and deliver over 58,000m² of its leading precast hollowcore flooring, as well as a large number of precast stair units, to the college's new Riverside and City Campus developments. Bison's concrete units, manufactured at the company's Uddingston plant in Scotland, will be supplied complete with the Bison's patented mechanically inserted lifting hooks, for ease, speed and safety of installation. Mike Nelson, sales and commercial manager at Bison, said: "Our flooring and stair units have long been specified in education projects for their durability, quality and ease of installation – and we're looking forward to supporting the project team during the build." Once complete, this £228 million dual campus development will cater for over 40,000 student enrolments per annum. The construction of Riverside Campus is expected to be completed in August 2015, with City Campus to follow in August 2016.

eng.158

01283 817500 www.bison.co.uk



mesh of mechanical and electrical servicing overhead.

General and teaching laboratories – without the need for heavy equipment – are on intermediate floors and hazardous and high-pressure laboratories are on the top floor.

The double height entrance foyer of the main building connects the road entrance through to another at the rear where a cycle path – important in such a bike-friendly city – runs alongside a small stream that flows from a lake. Water provides an attractive visual feature but the lake is an integral part of the site's drainage and was dug as part of the project.

A secure service yard at the rear accommodates bulk gas storage, maintenance workshops and delivery areas.

In the electron microscopy laboratories chilled beams are used to cool rooms to "control thermal turbulence from

machines which could disrupt images," Mortimore says.

All noisy support equipment is in an ante-room and so cannot disrupt the machines (or indeed be heard by the human ear) in their adjacent room.

At its most extreme, Titan's 'Tomb' is a 7-metre cube fully screened by low carbon steel in four layers to keep out noise and vibration. Outside it equipment whirrs, inside there is dead silence.

The vibration problem limited the use of sustainability features. A large photovoltaic array occupies the roof of the main building, supplying three per cent of the power equipment, the electron microscopy suite has a green roof and rainwater harvesting is employed, along with natural ventilation for non-laboratory areas.

Continued overleaf...

Scientists are encouraged to share ideas in the Tea Room (above) and the front of the building shows brick and curtain wall areas (above right)

BUILDING

'We could not use any sustainability measures that would interfere with the equipment, such as ground source heat pumps'

Project architect Rebecca Mortimore

Client: University of Cambridge Estates Development

Architect and interior designer: NBBJ

Main contractor: Willmott Dixon

Structural engineer: Ramboll UK

Services consultant: Hoare Lea

Services subcontractor: Mitie

Landscape architect: Robert Myers Associates

Project manager: Davis Langdon

CDM coordinator:Gardiner & Theobold

Cost consultant: Turner & Townsend

Vibration consultant: Colin Gordon

Planning authority: Cambridge City Council



The mixed-mode ventilation system incorporates natural venting to non-laboratory areas using the light well as a solar stack, and mechanical assistance with heat recovery is used during peak conditions.

Exposed thermal mass provides passive cooling and operable hoppers allow overnight purging.

While the building enjoys BREEAM Very Good status, "we could not use any sustainability measures that would interfere with the equipment, such as ground source heat pumps," Mortimore says.

Brick was used for robustness and visual effect on the exterior of the laboratories. At first sight, the outside of both buildings appears to comprise flat brick, but look a little closer and some bricks are raised or recessed by 15mm to make patterns that are most clearly visible when the sun creates a shadow.

These patterns might mean little to most people, but to metallurgists they are the shapes made by the grains in metals when examined under microscopes, the first stage of study for most of them. The idea for the patterns came from academic staff, who were able to rapidly sketch what they wanted.

In the coming years the building will have neighbours since it forms part of the West Cambridge campus, to which the university is relocating over 20 years a number of mainly scientific departments whose older accommodation has become inappropriate. A campus master plan shows how the buildings should work together.

From the outside the materials science building is an attractive addition to the university. Deep inside, machines are at work helping staff to expand the store of human knowledge.

Rada ticks refurbishment needs of one of the UK's oldest universities

Rada's commercial showering and washroom controls feature in an ambitious refurbishment project at the University of Aberdeen.

The Rada 215-T3 BC thermostatic shower valves and complementing BSR-S/300 shower heads are being installed across a number of campus buildings as part of a three-year refurbishment at the UK's fifth oldest university.

The Buildcert TMV3 approved 215-T3 BC concealed thermostatic mixing valve incorporates a sealed, maintenance-free cartridge, making it a popular choice with university maintenance staff and facilities managers.

Equally easy to maintain is the highly robust BSR-S/300 shower head. The product comes complete with a metal rigid shower arm, adjustable chrome plated head and durable polished chrome finish, and is ideally suited to education settings.



Rada's experts are working with teams from shower cubicle and pod manufacturer Taplanes, who are conducting the installation work.

Jonathan Braunton, sales and marketing coordinator at Taplanes, said: "We have worked with Rada on a number of university projects and can always rely on them to provide high quality washroom solutions, which not only meet all of the required building regulations, but meet the needs of each project too."

Eoin McQuone, senior marketing manager at Rada, the experts in commercial showering and washroom controls, said: "Rada has a great range of products designed with the education sector in mind and we're delighted to see them specified by the Taplanes team for their work at the University of Aberdeen. Our systems complement their cubicles and pods extremely well, providing the university with a cost effective, long term solution."

nq.160

For more information, call Rada on **0844 571 1777**, email **radacustomerservices@mirashowers.com** or visit **www.radacontrols.com**



The next big thing in platform lifts

Platform lifts have been around for some time now with the standard platform size of 1,100mm wide x 1,500mm long, more than capable of accommodating a wheelchair passenger and attendant but when you need to move individual items which are longer than 1,500mm what do you do?

This was the situation at Cardiff University in their chemistry building. The university needed to



move chemistry trolleys safely and easily between the preparation and chemistry labs, which measured 1,650mm long. The standard platform lift was too short in length and the next option was a conventional 13 person passenger lift, which due to the deep pit requirements, could not be provided in the existing building.

After discussion with Axess 4 All, the large capacity A8000 platform lift was suggested, which has all of the benefits of a platform lift with a small recess and no over travel but with a platform length of 2,480mm long.

A space for the A8000 was found in the entrance stairwell and as the platform lift would sit inside the existing ornate stairwell, it was decided that the shaft panels should be glazed to allow as much light as possible though the platform lift and continue with the feeling of space within the stair well. To ensure the platform lift would also fulfil its requirements from a disabled



access perspective, the unit was fitted with power operated doors with remote push button which allowed wheelchair users to call the lift and be out of the swing of the power operated doors.

Installation took place over the spring half term break so disruption to the university and students was kept to a minimum with the platform lift being installed, commissioned and handed over within a five day period.

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School gets arty with Kingspan



Pupils at an academy in Hertfordshire are benefiting from top class arts facilities thanks to a new extension constructed using the **Kingspan** TEK* Building System and Kingspan Unidek Aero* Roofing System. The John Warner School gained academy status in 2011.

For the school to maintain high quality provision for growing pupil numbers additional teaching space and facilities were required. The Kingspan TEK Building System and Kingspan Unidek Aero delivered the required thermal performance with a reduced thickness compared with traditional construction methods, ensuring that teaching space was maximised within the extension.

