Extreme spec
Glulam lattice pavilions
Landscape & place
Strand Aldwych, central London

Special report
Social housing can harness Passivhaus principles

Flooring
Anglia Ruskin University campus, Peterborough

Interiors
Jacksons Lane, London
**BRASSWARE**

7 RANGES AVAILABLE IN 4 COLOURS

<table>
<thead>
<tr>
<th>Ranges</th>
<th>Coatings</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAK-AMALFI</td>
<td>Polished Chrome</td>
</tr>
<tr>
<td>RAK-SORRENTO</td>
<td>Brushed Gold</td>
</tr>
<tr>
<td>RAK-PORTOFINO</td>
<td>Brushed Nickel</td>
</tr>
<tr>
<td>RAK- Positano</td>
<td>Matt Black</td>
</tr>
</tbody>
</table>

RAK-AMALFI

RAK-SORRENTO

RAK-PORTOFINO

RAK-Positano

POLISHED CHROME

BRUSHED GOLD

BRUSHED NICKEL

MATT BLACK

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**The Eye of PiP**

In your quest for certified, non-toxic, safe, circular and responsibly made materials for your projects, or if you want to support manufacturers transitioning to regenerative design, try 540 World. See its free, interactive Cradle to Cradle® Design Directory 2023 at 540.world

**PiP webinar:** Bespoke house

**PiP webinar:** Housing

**PiP’s on Pinterest!** See our feed at: pinterest.co.uk/productsinpractice

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"Heat generated by a washing-machine-sized data centre is used to warm a public swimming pool"

"Digital boilers" could cut data centre emissions and provide a free source of heat for buildings: ribaj.com/digital-boilers
The world's thinnest inverted roof insulation just got thinner.

**U-value chart**

<table>
<thead>
<tr>
<th>U-value req. W/m²K</th>
<th>Quantum® (mm)</th>
<th>Extruded (mm)</th>
<th>Expanded (mm)</th>
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<tbody>
<tr>
<td>0.15</td>
<td>60</td>
<td>220</td>
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<td>0.11</td>
<td>80</td>
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</tr>
<tr>
<td>0.10</td>
<td>100</td>
<td>320</td>
<td>355</td>
</tr>
</tbody>
</table>

Sample range of U-values based upon a typical roof terrace construction with a 200mm concrete substrate and product Lambda value as noted.

**ProTherm Quantum® PLUS**
- BBA Agrement Certified 20/5789.
- Satisfies NBRC requirements Chapter 7.1: flat roofs & balconies.
- Robust coating. Patent protected.
- Can be used within a system that meets Broadley(4) fire requirements of Building Regulations Part B.
- Suitable for zero falls under hard or soft landscaping.

**Ilona Rose House, Charing Cross**

ProTherm Quantum® Plus - Hybrid was used in a zero fall application to all terraces, providing level threshold access between internal and external spaces.
**From cistern to system**

You’d associate South American civilizations with worship of the sun rather than water but that doesn’t seem to have stopped Italian bathroom brand Agape from picking up on South American tradition in its latest collaboration with Spanish designer Patricia Urquiola. The cenote, or sinkhole, an ancient source of water for Pre-Columbian cultures, had mystical significance that’s echoed here with the firm’s latest bathroom range – its own Cenote, moulded from fireclay, and Cenote Lava, hewn from Sicilian lava stone. Outside surfaces are left deliberately rough, with interiors polished and glazed in Mexican whites and blues. With low-wide bowls, there’s a certain ancient, ceremonial quality to both, even if they come supplied in more Cartesian and contemporary dimensions of 400mm in width and heights of 182mm (Cenote) and 124mm (Lava).

**Slather where you lather**

In the reduction ad absurdum of minimalism, some designers just want to smother all surfaces with the identical material, a trend that has been picked up by Italian porcelain stoneware brand Florim. Its latest Optidek Magnum Collection offers the ability that has been picked up by Italian porcelain stoneware brand Florim. Its latest Optidek Magnum Collection offers the ability.

**Kings of the wild frontier**

CIBSE’s annual Building Performance Awards highlights the best performing projects, services engineering and products to help slow the effects of climate change. NorDan UP’s timber-based windows won a gong for their low embodied carbon, high-performance system while the Welsh School of Architecture Low Carbon Built Environment Team won another for its retrofit of six homes, which will be monitored over the next four years. And Building of the Year went to Max Fordham LLP’s work with PCB Studios on the new Pastivhaus Crammer Road student accommodation for King’s College, Cambridge, above.

**Pure handles**

With the aim of creating a consistent, minimalist look and feel across a building, aluminium glazing system manufacturer Wicona has looked to its look and feel across a building, aluminium glazing system manufacturer Wicona has looked to its.

**Pan-handle**

**Students sleeping rough**

Built in 1961, Sheffield’s Park Hill estate is not only the largest listed building in the country, it’s also one of its most famous examples of rough Brutalist architecture. Grade II-listed, it has long been undergoing regeneration into the city’s trendiest address. Whittam Cox Architects has just refurbished Betsy House as student housing for Alumni, providing accommodation for 366 students, including townhouses, two- and four-bedroom apartments, and studios. To retain as much of the original building’s facade pattern as possible, while providing discreet-looking opening lights, the architect ran with Technal’s FY65 Minimal system, which offered a slim and elegant aluminium frame while meeting thermal performance demands and replicating the sightlines of the original timber glazed units. The windows were designed, fabricated and installed as combination frames of fixed and opening units by Bradford-based glazing and facade specialist Quest Solutions.

**Vintage cave**

Located in a vineyard in Aumelas, a village in southern France, craftsman Nicolas Vanigi was charged with designing and fitting out a kitchen in the dark, vaulted stone interior of a farmhouse on the estate. His response was two runs of units in oak, each 5m long, topped with a Himacs solid surface for the worktop, splashback and side edges, into which both hob and sink are embedded. Part of his attention to detail, the wall-set units have been worked to adjust to the stone contours using carpentry techniques Yazigi acquired during work on mountain cabins. An initial wood template was made to follow the contour, laid atop a Himacs sheet, and cut using a wood router.

**Slither where you lather**

Slather where you lather...
Spanish tiles meet the evolving demands for modern flooring, from hygiene to high-traffic and from sophisticated aesthetics to safety and sustainability.

**Groundbreaking solutions**

**Valued worldwide for an inspiring blend of style and technical innovation,**
Spanish tiles draw on a rich heritage of skill and creativity while leading the field in forward-thinking design. Architectural ceramics from Spain offer high-performance solutions for a vast range of specifications, enabling both elegance and confidence in hard-working floor coverings.

**Robust resilience**
Porcelain slabs offer the kind of beauty, resistance and durability that is required of today’s flooring. Non-porous and impervious to chemical agents, abrasion-resistant, weatherproof and easy to clean – tiles from Spanish manufacturers can answer multiple needs with their compact composition and excellent mechanical properties.

**Safe and sound**
Slip resistance is an essential factor not only for outdoor or wet areas, but also for retail and hospitality environments subject to spillages and footfall from damp exterior conditions. Tiling solutions from Spain offer classifications equivalent to those in the UK. Other wellbeing concerns are met by the latest anti-bacterial coatings, adding even greater hygiene to the list of attributes for which Spanish tiles are renowned.

**Brilliant beauty**
Printing and firing innovations by manufacturers in Spain enable stunning visual effects to be produced, with creative offerings to meet almost any decorative need, from neutral, natural looks to high-impact drama. What’s more, the versatility in terms of the various patterns, shapes and formats can be arranged allows for strikingly distinctive projects.

**Smart and sustainable**
Large format, slim profile tiles not only mean easy installation with minimal grout, but also offer multiple benefits to specifiers, from raised-access flooring systems to achieving level floors on rough or sloping surfaces, and compatibility with underfloor heating. Sustainability remains a key and progressive ethos within the industry, while the enduring resistance and performance of ceramic makes for both easy maintenance and reliable life cycles.

**Tile of Spain**
Tile of Spain is the voice of the Spanish tile industry, representing more than 120 tile manufacturers. Manufactured in Spain and widely available in the UK, these products embody the spirit of an industry that prides itself on beautiful, meaningful and high-performance solutions to floor and wall coverings, work surfaces and furnishing, exterior paving and cladding.

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For further information, visit [tileofspain.com](http://tileofspain.com)

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Above The Stravaganza series from Vives, a terrazzo-effect anti-slip porcelain tile with recycled content, supplies a robust and forgiving floor covering.

www.vivesceramica.com

Right Neo-Memphis inspired hexagonal floor tiles by Aparici, the Lined collection in 25x29cm porcelain creates fascinating, colourful and unique patterns for each project.

www.aparici.com

Below Look Back from Land Porcelainico gives the metallic trend a subtle glossy effect in a striking yet relaxed pattern with an industrial edge.

www.landporcelanico.com

Below right Keraben’s Universe range recreates the oxidised effects of metals to offer a large formal and safe choice for easy-care flooring that can go the distance.

www.keraben.com

Left To the left: Pulsar from Saloni’s Care collection is ideal for wet areas – sleek, high-performance porcelain that’s anti-slip and anti-bacterial.

www.saloni.com

Below Halcon’s Icon range is ideal for high-traffic areas with its intriguing stone-look and anti-slip finish.

www.halconceramicas.com

Right: Neo-Memphis inspired hexagonal floor tiles by Aparici, the Lined collection in 25x29cm porcelain creates fascinating, colourful and unique patterns for each project.

www.aparici.com
Steel reuse tool cuts embodied carbon

Free-to-use FerrousWheel software automatically matches reclamed steel with digital building designs

A digital tool that automatically matches reclaimed steel sections from a live stocklist with data in building design models is being developed by a team of UK researchers.

FerrousWheel is the result of a four-month research collaboration, funded by Innovate UK’s Accelerated Knowledge Transfer initiative, between structural engineer Symmetrys and London South Bank University.

The plug-in for Revit is due to launch at the end of the month as part of a drive to help the industry cut embodied carbon associated with steel production and make steel part of the circular economy.

