

adf

architectsdatafile.co.uk

06.23



LEIGHTON HOUSE MUSEUM, LONDON

A dramatic rotunda is the focal point of the latest evolution of the Pre-Raphaelite painter's house – now restored and extended by BDP

COMPLETE CREATIVE FREEDOM

Product displayed: OI-30, Colour shown: Jet Black - 9005M



Discuss your project with us today
and visit origin-global.com/commercial
or call **0808 192 0024**



INTRODUCING THE INTERNAL DOOR COLLECTION

Whatever the space, divide it with style. The Origin Internal Door provides a sleek and stunning solution for creating functional footprints within a home.

With endless configurations, hardware options and colours to choose from, let Origin help you create spaces that change the way people live.



View the rest of the range at
origin-global.com

CONTENTS



NEWS, VIEWS & INSIGHTS

- 04 Industry News
- 12 **Ask the Architect:** HKR Architects' Jerry Ryan answers *ADF's* questions
- 16 **Site Lines:** Simon Castle with a checklist on heritage refurb
- 20 International Focus
- 22 CPD Focus
- 23 Appointments & Company News

PRODUCTS

- 40 Groundworks & Drainage
- 41 Structural Elements
- 41 External Envelope
- 49 Heating, Ventilation & Services
- 51 Insulation
- 51 Interiors
- 57 Safety & Security
- 58 Landscaping & External Works

PROJECT REPORT

28 A BLEND OF ART & ARCHITECTURE

The former home and studio of renowned Pre-Raphaelite painter Frederic Lord Leighton has evolved as a museum over its long life, and it has once again been reimagined sensitively and artistically by BDP, as Tom Boddy reports

FEATURES

43 EXTERNAL ENVELOPE: BALCONIES (INC. BALUSTRADING & TILING SOLUTIONS) BREAK THE MOULD WITH THERMAL BREAKS FOR BALCONIES

Nicolas De Vrieze from Leviat says thermal bridges in balconies can be the main cause of building defects such as condensation, mould formation, and degradation of materials. Here he looks at the potential engineering answers in detail

53 INTERIORS: DOORS & ARCHITECTURAL IRONMONGERY TAKE THE LIFT & SLIDE ROUTE

Ryan Thompson from SIEGENIA UK explains why architects need to consider lift and slide doors as an aesthetic and secure alternative to the near-ubiquitous choice of recent years – namely bi-fold doors

61 LANDSCAPING & EXTERNAL WORKS: SUDS & PERMEABLE SOLUTIONS THE RISE AND RISE OF SUDS

Mark Manning of water management specialists SDS discusses upcoming legislation on surface water management, and how SuDS will increasingly be the solution

65 LANDSCAPING & EXTERNAL WORKS: DECKING DECKED OUT IN ALUMINIUM

Harriet Keohane from Saige Premium Composite Products shares essential pointers for architects and designers specifying aluminium decking for new build or retrofit projects, to ensure the safety and functionality of outdoor spaces

adf
architectsdatafile.co.uk

incorporating **Building Projects** magazine,
architectsdatafile.co.uk and [@architectsDF](#)

origin

DOORS AND WINDOWS

Delivering Luxury Living with Origin

Discuss your project with us today and visit origin-global.com/commercial



The Origin OS-20 Artisan Sliding Door was selected as the perfect glazing option for this contemporary riverside development in Scotland. Premium housebuilder, Cala Homes, chose Origin sliding doors for this project as they allow for large expanses of glass, accommodating individual panel sizes of up to 6sqm for a truly dramatic effect. For maximum 'wow' factor, the premium grade aluminium door offers minimal sightlines of just 20mm, creating a seamless transition between the inside and outside.

Like all Origin products, the OS-20 is made completely bespoke here in the UK and can be specified to suit each home's individual requirements. With a choice of over 150 RAL colours, Cala Homes opted for two of Origin's most popular colours, Anthracite Grey and Jet Black to complement the ultra-modern, sleek and stylish look the developers wanted to create.

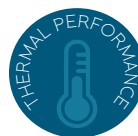
The result was a collection of stunning, modern homes filled with an abundance of natural light, without compromising on thermal efficiency or security.



ISO 14001 accredited, so you can specify with confidence



Colour options to suit every property style



Products meet and exceed building regulations



Manufactured and delivered in as little as 24-hours if required

bimstore

Specify our products in your projects today



Origin's offering is geared towards helping you design with style and confidence

In addition to a full product suite that boasts a beautiful and elegant design with exceptional performance, we pride ourselves on offering a 360° service. Whether your requirement is supply only or a complete turnkey service, we are a one-stop-shop and can offer the right solution for you.



Call us on
0808 192 0024

Managing Editor
James Parker
jparker@netmagmedia.co.uk

Publisher
Anthony Parker
aparker@netmagmedia.co.uk

Editorial Co-ordinator
Shelley Collyer

Editorial Assistant
Laura Shadwell

Editorial Contributor
Tom Boddy

Studio Manager
Mikey Pooley

Production Assistants
Georgia Musson
Kim Musson

Senior Account Manager
Sheehan Edmonds

Account Manager
Steve Smith

PR Executive
Suzanne Easter

Publishing Assistant
Kim Neville

Managing Director
Simon Reed

Advertising & Administration
t 01435 863500
info@netmagmedia.co.uk
www.architectsdatafile.co.uk

Press Releases
editorial@netmagmedia.co.uk

Subscription & Circulation enquiries
info@netmagmedia.co.uk

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



Annual subscription costs just £48 for 12 issues, including post and packing. Phone 01435 863500 for details. Individual copies of the publication are available at £5 each inc p & p. All rights reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic, mechanical, including photocopying, recording or stored in any information retrieval system without the express prior written consent of the publisher. Although every effort is made to ensure the accuracy and reliability of material published in Architects Datafile, the publisher can accept no responsibility for the claims or opinions made by contributors, manufacturers or advertisers. Editorial contributors to this journal may have made a payment towards the reproduction costs of material used to illustrate their products. The manufacturer of the paper used within our publication is a Chain-of-Custody certified supplier operating within environmental systems certified to both ISO 14001 and EMAS in order to ensure sustainable production. Printed in England

FROM THE EDITOR



On 24 May, we hosted the first Building Insights LIVE round table, at the appropriate location of the Building Centre in central London. We have been producing a range of reader research reports in the past couple of years, under our Industry Viewfinder banner, as well as Building Insights podcasts, but this is the first time that we have ventured into the live arena for a cross-disciplinary, in-depth industry discussion.

‘Solutions for Compliance: Part L & Beyond’ went even better than we could have hoped – with the support of sponsors Recticel, Schock and IDSystems, all of whom provided insightful views of their own to bring a ‘real world’ focus to our discussion. Three architects from well-regarded practices in different strands of residential construction attended. For example, Shikha Bhardwaj, lead sustainability designer at Hawkins\Brown brought a strong perspective on how a holistic focus from designers could use compliance with Parts L, F and O “as a design tool.” The event was timely, as from 15 June all new homes starting onsite will have to meet demanding new standards in Part L, to reduce carbon emissions by 31% – and there’s a much bigger jump to make by 2025.

Tzeh Bin Cheong (technical director and residential lead, Shephard Epstein Hunter Architects), explained how in his sector (i.e. medium rise urban residential projects), jobs underway pre-Part L have had to be revisited to try and work out how the thermal requirements of Part L can be squared with the new Part O’s stipulations on overheating. From Bin’s testimony at Building Insights LIVE, it seems that an easy solution is not on the cards.

Chris Perry, senior architect of TODD Architects, gave the group a range of interesting pointers, such as how Building Information Modelling could be usefully applied in 3D form using devices (rather than print outs!) onsite, would help contractors close the performance gap, and that modelling and testing was the key.

Another Chris (Chris Carr) provided key insights, as vice president of the Federation of Master Builders, as well as running his own SME producing high-end homes in Grimsby. He was eloquent and candid in expressing his reservations about the 2025 deadline for the Future Homes Standard in the discussion, and the likely cost implications of the FHS and Part L, plus other challenges for finding workable solutions. One of Chris’ ideas for improving the situation was for Building Control to sit on planning teams, and he expressed a need for more exemplar projects to show the way forward, while wondering why we don’t have window shutters in the UK.

Our sponsors offered a range of views. David Clarke of IDSystems looked at the practicalities of raising the industry’s game to reach higher performance, and said some current products “were no longer fit for purpose.” Schock’s Bill Hayward said there was a lack of clarity on what buildings now cost, post-Part L, and Recticel’s Simon Blackham thought suppliers needed more from specifiers on requirements for embodied carbon data.

Our July/August issue will contain a full write up of the event, which it was my pleasure to chair!

James Parker, Editor



ON THE COVER...

The house and studio of famous late Victorian painter Frederic, Lord Leighton has seen many changes over its lifetime. Its latest evolution as a museum driven by a sensitive refurb by BDP
Cover image © Dirk Lindner

For the full report on this project, go to page 28

RIBA AWARDS

Folkestone sports park wins RIBA South East 'Building of the Year'



Designed by the London and Kent-based Hollaway Studio, F51 Sports Park in Folkestone – the world's first multi-storey skatepark, which opened in 2022 – has received national recognition for its contribution to inspiring young people. Funded by local philanthropist Sir Roger De Haan, the project has proved a local success story.

F51 Sports Park won three Awards at the RIBA 2023 South East Awards: RIBA South East 'Regional Award,' RIBA South East 'Building of the Year,' and RIBA South East 'Client of the Year.' The RIBA Awards Jury described the project as "appearing as a shimmering aluminium vessel with glimpses of the tangerine-orange structure within, F51 looks like nothing else." Home to three floors of skating, a climbing wall, and a boxing club, as well as social and multifunctional spaces, "there is a tangible buzz to the place," said RIBA.

They added: "It is clear that Sports Trust, the charitable foundation that runs F51, is deeply invested in the development of young people in the local community."

Guy Hollaway, principal partner at Hollaway, commented: "Receiving four RIBA 2023 South East Awards is such an honour. To win for projects completed in the South East region, namely the Folkestone & Hythe District, shows how our commitment to creating high-



quality architecture for the community is recognised at a national level."

Describing it as an 'adrenaline building', RIBA said the landmark structure appears as an "imposing concrete beacon shrouded in mesh rising out of the Folkestone Creative Quarter," which has "transformed the landscape of Folkestone both architecturally and for the community."

Part of a major ongoing programme to

regenerate the seaside town, F51 "reflects Hollaway Studio's ongoing commitment to placing community firmly at the very heart of its work." F51's design has already received a number of awards and was selected in *The Guardian's* best architecture of 2022 where it was described as "immaculately crafted."

More information on the F51 Sports Park can be found in the June 2022 Issue of ADF.



Photos © Hufton+Crow

RETIREMENT LIVING

Brewster Bye Architects unveil three major retirement schemes

One of the UK's leading providers of extra care and retirement living developments, Housing 21, and Leeds based Brewster Bye Architects are working on three major schemes that will create almost 200 homes for local people over the age of 55.

Principal contractor Esh Construction is due to complete work in the coming weeks on a £7.5m, 60-home development on Highfield Road in Askern near Doncaster, which Housing 21 has developed in partnership with Doncaster Council and Askern Town Council.

Known as Askern Vale Court, the development offers 58 one and two bedroom apartments within a three storey building complete with communal facilities, landscaped gardens and dedicated parking area, as well as two bungalows. All the homes are available for affordable rent.

Work is also due to start this summer on an extra care scheme at Cleckheaton that will provide 80 rental apartments for over 55s, who have a connection to the local area. Developed in partnership with Kirklees Council, the scheme is designed to promote independent living in a community setting – a care team will be on-site 24 hours a day to deliver planned care packages to residents if needed. Facilities will include an activity room, communal lounge and gardens. An onsite hair salon and cafe for residents will also be open to the public.

Earlier this year, work started on another retirement living development consisting of 57 apartments on the site of a disused mill at Compton, near Leek in Staffordshire. The part two, three, four and five-storey development will include associated ancillary spaces, gardens and parking. It is being constructed by Tricas Construction for Collaborate Living and Housing 21.

Housing 21 is a leading provider of retirement and extra care living for older people of modest means. The not-for-profit organisation operates in over 240 local authority areas across England, managing over 22,800 retirement living and extra care properties and providing over 38,000 hours of social care each week.



Housing 21 in Askern



Housing 21 in Cleckheaton



West Fraser

Unlike many, all of our OSB, particleboard and MDF sheet products are UK-made and net carbon negative - helping to reduce a building's carbon count and protect the planet.

uk.westfraser.com



APPOINTMENTS

tp bennett appoint Polidoro and Vescovi to main board

Architects tp bennett have promoted two directors to their main board – Katia Polidoro as principal director and Valentina Vescovi as chief commercial officer (CCO).

Katia Polidoro is an architect and urban designer with twenty-five years' experience across a wide range of award-winning projects, from architecture and interior design through to large-scale masterplanning and regeneration schemes across the UK and EMEA.

Since joining tp bennett in 2013, Polidoro has led "transformational" mixed use developments including High Street Quarter and Cavalry Barracks in Hounslow, the Rochdale Riverside mixed-use quarter near Manchester, and the redevelopment of Rackhams department store (an early tp bennett building) in Birmingham, as well as the regeneration of Luton and Camberley town centres. She regularly speaks on the benefits of sustainable retrofit, town centre regeneration and the art of placemaking.

Throughout her career, Polidoro has consistently championed the Equality,



Katia Polidoro

Diversity and Inclusion agenda. Herself an industry mentor, Polidoro has been responsible for establishing and mobilising tp bennett's successful in-house mentoring programme and supports the practice's relationships with London universities, the RIBA and organisations including Women in Property, Real Estate Balance and the Mentoring Circle.

As a member of the architectural NGOs Article 25 (Development & Disaster Relief) and Architecture Sans Frontières UK, Katia has been involved in community and



Valentina Vescovi

regeneration work overseas.

Valentina Vescovi is a management professional with over 15 years' experience in the architecture and interior design industry. Her international experience and multilingual abilities have enabled her to develop expertise in the commercial, legal and financial aspects of prominent international projects.

Since joining tp bennett in 2015, Valentina has led the commercial operations of the architectural and design practice's interior design division.

BOOK

Making Architecture: The work of John McAslan + Partners – 'a remarkable contribution to architecture'

This August, Thames & Hudson will be publishing 'Making Architecture: The work of John McAslan + Partners.'

The book, said the publishers, "both provides an up-to-date account of the work of John McAslan + Partners – one of Britain's most respected and dynamic architectural practices – and analyses the culture of a studio that has made a remarkable contribution to architecture, place-making and the lives of individuals for four decades."

A series of thematic chapters includes detailed, fully illustrated descriptions of numerous recent and ongoing

international projects, from Central and Waterloo stations in Sydney to the transformation of King's Cross station in London. Other projects include the sensitive repair and renewal of the De La Warr Pavilion in Bexhill-on-Sea, East Sussex, the Roundhouse, London, and most recently The Burrell Collection in Glasgow, to the new Msheireb Mosque and nearby Msheireb Museums in Qatar.

The book also includes the pioneering initiatives for which the McAslan studio has become renowned, and which underline the practice's humanity and sense of social responsibility: the urgent

rebuilding of the Iron Market in Port-au-Prince, Haiti, after the devastating earthquake in 2010; the N17 project, which provided an innovative pop-up apprenticeship design studio in Tottenham, north London; and the ongoing Hidden Homeless initiative.

Edited by Chris Foges, with a foreword by Kenneth Frampton, an introduction by Alan Powers and contributions from architectural specialists, this well produced monograph "offers the key to understanding the development and philosophy of one of the world's most socially engaged architectural practices."



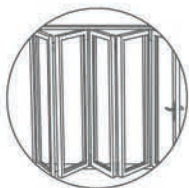
Designed to maximise natural light

Commonly thought of as a commercial product, curtain walling is becoming increasingly specified for homes to create a light and airy living space. The architect specified the Kestrel Aluminium 100mm box and plate curtain walling system incorporating Kestrel 60mm windows to maximise natural light and give a dramatic frontage to this prestigious development on the Coton House Estate, near Rugby.

For more information, visit www.kestrelaluminium.co.uk or call **0121 333 3575**.



WINDOWS



DOORS



ROOFING



SHOPFRONT



CURTAIN WALL

APPOINTMENTS

Architecture team at Marrons expands with three new appointments

Recently registered as a Royal Institute of British Architects (RIBA) chartered practice, planning and design consultancy Marrons has strengthened its architectural team with a trio of appointments.

Principal architect Chloe Willis and architectural assistant Shannon Lander will be working from Marrons' Bristol hub, while Zubair Hussain, also an architectural assistant, will be based in Birmingham.

Willis brings with her more than 10 years' experience in the heritage and residential sectors. As an RIBA Conservation Registrant, she specialises in working with historic fabric such as listed buildings, and conservation areas.