01544 387 384 www.kingspantek.co.uk

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Emailed on a fortnightly basis the Architects Datafile newsletter is designed to provide the architect with the latest information on products and services of interest, direct to their inbox. The reader can quickly gather a snapshot of information from 12 carefully selected companies and easily follow links through to further information on the www.adfonline.eu, or go direct to the company's own website. Brochures and videos are also regularly available.



newsletter

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Specifying off-mains drainage

Kevin Roe, sales director of Kingspan Klargester, looks at the drainage options available for different sites



f the country's current stock of 25 million houses, around 1.5 million are not connected to the sewer. In all cases the first consideration should be a sewer connection and this may require using a pump station. This recommendation is in accordance with Building Regulations – pump stations are widely specified solutions for off-mains drainage.

If connection is impractical then a private drainage solution will be required. Assessment should include a site inspection by a suitably qualified expert before the preferred option is decided upon, as recommended by the 2010 Building Regulations and the DETR report 3/99.

An incorrectly specified solution can leave the property owner with failing toilets and drains. It also leaves them and the builder at risk of prosecution under The Public Health Act 1936.

Pump stations

A pump station must comply with both British Standards BS EN752 and Building Regulations for Foul Drainage with a mandatory capacity to hold waste for 24 hours should power

supplies fail. Pump stations require careful design to offer the requisite storage and meet the requirements of the particular application. For further advice we recommend you contact a reputable manufacturer.

Private drainage options

If it is not possible to pump to the main sewer, generally determined by distance and access, then sewage will need to be dealt with within the boundaries of the property.

There are a range of sewage treatment systems to choose from, each with an efficiency rating based on how effectively they break down the sewage.

Septic tanks allow the settlement, storage and partial decomposition of solids, but they don't treat sewage and need a drainage field or 'soakaway' into which the effluent can be discharged and filtered. Under H2 Building Regulations, septic tank effluent is considered harmful and, when installed, there should also be secondary treatment, including reed beds.

The DETR report recommends that septic tanks should only be considered if a sewer connection or a treatment plant cannot be used.

Sewage treatment plants (STPs) provide an environment where aerobic bacteria cultivate and break down sewage. They are highly efficient, treating more than 90 per cent of the pollutants.

Packaged sewage treatment systems, with tertiary treatment such as packaged reed beds, are the current 'gold standard', bringing the efficiency rating up to 98 per cent. They produce a clear overflow that is environmentally friendly and suitable for discharging even on sensitive sites.

Site suitability

The Regulations recommend a site assessment prior to installation, part of which should include testing the ground for its suitability as a drainage field, done as a percolation test; the correct procedure is described in BS6297:2007.

Sites on poorly draining soil or on areas subject to flooding will have poor soakaway characteristics leading to a high risk of local pollution and potential health issues for the site.

Both H2 Building Regulations and BS6297 state that the water table must be one metre below the septic tank outlet.

In these instances, an STP is your only option – and it's worth noting that the life of the drainage field will be greatly extended because of the high effluent quality.

Effluent from an STP is allowed to discharge into a watercourse, but this is regulated and requires registration with the Environment Agency/Environmental Protection Agency. Applications for discharges can be made online, but always seek advice first.

Cost comparisons

Despite their high efficiency rating, STPs don't cost significantly more to buy and install than a septic tank, particularly when the former does not require a drainage field. Maintenance and running costs are relatively low.

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'The DETR report recommends that septic tanks should only be considered if a sewer connection or a treatment plant cannot be used'





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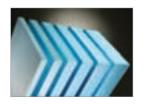
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FLOORMATE 300-A gains BBA accreditation



FLOORMATE 300-A extruded polystyrene (XPS) insulation from **Dow Building Solutions** has been awarded a BBA certificate, offering specifiers valuable third party endorsement for the product's performance. FLOORMATE 300-A – which is a STYROFOAM-A grade manufactured in the UK – is durable enough to

be laid beneath concrete floor slabs, and can help to prevent thermal bridges at floor and wall junctions. Thermal conductivity is 0.034W/mK in a 100mm thickness; the product also offers good compressive strength of 300kPa and a high design load of 130kPa. In addition, FLOORMATE 300-A has excellent moisture resistance thanks to its closed cell structure.

Stormking mix the old and new



Stormking has combined modern prefabrication methods with traditional materials for a prestige housing development at Belvedere in St Saviours, Jersey for Dandara Jersey Limited. Stormking have supplied complete roof dormer units for the mixed four and five bedroomed homes which are close to the sea in St Helier and

therefore subject to harsh weather conditions at times. Made to Dandara's specific requirements to blend with existing housing in the area, the dormers have been finished in real lead. Dandara specified Stormking for these dormers because of their unrivalled experience in the design and manufacture of prefabricated grp building products to BBA standards.

Langley rejuvenate award-winning crematorium



The architecturally recognised Telford Crematorium in Shropshire has been reinvigorated thanks to a new Bituminous Strip Slate roofing system from Langley Waterproofing Systems Ltd. When the existing large sloping cedar shingle roof began to fail, approved contractors SPV Group secured the works

and implemented the Langley solution. Langley's experts specified 600m² of bituminous Strip Slate shingles for their appearance, ease of installation and excellent weather resistance. To round off the warm roof system, Paravapo SBS vapour control layer, insulation to current regulations and Adepar JS bituminous underlay were used to provide the waterproof foundation for the shingle layer.

01327 704 778 www.langley.co.uk

enq.171

Firestone UltraPly™ walking tall



Black Sail Youth Hostel, one of the oldest and most remote youth hostels in England, has undergone major refurbishment utilising a **Firestone** UltraPly TPO single ply roof system designed to blend with the idyllic landscape. The roof was peppered

with penetrations to accommodate solar panels, solar heating, solatubes and then finished off with a green roof. A robust yet flexible roofing system was therefore essential in order to cope with all the detailing and green roof system requirements, thus making Firestone UltraPly TPO the ideal solution. Firestone UltraPly TPO is a reinforced membrane of flexible polyolefin, containing no plasticisers or halogens and is considered a material of low environmental impact.

Pro-tecting eco values



Use of polymer roofing is proving to play a key part in achieving reduced carbon emissions for major retail brands. Sainsbury's, Tesco and IKEA are among the marques using **Protan** SE single ply membrane on stores in the UK and Europe. Used in conjunction with timber roof cassettes, the

material ensures the roofs are weathertight and as energy efficient as possible – using up to 30 per cent less heat. Protan SE, available in 1.2mm, 1.6mm and 1.8mm, is developed to cope with even the most extreme weather conditions without detriment: it is certified to \leq -30°. Hot-air welded at joints and mechanically fixed to the roof, the membrane achieves durability for up to 30 years.

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Integritank enjoys the high life



Stirling Lloyd's Integritank waterproofing membrane is being increasingly specified on a number of London's exclusive new residential developments. One of the latest is 375 Kensington High Street, a selection of luxurious one, two and three bedroom apartments and penthouses in one of London's most

sought-after addresses. Contemporary features, including podium decks, balconies and green roofs, sit atop luxurious multi-million pound habitable properties below. Developers therefore insist on a 100 per cent effective water-proofing system to prevent any water ingress and Integritank is proving ideal.