According to Matteo Attanasio, senior structural engineer and head of sustainability at Symmetrys, the software will be an open source and more user-friendly alternative to existing tools that perform a similar function.

‘Existing tools are either in-house only or they use Excel spreadsheets to give a list of stock, making them relatively inaccessible for lay users,’ explains Attanasio. ‘We’re looking at visualising the stock in a 3D model so architects or engineers can take a quick screenshot of the stock in a 3D model so architects or engineers can take a quick screenshot of the stock in a 3D model, and show the client straight away. It’s a user-friendly alternative to existing tools. We’re looking at visualising the stock in a 3D model so architects or engineers can take a quick screenshot of the stock list and show the client straight away. It’s a user-friendly alternative to existing tools.

Architects can also make use of the tool, particularly during RIBA Stage 2 or 3, says Attanasio, to give the clients and wider design team an idea of the potential for steel reuse on projects. ‘It gives a really good indication to demonstrate the potential to clients, pending confirmation of the steel being available to procure at Stage 4,’ he explains.

The tool currently taps into data provided by Cleveland Steel and in future will also include metal recycling company BMR Global. One challenge for researchers was the complexity of logging parameters for factors such as damage to steel and penetrations for connections in a standardised way.

Volume of supply was another issue. Even though the UK recycles around 90% of its steel, that's still not enough to keep up with demand and virgin steel is constantly being manufactured. Attanasio says that the more buildings are taken down and disassembled for reuse, the more stock will be available in stocklists used by the software.

The amount of steel available depends on the size of the project. ‘If it’s a 40-storey tower, and you’re looking for 80% reuse, you might struggle,’ says Attanasio. ‘However, for most mid-rise projects, you’re almost certain to find a few sections you can include.’

Although the research project ends in April, the team plans to continue research and development to refine the product until September. There are many challenges associated with incorporating reused structural elements in a project programme (Riba Journal, February 2023, p58). See more industry innovation and IT stories weekly on ribaj.com.

Steel reuse
New steel

Extremis

Glulam lattice pavilions

What Circular gathering spaces
Where Regent’s Place, London

Inspired by the randomness of a pile of sticks, the design and engineering of Nex-Architectures timber lattice pavilions at London’s Regent’s Place has been anything but haphazard.

The three curvilinear structures were conceived as soft, natural organic forms to enliven the public realm at the British Land-developed office campus, and to encourage people to gather. The first pavilion is a simple screen wrapped around a curved bench; a second, larger pavilion surrounds a rotating circular bench; larger still is the third which encloses a circular performance space for use by the local community theatre.

‘Our concept was for three timber lattice pavilions that would sit lightly in the landscape to act like a trail of bread crumbs to draw people in,’ explains Nex-Architects director Alan Dempsey.

Nex- developed the early designs through sketches, study models and VR simulation to determine the form, size and location of the pavilions. ‘We didn’t know the exact shape,’ he goes on, ‘but as soon as you move away from a dome you need to form-find and to do that you need good computing skills and a good understanding of how timber behaves.’

Nex- approached Xylotek at Stage 3, having persuaded the client to involve the timber structure specialist in the pre-contract design. ‘Xylotek were great, we had to engage with manufacturers early to avoid creating a standard grid-like product,’ says Dempsey.

Xylotek rationalised the form using an iterative, collaborative process that kept the timber laths slender, and stiff enough to self-support the lattice. He says: ‘They look random but there is an order to them. Deliberate variations in the length of the laths add to the structures’ seeming haphazard form.

Laths are bolted together at specific intersections through holes drilled in the centre of each strip. ‘We didn’t throw bolts in everywhere. Our structural sub-consultant Format worked out where they would be most effective,’ says Martin Self, design director at Xylotek.

The structures are bolted to metal baseplates. The bottom edge of each lath is square-cut and incorporates a slot for an angled steel flitch-plate which is welded to the baseplate. ‘In a weird way, there is more complexity to assembling the steel because the angle variation is taken out there, rather than in the laths,’ he explains.

He says segments of the pavilions were pre-assembled by Xylotek ‘to give us something to build off when we got to site’. Assembly of the stick-inspired pavilions was completed late last year.
Doors and windows to enlighten the educational day

Durable, distinctive, and cost effective — why Velfac is the ideal choice for education projects

From a modest classroom extension to a landmark new build school, Velfac composite windows and doors are a competitive alternative to all-aluminium systems and come with a range of impressive performance benefits:

- Aluminium/timber frame: add a natural finish to learning spaces while external aluminium delivers both distinctive style and durability.
- Slim frames maximise natural light: bring more daylight into classrooms and communal spaces and reduce energy costs.
- Impressive thermal and acoustic insulation: U-values as low as 0.8W/m²K for triple glazing.
- Environmentally conscious design: from FSC certified wood to 93% recyclable window units.
- Versatile ventilation: combine different opening functions, trickle vents and louvres, or specify sensor controlled units for precise control.
- Secured by Design accreditation: for maximum safety and security.
- Expert technical and design consultancy: from initial ideas through to post-installation support.

POWELL AND WHITEHORN STUDENT HALLS, UNIVERSITY OF ST ANDREWS

These award-winning university halls, designed by HLM Architects, provide comfortable and stylish accommodation for over 380 students, with Velfac composite windows giving excellent thermal insulation and maximum natural light. Combining dark grey external aluminium frames with clear lacquered internal timber, Velfac windows enhance the halls’ architectural design and meet users’ needs, says architect Adam McAvoy: “The quality of Velfac glazing supported the university’s aim to build world class student accommodation,” he says, “with the composite frame delivering a sleek external aesthetic across a range of different facades and design elements.” Study bedrooms feature large, full height Velfac windows; pale wood provides a more “domestic” finish, McAvoy adds, “and the slim frame results in a high glass to frame ratio which increases daylight the room, contributing positively to residents’ wellbeing.”

THE AISHER BOARDING HOUSE, SEVENOAKS SCHOOL

“A home not a hotel” was the guiding design principle for Aisher Boarding House, designed by Tim Ronalds Architects. Velfac composite windows and doors are a major element in every facade, with the slim, low-energy frame increasing daylight in private and communal spaces, while giving external durability and a more “domestic” interior finish. This combination was one reason why the Velfac system was specified, reports TRA: “We’ve used all-metal systems in previous school projects but wanted a more homely interior for Aisher House, which we achieved with the white-painted timber frames.” Windows bring light into study bedrooms, kitchens and common rooms, with the manually operated side-hung units also part of the building’s natural ventilation system. The Velfac units also delivered the thermal performance to achieve a BREEAM Excellent rating.

CROMER ROAD PRIMARY SCHOOL, NEW BARNET

Velfac slim-framed windows and doors are a key feature of every facade in this distinctive, L-shaped red-brick classroom building, by architect Innes Associates, helping architect Corrie Rounding meet challenging regulatory and sustainability targets while maximising usable space, increasing natural light and improving ventilation. “We pushed the contractor to specify Velfac as we knew it was the right fit for Cromer Road,” says Rounding. “Its sustainability and low energy performance met Department of Education requirements, while the robust external aluminium frame is ideal for a busy school environment. Velfac could also meet key ventilation, daylighting and budget targets: ‘To manage costs and maximise daylight we concentrated glazing at areas of most activity,’ Rounding explains. ‘For example, we used tall slim units to illuminate the staircase but placed larger windows directly under the stairs to create an extra useful breakout space.’

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LDA banishes heavy wheezing traffic to conjure a calm, green and sociable stretch of space in London’s West End

Words: Pamela Buxton

The sound of bells and birdsong – that was one of the more poetic aspirations of LDA Design’s ambitious recasting of the traffic-clogged Aldwych end of The Strand in London’s West End as a new public space for the capital. Anyone familiar with the area before will appreciate the scale of the transformation, courtesy of a £22 million investment from Westminster City Council, that has re-routed traffic from that part of the Strand around the arc of Aldwych. The traffic jams of taxis and buses inching past Somerset House are long gone, and the ‘island church’ of St Mary le Strand is no longer marooned in a hostile sea of vehicles. Instead, it is the focal point for a new sequence of public spaces with seating galore. Meanwhile new crossings over Aldwych ease pedestrian flow to the surrounding area.

I’m not so sure about birdsong, but I can certainly hear the bells of nearby churches. LDA director Cannon Ivers points out that the Courtauld Gallery’s ventilation system, previously drowned out by traffic, is now also audible. But that’s a small price to pay for this bold
intervention in the streetscape which, Ivers says, prioritises people over cars for the first time with the provision of 7000m² of new public space.

LDA won a competition in 2018 for the complex project, which covers the stretch of the Strand from just east of Waterloo Bridge to St Clement Danes just beyond Aldwych. By then, traffic studies had already produced the decision to make Aldwych two-way, which was key to the whole project. Tasked with designing a setting for a new cultural and education district, LDA sought to create a people-friendly space both for pedestrians – including tourists – heading for nearby Covent Garden, and for users of a resident cluster of notable institutions such as universities LSE and King’s College; cultural spaces Somerset House, The Courtauld Institute and 180 Studios; the embassies of Australia and India; and the churches of St Mary le Strand and Wren’s St Clement Danes. As well as encouraging cross-pollination between all these, Ivers was keen to introduce green space and promote health and wellbeing in this previously heavily polluted area.

There were plenty of challenges. What kind of uses should the public space facilitate? How can it accommodate vehicular access when required while providing sufficient security protection? And how can the materiality and design do justice to the considerable surrounding architectural heritage?

Covid put a big spanner in the works, resulting in the implementation of a substantial part of the scheme with ‘meanwhile’ furniture and ground surfacing for 3-5 years as a fast track way of regenerating the area. The meanwhile version also, says Ivers, gives the opportunity to test out various ways of...
using the new public space. He hopes the subsequent final version will implement the natural stone landscaping used in the rest of the scheme.

LDM’s overall design strategy holds true regardless of the finishes and furniture. The bulk of the scheme creates a HVM (Hostile Vehicle Mitigation) secure zone for pedestrians and cyclists from the western end of Aldwych to Melbourne Place just beyond St Mary le Strand, which has pride of place in this transformed space.