In her new role, Willis will be responsible for running architecture projects and helping to lead Marrons' Bristol-based design team. She will also be supporting homeowners, private landowners, commercial and developer clients to "make the most out of the opportunities their building or site has to offer."

With more than five years' experience within commercial and residential design, Shannon Lander joins Marrons from Adam Architecture, where she specialised in heritage sites and listed buildings. In



L-R: Zubair Hussain, Chloe Willis and Shannon Lander

her new role, Shannon will be working within the Bristol architecture team, producing planning and technical drawings, supporting planning documents, and 3D models and renders.

Zubair, who has more than eight years' experience, has joined Marrons from Synergy Architects, where he was involved with various large-scale commercial and bespoke schemes.

He will be working within the Birmingham design team, helping to deliver architectural projects and producing

relevant planning documents and drawings, as well as working closely with clients and consultants.

Marrons' roots are in planning, but the consultancy has since added urban design, socio-economics, heritage and architecture to the practice's list of services offered to clients, with locations up and down the country – including the Midlands, London, the south east and, most recently, the south west, with the addition of a Bristol-based team of "architecture specialists."

APPOINTMENT

Brewster Bye takes on AT apprentice Cartwright

Leeds based architecture practice Brewster Bye Architects, has appointed a junior architectural technologist apprentice as part of the firm's commitment to investing in the next generation of industry talent.

Ciaran Cartwright is in his third year at Leeds College of Building studying for a Level 4 BTEC National Extended Certificate in Construction and the Built Environment.

Ciaran already has two years' industry work experience and has assisted with design concepts and construction



packs for several projects, assisted with preparing information for planning applications, as well as liaising with engineers on projects.

Nathan Wilkinson, who is a director at Brewster Bye, commented on the appointment: "We are very passionate about encouraging people into the industry from every educational pathway. We have been impressed with the calibre of students from Leeds College of Building, and hope to build on this partnership in the future."

Bespoke Security & Fire Door Products

Sunray is a leading supplier of Fire Rated Timber Doors. Our products are exceptional when it comes to the high quality veneer and paint finishes for Fire Doors.

- Hotels & Commercial •
- Leisure Facilities •
- Schools & Universities •
- Housing & Communal Areas •
- General Retail Outlets •



Whether you require contemporary leading brand laminates or beautiful lacquered hardwoods Sunray can manufacture stunning doors to meet your requirements.

For more details, call our specialised team to discuss your particular project on:

01233 639039

sales@sunraytimberdoordivision.co.uk

SUNRAY

TIMBER DOOR DIVISION

www.sunraytimberdoors.co.uk

ASK THE ARCHITECT

As co-founder of London based international architecture and urban design practice HKR Architects, Jerry Ryan shares his passion for the history of architecture, and looks forward to a technological future as the practice celebrates its 30th year



Jerry Ryan, HKR

WHAT MADE YOU WANT TO BECOME AN ARCHITECT?

I guess this stemmed initially from my interest in Roman and Greek history – inevitably leading to a fascination in the construction of their cities. It intrigued me that they had developed such sophisticated skill sets thousands of years ago. Their buildings and public spaces were inextricably linked to the development of their society, culture, and governance. If these cities had not been constructed we would have missed out on Plato's laws and Aristotle's philosophies, to name but two.

WHAT KEEPS YOU ENTHUSED ABOUT DESIGN NOW AFTER A LONG CAREER?

Architecture for me has always been a great intellectual challenge. Historically architects had to know a little about all disciplines, materials, and technologies. Hence the architect was usually the lead design consultant. I believe the profession must lead, and challenge convention. Using our architectural toolbox we can engender positive impacts on the individual, society, and the environment. New construction technologies intrigue me, as I believe they enable efficiency and affordability.

WHAT HAS BEEN YOUR FAVOURITE SECTOR TO WORK IN?

Residential-led mixed use – because it is all about places for people, from the living

“Residential-led mixed use is the most challenging, frustrating and gratifying sector to work in”

room to the private terrace, to the active street, to the amenity garden or courtyard. It is the most challenging, frustrating, and gratifying sector. Of course, today residential includes many subsets such as student, co-living, aparthotels, ‘last time buyers,’ and nursing homes. The key is to ensure these new communities include appropriate services and amenities.

WHAT'S BEEN YOUR BIGGEST CHALLENGE RUNNING A PRACTICE IN THE PAST DECADE?

I would say that apart from ensuring financial stability, it must be team building and the ongoing alignment of the team. Being a design profession, ego and self-belief are invariably essential traits, but must be counterpoised by the development of complementary skill sets and compatible people with integrity who respond to our clients' needs. Within HKR there are several leaders who contribute to the running of the practice; the ideal bond between leaders can best be described as covalent!



Eblana Avenue co-living, Dun Laoghaire © Paul Moore Photography



NBS Source
PARTNER



PART F, PART L, PART O & PART Q COMPLIANT


PREMIUM ALUMINIUM GLAZING SOLUTIONS



Project: Arrow View, Herefordshire

Architect: AR Design Studio

Image: Paul Carter Photography

 **Find out more**

t 01603 408804 e architects@idsystems.co.uk
idsystems.co.uk/architects


IDSystems
innovative glazing

sliding doors • bifold doors • slide & turn doors • aluminium windows • glass roofs • front doors • balustrades

HOW HAVE YOU FOUND THE RETURN TO WORK SINCE THE PANDEMIC; HAS REBUILDING TEAM-WORKING BEEN A STRUGGLE?

Within HKR, the pandemic and working from home had very little impact. When you employ capable people (we call ‘doer/sellers’) you don’t need a cumbersome and expensive layer of middle management. When people are trusted and empowered to do their work, they can work from anywhere. Quality assurance and quality control are not executed by a disparate group within the firm, but are tasks shared among colleagues, so developing a collegiate spirit is key.

HOW DO YOU MAINTAIN HANDS-ON WORK WITH CLIENTS WITHIN THE CONSTRAINTS OF RUNNING AN INTERNATIONAL BUSINESS?

Our business is a smaller, tighter knit group than before. We are careful not to take on too much work and endeavour to deliver less work better. In the past we not only took on leaders for all sectors but also endeavoured to develop teams in multiple jurisdictions. It does not



Moorgate Exchange, London – HKR Architects



Abu Dhabi Plaza, Kazakhstan

work in a design discipline. Today, with one principal studio and with a fully aligned team where leadership functions are shared, we all have time to enjoy client engagement and design work.

WHAT PROJECTS ARE YOU MOST PROUD OF?

There are many, but Abu Dhabi Plaza, in Astana in the Republic of Kazakhstan, ranks as our most notable in terms of sheer scale. The two billion dollar project – which included the tallest tower in Central Asia – was the subject of an intergovernmental agreement. HKR not only designed the building, but fulfilled the delivery on site.

Another project, the 12-storey BREEAM Excellent office building Moor Place, London, had to respond to the constraints imposed by the close proximity of St Paul’s, the Barbican Estate and Crossrail tunnel, resulting in a wedge-like form design stepped back with green landscaped roof terraces to the upper levels.

We have also recently completed the first co-living development in South Dublin – Eblana Avenue for Niche Living, which offers over 200 fully serviced studios, with multiple shared facilities creating a carefully curated community. Co-living is very appropriate for a young, fairly transient and dynamic demographic, and should be

encouraged to form a part of the ultimate solution to the country’s housing need.

NAME ONE THING THAT WOULD MAKE YOUR JOB EASIER?

I would rephrase the question and ask how can I work more efficiently and effectively for clients? (Architecture, like construction is never going to be easy). I would say to that; ongoing empowerment of the team through regular reviews and a creative reward structure. We also need to invest more heavily in research and development.

WHAT’S YOUR BIG PERSONAL & SHORT-TERM GOAL?

I want to embrace more technology in my day to day working.

HOW DO YOU SEE ARCHITECTS’ ROLES EVOLVING IN THE NEXT FEW YEARS?

We can and need to exert more influence within our network of connected individuals, our domain, and the broader industry. As opinion leaders and creatives, we will then be poised to promote, develop and execute solutions to pressing social needs such as social housing that can be built affordably. Too often we are seen as tractable, and having a vested interest in promoting the status quo.

vision
e-line



INSPIRED DESIGN. CREATED FOR LIVING.

SOLUS



SITE LINES

A heritage refurb checklist

Simon Castle from Chisholm & Winch discusses the varied, but essential considerations that architects need to bear in mind when approaching listed building renovations

According to Historic England, there are estimated to be around 500,000 listed buildings on the National Heritage List for England (NHLE). A listing marks and celebrates a building's special architectural and historic interest, and protects it for future generations. The older a building is, and the fewer the surviving examples of its kind, the more likely it is to be listed. Heritage restoration is the process of accurately recreating the character, features, and structure of a building, as it would have been at a particular time.

This is one of the first and most important aspects to consider during heritage renovation, as these buildings are so precious to our built environment, partly as they act as a window to our history. Heritage restoration is also an economical and environmentally responsible practice. It's a delicate process that requires careful planning and execution to preserve the historical significance and aesthetic value of a building while simultaneously making it fit for modern purposes.

The challenge is that most older properties were not constructed for 21st century tastes, or performance. If they are to be practical, sustainable, attractive buildings for the modern era, there is a delicate balance to be struck between preservation and innovation. We must maintain the character and integrity of the existing structure, while updating it for a new generation of use.

Historical significance

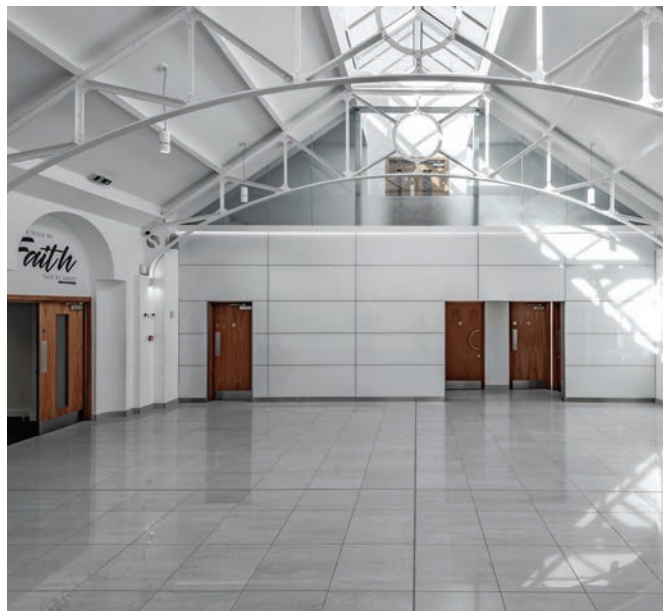
Before beginning any refurbishment work, it is important to understand the historical context of the building, as well as any regulations or guidelines that may apply to the renovation.

In some cases, certain aspects of the building may need to be preserved or restored to maintain the integrity of the structure which can involve using traditional building techniques and materials or replicating certain features to match the original design.

Chisholm & Winch worked on a project for The Crown Estate to upgrade a five-storey Regency house in west London, located between Mayfair and St James's, and provide luxurious private rental accommodation.

Some of the rooms within the building have original Georgian timber panelling; our remit included refurbishing these, as well as matching new timber panelling to the original where replacement was required, and restoring those areas that could be preserved.

One of the showpiece elements of the project was a new staircase that curls through the centre of the property. Here, new balustrades and bannisters, in keeping with the period, were installed to create a feature that is not a pastiche of the original, but immediately references the period.



Oak floors throughout the building marry traditional materials with contemporary tastes, and bespoke joinery across the luxury kitchen, custom-fitted wardrobes, spacious wine cellar and heritage doors echoes the workmanship of the original building while updating it with contemporary style.

Meticulous planning

Developing a comprehensive plan that includes realistic timelines, budgets and a detailed outline of the renovation helps to reduce risk and potential downtime throughout the project. Some construction companies have their own experienced project managers that plan every project down to the very last detail – so they know exactly what is being projected and what can be delivered. Timings and budgets need to be communicated to all stakeholders so that everyone is aware of any upcoming variations.

Materials & techniques

The materials and techniques used in a heritage renovation project are essential to preserving the historical significance and aesthetic value of the building.

In some cases, it may be necessary to source specialised materials or employ traditional building techniques that are no longer commonly used. Older buildings are often made with unique

klöeber®

Award-winning Bespoke Doors & Windows



We manufacture, supply and install
Timber, Aluminium & Alu-Clad

- Bifold doors
- Sliding doors

- Entrance doors
- French doors

- Single doors
- Windows

- Shaped glazed screens
- Rooflights



01487 740044

info@kloeber.co.uk

www.kloeber.co.uk

Visit our showrooms in: London, Cambridgeshire, Buckinghamshire and West Sussex.

There are many high street buildings that are no longer suited to their original purpose, but which still have excellent architectural value

and valuable materials and incorporate details such as decorative facades, lime mortar brick pointing, glasswork, and traditional methods of workmanship that are emblematic of their time. These features give older buildings their own identity and character, often making them more interesting and aesthetically attractive than many modern buildings. However, preserving these features needs to be coupled with modern construction methods and materials to ensure the safety and durability of the building.

Structural considerations

The structural integrity of a heritage building must also be carefully considered during a renovation project, to avoid compromising its safety and stability.

In some cases, it may be necessary to reinforce or repair certain elements of the building to ensure its structural integrity. This would involve working with a structural engineer to assess the building and develop a plan for any necessary repairs or reinforcements.

Regulations & permits

Heritage buildings are often subject to specific regulations and permit requirements that must be followed during a renovation project. It is important to research and understand these requirements before beginning any work.

This could involve working with local government agencies and heritage preservation groups to obtain the necessary approvals. Any contractors or subcontractors involved in the project need to be knowledgeable about the regulations and requirements that apply.

Project focus

There are many high street buildings that are no longer suited to their original purpose, but which have architectural value. An excellent example of this, and the heritage restoration work undertaken by Chisholm & Winch, is the conservation of a Grade II listed former temperance hall in south east London, plus an additional new build extension. The project turned a piece of Lewisham's history into a new community hub for the Tab Church.

The building had already undergone several reinventions during its lifetime. A tea hall in the 1920s and a snooker hall for several years; it had been left to decay for the past four decades before The Tab took it on. With water seeping through the roof, some of the structure was compromised so the task of refurbishment involved making good the original structure, modifying the building for a new purpose and preserving features that connect the property's history with its future.

The new build elements bring contemporary community spaces and office areas to the site, and much of the refurbishment delivers contemporary facilities and aesthetics. The main hall includes a state-of-the-art auditorium with a dramatic walk-in baptism pool, a new mezzanine level, and underfloor heating.

The new additions have been delivered with respect for the original building. For example, bespoke steelwork makes the



property more structurally robust, while providing a feature that's in-keeping with the early 20th century building. A rooflight installed at the apex of the restored roof's pitch allows natural light to flood the previously gloomy space, using a contemporary feature to showcase the craftsmanship of the original building. And of course, restoring original features and carefully selecting materials to connect old and new is integral to the aims of a project like this, so the roof was stripped and re-built. New trusses and insulation were installed to ensure the building is robust and delivers 21st century thermal performance, while the old trusses were restored and reinstated as a decorative feature and the original slates have been re-used wherever possible.

In order to preserve an original scroll detail, a gable wall was moved back one gridline into the footprint of the building to enable construction of a new brick slip external wall while retaining the feature. Decisions like this may add layers of complexity to the build, but they also ensure that upgrading the heritage building adds to its legacy, without detracting from it.

Collaboration supports success

At every stage of heritage renovation project, collaboration between the client, the architect and the contractor ensures that decisions made during the refurbishment of the building capitalise on opportunities to both preserve and improve the property, while tailoring the accommodation to its contemporary use.

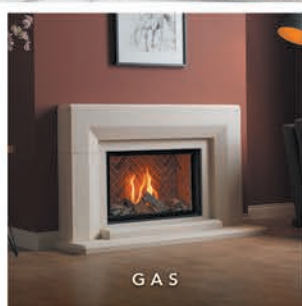
Whether the building is for residential or commercial use, heritage refurbishment is not about creating museum pieces, but about delivering our future built environment without destroying our past.

Simon Castle is managing director of Chisholm & Winch

Turning your dreams
into reality.