01565 633 111 www.stirlinglloyd.com

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This far outstrips any other guarantees on the market, particularly in relation to man-made products that have a much shorter life span.

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Delta embraces BIM



Among the benefits of Building Information Modelling (BIM) are knowledge sharing, improved project management, faster and more economical creation of a project, and a reduction in environmental impact. All of these goals are shared by **Delta Membrane Systems**, which is

why the company has arranged for its whole product range to be BIM-compatible. This service is now available on the company's website and hosts Delta's range of systems and products for basement walls, floors and green roofs, with many more to come. Delta Membranes prides itself on providing the material, design advice, and backup service for a variety of projects. The introduction of BIM downloads further endorses this commitment.

Levolux changes gear in Swindon



A new state-of-the-art, multi-storey car park is about to open in the centre of Swindon, boasting a revolutionary terracotta screening solution from Levolux. Levolux was approached, as a leading solar shading and screening specialist, to develop a custom screening solution for the car park. The solution comprises vertical aluminium and terracotta fins, arranged differently on each elevation to satisfy

specific performance criteria. The vertical Fins help to protect the core structure from excessive weathering, while providing shade to occupants and their vehicles. In total, Levolux supplied almost 5,800 linear metres of terracotta Fin and more than 3,000 linear metres of aluminium Fins.

Better rooflight option for singly ply



A better roof finish can be achieved using a new solution from partners Brett Martin and **Protan**. Now, Mardome rooflights can be specified with a factory-fitted Protan G1.5mm vapour permeable single ply membrane collar. The

option minimises the amount of on-site fixing and welding required. As a result, a neater finish around a complicated detail is attained and potential weather penetration significantly reduced. "Detailing is potentially a weak spot in any single ply roof," explains Protan Managing Director Fraser Maitland. "Giving specifiers a ready dressed rooflight removes reliance on the quality of workmanship and can potentially eliminate 'snagging' issues such as weather leakage."

01925 658001 www.protan.co.uk



New window achieves Passivhaus standard



Uniform Architectural Ltd has launched uni_one* Termoscudo, its most energy efficient window system so far. Termoscudo benefits from sleek aesthetic design details as part of the uni_one range with additional technology that greatly improves its thermal insulation capabilities to certify it to Passivhaus standards by achieving a heat loss 'U' value of 0.79 W/m²K. The advanced engineering design also improves acoustic insulation giving the window system a value of up to 43 rw (dB) providing increased comfort for

the occupants. The new uni_one Termoscudo window system along with the rest of the uni_one range is featured in Uniform Architectural's new brochure uni_one, The Contemporary Window, which is available on request.

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Low-energy homes

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Low O-values 0.77 W/III-K

Passive house standard

Our CS104 window and door system can achieve whole window U-values as low as 0.77 W/m²K.



Low Ud-values 1.3 W/m²K

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enq.184

Schueco has wide range of folding/sliding doors



Launched last year, Schueco's Contemporary Living Collection brings the company's premium quality aluminium windows, doors and façades to the trade residential market. Among the systems is a wide range of sliding/folding doors which will appeal to owners looking for improvements that could add capital value, as well as comfort, to their

homes. The range includes the Schueco ASS 80 FD.HI, a door which combines exceptionally high thermal efficiency (Uw value of <1.3 $\rm W/m^2 K)$ with narrow face-widths of only 112mm. Available with leaves up to 1.2m wide and up to 3m high, the door has elegant looks, slim sight-lines and high-quality fittings.

01908 282111 www.schueco.co.uk

enq.185

PIVOTA® - Fully concealed 3-D hinges



Cooke Brothers are the sole UK stockists and distributors of the PIVOTA series of fully concealed, three way adjustable, four knuckle precision hinges. The range is acknowledged as being at the forefront in advanced hinge design and performance. They represent an important and valuable new dimension to Cooke Brothers' comprehensive range of hinge options. The PIVOTA DX series has much to offer: solid steel or solid aluminium bodies, door weights from 40kg up to

300kg, three dimensional adjustment, matching cover plates for screws, fire rating and anti-jemmy protection. Standard finishes include velour-nickel plated, stainless steel coated, aluminium coated or the choice of galvanised finishes on request.

01922 740011 www.cookebrothers.co.uk

eng.186

Kawneer helps women with a WICED view



The UK's first Women's International Centre for Economic Development (WICED) showcases almost the full spectrum of glazing from architectural aluminium systems supplier, **Kawneer**. Its AA*100 curtain walling features on a striking facetted convex and concave gable screens and is complemented by

AA*601TE casement windows and series 350 severe-duty commercial entrance doors. The Kawneer curtain walling with 50mm sightlines includes feature face caps that extend above the curtain walling line to provide balustrading to the upper terrace levels while the windows include automatic-opening top-hung vents on the first floor and manual top-hung vents on the ground, second and third.

01928 502500 www.kawneer.co.uk

enq.187

RigiSystems introduces new composite panels



RigiSystems has introduced a new range of composite panels, which complement the built-up systems. Composites can be useful on many smaller installations that may not justify the number of components required for a built-up system. Wall panels can,

however, be used as part of a built-up system in order to provide the insulation layer. This can be particularly advantageous in façade applications, where a rigid insulation layer makes construction of the façade both easier and quicker. Panels, both roof and wall, are available in standard widths of one metre and lengths up to 16m, in a range of thicknesses to provide different 'U'-values, and with either standard PIR core or fire rated mineral fibre wool core.

01905 750500 www.rigisystems.org



Rockspan delivers visual extra for North Hykeham Energy Recovery Facility

Rockspan Extra wall panels finished in jade green and ultra black are a stunning visual feature of the new Energy Recovery Facility [ERF] at North Hykeham. It is planned to help Lincolnshire County Council achieve its local, national and European targets for the management of its municipal solid waste. The



facility is designed as a combined heat and power plant to incinerate 150,000 tonnes per year of residual waste generating enough electricity to power 15,000 homes [11MW] for sale to the national grid.

The low environmental impact of Eurobond Laminates' Rockspan wall panel makes it particularly suitable for a project such as this ERF facility that is driven by environmental concerns. The 150mm thick green and black Rockspan Extra panels have a high density stone wool core that provide a fully tested two hours fire rating with increased acoustic performance and spanning capabilities. The long spans reduce the need for

secondary steelwork, save on build costs and create a weathertight envelope quickly to help shorten construction time.

Architecturally a curved roof 'shell' houses the tipping hall and boiler hall and softens the visual impact of the building from elevated views from Lincoln. This curved shell is intersected by a refined rectilinear form containing the other process areas which extends at roof level to create a grand colonnade that reinforces the 'civic' façade of the building where the visitor centre and administration facilities are sited.

The building is 190m long, 30m wide, at its peak reaches 45m high and has a 75m chimney stake. The project is estimated to have cost £145 million and will operate 24 hours a day creating 33 new jobs.