However, the new civic space is not entirely without cars – a shame but unavoidable given the need to provide occasional, controlled vehicular access for embassy, hotel and services through the secure perimeter. It was also necessary to ensure that this part of the Strand could still be used as part of the historic processional vehicle route from St Paul’s to Westminster Abbey if required. Nonetheless, the result is still a huge shift in favour of pedestrians and cyclists.

Marking the western end, a 20m long steel-clad concrete blocks, are painted black squares of Vega granite inspired by paving stones in Covent Garden. This borduring on a wet and chilly day in early March, it is still fairly well populated with streams of pedestrians crossing through – but this is surely nothing compared to how it will be used in better weather, when it should really come into its own as a social space.

It’s great to see so much public seating, and the scheme will also benefit from the addition of the distinctive gateway benches later in the year. It will be interesting to see in a few years’ time how the meanwhile elements are incorporated into a more permanent arrangement of furniture and surfacing. The hoped-for installation of natural stone seating would certainly boost the overall cohesion, consistency and material quality, especially given the inclusion of so many different zones. To do otherwise would surely be a missed opportunity after the big move of redirecting the traffic.

Whether LDM’s vision of birdsong materialises remains to be seen. But it’s certainly already a much more convivial habitat for humans, who no longer pushed to the pavement margins of The Strand but are instead encouraged to linger, socialise and relax. The reality is that it’s still an urban space. But now it’s totally about people,” says Ivers.

Although the omens are good, it’s a little early to judge the success of this promising new public realm. Visiting on a wet and chilly day in early March, it is still fairly well populated with streams of pedestrians crossing through – but this is surely nothing compared to how it will be used in better weather, when it should really come into its own as a social space.

Above New public space to the rear of St Mary Le Grand at the eastern end of the HVM secure zone.
Costerd

Nicola Sharkey, UK insights and research lead, and James Garner, global head of data and insights and analytics, at Gleeds, cost external works.

External works – those carried out in the outside environment of a building project – typically comprise site preparation, hard and soft landscaping, fencing, railings and walls, external fixtures, drainage and services. Meeting functional and aesthetic requirements requires careful design and execution. Factors to consider include durability, cost, access and maintenance.

Landscaping is vital in sustainability strategies – particularly for improving biodiversity and drainage. The government encourages the recovery of nature from land development through biodiversity net gain, to ensure wildlife habitats are improved after construction. Rules will apply from November 2023 for schemes in the Town and Country Planning Act 1990 unless exempt, and for small sites from April 2024. Research shows that access to external space helps wellbeing. It can also help to define space use – for example, it can ensure that an area is inviting or help to promote security. Street furniture can help to create an identity, with a wide range of styles and materials available.

The following rates are based on the UK average and represent typical prices at 1Q 2023. Please note that prices can vary significantly depending on the exact specification. PC – prime cost; nr – number

Soft landscaping and planting £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Spread and lightly consolidate topsoil from spoil heap 150mm thick by machine</td>
<td>3.3-6.0</td>
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<tr>
<td>Spread and lightly consolidate topsoil from spoil heap 150mm thick by hand</td>
<td>8.5-12.5</td>
</tr>
<tr>
<td>Seeded areas – supply, planting, maintenance and 12 months guarantee</td>
<td>6.5-8.0</td>
</tr>
<tr>
<td>Turfed areas – supply, planting, maintenance and 12 months guarantee</td>
<td>8.5-12.5</td>
</tr>
<tr>
<td>General planting</td>
<td>27.5-36.25</td>
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<tr>
<td>Shrubbed planting</td>
<td>88-95</td>
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<tr>
<td>Standard root ball trees (PC sum 40)</td>
<td>130-200/ nr</td>
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<tr>
<td>Heavy standard root ball trees (PC sum 100)</td>
<td>250-400/ nr</td>
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<tr>
<td>Semi-mature root ball trees (PC sum 150)</td>
<td>350-450/ nr</td>
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Laid using inert base or gravels and surfacing £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Resin bonded 1mm-3mm golden pea aggregate pathways</td>
<td>91-110</td>
</tr>
<tr>
<td>Tarmac/paving – two layers, limestone or granite chips</td>
<td>125-150</td>
</tr>
<tr>
<td>Grass concrete, 150mm thick for cars and light traffic – in situ continuously reinforced cellular surfacing, fill with topsoil and pea (5t) and fertiliser at 35g, used with dwarf rye grass at 35g</td>
<td>115</td>
</tr>
<tr>
<td>Grass concrete, 150mm thick for HGV traffic – in situ continuously reinforced cellular surfacing, fill with topsoil and pea (5t) and fertiliser at 35g, used with dwarf ryegrass at 35g</td>
<td>150</td>
</tr>
<tr>
<td>Precast concrete paving slabs on sub-base, including excavation</td>
<td>130-150</td>
</tr>
<tr>
<td>Precast concrete tarmac paving slabs on sub-base, including excavation</td>
<td>140-200</td>
</tr>
<tr>
<td>York stone slab paving on sub-base, including excavation</td>
<td>250-400</td>
</tr>
<tr>
<td>Pedestrian granite setts paving – traditional cropped setts, on sub-base, including excavation</td>
<td>350-400</td>
</tr>
<tr>
<td>Pedestrian granite setts paving – traditional cropped setts, on sub-base, including excavation</td>
<td>350-400</td>
</tr>
</tbody>
</table>

Drainage £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access chambers</td>
<td></td>
</tr>
<tr>
<td>Turfed inspection chamber, concrete base, half section pipework and benching</td>
<td></td>
</tr>
</tbody>
</table>

Precast concrete excavation chamber 600 x 400 x 900mm deep including excavation, half section pipework and benching 750-900/ ea

Polypropylene inspection chamber: mini access chamber 600mm deep including excavation, half section pipework and benching 425-475/ ea

Excavate and lay 1000mm diameter upon pipes over 1.0m deep 65-86

Excavate and lay 1500mm diameter clay pipes over 1.0m deep 125-150

Excavate and lay 3000mm diameter concrete pipes over 2.5m deep 200-275

Excavate and lay 3000mm diameter cast iron pipes over 1.0m deep 225-300

Street furniture £/ea

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>These rates are for standard street furniture – installation/bespoke pieces can be significantly more expensive.</td>
<td></td>
</tr>
<tr>
<td>Road signs, reflected traffic signs 0.25 area on steel post/Illuminated</td>
<td>225-450/ ea</td>
</tr>
<tr>
<td>400W high pressure sodium lighting to main roads: 12m-15m spacing</td>
<td>950-1050/ ea</td>
</tr>
<tr>
<td>Banners hardwood and precast concrete</td>
<td>1750-2000/ ea</td>
</tr>
<tr>
<td>Litter bins bolted to ground: concrete/wooden</td>
<td>270-325-300-350</td>
</tr>
<tr>
<td>Litter bins bolted to ground: cast iron/large aluminium</td>
<td>750-1000/ ea</td>
</tr>
</tbody>
</table>

Living walls £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living wall: Design and installation of planted modules with automatic irrigation systems</td>
<td>1350-1800/ ea</td>
</tr>
</tbody>
</table>

Salix furniture collection<br />Talisent £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor surfaces Kinglydine by Kinglydine&lt;br /&gt;“Yeah, we’ve got ‘em. He’s a wriggler!”. ‘Knot set here quick. The pizza oven’s fired-up and the heat, scratch, stencil and UV resistant sintered stone surfaces are all crying out for a chef who’s up to this kitchen’s alfresco standards.” “He’s moaning about his 750 children and a new series he’s filming. He’s not a happy bunny.” “Put him on, Oliver. Sammie? Mated Don’t cry! Yeah you’re my slave now, but we’ve got a Kinglydine outdoor kitchen from Corten Satin doors by Nealith! Leathered Absolute Black Granite surfaces...” “Cool! See you in ten.” konigoutdoor.co.uk</td>
<td></td>
</tr>
</tbody>
</table>
| Salix furniture collection<br />Aluclad £/m²

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium guttering and fascias&lt;br /&gt;“Noah NDIAH! What in God’s name are you doing?” “Installing these Aligator Boxer gutters with 765mm Flushdowns of course, Mrs Noah! Why are you getting all aeriated like that down there on the ground while the stinking waters are rapidly rising? Get on the blinking ark, light of my darkness, while I finish this maintenance-free installation!”</td>
<td></td>
</tr>
<tr>
<td>“But you still need time for cutting and forming the Evolve paneling, silly!” “Don’t worry, my succulent nectarine! The whole system is quick and easy to install on site; so it’s all done before the deluge-y consequences hit us.” marleyalutec.co.uk</td>
<td></td>
</tr>
<tr>
<td>Salix furniture collection&lt;br /&gt;Living walls £/m²&lt;br /&gt;Specified&lt;br /&gt;</td>
<td></td>
</tr>
<tr>
<td>Living walls&lt;br /&gt;Aluminium exterior cladding, aluminium</td>
<td>850-1000/ ea</td>
</tr>
</tbody>
</table>
As UK consumers spend more time in the home thanks to hybrid working patterns, greater focus is being put on functional interior design that makes everyday tasks easier. Whether it’s washing up, disposing of vegetable off-cuts quickly, creating cool drinks easily with fresh filtered water or making a tea with a boiling water tap, the Blanco Unit makes tasks easier. And that no-go area under the sink becomes fully used with storage and waste systems suited to individual’s setups. Whether it is used to separate recyclables, organise cleaning products or store other items, Blanco has a solution. Research from Mintel shows that style and appliances are among the most important considerations for buyers investing in a kitchen and the Unit gives interior designers a stylish solution to the kitchen water place, allowing them to give homeowners a beautiful yet multi-functional area of the kitchen.