ELECTRIC



GAS



WOOD BURNING



MULTI-FUEL

Charlton & Jenrick^{LTD}

Best of British fires, fireplaces & stoves



01952 200 444

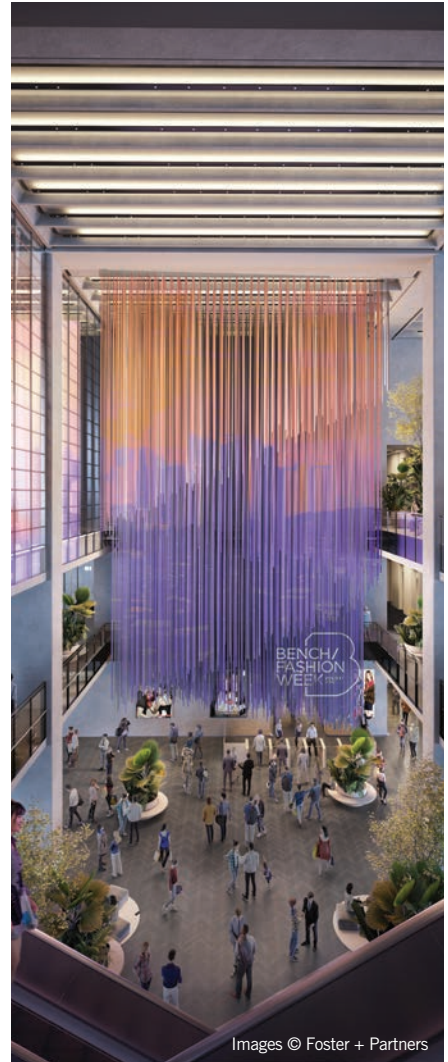
marketing@charltonandjenrick.co.uk

www.charltonandjenrick.co.uk



INTERNATIONAL FOCUS

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



Images © Foster + Partners

BENCH HEADQUARTERS, PHILIPPINES FOSTER + PARTNERS

Foster + Partners is providing a fully integrated design service for the BENCH Headquarters in Manila in the Philippines. Work has started on the 24-storey office building for the Philippines' leading clothing and lifestyle brand, which will include offices, state-of-the-art design studios and event spaces together under one roof, creating a permanent home for the company in the city's vibrant business district.

Luke Fox, head of studio, Foster + Partners, said: "The new building is designed for its location with passive design strategies and optimised solutions, aided by our in-house tools for reduced embodied and operational carbon."

The building is located at the end of a prominent east-west axis in Bonifacio Global City. The side core arrangement opens up the ground floor of the building to green open space. A ground floor atrium provides direct access to the offices and an event space which can accommodate large-scale fashion shows, with a four-storey atrium located at the top of the building. Daylit lift lobbies and cores are placed laterally to produce spacious and flexible office floors above. This sense of openness is reinforced through the use of lightweight, long-span precast elements which result in column-free spans of more than 15 metres. The facade has been "calibrated" to allow enough light into the floorplate, while cutting out glare and reducing cooling loads, with the use of an awning system, explained Foster + Partners.

On the top four floors, workspaces are arranged around the atrium, which receives carefully filtered daylight from above. The interior design includes exposed concrete columns and precast concrete soffits paired with a terrazzo floor with recycled stone aggregates. The accessible rooftop is designed to host smaller events or team gatherings and explores urban farming ideas. It is shaded by an array of photovoltaic elements that generate more than 10% of the building's total energy demand on site.

Driven by a desire to minimise the embodied carbon in the structure of the building, and in response to the high levels of seismic activity in the Philippines, the structural design of the building was "carefully optimised to minimise weight and achieve a high degree of balance and symmetry." The design team also built carbon calculators to track all the materials in the building and measure the carbon emissions they would produce, from the concrete used for precast panels, to the various components of the building's cladding.

SAMSUNG



360 Cassette

Find your cool.

Experience the 360 Cassette: the world's first circular air conditioner. With stylish, bladeless designs to suit any room, everyone can enjoy the ultimate indoor environment. And with direction-enhanced control, you can create a uniform airflow that reaches every corner of your space, without temperature deviations.

samsung.com/360cassette

CPD FOCUS

Maintaining and improving professional competence, skills, abilities and knowledge

DETAILING FLOORING FINISHES CPD



Quantum Flooring Solutions is delighted to announce that its Detailing Flooring Finishes CPD has been updated for 2023. The new version of the popular presentation has been fully accredited as a RIBA Core Curriculum CPD, offering double CPD points.

This seminar looks at stair nosings, flooring accessories such as skirtings, covings and capping strips, and floor finishes and transitions including entrance matting. It explores how each of these can be specified to ensure adherence to all relevant aspects of Building Regulations, BS 8300-2:2018 and the Equality Act.

There are three main aims for this CPD:

- Explain how to safely finish floorcoverings at critical points such as stairways, wall junctions, and doorway transitions.
- Show how to specify flooring accessories correctly and successfully.
- Guidance on the legislative and regulatory framework.

Aspects which can affect the efficacy of flooring details will be explored. These are things such as the importance of colour options, fitting and maintenance issues which should be considered at specification, and environmental and legal concerns. A Q&A session is available after the seminar.

You can book Quantum's CPD on Detailing Flooring Finishes by emailing info@quantumflooring.co.uk, visiting the website, or by phone.

0161 627 4222 quantumflooring.co.uk

WASTEWATER TREATMENT CPD LAUNCHED BY GRAF UK



A CPD that explains the issues around wastewater treatment and advises on the options available has been launched by Graf UK. The 50-minute presentation delivers a multitude of "Wastewater wisdom", ranging from the fundamentals to the latest regulations and issues, via a user-friendly mix of "live" presentation and videos. As well as providing guidance for calculating sewage treatment system sizes depending on the population and type of building, the CPD also explains processes including disinfection and carbon dosing.

bit.ly/GRAFCPDWebinar www.grafuk.co.uk

SPIRAL AND HELICAL STAIRCASE CPD WEBINARS



Staircase experts, Spiral UK, offer architects a live bespoke staircase CPD presentation on Microsoft Teams or Zoom free of charge at a time that suits them. The session covers: staircase design, stair regulations ADK, ADB, ADM and specifically BS5395 Part II (which relates to spiral and helical staircases), the design, manufacture and install process, materials and finishes and case study examples. The session is 30-40 minutes depending on questions and can be tailored to the interests of the practice. Certificates of attendance can also be issued.

0330 123 2447 www.spiral.uk.com

LEVIAT CPD SERIES



Leviat offers a comprehensive range of CPD seminars covering some of our most popular products across our brands Ancon, Helifix & Halfen, including Support & Restraint of Masonry Cladding, Wall Ties & Head Restraints, Windposts and Structural

Concrete Connections. Available in person or online, our Leviat team have considerable technical experience of applying seminar content in practice and answering questions from both specifiers and contractors. To book a seminar or to find out more, please visit the website.

cpd.uk@leviat.com www.ancon.co.uk/resources/cpds-webinars

SENIOR LAUNCHES NEW RIBA APPROVED CPD



Senior Architectural Systems has created a new RIBA approved CPD seminar which explores the 'Evolution of Thermally Broken Window Profiles'. The new CPD has been developed to both inform and support architects and designers in the specification of thermally efficient window systems to meet the new lower U-value targets as outlined by Part L of the Building Regulations. The seminar looks specifically at the development of aluminium window systems, and the latest generation of windows that feature the innovative use of polyurethane foam for even greater efficiency.

01709 772600 www.seniorarchitectural.co.uk

SOUNDPROOFING SOLUTIONS CPD



Collecta's 'new edition' of their popular 'Soundproofing Solutions' CPD has been approved by RIBA. The previous edition has seen over 500 Architects and Specifiers attend online seminars within the last two years, with glowing testimonials. This update covers the seven fundamental 'Specification Essentials' set by RIBA. Topics covered include Fire Safety, the theory of acoustics covering sound proofing and compliance with Part E/ Section 5 Building Regulations, methods of compliance, pre-completion testing, robust details, new build, refurbishment, and conversion projects.

01634 296677 www.collecta.co.uk/cpdwebinars

SPECIFYING HARDWOOD TIMBER DOORSETS



Urban Front are now presenting 'Specifying Hardwood Timber External Doorsets' CPD workshops online and can accommodate up to 20 participants for each available webinar date, or you can book a face to face if you prefer. The objective of this CPD presentation is to enthuse and inform architects about specifying hardwood internal and external doors it also includes detailed information about Passivhaus doors. All the seminars last for about an hour and count for double points for architects and architectural assistants.

01494 778787 www.urbanfront.com/riba-cpd-offering/book-cpd

Visit www.architectsdatafile.co.uk to subscribe to the CPD Focus newsletter – featuring the latest CPD courses, seminars and documents for architects

Verta column casings go public

Creating practical and attractive interiors is never an easy task, but for public buildings, the challenges can be even more acute, as the design often must be resilient enough to cope with high levels of footfall and the associated risk of accidental damage.

This is particularly true in the leisure, health and education sectors, as well as local authority buildings and service centres, where the combined demands for durability, practicality and aesthetics all need to be met.

Encasement's Verta column casing range provides architects and contractors with an unrivalled scope of materials and finishes and are already widely used in a range of public sector projects.

Local authority buildings

Metal column casings from Encasement's 'Forma' range were chosen by Brighton & Hove Council to conceal structural columns, whilst also forming part of an integrated circular seating arrangement at a five storey customer services centre in city.

Bright colours have been used throughout the centre's interior design and the column casings are finished in a RAL 5015 blue polyester powder coated (PPC) finish, which contrasts with the bright green seating and interior decor to help guide visitors to the correct area.



Maidstone's New Line Learning Academy

Education

Encasement casing solutions are installed in numerous schools, sixth form centres and higher education projects across the UK. Dumfries & Galloway Council's Heath Hall Primary School was one of the first to use Forma metal column casings to conceal exterior structural supports, while at Maidstone's New Line Learning Academy, Forma casings also help create a feature entrance to the front of the building.

Square and rectangular 'Quadra' pre-formed plywood column casings are used extensively in public areas at both Howley



Brighton & Hove Council

Grange Primary School, in Halesowen, and Farnborough Sixth Form College to conceal structural elements and improve aesthetics.

At Liverpool University, eight circular plywood casings are used in the cafe area to conceal existing features located around the perimeter, while a further nine 250 mm diameter casings are used as part of a high-level table design built around existing structural columns.

Healthcare

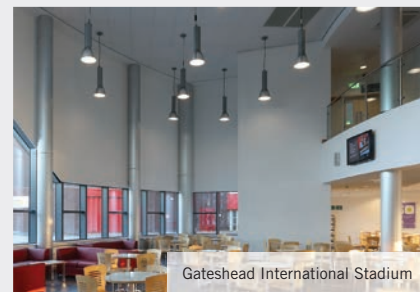
The healthcare sector is major user of Encasement products, including hospitals, health centres and special care facilities. For Blackpool's Moor Park Health Centre, 26 column casings were supplied to the facility including a unique, 7 metre high elliptical casing, from the 'Polyma' range.

Manufactured from glass reinforced polymer (GRP) the bespoke manufactured casing provides a striking aesthetic feature to Moor Park's spacious reception area, yet is also extremely durable and resistant to damage.



Blackpool's Moor Park Health Centre

Elliptical 'Polyma' GRP casings are also being used at a 40 bedroom Extra Care facility, which is operated by Boston Mayflower housing association in Lincolnshire for people with specialist care needs. Measuring 800 mm x 500 mm and standing 2.7 metres high, the casings conceal internal structural column and rainwater harvesting pipe work.



Gateshead International Stadium

Sports & leisure

At Gateshead International Stadium, Encasement supplied and installed 16 'Circa' pre-formed plywood column casings, finished in a brushed aluminium Formica DecoMetal® laminate, to conceal structural columns in the reception and main entrance foyer.

Six of the 350 mm diameter column casings are 7 metres tall and are located adjacent to the building's main curved glass facade, while the remaining 3 metre high casings are installed in the ground floor cafe bar area and upper gallery level.

01733 266 889
www.encasement.co.uk



Lecico
b a t h r o o m s

Water Saving Solutions





Lecico Bathrooms specialise in water saving products designed for a wide range of applications

Lecico Bathrooms product range includes Propelair - the world's lowest water-flush WC, a wide range of low flush WCs (4/2.6 litres), waterless urinals, water saving baths, and a wide range of low flow taps and showers.

Lecico Bathrooms are one of the world's largest manufacturers of sanitaryware, number 2 supplier into the UK, and export to over 50 countries worldwide. Lecico Bathrooms manufactures internationally certified sanitaryware products under Atlas Trade, Atlas Pro, and Design Series brands. All Lecico Products are UKCA, WRAS and LANTAC approved where appropriate and are listed on the UK water label scheme.

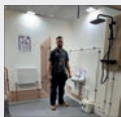
Find out more at www.lecico.co.uk/brochures

Lecico
b a t h r o o m s

EXCLUSIVE UK
PARTNER OF

propelair[®]
The water-saving toilet

HIP Learner of the Year



Elliot Julian, winner from Cornwall College

The finalists of the 2023 HIP Learner of the Year competition descended on the impressive Worcester Bosch headquarters for a two day finale of the well-established plumbing competition. The quest to find the UK's most promising plumbers culminated in a challenge to install a boiler, heat pump and radiator, using copper pipework, as well as a basin and shower connected to a Sanitop Up macerator pump from **Saniflo**. Saniflo was delighted to be a sponsor throughout the competition which included the donation of 13 x Sanitop Up domestic macerators for use in the practical challenges and which have since been donated to the respective colleges.

020 8842 0033 www.saniflo.co.uk

Latest news, views and more

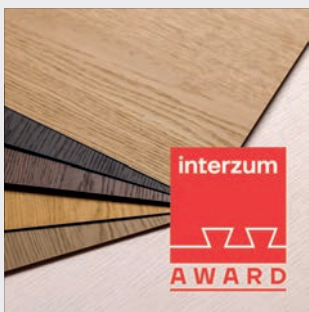


If you like to be kept informed of all the latest news, views, and promotions for the architectural community, the ADF email newsletters can offer you regular updates straight to your inbox. The weekly Editor's Choice newsletter includes top news stories curated by the ADF editorial team, while the monthly CPD Focus and fortnightly ADF Newsletter offer updates

on products, services, events, and learning opportunities available from a wide variety of manufacturers and suppliers.

www.subscribepage.com/adf

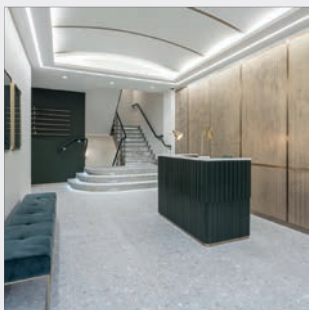
Master Oak wins interzum award 2023



The respected experts from the fields of design, materials science and architecture of interzum awards 2023 have judged **Unilin Master Oak HPL** to have 'High Product Quality'. Looking at innovation, functionality, quality, design and sustainability; the judges have decided that Master Oak has set itself apart from comparable products in the field of Materials and Nature. Master Oak is Unilin's HPL that looks and feels exactly like real oak. Featuring Unilin Timber Touch Technology that adds more depth, clarity and texture than any other HPL, Master Oak is often mistaken for wood veneer. In fact, it is a high-performance HPL surface that offers three times more scratch-resistance, easier maintenance and excellent durability. Master Oak can be used to bring the look and feel of natural oak in a range of applications including furniture, shelving, wall panels, doors and storage. Ann De Blanck, product manager, Unilin Panels, says: "Being recognised for the innovation, functionality, quality, design and sustainability of Master Oak by the respected judging panel of interzum awards 2023 is hugely satisfying."

info.panels@unilin.com www.unilinpanels.com

TTA Awards recognise achievement in the tiling sector



TTA Awards are all about celebrating success in the tiling industry. This year's Awards took place in May and were hosted by BBC presenter Mike Bushell. TTA is grateful to all this year's Gold sponsors: Amber Underfloor Heating, Banks & Lloyd Ltd, BIHUI, Genesis Global Systems Ltd, JACKOBOARD®, Mapei (UK) Ltd, Palace Chemicals Ltd, Polyfab Coatings & Sytems Ltd (PCS), Shackerley (Holdings) Group Ltd, STS Ltd, Tile Mountain Ltd, Topps Tiles Plc, UltraTile (Instarmac Group Plc), Verona Stone Group, W.B. Simpson & Sons Ltd and Weber. The Best Commercial Project (Small) was won by W.B. Simpson & Sons Ltd for their work at Babmaes Street, London. This was an office refurbishment, where the company completed the installation of grey resin terrazzo to the main reception and ground floor staircase, finished beautifully with faceted risers and bronze studs to all treads. The results of this project are stunning, with the offices being transformed with the elegance and glamor that would be expected of a building in the heart of London. There was also a trophy for Highly Commended in this category, which was won by Schlüter Systems Ltd for East Quay, Watchet, Somerset.

0300 365 8453 www.ttaawards.com

FOLLOW ADF ON TWITTER: @ARCHITECTSDF

adf
architectsdatafile.co.uk

A Nordic Royal Beacon

Ireland's first Tibetan Buddhist Temple takes a step towards completion with installation of distinctive tiered roofs covered in Nordic Royal golden copper alloy from Aurubis. Overlooking the Atlantic Ocean in West Cork, the new building was designed in the style of a traditional Tibetan temple and built over three floors, each defined by a Nordic Royal clad roof with a curved-profile and deep overhanging eaves. Dragon heads and other sacred ornaments, hand-crafted from copper in northern India then gilded with gold leaf by members of the

© Leon Rossiter



Dzogchen Beara community, adorn projecting corners and the top roof ridge.