Call Eurobond today on 02920 776677 or visit www.eurobond.co.uk

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www.timber-cladding.co.uk

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enq.191



Inspired by natural systems

Ventilated façades have been around for a long time. In traditional Scandinavian housing, for example, an air gap was included between the timber external wall and the internal wall, as a way of preventing these soft wood structures from rotting in a rainy climate. But the principles go back further than that – in fact, they take their cue from the natural world. By Trespa UK

Throughout nature you will find protective membranes or skins. Animals, trees and even planets all have skins that protect their internal systems. Not only do these skins protect but they also act as mediums between the inside and the outside. Systems in these natural skins permit the transfer of certain elements such as vapour from one side to another, allowing them to 'breathe'.

Until recently most buildings have had sealed envelopes rather than breathable skins. Their primary function was to protect the indoor space from the outdoor environment. Sealed envelopes can cause problems for a building if they leak or if there is inadequate ventilation. Leakage can cause deterioration of the (inner) wall construction. Due to the inner wall being out of sight this leakage is often discovered too late resulting in costly repairs.

Today, ventilated façades are applied worldwide as an answer to allowing a building to 'breathe'. They enable architects to meet the requirements in different climates. By introducing a ventilated air space between the cladding and the construction, vapour can more easily pass between the skins of the building. This contributes to a healthy indoor climate.

A 'breathable' building

A number of benefits result from allowing the migration of moisture and vapour from the interior of the building into the open air. By letting moisture escape and stopping water penetration, the growth of mould colonies and rot is suppressed; mould can cause respiratory problems and even trigger asthma attacks. Wood rot and metal corrosion, meanwhile, can affect the stability of the structure.

By integrating or even adding a ventilated rainscreen cladding system to a building façade, water penetration is minimised, the load-bearing wall is in good condition, internal air quality is improved and insulation can be increased and kept in desirable condition.

This is down to a ventilated air space between the cladding and the load-bearing wall. The air in the designed cavity will circulate due to air pressure differentials and thermal differentials over the height of the building. In a cold climate this causes the condensation water at the rear of the cladding to dry. In a warm climate the moving air will cool the inner layers of the construction, thus reducing the demand for cooling energy.

Throughout nature a skin protects and is a medium between the inside and outside'



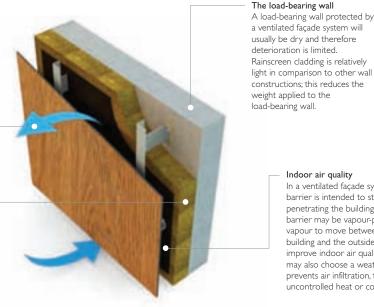


Water penetration

With continuous air flow between the cladding and the inner layers of the exterior wall and vertical cavity closures at the corners of the building only small pressure differentials occur between both sides of the cladding. Penetration of wind-driven rain through the joints of the façade cladding therefore is minimal and ventilation openings permit drainage of rain that might have penetrated through the joints.

Insulation

Due to the use of a thin rainscreen cladding rather than standard thicker claddings such as brick, more depth is available for insulation, given a certain thickness of the total wall construction. This extra insulation improves the energy efficiency of the building.



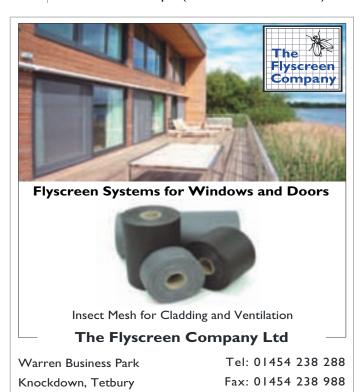
Indoor air quality

In a ventilated façade system, a weather barrier is intended to stop moisture from penetrating the building. This weather barrier may be vapour-permeable, allowing vapour to move between the inside of the building and the outside air, which can help improve indoor air quality. The designer may also choose a weather barrier that prevents air infiltration, thus reducing uncontrolled heat or cold leakage.

Note: The illustration on this page does not specify a particular system and is only for information purposes.

Gloucestershire

GL8 8OY



UGINOX for lower cost of facades and roofs



UGINOX BRIGHT, PATINA and TOP, from Aperam, are terne-coated stainless steels which take on the natural patina of aged lead sheet. This has prompted English Heritage to endorse them as an acceptable alternative to lead. Such nickel-free ferritic grades are invariably lower in cost per square metre than copper and zinc. Its inherent strength enables it to be used at gauges as thin as 0.4mm. Overall weight savings can therefore be as much as 35 per cent. All require minimal cleaning and maintenance and offer complete resistance to underside corrosion in non-ventilated situations.

01246 571660 www.aperam.com

ena 195

VMZINC hits the heights on Heron Tower

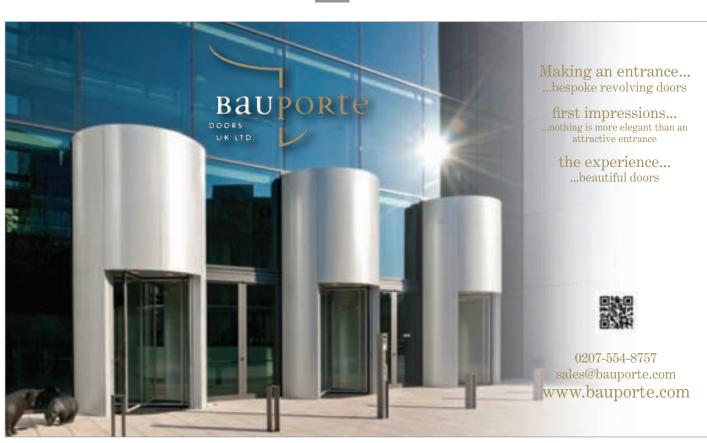


Heron Tower has become one of the best known landmarks in central London. The 46-storey building has a VMZINC PLUS standing seam system on the two main roof areas, on the 38th and 41st floors. The building is among the tallest in which the compact, warm roof system has been used and as it needs no supporting ventila-

tion, views from the Drift Restaurant, Sky Bar and terraces are not affected by unsightly vents. Precise wind loading calculations were needed, but the metal also had to be reflection-free. VMZINC's pre-weathered mid-grey QUARTZ-ZINC° offers exceptional colour retention and was therefore the perfect choice.

01992 822288 www.vmzinc.co.uk

eng 196



www.flyscreen.com

sales@flyscreen.com

VIVIX® facade panels are a soaring success



Formica Group's VIVIX exterior façade panels were installed at the new control tower for Norway's Kristiansand Airport. To clad the control tower, VIVIX panels in Storm, a deep charcoal grey, was chosen. The egginspired shape dictated the choice of material needed to be curved. Roald Bakke of Wiig og Horgmo Architects said: "VIVIX panels are the ideal solution for this project. The panels are easily machined and can be cut into a variety of

shapes and sizes. The control towers are at least 30 meters above ground; the material we used for cladding had to be lightweight for ease of installation and safety as well as versatile and flexible to allow us to realise the design concept."