Sinks, taps and bins are among the most commonly used items in the kitchen but are often not considered as important in the planning phase as they should be. The setup of the Blanco Unit brings together these three items in a perfectly integrated system where components have been carefully selected to ensure seamless integration with one another, making kitchen life more joyful. The Blanco Unit combines the brand’s premium products, letting designers choose the right items to suit their customer’s kitchen style and lifestyle. For example, Blanco sinks and taps can be selected in various colours or materials and finishes to match the aesthetics of the rest of the kitchen. Interior designers can also help consumers choosing to add clever accessories such as over-the-sink chopping boards, soap dispensers or matching InFino sets to create an overall cohesive look. Whether it’s the inclusion of smart or boiling water taps, sinks in a huge range of designs, materials and installation options, or additional in-cabinet storage, organisational products, waste management systems and food waste disposers, a Blanco Unit combines intelligent solutions and new materials to ensure it all flows naturally.

Through many years of research and development, Blanco has simplified the water place so that homeowners can find everything they need, all in one place.

To find out more about BLANCO’s full portfolio of products and services visit: https://source.thenbs.com/manufacturer/blanco-uk-ltd/wQmDwU43KvVLyk7Ang1NN5/overview

Contact: Mark Craine, contracts manager
07909 682757 mark.craine@blanco.co.uk

To see more about BLANCO’s full portfolio of products and services visit: https://source.thenbs.com/manufacturer/blanco-uk-ltd/wQmDwU43KvVLyk7Ang1NN5/overview
Social housing can harness Passivhaus principles

Local authorities want energy-efficient homes. It’s a realistic proposition if they truly understand what’s involved

Words: Josephine Smit

There’s no escaping the fact that homes for the poorest in society sometimes fall short in their purpose of providing shelter from bad weather or harm, highlighted most recently by the death of two-year-old Awoof Ikade from a very cold condition resulting from exposure to mould in his home. The Better Social Housing Review, commissioned by industry bodies the National Housing Federation and Chartered Institute of Housing, recognised the poor quality of social housing in its findings last year, while the government’s Housing Ombudsman continues to report failings.

After Ishak’s death in government announced improvement measures, including guidance on damp and mould, but rising fuel poverty has prompted fears that mould problems – often dismissed by landlords as ‘lifestyle issues’ – could become more prevalent.

It doesn’t have to be this way, as the Better Social Housing Review panel found at Mikhail Riches’ new Passivhaus homes in Goldsmith Street, Norwich. ‘It was striking that people were so happy with the fact their homes were warm and comfortable,’ says panel member and architect Sumita Singh. ‘It’s rare.

Newbuild reality

Numerous studies, including the five-year-long Building for 2050 research project, funded by the Department for Energy Security & Net Zero (formerly BEIS), have highlighted challenges in delivering healthier, more energy-efficient homes. These range from complex designs with innovative technologies, which resulted in poor installations, a performance gap and hard-to-manage homes, to common misconceptions. Among the latter is that, ‘Clients often think low carbon equates to low energy bills and that’s not the case,’ says Tom Dallow, partner – sustainability and innovation at Pollard Thomas Edwards, who worked alongside project lead Aecom on Building for 2050.

The study’s in-depth look at new Passivhaus buildings and carbon housing schemes found energy bills weren’t as low as expected at design stage, with some significantly exceeding expectations. The 2022 update of Part L of the building regulations may not help either. ‘You’ll get a significant energy bill on a new house whose builder made minimum fabric improvements, such as insulation and airtightness, and just put in heat pumps,’ says Dallow.

‘The government’s forthcoming Future Homes Standard is likely to phase out System 1, which calls for intermittent extract fan in the bathroom and trickle vents in windows, instead requiring continuous mechanical extract ventilation (MEV) or mechanical ventilation with heat recovery (MVHR). When reclimbing low carbon, low energy and air quality, Dallow cites the mantra of sustainability consultant Peter Rickaby: ‘No insulation without ventilation.’

Clients often think low carbon equates to low energy bills, and that’s not the case

The core issue is a lack of controlled mechanical ventilation, combined with an increasingly airtight fabric. ‘On a still day in a relatively airtight home built to the new regulations (without centralised mechanical ventilation), levels of air change rate will be very, very low, so any sort of moisture build-up from – and this is where resident use comes in – drying clothes or even boiling a kettle will start to result in mould,’ explains Dallow.

Doing better

The government’s forthcoming Future Homes Standard is likely to phase out System 1, which calls for intermittent extract fan in the bathroom and trickle vents in windows, instead requiring continuous mechanical extract ventilation (MEV) or mechanical ventilation with heat recovery (MVHR). When reclimbing low carbon, low energy and air quality, Dallow cites the mantra of sustainability consultant Peter Rickaby: ‘No insulation without ventilation.’

Local authority clients are placing increased emphasis on building performance

These are two of the five ‘pillars of Passivhaus’, as detailed in Dallow’s book, Designed to Perform. In it he describes Passivhaus as ‘the optimum fabric-first solution’, one of the factors attracting clients like Cambridge Investment Partnership (CIP), an alliance of Cambridge City Council and Hill Investment Partnerships. CIP is developing Passivhaus schemes for social rent and market sale in the city, with Pollard Thomas Edwards’ projects ranging from six houses to 70 apartments.

The practice also wrote the council’s Sustainable Housing Design Guide, which mandates Passivhaus certification. But setting that requirement in the Future Homes Standard would be a step too far for the housebuilding industry and its supply chain, says Dallow.

Growing understanding

Councils and community groups have been in the vanguard of low-carbon housing provision as they respond to climate change and local housing need. Hari Phillips, director with Bell Phillips, which works largely with local authorities, says, ‘Passivhaus comes into conversations a lot more. I think clients do want that label.’ Local authority clients are placing increased emphasis on building performance, he explains: ‘Because councils are concerned about tenants and are there for the long game, more are looking at post-occupancy evaluation to go back and monitor energy consumption and show buildings are performing against expectations.’

The practice has hosted seminars for councils on designing low-cost, low-energy principles, addressing some of the myths surrounding Passivhaus as well as common concerns, particularly the demands and cost of certification. ‘Passivhaus is a learning process and some councils are discovering it’s not as easy as they thought,’ says Phillips. ‘The principle must be followed through carefully from outset to completion, and it’s more technically challenging for contractors so they price in that risk.’

Given constrained council budgets, it’s not surprising to find some opting for Passivhaus principles but stopping short of certification, like Watford Borough Council with its terrace of five family houses at Riverside Road. This council pilot in tackling climate change achieved a four-star ranking in BRE’s Home Quality Mark, which considers running costs and impacts on health, wellbeing and the environment. Bell Phillips’ design incorporates briess isle to minimise overheating, high insulation and airtightness levels, MVHR, photovoltaics, good form factor, air source heat pumps and carefully considered windows. All are designed to improve on Part L requirements by 70% – matching schemes targeting certification.

‘The big criticism of the approach of saying we’re going to have Passivhaus principles is that it works in theory, but you’re never required to prove it,’ admits Phillips, but he argues it’s better to aim at Passivhaus principles than Part L. And like clients, contractors are still learning: ‘As they get more familiar with Passivhaus, hopefully it will get easier and prices will drop correspondingly.’

Scaling up

Among schemes helping to establish Passivhaus in the UK is Agar Grove’s estate regeneration, the UK’s largest Passivhaus project and part of Camden Council’s commitment to develop large-scale energy efficient homes to give families the space they need while limiting energy consumption and emissions.

Of the scheme’s 507 homes, 359 will achieve a four-star ranking in BRE’s Home Quality Mark, which considers performance against expectations. The government’s forthcoming Future Homes Standard is likely to phase out System 1, which calls for intermittent extract fan in the bathroom and trickle vents in windows, instead requiring continuous mechanical extract ventilation (MEV) or mechanical ventilation with heat recovery (MVHR). When reclimbing low carbon, low energy and air quality, Dallow cites the mantra of sustainability consultant Peter Rickaby: ‘No insulation without ventilation.’

Local authority clients are placing increased emphasis on building performance

With Passivhaus – or at least this level of performance – was the norm now.”

Local authority clients are placing increased emphasis on building performance

Local authority clients are placing increased emphasis on building performance

Below left Mae’s Agar Grove project. – part of the Agar Grove regeneration, the country’s largest Passivhaus project. Left Balfour Beatty’s Riverside Road housing for Watford Borough Council, a terrace of five family homes that the firm designed according to Passivhaus principles.
Idlewild Mews, an affordable rent, eight-unit housing scheme in south London, marrying a specific identity with a contextual response.

Henry Ford, the great motor manufacturer, said: “If you want to be the best in the world at something, you have to create your own market.”

VPPR Architects, in collaboration with Selsdon Building Contractors, have used his words to unlock a challenging, narrow infill site. The resulting scheme is a response to the surrounding context, challenging the identity of the area and creating a new one for the future. This relationship between building and its surroundings was encouraged by the client: an affordable rent, eight-unit housing scheme.

The folded solid metal profile creates a sense of depth in the facade and the two-toned colour palette creates a checkerboard effect alongside the brick. Folded aluminium sheet: Type Z-20/160, PPC RAL 060 85 10 & RAL 080 80 05
cadischmda.com

Not only does the greenery soften the mass of the building and connect it to the surroundings. The terraces are wrapped in folded metal balustrades adding to a sense of light and shadow, while in-built planters act as an additional buffer zone.

A diamond pattern running along the access-way breaks down its length and a change in colour outside the front doors demarcates a small shared space. With benches opposite the main building, it is hoped this simple hard landscape will encourage dwell time and conversations between residents. Little moments of community will help reinforce a sense of community, which can be achieved through design on a modest budget.

The development occupies a former garage site and is completely surrounded by existing houses, with glimpses of the new project appearing from across gardens and over fences. A narrow pathway leads to the front of the houses where the volumes have been alternately pushed back to create covered entrances on the ground floor and terraces on the first. Inward focus to prevent overlooking, these can be accessed directly from living rooms and bedrooms, bringing light and air into the upper level of the homes.