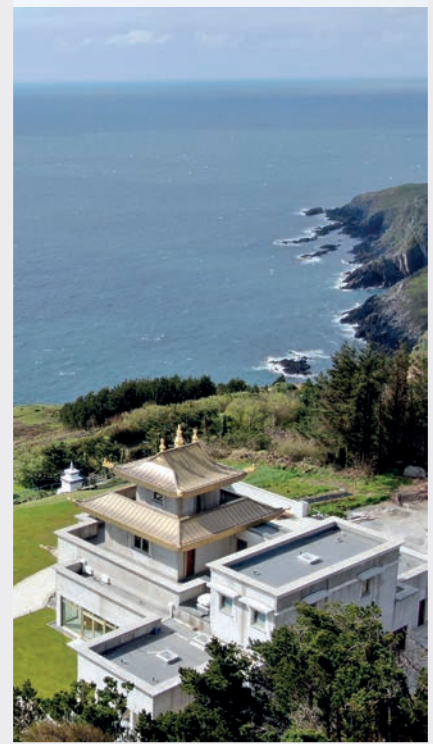
Leon Rossiter, one of the directors and heading up the Temple project, explained: "We trialled different styles of copper facing our harsh marine environment for 18 months. Only the Nordic Royal delivered just what we were looking for. We couldn't have achieved the look of the temple's roofs if we had used any other material." The stunning new copper roofs will be seen for miles along the coastline and from boats at sea.

The innovative Nordic Royal is an alloy of copper with aluminium and zinc, giving it a rich golden through-colour and making it very stable. It has a thin protective oxide layer containing all three alloy elements when produced. As a result, the surface retains its colour and simply loses some of its sheen over time to give a matt finish.

For more information, please visit the website or alternatively you can email.

NordicCopper@aurubis.com
www.nordiccopper.com

© Derek Corr



Changing the perception of crematorium buildings with Vandersanden



A new crematorium facility for Huntingdon Town Council, Huntingdon Crematorium is a collection of buildings equipped with ceremonial spaces and the appropriate crematory functions. The specification of Vandersanden's Perla and Morvan bricks has resulted in buildings that have made a stunning contribution to the landscape of the greenfield site while also helping to change the accepted perception of crematorium buildings. Mark Doohan, managing director at Benchmark Architects, explains: "We were delighted when we were able to find the Vandersanden bricks. We genuinely love the texture and through colour quality of Vandersanden's white Perla and black Morvan bricks. They set off our concept perfectly, with the white brick capturing the light in the way that we envisioned when first sketching out the idea." We're always keen to specify products where we get really good technical support, notes Doohan. "Vandersanden were excellent at providing advice and technical backup whenever we had a question. Since becoming aware of Vandersanden products, they are our go-to source for brick."

01954 268 075 www.vandersanden.com/en-uk

Gilberts sets the atmosphere for a new museum for the future...



The atmosphere in a "world class" space for the curation of cultural artefacts, music, song and dance is being set through a continuous linear approach from Gilberts Blackpool. Gilberts' MBD diffusers up to 21 m long run the length of the main exhibition space, strategically located between acoustic rafters in the ceiling grid to provide two-way supply of fresh air without draughts across the floor space. In the new toilets, Gilberts' SX200 and GX100 air valves respectively provide supply and extract. All have been powder-coated in house to RAL9010. Gilberts' MBD diffusers have been purpose designed to provide a sleek, continuous louvre face to blend with modern architecture. Manufactured in 1.2 m lengths, they have been joined almost invisibly to achieve the length required and mounted on concealed brackets to further compliment to interior aesthetics without detracting from the exhibits below. The smooth, even horizontal discharge of 0.14 m³/s/m avoids cold spots and draughts. Gilberts further manufactured a number of dummy units to continue the ceiling aesthetics where ventilation was not directly required.

01253 766911 info@gilbertsblackpool.com



BUILDING
REPORTSLEIGHTON HOUSE MUSEUM
LONDON


A blend of art & architecture

The former home and studio of renowned Pre-Raphaelite painter Frederic Lord Leighton has evolved as a museum over its long life; its latest reimagining is a sensitive and artistic refurb by BDP, as Tom Boddy reports

London is renowned for its array of world-famous museums scattered across the city. But one which people may be less familiar with is Leighton House Museum – once the home and studio of Victorian painter Frederic, Lord Leighton, and now owned by the Royal Borough of Kensington and Chelsea (RBKC).

Located in the heart of Kensington, the historic building's red brick exterior may deceive passers-by as to its true use, appearing as one of the many grand townhouses in the area. However, the inside is filled with opulent interiors and historic artefacts.

The Grade II* listed building was originally built in 1865, and over its 150-year history, as it's transitioned from a private home to a public museum, it has undergone significant transformations.

The most recent phase, led by interdisciplinary practice BDP, completes the restoration of the house and garden while reimagining the spaces to create a “coherent, inclusive and enjoyable visitor experience,” explains David Artis, architect and director at BDP. The focus has been on consolidating the museum as an amenity for the local community and beyond – this was “a key driver for the Borough,” he adds.

History & context

During the 19th century, London's burgeoning middle class began to invest their disposable income into artworks. This newfound demand for art led to an era of affluence and recognition of artists.

Within this context, a group of wealthy artists decided to construct their own residences on the Holland Park Estate in Kensington, known as the Holland Park Circle, with Leighton's home being among the first to be commissioned.

The original building, designed by Leighton's close friend and architect George Aitchison, was a fairly modest design. But over the next two decades, it became an evolving piece of artwork in itself, as Leighton and Aitchison introduced striking new elements.

Just three years after completion, the house underwent an expansion to enlarge the painting studio on the first floor, and incorporate a store room for canvasses.

Next was the creation of a dramatic new extension (‘Arab Hall’) that has since become regarded as the centrepiece of the home. As an avid traveller to the middle east, Leighton developed a strong fascination with the architecture and artefacts he encountered during his journeys.



© Dirk Lindner



© RBKC; image courtesy Jaron James

The rotunda features a brick 'jacket' that references the details in Arab Hall using a series of 15 bespoke bricks

This enthrallment with all things Arabian inspired the design of the hall, leading him to include a golden dome and adorn the interior with historic tiles, some dating back to the late 16th and early 17th centuries. This striking addition was constructed between 1877 and 1881 and surpassed the original cost of the home.

Two more noteworthy extensions took place prior to Leighton's passing in 1896. The first was the Winter Room, an elevated space designed to support his creative endeavours during the colder months. The second was the Silk Room, a picture gallery lined with green silk that displayed his personal collection of paintings.

Following Leighton's death, the building was transformed into a museum, undergoing several alterations over the course of the 20th century. Among these changes were the construction of the Perrin Wing and an infill extension beneath the Winter Studio to provide facilities for a children's library.

These modifications served to alter the building's original identity as a home and personal studio, turning it into a venue for a more generalised museum and events space. In the process, many of the interior fittings

and finishes were lost. BDP's Artis asserts that the 20th-century additions, which were carried out by the municipal Borough Works Department, were of "lower quality and value, and obscured the reading and understanding of the original house."

Responding to this, the 'Closer to Home' project, initiated in 2008, began the process of restoring the interiors. It focused on redecorating the spaces back to how they were based on historic photographs while returning items from Leighton's original collection back into the house.

Building on this work (by Purcell Miller Triton, undertaken in 2010), BDP's phase in this historic journey looks at restoring further aspects of the home. The refurbishment project focuses on the reconfiguration of the building's facilities to appear as how Leighton and Aitchison originally envisioned while establishing a museum that meets the needs of new audiences without affecting the integrity of the original designs.

Selective restoration projects of this nature are well within BDP's capabilities, as evidenced by their portfolio of heritage sites, museums, and visitor destinations.



Several of these projects have garnered awards, such as the Europa Nostra Medal for their work at Chatham Historic Dockyard in Kent, as well as the Europa Nostra Diploma for The Royal Albert Hall refurbishment.

Brief

In the context of such a sensitive refurbishment, the architects from BDP collaborated with several key stakeholders such as Friends of Leighton House, the National Heritage Lottery Fund and the local community, to craft a comprehensive brief.

Firstly, the general aim was to recover the lost fabric and character of the original house, and thereby help make it more legible for visitors. As a way of reducing the burden placed on the building, an important goal was to relocate the core museum spaces to less 'sensitive' areas away from the house, as well as to better connect it to the 1920s addition of the Perrin Wing.

Part of the project was to enhance the visitor experience by providing facilities for education and care of the collections, while accommodating the needs of all visitors by creating accessibility for all.

Furthermore, the proposal aimed to improve the environmental performance of the house through fabric upgrades and re-servicing.

The support and input from the stakeholders have enabled BDP to "choreograph a finely-judged set of interventions and upgrade measures that reinforce the character of the place," says Artis. The project is the final part of the museum's development, and allows it to "realise its potential as a vital cultural amenity for the local residents and wider public," says the architect.

In with the old

An important element of BDP's methodology focuses on ensuring visitors can distinguish between the original designs and the later additions. Demonstrating this principle, a new entrance and reception area has been added to the Perrin Wing with new physical connections to the original house and garden – "enabling the Perrin Wing to be understood as a later element," explains Artis.

Glazed links connect the Perrin Wing to the original house at both ground level for visitor access, and at the second floor,

OLD TO NEW

Glazed links connect the Perrin Wing to the original house at both ground level and the second floor



All images on spread © RBKC; courtesy Dirk Lindner



ONENESS

A mural entitled 'Oneness' by Shahrzad Ghaffari features in the new stair rotunda that forms the centre-piece of the project

where a new office deck was integrated within the volume of the upper gallery space for staff use. The glazing used here was to “divorce the various elements in a relatively neutral way.”

The architects’ focus was to ensure a harmonious integration of the distinct qualities of both the old and new designs, while “preserving their individual character and identity.”

The masonry infill underneath the Winter Studio, undertaken as part of the 1950s interventions, had encased the iron columns in brick, meaning it couldn’t be ‘read’ as an elevated element, say BDP. They successfully addressed this issue by removing the masonry, revealing and restoring the columns and plinths to their former glory. Artis explains how while this was “technically not too challenging,” the necessary restoration of the original brickwork was “extensive.”

Basement & rotunda

Given the delicate nature of the setting, the original basement has been extended to accommodate new visitor amenities, display and ‘interpretation space,’ and an archive store, as well as a

gallery dedicated to showcasing Leighton’s previously unseen collection of drawings. This subterranean extension was the “preferred way to deliver the majority of the additional brief area with minimal external impact,” say the architects.

At the eastern end of the basement, a new rotunda is a focal point containing a stair and lift, its location being the “most logical in terms of circulation and wayfinding.”

It creates a circuit of movement that encourages the use of the basement as an accessible education and learning area.

To pay homage to the elements of the original design, the rotunda features a brick ‘jacket’ that references the details in Arab Hall using a series of 15 bespoke bricks, plus bespoke radial bricks. The rotunda’s form is a “reflection of the apse that terminates the west end of the building,” say the architects, while its colour and banding detailing provides a “tonal bridge” between the Perrin Wing and the original house’s brickwork.

The interior of the helical staircase features a hand-painted mural by artist Shahrzad Ghaffari titled ‘Oneness’, which in many ways is a “synthesis of what the museum represents





All images on spread © RBKC; courtesy Dirk Lindner



An important element of BDP's methodology focuses on ensuring visitors can distinguish between the original designs and the later additions

today.” Despite BDP conceiving the design before the artwork was commissioned, this combination of art and architecture has “elevated the experience” for visitors travelling between floors.

The rotunda balances the composition of the garden elevation and has become a “centrepiece and icon” for the project, says Artis.

External connection

With certain elements of the new additions impacting on the visual and physical connections to the outside, the project involved reconfiguring the external landscape. Central to this was the enhancement of the visitor's journey from how they travel from the street through to the forecourt, before arriving at the new entrance. This new entrance boasts a glazed door surrounded by faience tiles and stone, “a nod to the teal and gold interiors.” The entrance's transparency offers a view all the way through the building to the garden.

The architects worked with traditional craftsmen as well as more modern methods to create contemporary forms which also referenced the past, using new as well as old approaches. The external faience

panels were produced by UK firm Darwen Terracotta using a combination of digital drawing, hand carving and CNC machining to form the zig zag profile (inspired by ziggurats on the original house). By contrast, Cantifix developed frameless glazing, including large format, curved and integral doorsets.

Before the Perrin Wing was built in the 1920s, the garden had a stronger presence from the street. Part of BDP's goal was to restore this connection as much as possible. To achieve this, four new openings in the ground floor reception area have been introduced, allowing the garden to be “part of the welcome and orientation” of the museum, along with other “key curatorial themes” of the museum. The reception space serves as a place for visitors to relax and familiarise themselves before entering the house.

Situated adjacent to the reception area beneath the Winter Studio, the De Morgan Cafe now occupies a space that was formerly outdoors. To maintain the feeling of openness, BDP has enclosed the area with full height frameless glazing, all while incorporating Yorkstone flooring into the design.





© RBKC; image courtesy Will Pryce

The refurbishment project focuses on the reconfiguration of the building's facilities to appear as how Leighton and Aitchison originally envisioned

Main challenges

Several significant challenges were encountered during the project, particularly concerning the construction of the basement. This was because it involved temporary support of the historic Winter Studio while work took place beneath it. Additionally, the adjacent basement structures required new connections to be established, adding further complexity to the process.

Upon completion of the basement, attention turned to re-levelling the Winter Studio balcony, which had experienced corrosion and expansion of shimming. This deterioration had a detrimental impact on the adjoining masonry, which in turn supported the perimeter glazing. To address this issue, the entire structure was de-glazed, and the architects were able to retain and restore the original patent-glazed roof framing before it was re-glazed with better performing units. The new glazing was sized such that its total weight did not exceed the capacity of the original framing.

Thermal upgrades

The comprehensive environmental upgrade to the museum was driven by a holistic

strategy developed through sustainability workshops. The project has focused on optimising the benefits of reconstructed and new construction elements, as well as plant and services, to enhance the building's overall energy performance while respecting the sensitivity of the listed fabric, alongside the scope of the project.

BDP has used "simple and robust solutions" to meet the energy and carbon saving requirements of Part L2A for the extensions and Part L2B of the existing building. The strategies used have been designed to anticipate potential future improvements to the historic house.

Some of these measurements include "reconfiguring and enhancing the building fabric to minimise leakage into environmentally controlled and sensitive spaces." This included providing shelter and enclosure to parts of the envelope of the original house to reduce heat losses, as well as to the new rotunda and basement, and glazed links. Thermal elements were replaced, including the installation of improved insulation in the Perrin roof. The original lantern lights have been utilised for natural ventilation and daylighting.

All HVAC services have been replaced





with more energy-efficient equivalents. This included the installation of air source heat pumps, variable speed ventilation units with heat recovery, and lower specific fan power. Water-saving fittings have been used throughout the museum, and drought-resistant, native plants incorporated into the soft landscaping. Hard landscaping included semi-permeable areas and stormwater detention via soakaway systems.

On top of this, the project has utilised

durable, self-finished materials that were both 'natural,' and UK sourced where possible, to further reduce the environmental impact of the project.

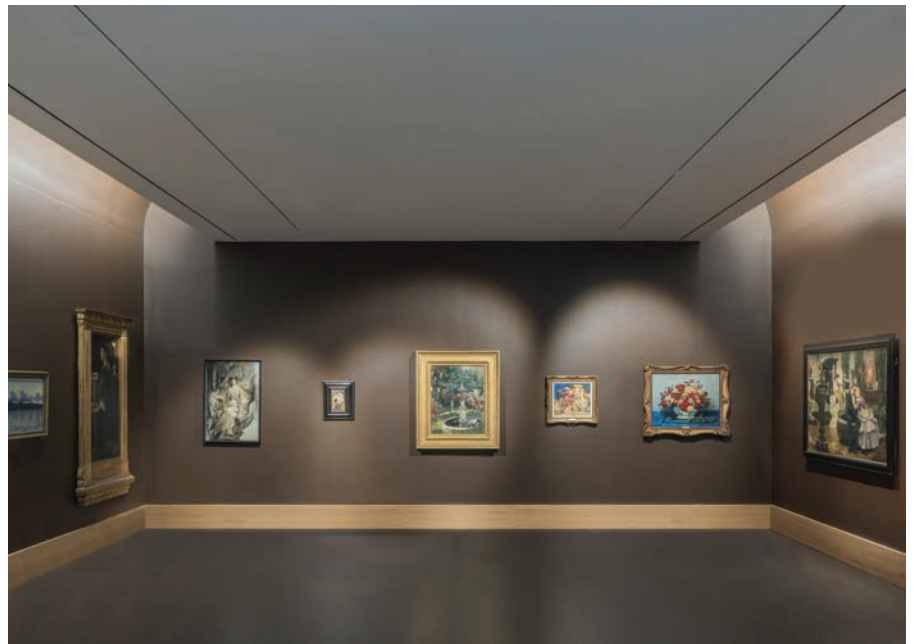
Reaction

Since the project's completion at the end of 2022, the museum has already met its target annual visitor numbers in six months, which "exceeded client expectations."