0191 259 3512 www.formica.com

enq.198

Bank is fully protected by Remmers



Remmers protective coating systems were chosen to meet the highly demanding specification and multiple facade finishes to a Grade 1 listed, four storey high building in London requiring extensive stone and concrete restoration. Repairs were carried out using Betofix R2, a high build, fast curing concrete repair mortar. Remmers Restoration Mortar was also selected for its ideal restoration and reprofiling properties for masonry as well as ornamental building

elements. Finally, Remmers Elastoflex Facade Paint was applied for its excellent anticarbonation characteristics, resistance to weathering and crack bridging ability. The works were completed within budget and ahead of the tight program.

0845 373 0103 www.remmers.co.uk

ena 199

Cladding and façades from DML Group



Cladding and façades specialist, **DML Group** offers a total capability solution from design and build to the manufacture of bespoke shop fronts and curtain walling systems, and a full turn-key provision. The company has considerable experience in delivering major schemes, which include a new façade for the Oxford Street entrance of Tottenham Court Road station along with glazing and stainless steel cladding; bronze shopfronts, glazed roof lights and cladding for the St James' Gateway development in London's West End; and most recently, a unique artwork project at An t-Eilean (The Island), which involves bronze cladding, doors and balustrades for a walled pavilion garden in the centre of Inverness Campus, a multi-stakeholder 215-acre business, research and education facility, developed by Highlands and Islands Enterprise. The company's retail schemes include the London Designer Outlet; several branches of a major retail bank; and the Trinity Leeds shopping centre, where it designed, manufactured and installed over 2,000m² of curtain walling. DML has extensive involvement in the retail, education, residential and public sectors and works nationally and internationally for some of the world's leading brands and the UK's largest main contractors.

0113 256 5661 www.dmlgroup.co.uk

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What are SIPS and how do they provide the optimum fabric first solution?

Experts from the UK Structural Insulated Panel Association explain why the use of SIPS technology is on the increase across the UK

'Lightweight, quick to erect and free from problems of compression shrinkage and cold bridging' tructural insulated panel systems (SIPS) are an advanced method of construction, offering superior insulation, structural strength and air-tightness. SIPS are used in floors, walls and roofs for residential, industrial, educational and commercial applications – providing ecologically friendly and energy efficient buildings.

SIP technology has been developed around composite panel techniques, creating a product with excellent structural and thermal characteristics. SIPS have two parallel faces – usually oriented strand board (OSB), sandwiching a rigid core of polyurethane (PU) foam or expanded polystyrene (EPS), making them lightweight, quick to erect and free from problems of compression shrinkage and cold bridging associated with other forms of construction.

SIPS and thermal performance

The construction industry has witnessed a significant rise in the use of SIPS for use in both residential and commercial buildings. In the UK 60 per cent of fossil fuels are used to heat buildings and half of this is housing. By far the most economical method of reducing fossil fuel use in housing is to reduce space heating demand, by focusing on more efficient building fabric solutions. SIPS have many of the answers.

Thermal resistance (U-values)

The thermal resistance of a material indicates its ability to transfer heat. In solids this is directly proportional to the material's thickness since heat is transferred via conduction. Therefore, to improve the thermal resistance and reduce the U-value an increase in thickness of building elements is required.

Courtesy of SIPs Eco Panels

SIPS offer the efficiency of structural and thermal performance within one product, delivering U-values as low as $0.11~\rm W/m^2k$ while also limiting the increase in building dimensions (wall thickness).

The main benefit of SIPS over other panelised forms of construction is due to the limited quantity of repeating thermal bridges such as studs and noggins. Therefore a typical value of 94 per cent of the panel area is counted as insulation when calculating the U-value of building components to BS EN ISO 8990.

Thermal bridging (Y-values)

Although repeating thermal bridges are accounted for within the U-value calculation, non-repeating thermal bridges require special consideration. Up to 15 per cent of heat loss from the building envelope combined with the associated issues of localised condensation and mould build up can be attributed to these localised cold bridges. Typically these occur around openings and junctions where there are gaps in insulation or materials of low thermal resistance are required for other envelope performance requirements. The introduction of the amended Approved Documents of Part L in April 2010 meant that heat loss calculations were replaced by the concept of Fabric Energy Efficiency (FEE) putting more focus on thermal bridges when calculating the Dwelling Emissions Rate (DER) and FEEs.

Airtightness

Part L has put increased focus and weighting on the airtightness of the building envelope - 'build tight - ventilate right' is the mantra that has been adopted. The flow of air through a building is either controlled through ventilation, or uncontrolled through air leakage.

SIPS – the future of low energy construction

SIPS provide a balanced approach to hygrothermal performance (the transfer of heat, air and moisture through the building envelope) that maximises gains in all areas without compromising others. The flexibility of SIPS permits a wide and varied building type and style with very little restriction on size, shape and form.

With the government's commitment to the lowering of CO₂ emissions in construction, together with numerous



announcements that all new homes will be zero carbon rated by 2020, thermal insulation and lower air leakage requirements will increase dramatically.

The Building Regulations consist of Part A to P, with Part L concentrating on the thermal qualities and energy efficiency of residential and commercial buildings. Part L 2013 has now been published and the approved document will be coming into force in April 2014.

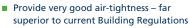
There are now two targets to meet for houses - as well as the Target Emission Rate (TER) at six per cent reduction in CO2 for residential and nine per cent for commercial, dwellings also need to meet a Target Fabric Energy Efficiency (TFEE) measured in kWh/m²/year.)

For architects and developers this improvement is achievable with good fabric and design. By adopting the use of structural insulated panels, these new requirements can easily be achieved, especially when the SIPS provider is integrated early enough in the design process to allow efficient and effective design.



Physics of Medicine Building at Cambridge University during construction (above) and completion (right). Courtesy of SIPs UK





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Lifetime homes require Thin-Joint solution



H+H's innovative Rå Build method has been used at Britannia Crescent, Great Yarmouth. The Thin-Joint system was chosen in particular for its speed of construction and exceptional sustainability credentials, as well as being highly

adaptable. The system achieves A+ rating in the BRE's Green Guide to Housing Specification. To simplify the procurement process, the H+H estimating team supplied a Thin-Joint package sale. The package included Standard Grade Multi-Plate 3.6N blocks and quick-setting Thin-Joint Celfix mortar used to build the internal leaf of the external cavity walls and separating walls.

01732 880520 www.hhcelcon.co.uk

Birmingham opens a new chapter



Kooltherm® pipe insulation from Kingspan Tarec was chosen to insulate pipework at the new Library of Birmingham, the largest public library in Europe. Architect Mecanoo's design makes maximum use of natural light with an eve-catching facade combining glass and interlocking aluminium hoops. Kingspan

Tarec Kooltherm® pipe insulation was specified for the project as part of this sustainable approach. The product is designed for insulating pipework and equipment operating within a temperature range -50°C to +120°C, and can attain thermal conductivities as low as 0.025 W/m·K. As a result it was able to provide the required thermal performance with a minimal solution thickness.