Bricks
Two contrasting brick colours were used to playfully break down the overall mass of the building and connect it to the palette of the surrounding context. Brick 1: Rosado, Brick 2: Pagus Grey. Mortar colour: Dove White
Stretcher bond, bucket handle pointing. jamesmosman.co.uk

Windows
On the front face of the building, the Idealcombi windows are set back a whole brick, reinforcing the play of the light and shadow on the facade. As with the terrace doors above, windows in the recessed entrance areas are flush with the brick. Futura + 149mm frame, Idealcombi
idealcombi.com

Precast concrete treads
For efficiency of construction, the concrete stair was cast offsite in two sections with the wider lower two treads being cast on site. The stair was finished in resin to match the access way. Precast stair by Milbank
milbank.co.uk

Precast concrete strips
The long access-way is broken up through a diamond shaped grid defined by precast concrete layout. Precast concrete strips 100mm wide x 150mm deep, textured, Cool Grey fromewwconcrete.co.uk

Aluminium ceiling panels
The two recessed entrance areas are defined through their grey aluminium ceiling. Square edge aluminium ceiling panels RAL 7035 Supplier Cadisch MDA
Cadisch MDA

Glazed doors
The roof terraces were conceived as private outdoor rooms where both the living rooms and bedroom open up to the space. The doors were chosen for their minimal profiles and sit flush against the brick (unlike the windows which are recessed) to emphasise the continuity between inside and outside. Futura + 149mm frame, Idealcombi
idealcombi.com

Metal cupboards
Due to the limited space, bespoke metal cupboards sit below windows. A bespoke metal door results as integrated parts of the windows. Bespoke powder-coated aluminium RAL 7035 Fabricated by PEC
playleengineering.com

Permeable resin bound gravel
Acting as a SuDS system, the cast in situ resin bound gravel allows for a complex diamond pattern along the access-way, where two contrasting colours define entrance and sitting areas. 6mm, Addasat
addasat.co.uk

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The long access-way is broken up through a diamond shaped grid defined by precast concrete layout. Precast concrete strips 100mm wide x 150mm deep, textured, Cool Grey fromewwconcrete.co.uk

TEAM
Architect & executive architect vPPR Architects
Ollie Chyngton Council
Structural engineer Arcoala/Poll Frischmann
M&E consultant Arcoala/Dasco
QS Arcadia Ian Sawyer & Co
Landscape consultant Onyx Odell
Acoustics consultant Arcadia
Principal designer/CDM Project manager Arcadia Patrick Hound
Approved building inspector Chyngton Council
Building control
Main contractor Seddon Building Contractors
CAD software used Vectorworks

Housing specified: Idlewild Mews, Croydon

vPPR reveals the what and why of its specification decisions for an infill housing scheme in south London, specifying a specific identity with a contextual response.

Idlewild Mews, Croydon

LEED CO2 Emissions
624m²

Gross internal floor area
527m²

Gross external floor area
624m²

Form of contract
Design & Build

Start on site
September 2020

Completion date
August 2022

Products In Practice May/June 2023
ribaj.com

Products In Practice May/June 2023
ribaj.com
Design and practicality fuse with Anvil metal cladding

Taylor Maxwell’s system is quick to install, non-combustible and available in a wide range of colours and finishes

Colours and finishes
Depending on the desired finish, Anvil metal panels can be used in a range of shades, including standard RAL colours that are available as matt, satin or gloss finish. The expanded mesh manufacturing process provides the material with a three-dimensional quality. It can be completely opaque when viewed from one direction and transparent when viewed from an alternative angle. In addition to their aesthetic qualities, expanded mesh screens are extremely strong and flexible enough to be used for metalwork fabrication and metal structures. Our expanded mesh systems are available in a PPC, anodised or selected natural metal finishes.

Our team can provide advice and guidance to help you select the appropriate format of expanded mesh or perforated panels. We can assist with advice regarding light transmission and ventilation requirements and offer suggestions to suit individual budgets, designs and installation requirements.

To achieve a striking and unique design, metal panels can be perforated, embossed or brushed to achieve a specific aesthetic quality. Expanded mesh screens are an effective way of satisfying ventilation and solar shading requirements. Perforated metal panels are available in a PPC, anodised or natural metal finish.

Designed for facades, Anvil metal cladding is a range of innovative aluminium rainscreen systems that allows precise and efficient installation, with perfect joint lines and accurate tolerances.

More and more developers are calling for fast-track construction techniques to improve build times and programmes. Alongside strong demands for reduced build time, updated building regulations now prohibit the use of ‘combustible cladding’ on relevant high-rise buildings. Suitable for new builds and projects where re-cladding is required, Anvil metal panels are available in an extensive portfolio of polyester powder coated (PPC) colours and finishes, all of which are A2 fire rated (tested to EN 13501-1).

Expanded mesh panels can be either convex or concave. The material work-hardening properties that result from the embossing process create a much stronger panel solution. As well as their aesthetic properties, perforated panel systems are an effective way of satisfying ventilation and solar shading requirements. Perforated metal panels are available in a PPC, anodised or natural metal finish.

Flexible metal patterns can be used alongside punching machines to create different perforations or embossed patterns, which can be either convex or concave. The material work-hardening properties that result from the embossing process create a much stronger panel solution. As well as their aesthetic properties, perforated panel systems are an effective way of satisfying ventilation and solar shading requirements. Perforated metal panels are available in a PPC, anodised or natural metal finish.

Products In Practice May/June 2023
ribaj.com

To speak to the team at Taylor Maxwell about Anvil metal cladding and how we can assist with your project, call 0203 794 3277 or email enquiries@taylor.maxwell.co.uk

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Flooring

Anglia Ruskin University campus, Peterborough

Anglia Ruskin University's new campus ultimately expects 12,500 students. With that footfall, putting the right flooring in the right place was essential

Words: San-Carlos Kucharek  Photographs: Richard Fraser

Approaching Anglia Ruskin University's new Peterborough campus, south of the city's Norman cathedral precincts, you pass over a wide pathway. It's an expensive consequence of the Ukraine conflict, explains MCW Architects associate Lien Geens, who has been in charge of the £20 million design and build project since the Cambridge firm's appointment in 2019. In the pressured run-up to University House's opening last September, the need to ensure that ARU Peterborough's first phase opened in time for its first cohort of undergraduates meant procuring the warm but robust buff-tinted Tarmac Ulticolour floor covering at more than double the originally quoted price.

A lot has been riding on the success of the venture, as bringing a tertiary education institution to the city – the largest after Swindon without one – was a core pledge made by its new mayor in 2016. Perceived as a higher education 'cold spot', Covid 19 brought more challenges. ARU Peterborough's Full Business Case stated that the pandemic's effects were exacerbated by 'education deprivation and the region's low-tech industrial base' – the city is ranked in the bottom 10% nationally for skills levels. So when ARU intervened, with Cambridge and Peterborough Combined Authority and the City Council, to create a new university, it was not before time.

MCW was part of a MACE-led multi-disciplinary team that delivered it in under two years – despite the pandemic. The 5,300m² University House has just welcomed its first 2000 students, half of those local or mature students, to its faculties of General Science, Health, Education and Computing.

Geens explains that the building concept is simple, a 75m by 32m structure of post-tensioned concrete slabs and columns set over three floors. Specialist teaching and laboratory spaces are arranged either side of a central 'heart' space, incorporating a circulation zone and informal learning areas and spaces encouraging social interaction. The north side of the building, facing a busy A road, is a mix of full-height, double-glazed or insulated aluminium panels and opening side vents, with characterful brown, profiled and glazed terracotta demarcating the double-height lecture hall. The cladding is similar on the south side, but here it is set behind a huge, dominating aluminium screen by Sotech. The CNC-cut perforated motif on this 'solar veil' was based on the nearby cathedral's painted timber ceiling, says Geens. As designed, it cuts up to 50% of direct sunlight to the south facade and helps the building attain a BREEAM Very Good rating. This is augmented by a green roof and P V arrays, plus factored-in connectivity to Peterborough Integrated Renewables Infrastructure (PIRI), which

Products in Practice May/June 2023

Above The south elevation is characterised by its solar veil, whose pattern is based on the wooden ceiling of the city's Norman cathedral.

Left A wide tarmac path draws students from the old centre to Phase I of ARU Peterborough's new university campus.
will provide fossil-free heat and hot water.

Also part of the thermal strategy is the building’s mixed-mode ventilation system. This concentrates high levels of air conditioning in high-demand areas like laboratory and computer science rooms while using low level feeds in more general areas. Secure ventilation panels in the facade allow for night purging, helped by others set at high level in the six light canons of the central spine, which also double as smoke extract.

Intrinsic to the strategy for ventilating general lecture areas was the nominal 600mm sub-floor plenum that sits beneath the Kingspan raised-floor voids of the first and second floors, where says Geens, ‘there’s a lot happening’. She explains that with the plant area at high-level on the north side, MCKW had to use the ‘pinch points’ of the central spine bridge crossing to concentrate plenum runs. The process was helped by all the consultants building their models in Revit, which allowed bi-weekly co-ordination via overlay of the models. Large ductwork for floor-fed, low-velocity air feed required acoustic dampers at the glazed wall partitions where the seminar rooms meet the central spine, as well as fire-rated and smoke dampers at all interfaces. Fire batts in the floor were installed every 20m to deal with both plenums and runs of data and electricity feeds, not least to the data-heavy computing training spaces. Multiple below-floor fire separation concerns required close working with the contractor to ensure the correct sequencing of services. A Kingspan Aireal raised floor completed the installation using Alpha pedestals. Marlings Burbury ‘Granite’ carpet tiles with their acoustic attenuation qualities made them a natural choice for seminar and teaching spaces. Also installed in the central spine, their specification in lighter ‘Zinc’ helps delineate circulation zones from informal study areas in the corners – the sound further mitigated by wall-mounted acoustic panels.