The restoration of Leighton House Museum has revitalised an important



All images on spread © RBKC; courtesy Dirk Lindner



historic building for the future. The interventions celebrate the Victorian architecture while adding and integrating carefully designed museum spaces into a domestic original structure. BDP's approach has revived Leighton's vision of the house as a piece of art, while also rectifying flawed 20th century interventions. The result allows visitors to fully appreciate the building's opulent interiors and historic artefacts in a more authentic way.

Artis says the collaboration between

key stakeholders was fundamental to the project's success. As part of this, the community-focused, tri-partite funding arrangement as well as the integration of the parties' various requirements "galvanised" the project, and propelled it beyond the design stage "with scope and budget aligned."

And in general, the architectural legacy of the refurbishment is that it has given the original house room to breathe, meaning it is easier to understand." ■

Protect your investment Protect the environment...

with **FREE** professional commissioning of your wastewater treatment system

It's so important not only to have your wastewater treatment system professionally installed but also commissioned, giving you peace of mind that your investment will operate cost-effectively and correctly, both for yourself and the environment.



Graf UK will arrange **FREE** commissioning of your system by a Graf accredited service provider who will register your system to activate your warranty.

For more information go to
<https://bit.ly/GRAFFreeCommission>



10
years
warranty

3
years
warranty

*On technology if serviced & commissioned by a Graf UK accredited service provider



WASTEWATER TREATMENT WITH GERMAN ENGINEERING

For quality, efficiency and reliability, put your trust in a Graf UK system.

Graf UK Limited | Regen House | Beaumont Road | Banbury | OX16 1RH
T: 01608 661500 | F: 01295 211333 | E: info@grafuk.co.uk | www.grafuk.co.uk



Wastewater Treatment



READY SUMP THE PRECAST CONCRETE SUMP

The Ready Sump® is a precast concrete sump that incorporates the features required for building adoptable sewage, drainage and effluent pumping stations. Constructing the benching and lower section of a pumping station from readily available concrete rings allows for rapid installation. To find out more scan the QR code or call our expert team.



ttpumps.com

pumpingstations@ttpumps.com

+44 (0) 1630 647200

SterlingOSB Zero strikes the right pitch



Essex Pitch UK Ltd, which undertakes the most challenging joinery and timber frame constructions, has been making extensive use of West Fraser's SterlingOSB Zero boards including for a development of stick-built homes on a site in south Essex. A director of the company commented: "We choose to use SterlingOSB Zero because it is net carbon negative and more cost-effective than the alternatives. It is also a heavier, stronger material than other OSB boards. The boards are versatile as well as being available in larger sizes when we require them."

uk.westfraser.com/housebuilders

Get full waterproofing installation protection



When carrying out waterproofing installations, it's essential that they are installed and guaranteed by trained and approved waterproofing contractors. It's why Newton Waterproofing's Specialist Contractors (NSBCs) are equipped to provide meaningful insurance-backed guarantees for their waterproofing installations. Newton's NSBCs hold their own Professional Indemnity Insurance and CSSW (Certificated Surveyor in Structural Waterproofing) accreditation, meaning that they can act as the waterproofing designer and take design liability for the waterproofing element of the project.

01732 360 095 www.newtonwaterproofing.co.uk

Renson UK supplies market-leading louvres to impressive London architectural project



Ventilation louvre specialist Renson UK has supplied a bespoke louvre solution to a unique London project. Designed by Spanish architectural firm Selgascano, London's Design District Canteen serves as a food market, with the transparent structure sitting at the main pedestrian access of the Greenwich Peninsula. Working with general contractor Ardmore as well as facade consultant Albany Façade Engineering, Renson UK delivered its market leading 411 standard series built in louvres to this impressive piece of architecture. The louvres are made from aluminium sections and a 2.3 mm² stainless steel 304 insect screen. They offer a 59% visual free area and a 50% physical free area, and for this project were polyester powder coated to RAL 9006 metallic silver. Renson UK National Sales Manager Martin Daniels comments: "We were very pleased to be called on to supply our market-leading louvres to this incredible piece of architecture. At Renson, we pride ourselves on our high-quality, fully-tested ventilation solutions, as well as our ability to deliver bespoke products for unique projects like this."

info@rensonuk.net www.renson.net/en-gb

Latest Schöck BBA Certification raises the bar.

Thermal break technology you can trust.



No need to compromise on performance, quality or service. Schöck products meet full compliance with relevant UK building regulations, are approved by the BBA, NHBC accepted, LABC registered and classified as fire resistance class REI 120.

www.schoeck.com

Crittall windows hit thermal targets at World Heritage Site

Crittall Corporate W20 windows are an important component in the refurbishment and upgrade of a prominent industrial site in historic Bath.

Newark Works is recognised as a masterclass in the retrofitting of heritage buildings that has transformed a former riverside heavy engineering factory into 21st century workspace.

The buildings, dating from 1857 to 1905, are Grade II listed and sit within Bath's designated World Heritage Site. They were formerly the home of world-renowned crane makers Stothert & Pitt but had fallen into serious disrepair. Their location as part of a larger Bath Quays redevelopment spurred their re-use, underpinned by sensitive treatment, to create 40,000 ft² of modern workspace.

"We specified the Crittall W20 system to replace the existing, single-glazed, cast-iron framed windows that were at the end of their life and deemed beyond



repair," said Nick Brown, director of Ferguson Mann Architects.

He explained: "The Crittall W20 system was chosen due to the need to use a window system that could sympathetically reproduce the fenestration of the large industrial windows – many of which were 3.6 m tall – but also provide a huge thermal improvement."

It was recognised that retaining the original cast iron windows and introducing secondary glazing was neither economically viable nor appropriate aesthetically.

"The slim profiles of the Crittall W20 system meant we didn't have to compromise on the amazing amount of natural light coming into the interior whilst improving the air tightness and reducing the overall heat loss of the building through the windows," said Brown.

He added: "Crittall were also able to recreate the opening vent arrangement of the existing windows, meaning we could also improve the natural ventilation provision to the new workspaces."

Consulting engineers Buro Happold calculated that just replacing the existing single-glazed windows with new double-glazed alternatives with a U-value of 1.8 W/m²K would result in a 16% annual energy saving. That translated to 21.4 tonnes of CO₂. Over the building's lifespan of, say, 25 years, that equated to a 535-tonne reduction in CO₂ emissions.

01376 530800 www.crittall-windows.co.uk



F.H. BRUNDLE
SERVING THE TRADE SINCE 1889



Innovative decking solutions...

Synergised™ Connected Aluminium Decking System

- A2fl-s fire rated
- Made from structural grade 6063 T6 aluminium
- Non-combustible
- Quick & easy to install
- No gaps between boards
- Integrated drainage channels
- Non-slip design
- Long lasting & low maintenance

01708 39 80 22

sales@brundle.com

www.fhbrundle.co.uk

Break the mould with thermal breaks for balconies

Thermal bridges in balconies considerably affect the overall thermal transmittance of building envelopes and, according to Nicolas De Vrieze from Leviat, can be the main cause of building defects such as condensation, mould formation, and degradation of materials. Here he looks at the potential engineering answers in detail

In a post-Covid world, the need for accessible outdoor spaces has never been greater, with balconies seen as the optimum solution for residents in high density urban areas. The challenge for developers and contractors is the fact that balconies typically pass through the building envelope due to their fixing details. This can lead to heat loss, higher energy use and potentially damaging condensation and mould growth on the underside of the concrete slab.

With the thermal performance of a building envelope so important, what are the options for specifiers when it comes to fixings at the critical intersection between these building elements, and how can balcony connectors drive time and cost efficiencies onsite?

Energy efficiency is hugely important in today's sustainable designs, and by that token the thermal performance of the building envelope is a key design consideration. At the same time, architects are looking to create stylish, aesthetically appealing, mixed-use developments that combine high density occupancy with accessible outdoor space. Balconies often provide the answer, but as they typically cause thermal bridges, the fixing detail requires special attention to minimise these, and their various negative consequences.

Don't bridge the insulation layer

Insulated balcony connectors provide specifiers with a solution to enable concrete balconies to be constructed while considerably reducing thermal transfer. The compressive, tensile and shear forces of the insulated balcony connection are carried by the purpose-designed reinforcement through a thick, insulated thermal break,





As balconies typically pass through the building envelope, the fixing detail requires special attention to minimise thermal bridging and its various consequences



back to the main concrete structure of the building.

Since the reinforcement passes through the insulation, it is no longer protected against corrosion by a concrete cover; it is therefore important to use a highly corrosion-resistant material at that location – such as stainless steel. An added advantage of using stainless steel is that its thermal conductivity is about a quarter that of carbon steel, which greatly reduces heat loss through the reinforcement.

A robust, Eurocode-compliant design methodology has been developed for the use of insulated balcony connector elements. In addition, manufacturers can provide suitable guidance to specifiers on the most efficient connector layouts, taking into consideration the position of post-tensioning cables.

An increasingly popular method of construction, post-tensioned concrete slabs allow thinner slabs, longer spans, reduced deflections, reduced costs, and will usually result in a more sustainable design solution. Typically, balconies on post-tensioned concrete frames are constructed of conventionally reinforced concrete. Although a viable method, designers and installers can encounter rebar congestion and clashes at the joint between the balcony and main slab.

Post-tensioned connectors

The issue of rebar congestion has led to the development of innovative balcony connectors for post tensioning applications – the result of contractors looking to include balconies in the post tensioning process. Such insulated balcony connector systems allow balconies to be cast together with the main slab and then simultaneously stressed – something that was never possible with conventionally reinforced concrete balconies.

Transition pieces placed between standard load bearing balcony connector elements enable post-tensioning cables to run directly through the structural thermal break at the interface between the balcony and supporting slab, enabling stressing to take place at the edge of the balcony rather than at the thermal break location. This considerably relieves reinforcement congestion and speeds up the installation process. Transition pieces are designed for use with all types and configurations of post tensioning cables currently available on the market, using

either bonded or unbonded strands.

Post tensioning performed onsite in cast-in-place applications gives designers flexibility, allowing them to create original concrete components that are thinner, longer and stronger. Architects can take full advantage of the plasticity of concrete in their designs to create truly amazing spaces.

Accelerating programmes

By using a post-tensioned balcony connector, balconies and the main slab are treated as one area, which results in a number of benefits for the contractor. Firstly, formwork can be installed and subsequently removed at the same time and then be reused on the next level or phase. In addition, concrete is poured simultaneously and tensioned all at once, driving significant efficiencies on construction sites.

Balcony connectors provide continuity to both the concrete reinforcement and the thermal insulation of the building envelope, protecting against the effects of cold bridging, eliminating the risk of condensation and mould growth, and helping ensure the comfort of the building's occupants.

Specifiers need to be confident that the insulated balcony connector system complies with the UK's latest guidance and Building Regulations, with particular reference to fire resistance. Manufacturers have addressed this issue with mineral wool insulation for optimum thermal efficiency and fire resistance. The mineral wool specification is identical to that used for standard insulated balcony connector elements, affording some systems an REI120 fire resistance rating.

Post tensioning strengthens concrete by exploiting its properties when in compression and helping to overcome its inherent weakness in resisting tension. As a critical structural component, balcony connectors transfer tension and compression forces in addition to bending moments and shear forces, maintaining structural integrity and minimising heat loss at balcony locations. With growing pressure on architects and specifiers to make sure that the buildings are safe and comfortable, these high integrity structural solutions offer significant benefits while enabling users to build better, and faster.

Nicolas De Vrieze is product manager, structural thermal breaks & acoustics at Leviat

Ibis warmly welcomes guests with TORMAX Automatic access



The Ibis Styles NEC hotel in Birmingham recently contracted TORMAX to install a double set of automatic sliding doors to the main entrance. The new design more effectively maintains the ambient temperature of reception area, which features a full height atrium, whilst also streamlining busy check-in and check-out times thanks to a more efficient entrance/exit facility. Delivering reliable and seamless access for all guests, the entrance is powered by two user-friendly, TORMAX 2201 door drives. Measuring just 142 mm x 100 mm, these operators are particularly neat and compact, making them unobtrusive for both contemporary and traditional settings. Starboard Hotels tendered for the entrance upgrade to several companies and selected TORMAX based on their reputation for excellent support, both with installation and aftercare. “Although not the cheapest option available” said Andy Burne, property manager for Starboard Hotels. “We look for true value over time rather than taking a narrow view of the initial upfront costs. The result is a smart, contemporary entrance system that provides a better sense of arrival experience for guests.”

sales@tormax.co.uk

Renson UK launches Integrated Ventilation Solutions

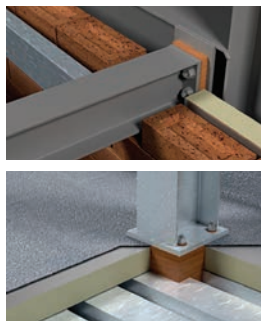
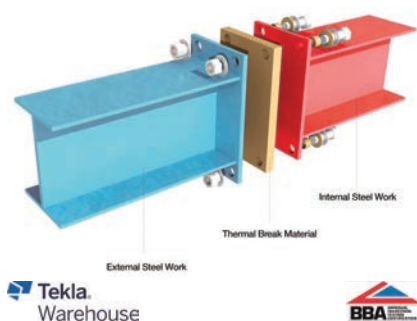


Renson UK has launched an innovative new ventilation solution to the market. Developed with a strategic approach to modern ventilation, Integrated Ventilation Solutions (IVS) is a custom-made, tested louvre design that offers a one-unit solution to guarantee both performance and premium aesthetics. IVS is made to interface with the external facade via the window or curtain wall, and mechanical connections, and with this system, the rear of the louvre is just as important as the front – hidden behind is the thermal protection, the plenums and the duct connections for mechanical installations. Renson UK national sales manager Martin Daniels explains: “By recognising that the louvre isn’t just about what can be seen, but what is going on behind it, and the fact that it can be used as a component rather than just a product, we’re proud to have created this unique one-unit, combined solution with outstanding performance and reliability.” Renson UK has spent the past 50 years designing, developing and manufacturing high-performance ventilation products, supplying fully tested, high-quality louvres and mechanical ventilation products for every application.

info@rensonuk.net www.renson.net/en-gb



ARMATHERM™ STRUCTURAL THERMAL BREAK



Extension for Tekla Structures that creates Armatherm Thermal Break connection/plate. The component automatically takes the plate dimensions and holes of the place it is fixing it to.

Request a quote or visit our website:

+44 1274 591115 **INFO@ARMATHERM.COM** **WWW.ARMATHERM.COM**

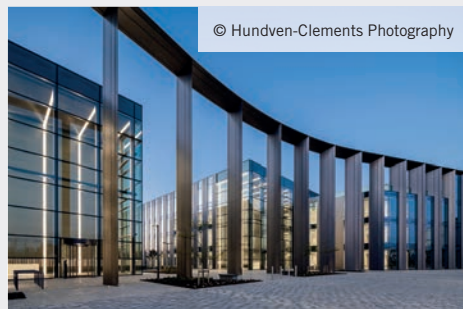
Cambridge Science Park

When architects Scott Brownrigg were given a brief to create a new gateway to Cambridge Science Park they knew the building had to be impressive to attract the desired high tech and Research and Development companies.

The design features a colonnade sweeping across the front of the building echoing the curve of the spine road and a new public space. The column spacing guides occupants and visitors to the entrance – a GEZE Slimdrive SCR curved automatic sliding door.

The building has a BREEAM Excellent rating for its design so the Slimdrive SCR was the perfect complement. The circular entrance features two sets of automatic bi-parting curved glass sliding doors, creating a lobby that minimises heat loss or gain and so helps to contribute to the building's environmental credentials

In addition the Slimdrive SCR automatic curved sliding door provides a light and airy all-glass lobby entrance which blends



© Hundven-Clements Photography



seamlessly into the façade and the large glass atrium, it combines high performance with unobtrusive operation.

Inside the operator's deep canopy an integrated air curtain was installed to further minimise any heat loss and maintain the aesthetics of the building.

The Slimdrive SCR automatic operator also provides uninhibited access and so meets the demands of Part M, BS 8300 and EN 16005, while the access control system ensures security.

Recognising the outstanding design of the building, the Cambridge Science Park has been shortlisted for the 2023 British Council for Offices (BCO) Awards. The BCO's

primary objective is to define excellence in office space.

Ross Mcwatt, associate architect at Scott Brownrigg said: "We have worked with GEZE several times, they have the same focus as we do in terms combining sustainability, accessibility and aesthetics."

Richard Richardson-Derry, national specification manager at GEZE UK added: "This is an outstanding building, that meets many demands, we were delighted to play a part in creating an entrance and achieving the criteria of the brief."

01543 443000

www.geze.co.uk



brings spaces to life

Limitless³

PORTAL HS provides the best outlook for a light and barrier-free life.