01457 890400 www.kingspantarec.com

EHC introduce smart technology



EHC are committed to providing products which deliver fully controllable heat at affordable running costs in properties with no access to mains gas. EHC's Combination Electric Radiators have been accepted as an alternative to traditional storage heating. The major advantage of this reliable system is that they're a 24 hour, fully controllable central heating system which modulates to maintain a constant room temperature. The radiators look and heat up like conventional 'wet' system radiators with 100 per cent efficiency. They're maintenance free and do not produce harmful emissions. Each has its own in-built thermostat, enabling you to control the temperature. EHC recommend that each radiator is hard wired to an EHC Control Box on a dedicated Heating Circuit which is connected to a 24/7 Programmer and Room Thermostat. To assist with changing lifestyles and spiralling energy costs, EHC have adapted the Combination Radiators to enable them to be controlled by smart technology when using the hard wired control system. The 'user friendly' software can be utilised on a laptop, tablet or smartphone and gives maximum control as heating cycles and temperatures can be monitored and controlled remotely with optimised weather data via the Internet. It will also provide information regarding historic data such as room temperatures.

01698 820533 www.electric-heatingcompany.co.uk

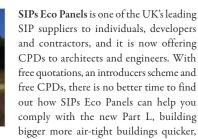
apollo monza aluminium column radiator



ideal for low temperature renewable systems ideal for high pressure systems the latest patented technology a unique aluminium radiator design half the weight of steel 82 vertical and horizontal sizes delivered within 3 working days

www.apolloradiators.co.uk

Utilise SIPs with SIPs Eco Panels



with the insulation pre-installed. Contact SIPs Eco Panels today to find out how it can help you and your clients utilise SIPs to achieve u-values of 0.14 and below without the need for additional insulation.

EWI system has outstanding performance



The Warm Wall Plus external wall insulation system from Knauf Marmorit combines excellent thermal performance with outstanding fire protection and acoustic insulation properties. Suitable for use on new build or refurbishment projects, it enables bright, low-maintenance insulated facades to be created simply, with no need for additional fire breaks. A multi-layered

system, Warm Wall Plus incorporates Knauf's innovative Rocksilk fire-resistant mineral fibre insulation at its core. Warm Wall Plus can be applied to virtually any substrate and to timber or steel-framed structures. The system is complete with a broad range of complementary components for fixing and trimming.

0117 982 1042 www.marmorit.co.uk

SE Controls' smoke and natural ventilation solution for Airbus

new 25,000 sq m office building for leading aircraft manufacturer, Airbus, is using an advanced smoke and natural ventilation system from SE Controls to provide a comfortable working environment for staff while ensuring that an effective smoke and fire control strategy can be implemented in the event of a fire.

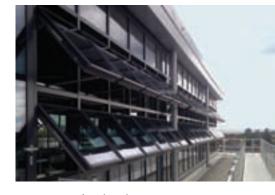
The four storey building, which is part of the £70 million Airbus Aerospace Business Park development at Filton, accommodates more than 2,500 staff and brings together engineering, design and customer support functions that are currently located in several smaller buildings on-site into the new engineering and technology campus.

SE Controls was involved in the project from the early stages to clarify the ventilation strategy and provide calculations on the free area requirements for the smoke vents to ensure compliance and performance standards were met.

Four separate atrium spaces feature as part of the building, designed by AWW Architects, and each incorporates 84 Schüco AWS 102 projected top hung vents. The vents are automatically operated by a total of 336 SCCO 24 30 concealed actuators, which were supplied, installed and commissioned by SE Controls in partnership with specialist façade contractor, Norking Aluminium.

In addition to installing the actuators, the interface control panels were also supplied, installed and commissioned by SE Controls together with the fire rated cabling, which is completely concealed within the curtain walling.

During day-to-day operation, the natural ventilation system responds to signals from sensors linked to the building management system (BMS) to ensure that the indoor air quality and temperature



are maintained within the pre-set parameters to maintain a comfortable working environment.

In the event of a fire, the building's alarm system signals the natural ventilation system to automatically close all the vents as part of the smoke and fire control strategy. This not only restricts the flow of oxygen into the building to help suppress the fire but also allows precise control to be taken by fire officers via the system's manual control points, enabling smoke to be cleared from the relevant atrium.

For more information contact SE Controls today on 01543 443060, email info@secontrols.com or visit www.secontrols.com





enq.212

ThermaSkirt has higher heat transfer ability



A paper has been published investigating the thermal performance of radiant skirting boards using Discrete Heat's ThermaSkirt heated skirting board as the test sample. The rigorous testing of both ThermaSkirt and a range of conventional radiators provided data that showed radiant baseboards had a significantly higher heat transfer ability of 50 per cent more than panel radiators. The research showed the compatibility of heated skirting boards and heat pumps to be more effective than using traditional radiator panels

in a heat pump system. The results also showed that the heat emission increases by 2.1 per cent per cm of height of the heated skirting board and doubling the water flow only increased the heat emission by 4.5 per cent.

Refurbishment chooses AET Flexible Space



AET Flexible Space has recently supplied Under Floor Air Conditioning (UFAC) equipment to another high specification refurbishment in the Soho area of London at 76-88 Wardour Street. This latest refurbishment was designed to convert a traditional heated only building into fully air conditioned com-

mercial office space. AET Flexible Space UFAC was specified by the Consultant URS as an ideal solution for overcoming the height restrictions, unique structural elements and floor plate configuration. The UFAC system proposed by AET Flexible Space was a zonal CAM-C system utilising the floor plenum beneath the raised access floor as the ventilation duct for the supply and return air.

01342 310400 www.flexiblespace.com

eng 215

Wood Energy fires up UK installer network



Biomass boiler specialist Wood Energy is celebrating continued UK business growth with the launch of a national Registered Installer Network. Wood Energy's Registered Installer Network will provide highly skilled and trained biomass boiler engineers across the UK. This

nationwide network of installers will receive expert training from the company to support its expanding customer base in the commercial and industrial sector. The introduction of Wood Energy's Registered Installer Network coincides with the unveiling of a striking new brand identity and the launch of a new company website. Wood Energy is a supplier of high efficiency renewable heating systems.

0845 070 7338 www.woodenergy.com

enq.21

Raychem specified for 25 Churchill Place



Pentair Thermal Management has provided its Raychem HWAT solution to Jointing Technologies for the DHWS system at 25 Churchill Place, Canary Wharf. 25 Churchill Place is designed to be one of the most energy efficient office buildings at Canary Wharf and the Raychem HWAT system was chosen for its reliability, space saving benefits and to ensure the provision of instant hot water, maintained at a temperature of 55°C, at all points up to

the outlets. The hot water services are based in a hybrid system with recirculated pipework in the risers and single pipe on each floor to the outlets. HWAT-Eco controllers for Legionella prevention functionality are also included.



The Magrini family is now complete...



>> Unique hinge construction eliminates finger traps

>> Choice of colour to suit any project

>> Extra deep sides increase safety and eliminate the need for straps

>> Withstands static loads in excess of 100Kgs

>> Hygienic, easy-clean surface



MH42 Horizontal Baby Changing Unit



MH42 Horizontal Baby Changing Unit



MV64 Vertical Baby Changing Unit



MT80 Countertop Baby Changing Unit



MC75 Stainless Steel Baby Changing Unit













Project: The Hydro Glasgow

Architect: Foster & Partners

A sensitive tap that can handle the big crowds

The Hydro, Glasgow's newest entertainment venue, and a city landmark, with a seating capacity of 12,000, will play host to 140 events a year, attracting over one million spectators.