At ground level, there are deep floor voids in areas requiring only low-level feeds such as in the main lecture hall at the north-west side, but high level, high air exchange plenums are used in areas such as the science, engineering and health labs. In these rooms, says Geens, floor voids are reduced to 250mm to deal with electricity and data feeds on a more robust Kingspan Simplex raised floor. Heavy duty Forbo Surestep Material vinyl anti-slip sheeting in ‘Blue Concrete’ was specified here to withstand lab desks and machinery being moved. Laid as a sheet roll, its minimal joints reduce the likelihood of spilled liquids or chemicals making their way into the floor void. Forbo Eterra Material vinyl sheet in ‘Beton Concrete’ was specified on the heavily trafficked areas of the central staircases. This was as much an aesthetic choice as a practical one – as with the carpet colour demarcating study zones, it creates visual distinction to vertical circulation areas.

Throughout the ground floor common spaces, including café and student hub, will provide fossil-free heat and hot water. 

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Intrinsic to the strategy for ventilating general lecture areas was the nominal 600mm sub-floor plenum that sits beneath the Kingspan raised-floor voids of the first and second floors, where says Geens, ‘there’s a lot happening’. She explains that with the plant area at high-level on the north side, MCKW had to use the ‘pinch points’ of the central spine bridge crossing to concentrate plenum runs. The process was helped by all the consultants building their models in Revit, which allowed bi-weekly co-ordination via overlay of the models. Large ductwork for floor-fed, low-velocity air feed required acoustic dampers at the glazed wall partitions where the seminar rooms meet the central spine, as well as fire-rated and smoke dampers at all interfaces. Fire batts in the floor were installed every 20m to deal with both plenums and runs of data and electricity feeds, not least to the data-heavy computing training spaces. Multiple below-floor fire separation concerns required close working with the contractor to ensure the correct sequencing of services. A Kingspan Aireal raised floor completed the installation using Alpha pedestals. Marlings Burbury ‘Granite’ carpet tiles with their acoustic attenuation qualities made them a natural choice for seminar and teaching spaces. Also installed in the central spine, their specification in lighter ‘Zinc’ helps delineate circulation zones from informal study areas in the corners – the sound further mitigated by wall-mounted acoustic panels.

At ground level, there are deep floor voids in areas requiring only low-level feeds such as in the main lecture hall at the north-west side, but high level, high air exchange plenums are used in areas such as the science, engineering and health labs. In these rooms, says Geens, floor voids are reduced to 250mm to deal with electricity and data feeds on a more robust Kingspan Simplex raised floor. Heavy duty Forbo Surestep Material vinyl anti-slip sheeting in ‘Blue Concrete’ was specified here to withstand lab desks and machinery being moved. Laid as a sheet roll, its minimal joints reduce the likelihood of spilled liquids or chemicals making their way into the floor void. Forbo Eterra Material vinyl sheet in ‘Beton Concrete’ was specified on the heavily trafficked areas of the central staircases. This was as much an aesthetic choice as a practical one – as with the carpet colour demarcating study zones, it creates visual distinction to vertical circulation areas.

Throughout the ground floor common spaces, including café and student hub,
MCW selected ST3 Tiles’ 1200mm by 300mm ceramic planks in light grey running lengthways into the building. These give students a robust, slip resistant surface once they’re past the Forbo Nuway Grid entrance matting in reception. The tiles in this zone sit on a screeded concrete floor.

Outside, the flat roof above the main lecture hall and library space on the building’s north-west corner doubles up as a generous terrace with enviable views over to the cathedral and city. This has been paved with coarse textured concrete paving slabs to the contractor’s spec. From here observers can see that tarmac path and the courtyard’s Scoutmoor Yorkstone slabs leading to the colonnade beneath the south-facing solar veil.

Formed of 200mm by 100mm by 80mm Marshalls concrete block paving, this through-site connectivity is part of the university’s strategy, giving the public intriguing glimpses past the glazing of the lab areas to its day-to-day activities.

Phase 2 of the development, the £16 million Research and Innovation Centre, has just completed on the other side of the courtyard. Of less conventional hybrid steel and timber structure, it’s designed to allow tech start-ups the chance to engage directly with the academia opposite. And just breaking ground to the west and completing in 2024 is the Phase 3 ‘Living Lab’, a £26 million 3000m², all-timber structure that will, alongside more general teaching provision, have dedicated specialist science labs. By 2025, the aim is to have 5000 students studying at ARU Peterborough, with a total of 12,500 by 2030, a £60 million academic hub finally addressing the area’s general education deprivation and bringing youthful energy – and economic benefits – to the ancient city on the Fenlands’ edge.

Credits
Architect: MCW Architects
Client: Cambridgeshire & Peterborough Combined Authority, with Peterborough City Council & ARU
Project manager: MACE
Cost consultant: MACE
Structural engineer: Smith and Wadworth
M&E: CPW
Landscape consultant: LUC
Acoustic consultant: Anderson Acoustics
Fire consultant: LA
Principal designer: Safescope
Approved inspector: Quadrant
Planning consultant: Pegasus
Transport consultant: TTC
Main contractor: Bowmer and Kirkland

Reynaers Act is our sustainability programme. It communicates clearly our commitment to the climate and society. With 50 years of global product development, 7 testing centres worldwide and products that are easy to fabricate and install, you can be reassured with Reynaers Aluminium.

For more information visit reynaers.co.uk/sustainability
email reynaersltd@reynaers.com or call +44 (0)121 756 8611

Together for better
www.reynaers.co.uk/sustainability

We are contributing to more sustainable buildings and developing circular products. Ensuring we reduce our ecological footprint while never forgetting we are a caring company.
Specified

A variety of bricks and bonds give character to Lancaster Grange, the first UK recipient of the BRE Home Quality Mark.

Above Soldier bond and sawtooth edge patterned brick detailing, evident in these striking designs.

Below The Bricklet Wood blend combines the Rustington Brown and Red Silversand products from AAB’s handformatic press.

Bricks for style and sustainability

Narok 70/95 Compact Garfor

It is necessary to study the Hermetic writings. Consult: Liber Hermetica, Corpus Hermeticum, The Book of the Secrets of the Stars, The Secret of Creation, the Liber Hermeticus de Alchemia. Read also the Elite Crete PDF. Only then shall you comprehend this high build flooring system of urethane top coat, body coat and vapour barrier, which is slip resistant, antimicrobial, VOC free, chemical and stain resistant, durable, and low maintenance - yet whose gloss finish shines like the transformational Full Moon, casting Her Mystic Potency upon a vibrational Sunny-D lake of orangey Moon, casting Her Mystic Fullness... yet whose gloss finish shines like the transformational Full Moon, casting Her Mystic Potency upon a vibrational Sunny-D lake of orangey Moon, casting Her Mystic Fullness.

Cheshire Plant," Alice began, rather timidly, "Would you tell me, please, which way I ought to go?"

"That depends on where you want to get to," said the Plant. "I don't much care," said Alice.

"Oh, you're sure to do that," Alice added. "So long as I get somewhere," the Plant went on, "I don't much care which way it is."

"I don't much care," said Alice.

"That depends on where you want to get to," said the Plant. "That depends on where you want to get to?"

"I don't much care", said Alice.

"Well.' said the Plant. 'Both these are outside your line of argument."

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Go outside whenever you want

Markilux awnings offer style and flexibility – making outdoor living easy and tempting in almost any weather.

Markilux awnings offer style and flexibility – making outdoor living easy and tempting in almost any weather.

The awning extends horizontally

On the new patio roof, one or two awnings are integrated into the upper frame of the cubic system, which is placed on four square aluminium pillars. The open-air seating area measures 6m by 6m if equipped with two individually operable awnings. Another version, with a single awning, is somewhat smaller at 3m by 6m – and a standard height of 2.6m. However, other heights are also possible. What is completely new is that the awning extends horizontally, running flush with the upper frame. This is achieved using the ‘tracfix’ system, which prevents the material sagging and holds the well-tensioned cover firmly in the guide tracks. As a result, the awning fabric is kept stable in winds of up to 6 on the Beaufort scale.

A smart solution for rainwater drainage

Setting a horizontal angle was only possible due to a special trick. Normally an awning requires a tilt angle of at least 14 degrees, so rainwater can flow off and avoid the so-called cushion effect, in which troughs of water are formed. But in the ‘markant’ system, Markilux has been able to dispense with the tilt angle because by inserting special openings in the centre of the cover. Rainwater flows automatically through the openings, then away to the side via a rain gutter and down the pillars, exiting at the bottom. Delicate aluminium ribs support the textile roof in dissipating larger quantities of water over the awning.

An airy climate under the awning roof

The awning fabrics have excellent water-repellent properties, which, together with their resistance to ultra-violet light, makes them extremely weatherproof. Although special procedures of impregnating the covers has made them dirt-repellent, they are still air-permeable. This means that heat does not accumulate underneath them in the same way as under a closed glass or louvre roof, and the awning does not rattle. The room climate and atmosphere are substantially more pleasant – a sensation enhanced by a cozy awning colour. To this end, the new fabric collection offers consumers a rich selection of colours, right down to their own individually desired shade.

Smart functions for a feeling of wellbeing

Furthermore, LED lighting can be added to the awning roof for illumination, which can add to the sense of wellbeing. For example, a dimmable ‘LED line’ can be installed around the upper frame or on both sides of the central rain gutter. LED spotlights and a heater can also be integrated here. In order to operate this additional functionality, Markilux uses wireless ‘io’ technology. Sun and wind sensors supplement the safety of remote-controlled operation. And those wishing for more privacy and protection against the cold under their awning roof can combine it with a vertical blind, which fits precisely within the dimensions of the upper frame and the pillars.

Avning specialist markilux already has several standalone systems in its range, but the four-column open-air seating area ‘markant’ is set to conquer gardens and patios. It does without the typical adjustable louvres in the roof, instead using an airy design featuring an awning. This should provide equal protection against sun, wind, rain and cold, making it suitable for almost all weathers. With its simple geometry, it suits similar house shapes particularly well – whether on a large patio, in an extensive garden or in a restaurant or hotel in order to provide outdoor protection and a pleasant atmosphere.

Markilux awnings offer style and flexibility – making outdoor living easy and tempting in almost any weather.

As a stand-alone unit or integrated into the existing architecture, the markilux markant makes a big impression in any situation.