❶ Flood the room with natural daylight. The fixed glazing merges seamlessly into the floor with the ECO PASS SKY threshold. ❷ When the sash is open, the minimal threshold height allows barrier-free access to the outside. ❸ The DRIVE axxent HSA integrated lift & slide drive can also be operated via an app for even greater convenience. When design makes life easier: that's room comfort. info-uk@siegenia.com

SIEGENIA Window systems · Door systems · Comfort systems

Available in timber and the following PVC profiles:
 Schüco CT 70 / LivingSlide / ThermoSlide
 Veka Topline / SLIDE 82 / MOTION 82
 Decuninck HS476 / Monorail LS
 PVC GEALAN S8000 / S9000
 Profine Premidoor 88 LUX / 76
 Rehau Genio / Synego
 Salamander evolution Drive / ID
 Aluplast HST 85

Sto products selected for 165,000 m² new children's hospital in Dublin

External wall insulation specialist, Sto, has been selected to provide a suite of products for a new 165,000 m² hospital in Dublin, Ireland. Scheduled for completion in 2024, the New Children's Hospital will comprise more than 6,000 rooms spread across seven storeys.

Main contractor, BAM, which was responsible for designing, engineering and managing the facade packages, chose Sto products to meet performance requirements set by BDP, a multi-disciplinary practice of architects.

To maximise thermal efficiency and fire protection, the StoTherm Mineral external wall insulation system is being used. The project will also feature the StoSilco silicone resin render and a specialist Sto facade paint to create a colourful and highly durable exterior that won't fade.

With work still being completed on site, the Sto products are being applied by Dublin-based SF Plastering. Featuring



non-combustible mineral fibre boards, the StoTherm Mineral system has been installed onto a light steel frame using Sto-Rotofix Plus mechanical fixings. Uniquely, these enable the insulation boards to be adjusted after installation to accommodate surface irregularities, ensuring a smooth surface prior to rendering.

To create multiple colours across the exterior, the Sto render was selected in shades of mauve, yellow, orange, green and aqua. Once applied, this will provide a high

level of water repellence and water vapour permeability, making the façade resistant to the build-up of dirt and reducing the growth of algae and fungus. StoSilco X Black facade paint was applied to the darker colours to ensure these won't fade over time.

The New Children's Hospital is being brought forward by the National Paediatric Hospital Development Board and will combine services currently provided at three children's hospitals in Dublin. When complete, it will offer a world-class facility for Ireland's sickest children and young people, and be the country's primary centre for paediatric education, training, and research.

The hospital's design evolved following extensive dialogue with stakeholders, including staff, families, young people and children who are former or current users of the service.

0330 024 2666 www.sto.co.uk



Zenon Insulator for GRP Rooflights

**MORE EFFICIENT,
LIGHTER SPACES,
NATURALLY**

Hambleside Danelaw's unique honeycomb Insulator offers significant improvements to light transmission and diffusion in industrial rooflights. Its lightweight transparent cell structure is perpendicular to the plane of the rooflight, maximising natural daylight from every angle.

Unlike traditional alternatives, Insulator can deliver extremely low U-Values without compromising light transmission; and with a fraction of the embodied carbon.

And at the end of its service life, Insulator is compostable. The natural choice for low-carbon daylight.



www.hambleside-danelaw.co.uk/zenon-rooflights

Hambleside Danelaw
Building Products



Safe roof access, safety, security & fall protection **from Bilco.**



Fixed Vertical Ladder



Companionway Ladder



Retractable Ladder



Step Over Unit



Bilguard® Fall Protection



Roof Edge Protection

Our range of roof access and safety products enable easy and secure access onto and around the roof.

Solutions for roof access via a hatch or smoke vent, fall protection, security and step over or up and over units for access over ducting, parapet walls or any other obstructions.

Manufactured to the highest standard, they comply with National Building Regulations ensuring the safety of maintenance personnel at all times.

So the next time you need safe roof access, make sure it's a Bilco.



NBS Chorus



NBS Source
PARTNER

MADE
IN THE UK

Call us on 01284 701696 www.bilcouk.co.uk



On hand to serve the housebuilder



Haddonstone has built strong relationship with the UK's housebuilders. Toby Marlow is the director leading Haddonstone's Building and Construction team. He is engaged on a day-to-day basis with ensuring client architectural projects are run and completed to achieve best possible outcomes.

Callum Jensen fills the complementary role of export and business development manager, overseeing all the company's sales and other activities outside the UK. Haddonstone has always invested to ensure its diverse range of standard products, as well as its continuous output of bespoke items, are manufactured to exceed industry standards.

www.haddonstone.com/en-gb/building-and-construction

ASWS deconstructs listed facade



ASWS was brought in by a long term client to dismantle, catalogue and store all of the components to the listed facade of the Former Daily Express Building. This was done in order to facilitate the demolition of its later extension, together with the much wider redevelopment of the site. The contract is the latest in series of high-profile projects where ASWS has provided its unique enablement service on behalf of demolition specialist, Erith. The lead site manager for Erith, Sean Morris, commented: "We have worked with ASWS on a number of projects in recent years and they have done an outstanding job again on the Express building, enabling our work to proceed on schedule."

asws.co.uk

Specialists in refurbishment of steel windows



The Steel Window Association members are the established, proven experts in the renovation and sympathetic refurbishment of steel windows and doors in both domestic and commercial premises; typically, those in listed buildings or properties in

heritage and conservation areas. One of the best qualities of a steel window or door is its longevity and this is where refurbishment and servicing are vitally important; this is where SWA members can help. Options range from a very basic ease and adjusting, where the windows and doors remain in-situ and are serviced, to a full in-situ overhaul involving significant paint removal and redecoration, where possible.

www.steel-window-association.co.uk

New modular Highline 235 fan coil range



British heating and cooling equipment specialist Diffusion has launched its new Highline 235 modular fan coil range, differentiated by design it has been developed to create the perfect indoor environment at work and at home. With quality, performance and flexibility at the heart of everything Diffusion does, the Highline 235 range of fan coil units offers modular design, compact dimensions and advanced components that deliver low sound levels, reduced energy consumption and optimal performance. Comprising eight models, including 13 fan combinations, the Highline 235 range suits a wide variety of applications.

020 8783 0033 www.diffusion-group.com

GARADOR

The Garage Door People

GaraRoll Roller Doors Space Saving and Convenient

View full range and technical specifications
online at www.garador.co.uk

CALL
01935 443722
TO DISCUSS
YOUR PROJECT



- 1 Full box cover protects door curtain when door is open
- 2 Electrically operated with 2 bisecur hand transmitters
- 3 Spring assisted design and automatic safety reversal
- 4 Rubber floor seal and brush seals in guide rails

Garador offers free upgrade on its sectional garage doors



Garador is now offering a free upgrade to Secured by Design on its premium sectional garage doors. SBD (Secured by Design) is a police driven initiative which offers official recognition to products which meet specific security standards and provide a high degree of resistance to attempted attacks.

Garador is offering this highly regarded SBD status as a free upgrade on all its sectional garage doors that meet the eligibility requirements. These include the 42 mm Premium insulated model Garador sectional garage door, without windows, fitted behind the opening and automated by a GaraMatic operator. The door must also be fitted to the Secured by Design standard.

Garador's managing director Jon Watson said: "Our Sectional Doors are among the best engineered, best looking doors on the market. Today, when garages are so often used to store valuable equipment, security is vital. Offering this free SBD upgrade on our sectional doors will provide our customers extra assurance that these doors are highly secure and will protect their belongings."

01935 443722 www.garador.co.uk

Airtightness simplified for residential development in Dublin new town



Wraptite® the only self-adhering vapour permeable air barrier certified by the BBA is at the heart of an innovative mixed-use town centre development in south Dublin. The Cherrywood project is a Strategic Development Zone that will create a new town including over 7,700 new homes, six schools, three major parks, and retail and leisure facilities. Partition and ceiling specialist contractor Platt Reilly installed the Wraptite System, from the A. Proctor Group, as an external air barrier and alternative to a traditional standard breather membrane. The use of conventional membranes require mechanical fixing and add to the overall installation time. In this case, the Wraptite self-adhesive membrane was applied externally, quickly and easily to the external steel frame in continuous pieces. The self-adhered nature of Wraptite and its high level of water resistance and simplified detailing made it an ideal choice. Wraptite is designed as an effective vapour permeable air barrier to maximise the energy efficiency of buildings, combining the critical properties of vapour permeability and airtightness in one self-adhering membrane.

01250 872261 www.proctorgroup.com

UfAC system provides design freedom



AET's UfAC system provides design freedom by using the floor void for air conditioning and ventilation instead of traditional ceiling-mounted building services. UfAC's conditioned air module (CAM) unit handles air supply and exhaust, and strategically located Fantiles

ventilate the space above. Its modular design allows each zone to operate independently at very low pressure, achieving up to 30% savings on energy and CO₂ emissions compared to conventional ceiling-based systems. UfAC contributes to BREEAM, LEED, and WELL accreditation and has a positive impact on embodied carbon.

01342 310400 www.flexiblespace.com

Expansion of award-winning NVHR range

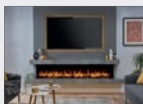


Breathing Buildings, a leading provider of controlled natural and hybrid ventilation systems, has added to its award-winning natural ventilation with heat recycling (NVHR) range with its new NVHR® 1700. This larger unit is ideal for leisure centres, halls, sport facilities,

shopping centres, offices, schools, and other buildings with high heat gains, with the NVHR® 1700 offering excellent ventilation and thermal comfort. Meanwhile, in school classroom applications the NVHR® 1700 now allows one unit to be specified rather than two, which means a simpler and quicker installation.

01223 450 060 www.breathingbuildings.com

Introducing the new iRange Slimline range



Comprising of six models the new iRange Slimline builds on the highly successful iRange range, providing the same features in a slimmer form factor. With models ranging in size, there is an installation option that suits every interior. A

range of limestone suites and trim accessories ensure that you can personalise your fire to your desires. The range has been designed with personalisation in mind, with three different flame colours, nine different fuel bed colours, and optional LED lighting with thirteen colours. There is also app control, enhancing the usability of the fire. Please visit the Charlton & Jenrick Ltd website for more information.

01952 200 444 charltonandjenrick.co.uk

Combining air conditioning and air quality



Panasonic Heating & Cooling Solutions is enhancing its range of air conditioners with the new, wall-mounted TZ ZKE which has the air cleaning nanoe™ X technology built-in as standard. Designed to fit in the smallest spaces of any home, the TZ offers smart comfort in a compact unit with an

energy efficiency rating of up to A++ for both heating and cooling. nanoe™ X works independently from the heating and cooling operation when the unit is in fan mode, thus improving protection and the indoor environment, 24 hours a day, 7 days a week.

0808 2082115 www.aircon.panasonic.eu

Circular construction requires effort every step of the way

The construction industry cannot minimise its way out of the climate crisis. There is a need for buildings with a low carbon footprint – and for healthy, durable materials which can create value in new cycles. Troldekt A/S has interviewed frontrunners of the circular economy for an online feature

It will take more than just efficiency enhancements and process optimisation for us to achieve our goal of sustainable building. This is the message from the well-known Dutch architect Thomas Rau, who established RAU Architects, and in 2013 was named Architect of the Year in the Netherlands. The transformation he is calling for fundamentally changes our role as humans on Planet Earth.

“The biggest misconception is that we think we have to build buildings. In future, buildings will be a product of a logistics process,” he says. “In the same way, raw materials will not be raw materials either,

but nature’s works of art or limited editions, and in future we will need to regard buildings as repositories of such ‘limited editions’,” he says.

The interview with Thomas Rau is part of a new online feature from Troldekt A/S which produces acoustic wall and ceiling solutions. In the feature, leading players in architecture and property development share their views on the path to circular construction. It is a path that requires effort at every stage of the life cycle of buildings – from the production of materials, through the construction process, the operational phase and right up until the recycling or reutilisation of materials.

The new online feature describes how Troldekt works with a range of sustainability initiatives in the production of acoustic panels – and environmental product declarations (EPDs) are a key tool here.

“Transparency and thoroughness have been keywords for us in working with our EPDs. Among other things, we have chosen



to have separate EPDs for our various products rather than just working with average values,” says Vibeke Pedersen, head of engineering department at Troldekt A/S.

In an interview with the cement manufacturer Aalborg Portland’s CEO Michael Lundgaard Thomsen, the feature also looks behind the scenes at the development of the new FUTURECEM™ cement type, which has a 30% lower carbon footprint than conventional cement.

Finally, the feature includes reports from a number of inspiring buildings that have been certified according to leading sustainable building standards.

01978 664255 Troldekt.co.uk

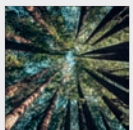
ROCKWOOL® launches new SoundPro Guide



To support architects in selecting acoustic solutions for education and residential applications, **ROCKWOOL®** has launched ROCKWOOL SoundPro. The specialist guide combines technical data, product information and the latest regulatory advice in one place, aiding the specification of stone wool solutions for settings where sound insulation is key. ROCKWOOL SoundPro outlines the importance and principles of good acoustic design and how to effectively enhance the acoustic capabilities of building projects. As noise pollution is now regarded as a public health problem that affects millions across the UK, the need for effective acoustic insulation in our buildings is more prevalent than ever. As such, ROCKWOOL SoundPro includes various strategies and functions that can reduce the amount of unwanted noise transfer through walls, floors or roofs. Complementing these approaches are the latest ROCKWOOL solutions that provide acoustic benefits for each application area of the building, including internal wall solutions, facade and external wall solutions and flat roof solutions. This guide also summarises acoustic regulations for both new and existing and residential and education settings.

01656 862 621 rockwool.com/uk/soundpro

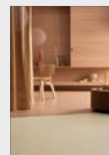
At Level 4 on CSR Performance Ladder



Keller Kitchens is well known for the pioneering approach to sustainability and eco-consciousness which permeates every part of the business. Another step in the company’s eco-journey sees Keller granted a three-year extension of Level 4 on the CSR Performance Ladder. The CSR Performance Ladder makes it possible to develop CSR themes continuously through a management system and in consultation with the stakeholders. Tim Spann, Keller’s UK national sales manager, explains: “In this way, it is possible to do business sustainably with the right balance between People, Planet and Profit. It’s a great achievement.”

www.kellerkitchens.com/company/corporate-social-responsibility

A naturally climate positive solution



A new independent EPD has verified that **Forbo Flooring Systems** 2.0 and 2.5 mm Marmoleum sheet collections are now naturally climate positive, cradle to gate, without offsetting. To celebrate, Forbo has refreshed its popular Marmoleum Cocoa collection with a variety of new shades to allow specifiers to create beautiful, contemporary interiors, whilst contributing to the circularity of a building. Forbo’s collection is manufactured from 97% natural raw materials, such as flax seeds, jute and rosin; and 43% recycled content including upcycled cocoa husk waste from the chocolate manufacturing industry.

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

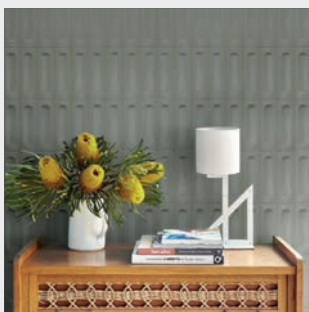
Luceco at Meadow Mill



Luceco has recently supplied luminaires to a residential renovation in Stockport. Andy Whalley, project manager at Luceco said: “We worked with Hurstwood Environmental Consulting, based in Bolton, regarding the electrical services within this Grade II listed building. The mill’s original features have been sensitively retained with the original brickwork along with the steel beams and large windows, therefore the lighting design had to be carefully considered to compliment the surrounding environment. We lit the communal and circulation areas, plant rooms and car park facilities for around 175 vehicles. We also supplied luminaires for elements of the living spaces.” LED luminaires installed included Celeste and Climate both with dimmable microwave sensors, Atlas bulkheads and Tempus emergency downlighters. Celeste is an attractive circular LED luminaire featuring a ‘corona’ backlight effect with a direct / indirect light distribution. The fitting is ideal for many commercial and residential lighting applications offering up to 100,000 hours working life and available as standard output, digital dimming and with microwave sensor as used at Meadow Mill.

01952 238 100 luceco.com/uk

Parkside launches Pembury



Pembury is the new soft touch matt tile with 23% recycled content from **Parkside**. A small format matt tile also available in a striking 3D option, Pembury from Parkside brings a unique look to commercial interiors needing the durability and low maintenance of porcelain tiles. In 12 warm and cool neutral shades with variation for an organic look, the tile adds a smart finish to wall and floors. Pembury's 3D lozenge relief design adds interest to feature areas on walls and can be complemented by coordinating square (10 x 10 cm) or rectangular (5 x 15 cm) formats. The lozenge design of Pembury's 3D tile gives a high quality contemporary twist on Bauhaus, echoed in modern neutral colours such as the terracotta red of Mattone, fern green of Salvia and the crisp off-white of bone. These classic tones have been refreshed and updated for a luxurious palette. Pembury is a tile that's modern, yet with a distinct and familiar reference. Pembury's matt finish enhances its understated luxury feel, for a floor and wall tile that offers the longevity of porcelain, but which has a soft natural quality that brings an unexpected look to tiled areas.