The London-based architects Foster & Partners chose to install Dolphin Infra-red Sensor taps. These WRAS-approved taps aren't just stylish, they go a long way to help conserve water, reduce a building's carbon footprint and have a low environmental impact that helps make a positive contribution to BREEAM assessments.

Dolphin Blue DB100 / DB125

Electronic Infrared Tap

Specifications:

- Elegant and clean design, fits into any project
- WRAS approved
- Touch Free Tap for ultimate hygiene prevents cross contamination
- Automatic Hygiene Flush Combats Legionella



Dolphin Dispensers

2 Haywood Way Hastings, TN35 4PL

t: **01424 20 22 24** f: **01424 20 52 00**

e: info@dolphindispensers.co.uk www.dolphindispensers.co.uk

washrooms worth experiencing

3M shows wide range of product innovations



Diversified technology company 3M will present a selection of high performance films and finishes for interior design and refurbishment at Hotelympia 2014 (stand 3728). DI-NOC Architectural Finishes from 3M are special effect self-adhesive vinyl films available in wood grain,

stone, brushed metals and carbon fibre effects. Fasara Decorative Window Film series from 3M are translucent polyester films for glass partitions and windows, representing a fraction of the cost of etched or sandblasted glass. New Dichroic Film from 3M shows how dazzling colour changing effects can be produced simply, without the expense of authentic dichroic glass or coloured acrylic panels.

0845 606 388 www.3M.co.uk/innovativefinishes

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Scolmore is favourite for new racecourse hotel



InterContinental Hotels Group's recent signing, the Holiday Inn Huntingdon - Racecourse in Cambridgeshire, has recently opened for business, with products from **Scolmore's** lighting and wiring accessories ranges providing stylish finishing touches. All 98 bedrooms and all corridors of

this new build venture have been fitted with Scolmore's innovative low energy Inceptor LED downlights in a satin chrome finish, with matching wiring accessories providing a co-ordinated look. Scolmore's Inceptor integrated LED downlights are proving hugely popular with installers - providing a high light output, high performance product that can be fitted into the shallowest of ceiling voids.

01827 63454 www.scolmore.com

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Lighting catalogue with style shots available on request









0208 123 7914

www.modernlightingsolutions.co.uk

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Trendy teracotta tiles



Inspired by traditional Mediterranean terracotta tiles, Solus Ceramics new Cotto Clay range is a modern reimagining of this iconic and recognisable material. Rustic and earthy browns and oranges sit alongside more contemporary cream and grey colour options, which allow this range to be used in many different design schemes and

projects. An uneven surface texture makes every single tile completely unique. Cotto Clay is one of the most versatile ranges that Solus Ceramics has ever discovered, and in total comprises of seven versatile sizes, including 300x600mm, 600x1200mm and many unusual plank shaped sizes.

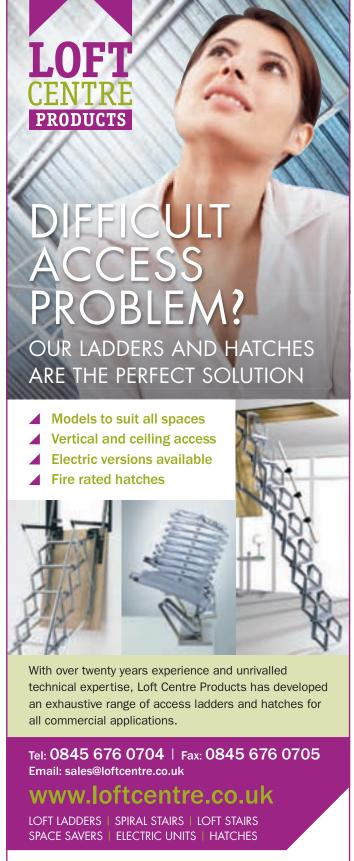
0121 753 0777 www.solusceramics.com

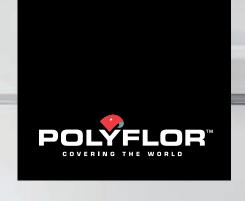
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Staircases handcrafted in the UK | Seamless project from concept to completion







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Endless application possibilities for solid and engineered timber flooring

By Roger Hemmings, marketing manager of Havwoods

he demand for solid and engineered wood flooring has never been so great and many clients are now requesting it for use in a huge variety of applications including walls and ceilings as well as flooring. The applications are numerous, the ideas endless and with so many surface finishes available the installations have been further carried forward into the wider realm of hospitality, offices, retail and the leisure industry.

The benefits of engineered timber are being recognised more and more, ensuring an increasing scale of options across the vast spectrum of European and tropical timber.

Regulations

A number or international, governmental and non-governmental organisations have been established to promote the responsible management of the world's forests. A new European Union Timber Regulation (EU995/2010) is now in place which makes it illegal to place illegally harvested timber and timber products on the European Union market place and all operators

supplying timber or timber products must provide a due diligence system of operation, which includes recording and storing information for a minimum of five years.

Construction

The bonding together of multiple layers of timber in engineered boards, positioned so that the grain runs at 90 degrees to each other, makes it virtually impossible for the timber to swell or shrink. This ensures a number of important advantages, primarily that the board itself remains highly stable despite changes in temperature or humidity, thus enabling guaranteed installation over underfloor heating.

Engineered timber flooring is available in many thicknesses and widths, the most common being around 14-22mm but is also available up to 25mm+. The minimum thickness for structural boards is 18mm in solid or engineered construction and there are various stipulations and recommendations for installation to ensure it is fitted to the correct British Standards.

Continued on page 63...



'The ever evolving genuine and reproduction reclaimed boards are now readily available in herringbone and chevron blocks, increasing the scope and design options for this re-used timber product'



Harrods Technology rooms supplied by Havwoods

Granwax scores a ten-strike with Dog Bowl



With its gleaming wooden floors and five full length ten-pin bowling lanes, Dog Bowl is the newest addition to Manchester's city centre. Housed in a unique building with an arched roof, the striking old structure was in need of modernising. Alan Ray, managing director of

Traditional Flooring UK Ltd was called in to renovate the floors: "Granwax's Hardwax Oil was chosen for its superb wear capabilities, its ease of use and maintenance. This finish is a blend of natural oils and waxes that offers exceptional durability and resistance, and is ideal for floors with high levels of footfall. In addition, it helps enhance the colour and look of the wood."

01773 541177 www.granwax.co.uk

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Nora flooring specified for University of Ulster



Nora Flooring Systems has recently installed its norament* 926 crossline flooring within the canteens at the University of Ulster Coleraine Campus. norament 926 crossline is offered in 16 expressive colours and features a subtle 3D texture, inspired by hand-crafted woodcuts. It is made from high-quality rubber and carries the Blue Angel cer-

tification for low emissions. The physical environment has a strong influence on learning and floor coverings are a large contributor to the built environment. Nora rubber flooring provides an attractive visual appearance, which is preserved for many years thanks to the durability and wear resistance of the resilient material.