The cubic design provides a pleasant climate because heat does not accumulate so severely under the air-permeable fabric roof. In addition, it is possible to design one’s own individual colour space using the diverse and extensive range of fabrics.

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Below The cubic design provides a pleasant climate because heat does not accumulate so severely under the air-permeable fabric roof. In addition, it is possible to design one’s own individual colour space using the diverse and extensive range of fabrics.
Jacksons Lane, London

A multi-arts and circus hub in a converted church has been reconfigured to create intriguing and much more flexible spaces.

Words: Michèle Woodger
Photographs: Fred Haworth

Architect Katy Marks, front of house manager Andy Martin and I are standing in a refurbished studio at Jacksons Lane arts and culture hub, a room in the transept of a grade II-listed Victorian Methodist church. As Marks indicates the rigging that now enables circus performers to practise trapeze in this sound-proofed, double-height space, an actress rehearsing her set. Suddenly, she yells an expletive (the actress, not the architect) and flings herself into a chair as Bowie blares from speakers. It’s our cue to leave. What Charles Wesley would have made of it all is uncertain. But for Jacksons Lane, the performers, theatre-goers and Highgate locals, Citizens Design Bureau’s transformations are a godsend.

For some years the building’s main entrance was obscured by hoardings, the porch stored chairs and access was via a small side door. While budget and planning restrictions has kept most of the refurbishment inside, one of the clearest external interventions is the reopened main entrance, reintroducing a sense of procession. Churches are theatrical too. Converted in the 1970s, the centre comprises studio spaces, a professional theatre in the adjoining former parish hall and a café – now large, airy and much increased in capacity and appeal. Yet what once made sense to someone at some point had become nonsensical: the building was arranged over an astonishing 20 levels, with the nave split vertically in two, low ceilings elsewhere, interruptions to circulation and other non-sequiturs. Acoustics were bad so that rooms could not be hired out simultaneously, and certain equipment was available only in the theatre itself, making rehearsals difficult to schedule.

With the budget slashed early on (Marks had six weeks to convince Arts Council England that the designs were viable), the design team had to radically reprioritise the resource allocation (beyond conservation and structural repairs). “It forced us all to really think: What is the essence of this place? What really makes a difference, creatively and functionally?” Marks explains. “Sustainability is about buildings that last because they are loved and well used, flexible and robust. So getting the layout and access right was fundamental.” The earlier layout provided little...
sense of the original building. Now, it is easy to identify the direction of the aisles, the transept, and so on. The concrete floor has the nave’s section has been retained but the upstairs studio created by this insertion has been upgraded with large internal windows in the arched ceiling, establishing visibility while remaining soundproof. This space, far higher than the original builders ever intended the congregation to be, is unusually close to the ceiling and restored Victorian glass windows, offering new perspectives on old architecture. New uses for this room include weddings, filming Strictly Come Dancing, and hosting 200 pensioners on Christmas Day — many of whom wouldn’t have been able to climb the stairs.

The refurbished theatre includes new removable auditorium seating and an extendable stage. A tension wire grid above has been removed, exposing the trusses, while winches on bars hold the technical equipment. These interventions give a sense of the original room, with greater visibility from the control desk and bringing the audience closer to the action. The room’s former life as a church hall has not been prettied – the flooring and exposed brickwork, in particular, retain a slightly worn character, ‘in a romantic way’, says Martin, Marks agrees. ‘This is a workshop for creativity – people are making stuff here and you are welcome to come and make stuff too.’

The juxtaposition of old and new, industrial and ecclesiastical, is most evident in the gap between the church hall and church church hall. An awkward triangle, it now links the café foyer to the entrance way, which are all at different levels. From the mezzanine balcony, where jazz and commercial hubbub float upwards, plant and equipment on the church roof is visible. ‘We tried to make the building layers improve... it should take it out. Idiot.’

Accessibility has been the most transformative improvement. Haringey Council is the freeholder, so it should be a building fit for the community. The accessibility strategy goes beyond the obvious. ‘We are always very careful that ambient acoustics are pitched correctly,’ explains Marks. ‘If this doesn’t work it’s not tiles, it’s low maintenance groutless panels, with watertight “Hydrolock” jointing, brilliant. “I thought you’d be pleased!” “The client’s name is what?” Silence.

Penicillium Roqueforti. Ring any bells?’ “Well, I knew she was called Penny, but yeah, I didn’t know her a MOULD REPELLENT any bells?”

“Hey, cheers! I love this. “You warm enough alright?”

[Stacey] “Just right, Duane love it. “You warm enough over there Stacey? Not too cool?”

Stacey: “Just right, Duane love it and me alveoli are enjoying a healthy oxygenation level nonetheless! You breathing alright?”

Duane: “Yeah, cheers! I love having a breathe, I could do it all day, given half a chance.” [They laugh, Carton.]

“My name is Michael Caine, And it’s my 90th birthday. This year, Nodalkiddapeopleknowthat, I’m revisiting scenes from my youth. They knocked down, The Get Carter, Car park. So we’re in Shoreditch. To enjoy. The low-carbon beauty. Of this brand new, Office block. Right next to. A completely authentic, And bloody noisy, Tube line. This site. In the old days, Was a wood warehouse. And that same old-school firm. Sorted all the wood for this birthday. This year. Caine. And it’s my 90th.

1 T&G wall panels in Levanto-Marble Multipanel

2 Parwax-Lot Climate Ceilings Hunter Douglas

3 Timber surface finishes James Latham

4 Terrazzo Classico cast surfaces Himacs

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From bungalow to Scandinavian-style family home

Vario windows and skylights bring light – and the outside – into a transformed building

Reena Simon, interior writer and stylist, bought this 1960s bungalow in Cardiff in 2018. Despite many challenges during the pandemic, she managed to make her dream home a reality.

With only three walls of the original bungalow remaining, the reimagined space incorporates special elements such as various custom Vario by Velux rooflights, reflecting her style and her family’s needs.

Ms Simon had a clear vision, and like us loves daylight and fresh air. This is evident throughout her home, and the Danish concept of Hygge – meaning comfort, pleasure and warmth within simple soothing things such as a cosy atmosphere – was also a huge inspiration for her renovation.

Natural lighting to maximise views
The decision to install 11 bespoke windows and skylights was a great way to bring the outside in and take advantage of the natural beauty surrounding the property, while making the most of its location.

The rooflights were installed before the family had moved in, Reena adds: “It was really special seeing the rooflights open and experiencing that for the first time. The views out to the skies and the trees – it’s just incredible!”

Being able to open up the rooflights and take in views of the world outside is a feature that truly makes the home one-of-a-kind.

Why choose Vario by Velux skylights
Ms Simon said “I was attracted to Velux for the rooflights because you can have a bespoke size and that was really important for the spaces in our home.”

One of the key advantages of the Vario by Velux product range is its flexibility. They give the option to choose from a wide range of sizes and shapes to create a skylight that perfectly matches the design concept. In addition, the Vario range is designed to be energy-efficient and prioritises safety, security and water tightness.

Furthermore, the opportunity to speak to our daylight experts, discussing all the daylight requirements including product details, reviewing drawings and technical product details, was a huge factor in her decision.

Overall, bespoke rooflights are a great option to create a truly cohesive and personalised living space.

By working with a company like Vario by Velux, it’s possible to create a custom solution that expresses individuality and perfectly matches the design concept. The Velux Group has spent 80 years crafting roof windows of the highest possible quality; you can trust us to ensure your daylight needs are met.

Top Bespoke rooflights made for maximum daylight. Combining 80 years of expertise with contemporary design, they give sweeping, seamless views of the skies above.

Middle The Unlimited and Rectangular Rooflight has U-values as low as 1.1 and laminated inner panes as standard, creating a balance between form and function.

Bottom Internal playroom with no windows, transformed with daylight from above.
Diversity on the house: one-off homes

Why does Britain have so few self-build homes? When is a home really finished? And how much can you do with refurb? PiP’s bespoke housing webinar probed the typology.

“This is just about Grand Designs. It is about diversity,” began Julian Owen, author of Self Build: How to design and build your own home (RIBA Books, 2023). Speculating in custom and self-build projects, Owen is a member of the Right to Build Task Force, which works to make this housing model more viable for ordinary citizens. Owen gave an overview of the model, advocated for its benefits and identified hindrances to its take-up.

Self-build and custom-build operate on a continuum in terms of scale, planning regulations and client input. They also bring about many advantages, claims Owen; increased opportunities for modern methods of construction, clients invested in sustainability, local training opportunities, responsesiveness to community needs, council opportunity to quickly grow housing supply, market diversity, and more attractive and contextual housing. Political parties on both sides are keen, and the Help to Build Scheme – a government equity loan – has been available since June 2022. But uptake has been limited. Why?

Cultural barriers are a tradition of self-build than in Europe and our market in “stodgy”, says Owen, and misconception that custom and self-build is as draughty and costly don’t help. But local authorities themselves are also a hindrance, as they need to be convinced of the statutory duties imposed several years ago, such as the Self-Build and Custom Housebuilding Act 2015, planning department (LPAs) are reluctant to get on board. Only 40 have met their duties (including regard to a register of custom-build interested parties when planning regulations schemes and land disposal), according to the National Custom and Self-Build Association (NaCSBA).

Clearer more encouraging is needed for planners and clients, who require support in understanding the construction and planning processes and how to mitigate risks. Next, architect Clara Vicedo Peñarrubia of Prewett Bizley Architects, outlined the radical sustainability improvements of the project. The home’s original EPC was ‘F’ and the internal spaces were insufficiently configured, contributing to a gloomy sensation at the back of the plan.

Reorganising the vertical circulations enabled space, light and air to flow upwards, improving ventilation, and two new windows were accommodated. Retrofit measures included stripping and coating all window frames, thermal efficient, durable and have low toxicity. Remade multi-pane Victorian windows throughout used evacuated glass, with external blinds upstairs. An air source heat pump was added on the roof and an MVHR heat recovery system inside. Now, the triple-height atrium rearranges the flow downstairs, the upstairs bedroom is filled with diffuse light, and a dining area

In the heart of the plan accommodates the semi-structural plywood stair case. The retrofit achieved a 95% reduction in energy consumed at meter.