0116 276 2532 www.parkside.co.uk

LOVE FEEDBACK

Good advice, impeccable support and timely dispatch and quality products.

That's what our customers say about Strand Hardware.

But we never rest on our laurels. We strive to be the best we can be, delivering outstanding service to you.

#LoveStrand



 LinkedIn

 Twitter

☎ 01922 639 111



✉ info@strandhardware.co.uk

Take the lift and slide route

Ryan Thompson from SIEGENIA UK explains why architects need to consider lift and slide doors as an aesthetic and secure alternative to the near-ubiquitous choice of recent years that is bifold doors



With the recent hot summers and the events of the past few years meaning people are spending more time in their houses either for work or socialising, the idea of being able to completely open up your house to the outside is extremely appealing and has led to a resurgence in bi-fold door installations, both in new builds and renovations.

This is understandable as there are a number of extremely high quality and good-looking solutions on the market. However, it is important for architects and developers to know that there are alternative options available which can maximise the natural light into the home without compromising on performance and security. Indeed, these factors may even be enhanced.

An alternative to bi-folds

While bi-fold doors certainly have their merits, there are reasons to look at

alternative solutions, such as lift and slide doors. Although we have been blessed with good weather over the past few years, the British climate is still notoriously unpredictable, meaning that for many months, doors will remain firmly shut.

When this is the case, sliding doors provide extremely large glass areas with very minimal profile, and therefore a less disrupted view of the outside from the warmth of the inside. Plus, when the doors are open, lift and slide doors save space for the homeowner, in contrast to folding doors.

Keeping rain out & heat in

When thinking of sliding doors, many people's minds might go to the traditional inline sliders, which could be cumbersome, tough to operate and can be lacking in terms of sealing. These are substantial hurdles in times where generational living

Sliding doors can maximise the natural light into the home without compromising on performance and security



The tight seals on lift and slide systems not only offer fantastic weatherproofing and energy efficiency properties, but also make them extremely secure

and energy saving are such crucial topics for designers and householders. However, modern lift and slide doors are designed to be extremely smooth running. They also offer excellent 'compression' as the wheels and gasket drop into place and create a firm seal when the doors are closed. Indeed, this is a major benefit of lift and slide doors over other types of doors. Their superior sealing means that when our inevitable inclement weather does arrive, homeowners are well protected from the wind and rain, and can save money on their ever-rising heating bills due to the excellent compression and extremely high energy efficiency which comes with having large, glazed areas.

Ease of operation

It has already been noted that large openings are a significant trend at the moment, and using sliding doors can maximise the amount of light that doors let

in when closed. Studies show that we spend up to 90% of our time indoors, therefore being able to optimise the amount of natural light is crucial to our wellbeing.

It could be thought that large amounts of glazing would make big doors unworkable due to their weight, yet lift and slide systems can be suitable for almost any project, as ranges are available which can carry sashes up to 3.3 metres wide and up to 400 kg in weight. Not only that, but with good quality hardware, even extremely large and heavy doors such as these can be easily and smoothly moved. And, as the gaskets retract, doors of any weight remain durable and long lasting, as the gaskets are not exposed to wear and tear as you may usually expect.

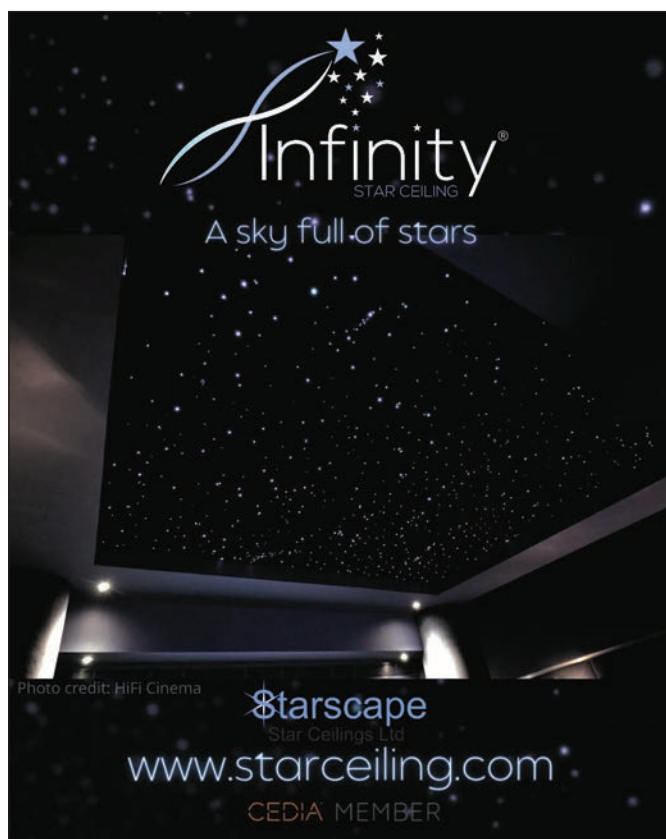
All of this can be achieved with extremely slim profiles given the right hardware. Glazing can be achieved down to – or even into – the threshold to maximise the view outside. It can also be an accessible solution, with low thresholds in accordance with accessibility standard DIN 18040-2. This, teamed with the long-lasting smooth running of the doors, makes them a solution suitable for all users and generations.

Maintaining the highest levels of security

Security is, of course, always a major concern for designers, developers and homeowners; this seems to be an even bigger issue than ever with a recent survey showing four in 10 adults have put in place DIY security measures for their homes, such as stronger locks, alarm systems and camera doorbells in the past year alone. 6% have even purchased a dog to ward off criminals. Large glass doors can be seen as a weakness in terms of security, however there are a number of lift and slide systems that are now PAS 24 certified, and some that are even capable of achieving security class RC3.

The tight seals on lift and slide systems not only offer fantastic weatherproofing and energy efficiency properties, as previously mentioned, but also make them extremely secure. Therefore, opting for large sliding doors need not be seen as detrimental to the security of the house, but could even enhance it.

Ryan Thompson is general manager at SIEGENIA UK



Infinity
STAR CEILING
A sky full of stars

Photo credit: HiFi Cinema

Starscape
Star Ceilings Ltd
www.starceiling.com
CEDIA MEMBER

BRITON DOOR CLOSERS



ZEROplus

- Adjustable EN power sizes
- Fire tested to BS EN 1634-1:2000
- Optional mechanical hold-open kit
- CE and UKCA marked
- 10 year performance guarantee



CAM ACTION



REGULAR ARM

For Doors that Close Smoothly & Securely. Every time.

Need premium, high-performance closers for your doors? Want door closers that are fire rated and built to last? The Briton range has been designed, manufactured, and tested to the highest standards. Straightforward to install and suitable for various door sizes, Briton door closers are an excellent choice whether you're looking for a fixed-power, compact unit or a heavy-duty, cam-action closer. Order yours today.

ZERO SEAL SYSTEMS LTD: 01785 282910
FIND OUT MORE ABOUT US AT: ZEROPLUS.CO.UK

SIMONSWERK

TRITECH

High performance and strength



Visit us!

LONDON SHOWROOM
45 Great Sutton Street,
London, EC1V 0DE



TRITECH

- solid brass, concealed bearing hinge
- high performance CE marked
- weight carrying capacity up to 160kg
- available with 14 designer finials
- various finishes including PVD

info@simonswerk.co.uk
www.simonswerk.co.uk



Dušo – the long life eco shower

Suitable for a wide range of sports, leisure, campsite and holiday-park settings, the Dušo from Horne Engineering is a stylish pre-plumbed shower that is slimline and lightweight, yet robust, practical, and cost-effective (whole lifetime).

It's got oodles of visual appeal; four colour options for shower spray-plate and push-paddle timed flow control – aqua blue, bright yellow, grey or black – to complement many interior design palettes.

Combined with its brushed aluminium column and polished chromium head, the Dušo is a simple but elegant alternative to recessed or exposed pipework, head and button installations.

Pre-plumbed for quick and efficient installation, it's perfect for small groups of showers fed with pre-blended warm water from a single upstream thermostatic mixing valve (TMV).

The top entry pipework keeps pipe runs to a minimum for better Legionella control, and time can be saved as fewer TMVs require maintenance.



The Dušo stands tall at 1,176 mm and, at its recommended mounting height of 1,950 mm, easily accommodates users taller than 6', while also allowing smaller children

to reach and operate the simple push-paddle (875 mm from FFL).

Increasingly important in the road toward net zero, the Dušo sports strong eco-credentials, from minimal, but recyclable, material content to water and energy-saving features. The timed flow control – standard duration 60 seconds (or 30 seconds) – ensures there is no excess wastage of pre-heated water, and the integral flow regulator delivers a steady 8 Litres per minute. This combined flow rate and duration offers the optimal balance for an effective shower, a happy user, and savings for the facility operator.

For facilities management personnel, the Dušo is also simple to clean and maintain with easy access to active components for cleaning or replacement.

Join Places Leisure, Better Leisure, Everyone Active, Freedom Leisure, Fusion Lifestyle and many more leisure operators in selecting the Dušo for its long and easy life.

01505 321455

b.link/DusoSport

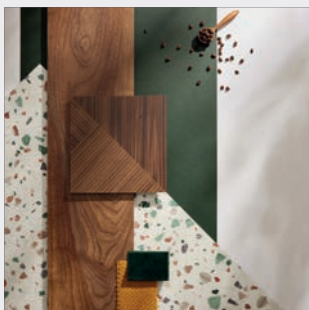
Mapei aids a safe floor installation at Sunningdale



A Mapei system has been used by Titan Flooring to promote a fast and safe floor installation at Sunningdale SEN School in Sunderland. The project included installation of vinyl and carpet tiles throughout the £12.5 million new-build school. Sunningdale SEN School is the city's only specialist school for children with severe, profound and multiple learning difficulties. Titan Flooring installed Mapeproof One Coat – a single application damp proof membrane – to protect the new floor coverings from residual moisture. All-purpose primer, ECO Prim T Plus, was then applied to bond the damp proof membrane to the levelling and smoothing compound - Latexplan Trade. ECO Prim T Plus features a solvent-free, low odour formulation, with EMICODE EC1 Plus for very low emissions of VOC. Following installation of the Latexplan Trade – which benefits from a low odour and protein-free formulation – Titan used two Mapei adhesives for the floor installation: solvent-free Ultrabond ECO Tack TX+ carpet tile tackifier and Ultrabond ECO V4 Evolution all-in-one adhesive for the vinyl. Both adhesives also feature a very low VOC formulation, with EMICODE EC1 Plus certification.

info@mapei.co.uk www.mapei.co.uk

Find your design with Moduleo Roots



The new Moduleo Roots collection from IVC Commercial puts you in touch with the latest looks in Luxury Vinyl Tiles with the quality to excel in commercial interiors. Roots connects spaces to the natural world through its wood, stone and herringbone designs that are as diverse and as vivid as nature itself. The collection is available in three qualities, so you can choose a Luxury Vinyl Tiles floor that excels for your project. Made in Belgium, Moduleo Roots features up to 30% recycled content using waste from IVC Commercial's own recycling facility. For the very best in true to nature designs, Moduleo Roots 55 EIR features a wear layer with a texture that matches the design beneath and a super matt finish to enhance the authentic look. In wood designs such as the contemporary Galtymore Oak and weathered look of Nashville Oak, a range of smart herringbone floors and the stone of Mustang Slate, Roots 55 EIR is the range-topping Luxury Vinyl Tiles floor for projects that need the ultimate combination of natural looks, durability and ease of maintenance. Every Moduleo Roots floor is easy to maintain, resisting stains and scratches and making it easier to lift dirt.

info@ivc-commercial.com www.ivc-commercial.com

Mapei connects surfaces at BT's global headquarters



An extensive porcelain installation, at BT's new global headquarters, has recently been completed by Stone & Ceramic using a Mapei system. The project – at One Braham in Aldgate, East London – featured Solus terrazzo, terrazzo-effect flooring and porcelain tiles throughout the reception area, stairs, landings and lift lobbies. It was completed for main contractor, ISG. The stunning terrazzo-effect floor spanned the 800 m² ground floor reception area, 15 stair levels, treads, landings and a further 100 m² client check-in area. Stone & Ceramic used Mapei Mapeguard UM 35 – a waterproofing, uncoupling and anti-fracture membrane – throughout the floor areas. Tiles were installed with Mapei's Keraquick XL Fibrelite adhesive – a fibre-reinforced high yield cement-based rapid setting adhesive – and Kerapoxy Adhesive – a two-component epoxy resin based adhesive – was used to bond tiles to metal staircases. The lift lobby areas were finished with a large format Solus porcelain design; Stone & Ceramic installed the 1,200 x 600 mm tiles with Mapei's Ultralite S2 adhesive – a one-component, high-performance, highly-deformable, lightweight cementitious adhesive.

info@mapei.co.uk www.mapei.co.uk

Forbo combines quality with affordability

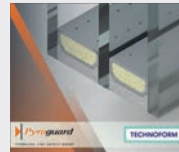


Image credit Ben Dale

Alumno conceived and delivered a sophisticated and welcoming space for Element Bermondsey, a new student accommodation overlooking Bermondsey Spa Gardens. To do this, Forbo Flooring Systems' Sarlon and Safestep floor coverings were specified, for their technical and aesthetic qualities. Forbo's Sarlon 19 dB was specified in Silver Concrete for the hallways and kitchen areas, and Anthracite Nairobi in the bedrooms; both offer an attractive, neutral baseline for the rooms. Forbo's Safestep product was used in the ensuite bathrooms, offering a good level of slip resistance.

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

Combining energy efficiency and fire safety



Recognising the increased attention on energy efficiency and sustainability, Pyroguard and Technoform UK have successfully collaborated on a test programme and launched a new fire rated solution: the use of high-performance warm edge spacers with Pyroguard fire safety glass. Available for use

in a range of Pyroguard's fire-rated Insulated Glazed Units (IGUs), this development now enables architects, contractors, facade engineers and fabricators to achieve greater thermal properties and improved unit performance under test conditions.

01942 710 720 www.pyroguard.eu



Attractive
Cost Saving
Protection



Prevent everyday wear and tear in busy environments, with Yeoman Shield's extensive range of maintenance free, wall and door protection.

Our hygienic, easy-clean products, provide an attractive and economical solution to protecting all types of surroundings. You'll find costly repainting and repair becomes a thing of the past!

A comprehensive Fire Door repair & maintenance service available with Yeoman Shield Fire Door Services.

Call **0113 279 5854** or email
info@yeomanshield.com
www.yeomanshield.com



Advanced protects unique listed home of timber craftsman

An intelligent fire alarm control panel from fire protection solutions manufacturer, Advanced, has been installed in The Steading, the home of sculptor and furniture maker, Tim Stead MBE.

The Steading is an A-Listed building, located in Blainslie near Lauder in the Scottish Borders, and was both the creative centre and home to the Stead family across several decades. It was purchased by the Tim Stead Trust in 2021 and a programme of restoration work has included the addition of an Advanced Go new-generation, single-loop fire alarm control panel to protect this historic home.

Fire and security service providers, Safe Services, installed the Advanced Go fire alarm panel in The Steading and were involved from the design stage through to installation and commissioning. The Advanced Go panel is integrated with EMS Firecell radio equipment for a complete cable-free fire system - which was an essential requirement to preserve and

protect the unique interior of the building.

Go is the ideal solution for a wide range of single-panel sites – from restaurants, bars and guesthouses to small offices, shops, salons and surgeries. On straightforward jobs, Go's fuss-free installation and configuration save time and money. However, the new panel also makes light work of more complex sites requiring sophisticated cause and effect programming options as well as false alarm management and reduction solutions.

Go has been developed with the needs of installers, engineers, and end users firmly in mind. A host of features make Go a breeze to set up. An easy-fit chassis with unique door design enables fast fitting, while familiar controls and menus mean there's no lengthy learning curve. Intuitive new configuration software makes programming quicker and easier than ever, and a powerful design checker proves the system will work even before visiting site. In addition, enhanced diagnostics mean fewer faults, faster fixes,



and better long-term performance.

Cost-efficiencies for customers have also been central to Go's development, delivering maximum functionality on a small-site budget. The panel has 15 zonal LEDs as standard for clearer visual indication and BS 5839 compliance without the need to buy a separate LED zone card. Compatibility with three leading detector protocols provides wired and wireless options, as well as greater freedom over design and maintenance provider costs. Further cost savings as well as greater flexibility for site-specific installations are available thanks to a choice of two performance options with different maximum numbers of configurable addresses.