01788 513 160 www.nora.com/uk

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Mipolam Cosmo offers low potential for slips



Ideal for heavy traffic areas in healthcare, education and other busy environments, Mipolam Cosmo offers low potential for slip (≥ 36 wet) when tested to BS 79762:2002. It's also easy to maintain and provides outstanding stain resistance. By combining the renowned hard-wearing Mipolam Cosmo with its revolutionary, patented Evercare "surface

treatment, international vinyl and linoleum flooring specialist **Gerflor** has redefined the standards for smooth homogeneous calendered flooring. The use of Evercare" sets new standards in low maintenance and provides an unrivalled level of stain and chemical resistance. Mipolam Cosmo is 100 per cent recyclable.

01926 622600 www.gerflor.co.uk

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Tarkett chosen to help reduce injuries



Following trials, an NHS hospital is hoping to reduce trips and falls in its dementia ward by installing **Tarkett** flooring. The Hip-Hop Flooring Study discovered that installing Tarkett's Omnisports flooring was likely to reduce the injuries suffered by older people when falling over due to its shock-absorbent foam backing. The range is commonly used in sports halls but it was found that the same shock-

absorbing properties that help prevent injuries to sports users also benefits dementia patients and the elderly at risk of falls. Portsmouth Hospital NHS Trust has now installed 1,600 sq m of Omnisports Training 5mm flooring in the treatment bedrooms of the hospital's four acute wards, which care for frail, older patients.

01622 854 040 www.tarkett.co.uk

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Schlüter®-DITRA - a reference point in quality

With its distinctive bright orange appearance and innovative features, it's no wonder Schlüter-Systems' Schlüter-DITRA remains the reference point for many installers when it comes to quality. It is the unsurpassed uncoupling membrane for tile and natural stone installations and continues to be the only product of its kind to work through its patented design and geometric movement capability. Schlüter-DITRA is a polyethylene membrane with a grid structure of square cavities, each cut back in a dovetail configuration and an anchoring fleece laminated to its underside. The tile adhesive mechanically locks into cut-back indentations on the topside of the matting, eliminating the need for further anchoring mesh. The geometry of Schlüter-DITRA allows for the absorption of lateral movement in each direction. Through its unique two layer design, Schlüter-DITRA truly separates the substrate and tile covering by creating essential free space between the layers in which the matting can move safely, reacting to the movement of the substrate and surface independently of each other. What makes Schlüter-DITRA such a success is its ability to be used in a variety of applications, even on problematic substrates.

01530 813396 www.schluter.co.uk

Timber finishes

There are a number of finishes for wood flooring and many species can be purchased as unfinished giving the contractor the opportunity to colour stain and finish the board as they wish. Many floors are available coloured and pre-finished and the most common are the oiled finishes. These are easily maintained by regular wax application and complete renovation is simply undertaken by sanding either particular areas of high footfall or the whole floor area. Oils are available in different sheen levels for gloss, satin, matt or ultra matt appearance depending on individual requirement.

Lacquered boards, as above, are also available in a variety of sheen levels and most lacquered boards will already have a number of coats applied for extra resistance to wear and tear and for areas of high foot traffic. However, spot renovation is not as simple and generally requires a complete renovation of the entire floor area by a specialist floor contractor.

Many other finishes are becoming increasingly recognised including distressing, tumbling, hand-scraping and even fuming and burning to give the wood that particularly unique look that only the specialist processes can achieve. Most however, will still require an on-site final seal coat to ensure years of wear.

Product and design

Many timber product ranges are continually developing exclusive and inspirational finishes for applications limited only by the imagination.

Reclaimed flooring has long been a favourite with designers and the ever evolving genuine and reproduction reclaimed boards are now readily available in herringbone and chevron blocks, increasing the scope and design options for this re-used timber product.

The more traditional reclaimed ranges are not limited to oak but include elm and pine and the benefits include random length and width boards to add to the truly historic image.

Painted and stained boards are aesthetically pleasing and many are available in bespoke finishes requested by designers and high end residential clients.

Currently most popular are greys and whites and the many initial processes give even wider scope to these neutral hues.

Walls and ceilings

"Don't be limited to the floor" is the advice, and many designers are only too keen to try the products up the wall across the ceiling and in many other applications including table-tops and counter surfaces.

"Don't be limited to the floor" is the advice, and many designers are only too keen to try the products up the wall across the ceiling and in many other applications'



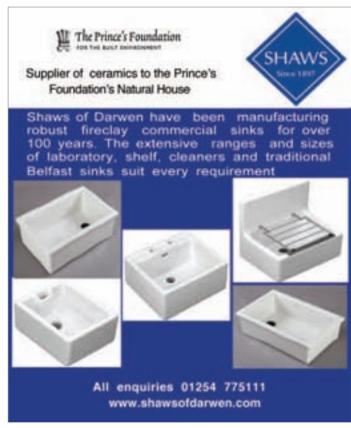




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Kidde professional business manager retires



Kidde – a world leading smoke, heat and carbon monoxide alarm manufacturer – has announced the retirement of Gerald Jones, business manager for Professional and Fire Brigade Channels in the UK and Ireland. A chartered marketer, Gerald's career was largely spent in the construction products sector, latterly in fire safety. He joined Kidde in 2000 and developed the specification-led side of the business from virtually nothing to its current

position. Kidde Safety Europe Director, Andy Burnett said: "Gerald devoted himself to the business and applied his extensive knowledge and long experience of residential fire and carbon monoxide safety to the benefit of the industry."

01753 685096 www.smoke-alarms.co.uk

ena 2/11

GATEMASTER gate closers



Renowned for their quality manufacture and reliability, GATEMASTER gate closers from Signet Locks can be fitted to metal and timber gates to ensure controlled and secure closing at all times. Local regulations on self closing gates vary so please check with the local authority before fitting these products. Experience in this field demonstrates that, when used correctly, these closers will reliably close gates for many years. GSB gas strut closers are top quality gate closing struts, ideal for closing gates up to 80kg. There is no need to release gas to reduce the spring force, just simply move the strut along the slots in the brackets to adjust the force exerted. The adjustable brackets also make the installation easy as there is no need to compress the spring when fitting it to the gate. It is ideal for both fitting to new installations and retrofitting to existing gates. APS hydraulic gate closers are hydraulically controlled with a top hinge kit that has been developed using proven technology to provide reliable gate closing. They are vandal resistant and suitable for gates up to 120kg. The robust closer unit is fitted underneath the gate, meaning it is unobtrusive, and this also acts as a load-bearing lower hinge. The kit includes a top hinge assembly which is fully adjustable to enable the gate to be positioned correctly after installation, with no power required.

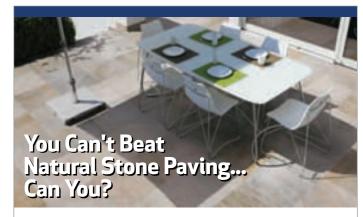
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