Chris Leyn, founder, and James Stroud, director, at Leyn + Co Architects discussed Private Residence, Greenwich – a sustainable and contextual home in an AONB on the Welsh coast. Replacing an ugly existing building, sustainability measures include cross-ventilation, photovoltaics, carefully positioned glazing and a sedum roof. The house responds to its context with materiality – a concrete block clad in locally quarried stone, topped by a two-storey timber structure faced with Brooklyn. Inside an atrium – a soaring atrium, castellated stair and internal garden, space partitioned with sliding screens are a nod to Neave Brown. The six-depth topography has been exploited to create a multi-level building with access to ground on each floor, maximising connections with the landscape and views to the sea. “It’s a relatively quiet building but it’s strong”, says Leyn, “It sits well in the land.”

As demonstrated, well specified, high performing glazing can transform the aesthetics and experience of a space. Tony Culmer, director of glazing specialist Maxlight, talked us through a range of applications in architect-designed homes. From a (much copied) oriel bay window and pivot door designed for Platform 5 Architects in Hackney to an astonishing glazing idea for Elliott Wood and Will Gamble Architects’ Fenchurch Works – which uses extensive glass in its “building within building” idea that was also nominated for House of the Year 2015 – Maxlight has a long history of collaborating with architects to create bold, cutting edge solutions.

A third House of the Year nominee was Mountain View, by CAN, home of founder and RIBA Rising Star Mat Barnes. He rounded off the session with a glimpse into this postmodern, hi tech inspired project, which draws on his experience designing exhibitions at the Sir John Soane Museum, his own academic interests and his wife’s career as a geographer. “I haven’t got one overarching concept, it is a mix,” he said, and there are certainly complete ideas for play.

The out house has garnered considerable press attention – rightly so considering its intricate references. In nod to Soane, efforts from a local plasterworks – cornicing, ceiling rose and so on – decorate the living room walls. “Does putting something on a wall give it value?” Barnes asks.

Structural columns in the kitchen hold a dialogue with trees in the garden and are painted as surveyor’s ranging poles. The billboard mountain at the back of the house is a riff off an archive photograph of a reproduction Matterhorn being built over a steel frame, an exploration of a paradox whereby something immensely heavy is impressively supported by something light.

The wall of the dining room is conceived as a cave, textured with concrete. The rippled surface of the dining room table resembles a lake, and the work surfaces – made from recycled plastic from chopping boards and milk bottle tops – complement these landscape elements with an overt marble look. A compressed steel fire surround has been moved to an implausible location in a room to ground it, and the work surfaces – made from recycled plastic from chopping boards and milk bottle tops – complement these landscape elements with an overt marble look. A compressed steel fire surround has been moved to an implausible location in a room.
Critical steps on the road to good housing

There is still an ambition to make good social housing in the UK. Design, materials and community awareness hold the keys to unlock it.

The residential sector ostensibly represents architecture at its most basic – providing for human need of shelter – but it is also immensely challenging, dragging with it a host of social complexities and moral quandaries linked to the motivations of those in power.

What better illustration of these paradoxes is there than the UK social housing system? John Boughton, honorary research fellow at University of Liverpool and author of A History of Council Housing in 100 Estates (RIBA Publishing, 2022) began this RIBAJ PiP webinar by outlining the history of council homes, his book examines examples from 19th century almshouses to the 2019 Stirling Prize-winning Goldsmith Street in Norwich by Michael Riches. He discusses the council house’s origins in Victorian almshouses and the political drive in the 20th century to improve living standards. From tenements, and the political drive in the council house’s origins in Victorian alms houses to the 2019 Stirling Prize, Goldsmith Street, by Michael Riches.

Regarding high quality materials, Jonathan Lowy from sponsor VM Zinc put the case for the use of this metal. He demonstrated how this malleable material – providing for human need of shelter – but it is also immensely challenging, dragging with it a host of social complexities and moral quandaries linked to the motivations of those in power.

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Next, Holly Galbraith, associate at Niall McLaughlin Architects, presented the Master’s Field Development, eight purpose-built student apartments for Balliol College, Oxford. Combined with a professorial flat and a sports pavilion, the clusters of buildings – which were conceived as a scaled-down form of the micro social group of a dining table and chairs – frame a new quadrangle in an area of land bordering the civic core of Oxford and its surrounding landscape. Disparate architectural conditions had to be reconciled, Galbraith explains, in its buildings recede and protrude in dialogue with their listed neighbours.

Reducing social isolation was crucial, hence the arrangement of rooms around central gathering areas, and buildings around green spaces. Externally, each bedroom is in a brick-faced precast concrete bay, the windows recessed in the depths of the piers, with a woven motif panel inspired by the facade of the Ashmolean Museum. Many Oxford streets have imposing brick walls hiding internal quadrangles, but this scheme, on the border of the residential district, attempts to give back to the public realm with a visually permeable site boundary. It is a contextual and sympathetic offering.

Moving further south, to Lovedon Fields in Hampshire, by John Pardey Architects, Carl Gulland talked us through this attractive and contextual development of 50 homes inspired by rural vernacular. Landscaping was central to the scheme, which incorporates a green and a chalkland wildflower meadow beyond. Houses sit perpendicular to the streets, creating a ‘perforate rural edge’, inspired by local typologies. The homes’ brick materiality matches the colour of local earth, their masonry accommodates bats and bees. Established trees inspired timber-clad facades, while full-width roof photovoltaics take their aesthetic lead from traditional Hampshire roofs, where a heavier material is often used from eaves to eaves leaving a contrasting line of tiles below.

Over in Belfast, Chris McAvoy, project architect at Hall Black Douglas, introduced Gardenmore Green. The scheme – in an established residential estate with difficult ground conditions comprises 34 dwellings, that embrace their sloping topography through a stepped configuration. The development achieved Secured by Design and Life Time Homes accreditation, with the ethos of ‘simple housing done well’. The mix of semi-detached and detached homes with pitched roofs makes a staggered streetscape with pockets of landscaping and interesting projecting header courses of bricks adding complexity in detail.

Simple plans maximise natural light in the interior, and a recessed canopied entrance shields residents from the rainy climate. Throughout, small, considered gestures make for a powerful experience. The diversity of projects featured in this webinar demonstrate the range of possibilities which can be achieved in residential schemes when context, sustainability and the users are respected. In each case, rounded off Echabarri, they are trying to create a village and thinking intelligently about creating a critical mass to development.

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Practical completion

Sign up

Rob Leechmere, associate at Jonathan Tuckey Design, reveals three of the firm’s favourite products

Diatomite insulation spray – Cornish Cottage
Insulation can make an enormous difference to the comfort, securitvities and ambience when retrofitting buildings. To overcome this on our Cornish Cottage project, we used Diatomite insulation spray; a fully breathable lime-based plaster that has impressive thermal capabilities and offers minimal intrusion. The spray helped us achieve our goal of preserving the soul generic character of this quaint English dwelling. The original bowed stone walls are wrapped in a coating of Diatomite which preserves the organic fluidity between spaces while dramatically improving the thermal envelope.

Edmond Bell curtains – Malin+Goetz Canary Wharf
We enjoy the otherwise grace of curtains and often use them as alternative partitions and thresholds. We used heavy weight royal blue curtains in our Malin+Goetz Canary Wharf store to give a luxurious, zincad background to products while concealing utilities and storage. Of utmost importance is the atmosphere that is formed through use of fabric. An intimate embrace can be felt when immersed by full height curtains, creating a capsule like retail experience, and offering therapeutic repose from the London bustle.

Artemis Fabric stone – Urban Barn
Stone features work a level of gravitas and sculptural permanence to our projects. These floor-mounted steps in our Urban Barn homestead are positioned in concert to a clean, organised, and muted material palette. The glazed veins provide a tectonic focal point, juxtaposing polished aggregate flooring and white marble. In this case, the use of solid stone reinforces the project’s collaged ethos by transforming a functional essential into a sculptural permanence to our projects. These floor-mounted steps in our Urban Barn homestead are positioned in concert to a clean, organised, and muted material palette. The glazed veins provide a tectonic focal point, juxtaposing polished aggregate flooring and white marble. In this case, the use of solid stone reinforces the project’s collaged ethos by transforming a functional essential into a unique statement that draws attention to the composition of elements.

Read up

RIBA Climate Guide
Mira Harman, RIBA Publishing, 274p HB £40
The author, architect, environmental designer and ‘activist for addressing climate change’ at 5 Sophia’s London office, spends the first two chapters outlining the context of climate fundamentals and preferred sustainable outcomes. Following chapters highlight case studies from around the world covering Human Factors, Circular Economy, Energy & Carbon, Water, Ecology & Biodiversity and Connectivity & Transport. The book is well illustrated with engaging, full-page diagrams that aim to distill core ideas. Nearly 50 pages of reference help take your research further.

Designing Building Structures
Sey & Partners. Foreword by Sigrid Adriaenssens. 224p HB £63
An exception for FIP, this self-published book by engineer Sey & Partners – William Mathew’s collaborator on Cornwall’s Stirling shortlisted Tintagel Bridge – documents its work with Low Countries architects. From showrooms it moves quickly to technical aspects with drawings, explanatory text and construction shots. Be it their timber kids’ pavilion or a fantastic pool proposal, it’s a good overview of a country that keeps punching above its weight architecturally.

Extras and Changes – Specs, fees, people, resources, services… and fees – A Practical Guide
Tom Taylor. Dashdot Enterprises Ltd, PB 116p £12
A past president of the Association for Project Management, Taylor’s idiosyncratic guide to managing contractual extras and changes is an interesting read, with welcome brevity for a book on contract management. It does what it says on the tin, giving advice on how to charge for extras in a quicky, concise way. It is split into 15 chapters that open by outlining a contractual scenario and then spend a few pages going into detail – mostly via bullet point paragraphs. Not exhaustive by any means but a good primer for £12, if only to find out what Taylor’s ‘McGivney conundrum’ is.

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