0345 894 7000 www.advancedco.com

Make A Change:

Climate Adaptation

with Green & Blue

GreenBlue Urban is the world's leading tree pit specialist. With more than **30 years of experience** in creating healthier urban spaces in harmony with nature.

DISCOVER
MORE



T: +44 (0)1580 830 800
E: enquiries@greenblue.com
W: greenblue.com





GLIDE BOLLARDS

Flexible, ingenious and totally secure, Securiscape's Glide Bollard HVM system is ideal for protecting busy premises where access needs to be controlled – and yet it couldn't be simpler. The system uses industry-leading shallow fixings and moveable bollards that can be moved side-to-side to create an opening and pushed back into position to prevent unwanted vehicles gaining access.

- Crash-tested and capable of withstanding the impact with a 7.2 tonne lorry travelling at 40mph - without significant bending or buckling
- **Available as the Glide Bollard 30 and Glide Bollard 40, whose footings measure just 210mm and 240mm deep respectively**
- Manually operated and incorporating removable and lockable panels designed to blend into the street or road surface
- Manufactured in the heart of the UK from high quality materials and lowered in place as a complete cassette



All Securiscape Products have been tested to **PAS68** or **Iwa** and have **full certification**

Securiscape Limited +44 (0) 1335 370979
info@securiscape.co.uk www.securiscape.com

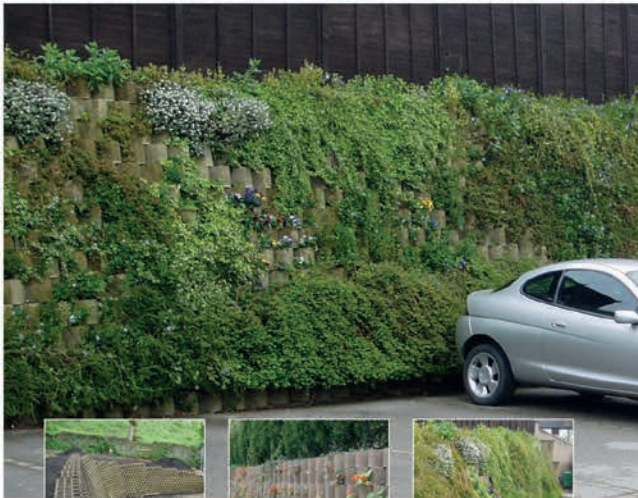
FOLLOW US ON:



securiSCAPE[®]
protecting people in public places[®]

Vertical opportunities

with creative structural integrity



Offering our support

Planted buttressing retaining wall

Betoatlas dry-build solutions

A 4 metre high stone wall dating back to medieval times needed to be stabilised as part of a re-development of an old school site to form a doctor's surgery car park. Visit our NEW website: www.grasscrete.com/sherburn-in-elmest to view this case study.

Innovative
Environmental
Solutions
www.grasscrete.com



Grass Concrete Limited
info@grasscrete.com
Tel: +44(0)1924 379443



@grasscreteworld



RYNO's newly expanded porcelain range

High-quality ceramics, environmentally conscious manufacturing, and design scope versatility as well as the ability to integrate wind-uplift as a complete system make porcelain a popular choice with architects & designers. Construction has made significant changes to accommodate environmental concerns, regulations, and legislation: porcelain is one of these. RYNO's porcelain is more than just aesthetically pleasing. It boasts fantastic durability and the longest expected lifespan of any building material. It offers outstanding thermal performance, excels when it comes to underfoot stability and benefits from brilliant slip resistance. Extraction and manufacturing are less energy-intensive, making porcelain an eco-friendly choice in this regard, while the thermal energy recovery system utilised by the modern manufacturing process, reuses up to 95% of the exhaust gases released and reduces the amount of energy required by 40%. Just as important is the material's recyclability. It will outlast most other building materials, but when it does reach the end of its life, it can be recycled easily and cost-effectively.

0203 9673500 www.rynogroup.co.uk/pave/paving-finishes

DECKING PAINT

PREMIUM MATT OPAQUE FINISH
FOR TIMBER DECKING

-  Premium finish available in 35 colours to bring life to new or aged decking
-  Guaranteed against peeling or flaking for 5 years on horizontal surfaces
-  Protects against damage caused by moisture
-  Offers excellent adhesion and flexibility of the film

Now available on:



BETTER LOOKING, FOR LONGER
The choice of professionals and enthusiasts for over 100 years.
OWATROLDIRECT.CO.UK 01582 592707



The rise and rise of SuDS

Mark Manning of water management specialists SDS discusses upcoming legislation on surface water management, and how SuDS will increasingly be the solution

Legislation scheduled for introduction in England next year (presently subject to a period of further consultation and full regulatory impact assessment), will mandate the installation of sustainable drainage systems (SuDS) for all new developments – with a few exceptions.

In its Review for the Implementation of Schedule 3 to The Flood and Water Management Act 2010, published earlier this year, Defra prioritises the “resource value” of water, and states that it should be managed in an integrated way in order to mitigate the dual climate risks of drought and flooding.

It is perhaps a little unusual that Defra should now recognise SuDS as a solution to water scarcity, rather than its more typical and literal definition as a means to attenuate surface water and therefore reduce the risk of flooding. Indeed, in the non-statutory technical standards (NSTS), which were produced by Defra for England in 2015 and reviewed for Defra by HR Wallingford in 2021 and which will form the basis for implementation under the requirements of Schedule 3, Defra cites rainwater harvesting as the first priority in the hierarchical process of determining ‘final’ runoff destinations. This is in preference to infiltration into the ground, or discharge, in priority order, of any remaining runoff to a surface water or above ground surface water drainage system, to a piped surface water drainage system, or, as a last resort if none of the above are possible, to a combined sewer.

Rainwater harvesting rises in importance

In its clarification of the guidelines, Defra requires that consideration is given to rainwater harvesting that has been specifically designed for water supply and, potentially, surface water management purposes. This required where, firstly, there is a suitable demand for non-potable water and available roof areas that, together, will deliver efficient water savings (for example



in industrial, commercial, horticultural, educational, public sector and multiple occupancy buildings) secondly, where there is a need for landscape irrigation; and thirdly, the development is in an area of “high water stress.”

Above-ground water storage tanks, or water “butts” as they are sometimes referred to in a domestic environment,



Defra prioritises the resource value of water and states that water should be managed in an integrated way to mitigate the dual climate risks of drought and flooding

are listed as a tool to tackle stressed potable water supplies. However, they must be designed with a storage volume that is 'always available' for stormwater management purposes, so that the discharge of their contents can be controlled to a suitable rate. Without this facility it is likely that a traditional water butt will soon become full during extreme rainfall events and simply overflow.

With the relatively recent introduction of intelligent technology that monitors and acts upon local weather forecasting data, the 'smart' tank's contents can be automatically released, sufficient to accommodate the anticipated rainfall volume, while still maximising the storage of rainwater for non-potable reuse purposes. This enables it to provide the dual role of both rainwater conservation and stormwater attenuation.

Practical examples

Following successful pilot programmes, in which the collective flood and drought mitigation benefits of individual, plot-based, smart rainwater harvesting tanks have been measured and analysed, multiple development-wide rainwater management schemes are now being installed.

The introduction of these schemes is being driven largely by water companies and local authorities, motivated either by the tanks' removal of surface water from

the drainage network and the consequent avoidance of CSO spills and the associated criticism in the media, or by their ability to protect natural water courses from over-abstraction in areas where there is already limited supply.

Environmental credentials

Defra requires that not only must the management of surface water be considered for its impacts on both flooding and drought but emphasises the contribution it can make to increasing biodiversity and protecting nature. In meeting a new development's requirement to deliver a nett gain in biodiversity and satisfy its obligations under the terms of the Environment Act, the inclusion of natural SuDS as water features; e.g. ponds and wetlands, can enable the species already prevalent there to flourish whilst also attracting new flora and fauna to the area.

With the addition of below-ground, engineered SuDS devices such as surface water storage tanks, smart technology can ensure the tanks provide a sustainable supply for a constant minimum water level in these above-ground features. Furthermore, smart technology can help to reduce the physical size of these features, thereby limiting the amount of land that might otherwise have been required to take the place of profitable construction.

Growing role of the architect

Schedule 3 provides a framework for the approval and adoption of drainage systems, an approving body (SuDS Approval Body or SAB), and national standards for the design, construction, operation and maintenance of SuDS. It would be reasonable to anticipate that the role of SAB will be handed to unitary authorities or county councils (formerly "Lead Local Flood Authorities"), and that architects, alongside engineering and environmental consultancies and landscaping practices, will be among those most likely to fill a potential gap in knowledge amongst the council community.

The contribution that technology experts and evidence from successful pilot schemes, can provide could prove indispensable in elevating the importance of integrated water management in the design of new developments.

Mark Manning is national specification manager for SDS

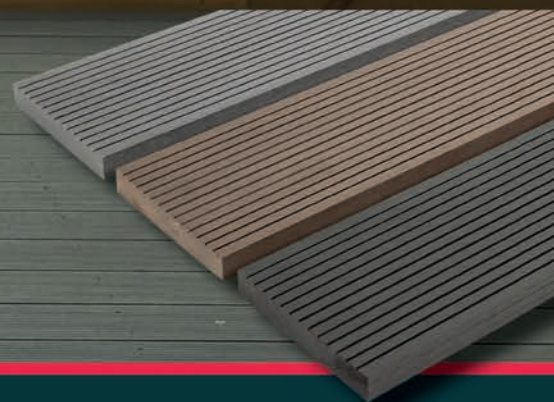


FIRE RESISTANT SOLUTIONS

For commercial projects, we offer fire-resistant aluminium sub-frame, pedestals, cradles, and contemporary decking boards. In addition to offering improved safety and reassurance, our boards maintain high performance and durability while maintaining the aesthetics of wood grain or grooved finishes.

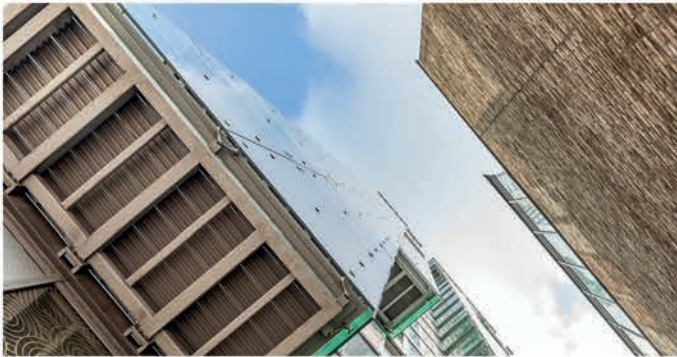
- Decking boards designed to comply with BS EN1350-1B Class B fire regulations
- Available in grey, coffee, and charcoal
- Fire resistant aluminum subframe system with a range of adjustable cradles and pedestals
- High-strength aluminium joists
- Supports all types of decking and paving

Scan for
complimentary
samples →



Avant-garde Court

SHOREDITCH



This large-scale project featuring 224 bolt-on balconies involved the replacement of composite decking boards on timber joists with BalcaSmart Aluminium decking.

We've seen a huge increase in the number of refurbishment projects since the updated Approved Document B came into force along with guidance from the government urging owners of pre-existing buildings to remove combustible materials from balconies if found.

This luxury tower was completed in 2014 but with 25 stories, it was a project that came with many challenges.

SYSTEM USED

The BalcaSmart Aluminium decking system for balconies was selected for its low-height build-up, with joists attaching directly to the existing steel balcony frame.

The balconies are stacked. To ensure the finish from below was as seamless as that from above, the substructure was powder-coated in RAL 7040 (Window Grey) to match the balcony steels.

THE CHALLENGES

Pre balcony fabrication, our estimating and design team worked with Fletcher Crane architects to create detailed designs, which our team used to create a bespoke specification.

As the development was completed in 2014, apartments were occupied, with residents present during refurb works.

Furthermore, due to the glass facades and balustrades to the exterior, the goods for the job (including cut-to-length aluminium decking boards) were taken in through the interior of the building and installed as such by London-based Acacia Gardens from Hounslow.

“We’ve seen a huge increase in the number of refurbishment projects since the updated Approved Document B came into force”

For more info visit us at
WWW.RYNOGROUP.CO.UK



Decked out in aluminium

Harriet Keohane from Saige Premium Composite Products shares essential pointers for architects and designers specifying aluminium decking for new build or retrofit projects, to ensure the safety and functionality of outdoor spaces

There are key considerations when it comes to specifying decking such as fire safety regulations, product selection, installation and maintenance.

As the construction industry continues to grow and evolve, it is important for architects to keep up with the latest fire safety requirements for decking products. In particular, specifying aluminium decking for balconies and roof terraces in the UK requires a thorough understanding of the regulations to ensure the safety of the building and its occupants.

Fire safety standards for decking

With effect from 1 December 2022, the Building Regulations Approved Document B will extend the ban on combustible materials to further residential building constructions in England, thus enhancing fire safety standards. Among the principal changes that will impact the specification of B Class and A Class Decking products are the updated provisions for residential buildings that have a storey of 11 metres or more in height. Generally, B-class-rated products are acceptable for decking installed at 11 metres and below, whereas A-class decking must be used at 11 metres and above.

In the UK, fire-rated decking is classified based on its ability to withstand and resist the spread of fire. There are two main classifications of fire-rated decking: Class A and Class B. The primary difference between Class A and Class B fire-rated decking is their level of fire resistance. Class A fire-rated decking has the highest level of fire resistance and can withstand the most extreme fire conditions. It is designed to prevent the spread of fire and to reduce the risk of structural damage. This type of decking is typically aluminium, whereas Class B fire-rated decking has a lower level of fire resistance than Class A but still provides a significant degree of protection against fire. This type of decking is typically





It is important to consider the installation of the decking and its potential impact on fire safety

made of composite materials.

Aluminium decking is a popular choice among architects due to its durability, low maintenance, and aesthetic appeal. However, it is important to note that not all aluminium decking products are created equal when it comes to fire safety. Architects must be diligent in their research and selection of products to ensure compliance with the latest regulations and standards.

The first step in specifying aluminium decking for balconies and roof terraces is to understand the fire safety requirements within the UK Building Regulations. The Building Regulations Part B outlines the fire safety requirements for buildings in England and Wales, including those pertaining to decking products.

The regulations state that all decking products must have a minimum Euroclass rating of B-s1,d0 or Class B according to the BS EN 13501-1 standard. This means that the product must have a certain level of resistance to fire and produce minimal smoke and droplets when exposed to flames.

Architects should also consider the location of the decking within the building when specifying products. For example, if the decking is located on an upper floor or roof terrace, it may require additional fire safety measures such as fire barriers or sprinkler systems.

When selecting aluminium decking products, architects should look for those that have been tested and certified to meet the required fire safety standards. It

is recommended to select products from reputable manufacturers who have a readily available resource section on their website with technical specification sheets, and BIM tools available for download.

It is also important to consider the installation of the decking and its potential impact on fire safety. Improper installation or the use of non-compliant materials during installation can compromise the fire safety of the decking and the building as a whole. Architects should work closely with an approved installer to ensure that all materials and methods used during installation meet the necessary fire safety requirements.

Design & functionality

Architects should also consider the overall design and functionality of the decking. Aluminium decking products come in a variety of styles and finishes, and can be customised to meet each project's unique needs along with appropriate fire rated subframes and pedestals to ensure a fully specified and fire rated system. As a result of selecting a product that meets both the fire safety requirements and the aesthetic and functional needs of the project, architects can create a safe and visually appealing outdoor space for building occupants to enjoy.

One additional consideration for architects is the maintenance and upkeep of the decking. Regular maintenance and inspection can help identify potential fire hazards and ensure that the decking continues to meet the necessary fire safety standards over time. Architects should provide building owners with guidance on proper maintenance and inspection procedures to ensure that the decking remains safe and compliant.

In conclusion, specifying aluminium decking products for balconies and roof terraces in the UK requires a thorough understanding of the fire safety regulations and standards. Architects must ensure that the products they select meet the necessary fire safety requirements, are installed properly, and are designed to meet the unique needs of each project. By taking these factors into consideration, architects can create a safe and visually appealing outdoor space for building occupants to enjoy for years to come.


Harriet Keohane is director of Saige Premium Composite Products



BUILDING INSIGHTS

A PODCAST FOR THE CONSTRUCTION INDUSTRY
[LISTEN AT ARCHITECTSDATAFILE.CO.UK](https://architectsdatafile.co.uk)





BY YOUR SIDE[®]

Contributing to safer buildings.

Backed by over 50 years' experience, Siderise passive fire and acoustic insulation systems provide high-performance solutions to create beautiful, protected buildings without compromise.

We have the technical expertise and insight to understand what's required to build a safer building, and we will work with you to ensure that your projects are designed and built with integrity.

Seamlessly, from design concept through to site installation and whole-life performance, our technical data, product quality, and outstanding service support ensures we have the ingenuity to be your project partner.

Siderise. Making buildings safer together.

Discover more at siderise.com