THE QUEST TO BUILD NET ZERO

4 Angel Square, NOMA

Evolving regulation centred on green development is changing the ways in which projects are organised and implemented. **Alex Bell** finds out how leading property figures are handling demands

On opening in 2023, Eden will be wrapped in Europe's biggest living wall. Not bad for an office development in Salford. It's what's on the inside that counts, though, isn't it?

Phil Marsden is a project director for Muse Developments. He fronts its sustainability approach and has managed the progress at New Bailey, including at Eden.

Eden is a £36m, 115,000 sq ft, 12-storey office complex that includes enhanced ventilation rates which are in excess of latest British Council for Offices (BCO) standards.

What this means is that it is designed to provide more fresh air, demand-controlled ventilation with CO_2 monitoring, all-electric, fossil fuel-free servicing strategy and photovoltaic panels generating electricity onsite. Granted, it's not as exciting as the living wall's 350,000 plants, bird-nesting boxes and bug hotels – but a signpost, probably a benchmark, for the future.

Built to 2035-2050 green construction standards, Eden is believed to be the most sustainably advanced development of its kind in the UK.

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>
> **Jonathan Knowles**
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> DLA Architecture

Marsden and his project partners have designed Eden to be 'net zero in operation', with a target NABERS UK rating (the national system for rating the energy efficiency of office buildings) of 5.5 stars and a net increase in biodiversity of 175 per cent.

While immensely proud of the ongoing project, Marsden is quick to respond to the many challenges that developers are now facing.

"In terms of delivering true net-zero carbon buildings, embodied carbon remains the biggest challenge," he says. "We've reduced the embodied carbon by about half on Eden through clever design.

"But to go to levels that are true net zero, there has to be radical changes in terms of materials. As an industry we need to come together and push new materials forward. Let's see what occupiers actually do also, as buildings we work on are being designed as well as they can be, but occupiers are going to have to change how they work.

"As a fund we actively promote and incentivise high build quality."
Robert Wood
Igloo Investment Management

"Cost also remains an issue but I believe it's perceived to be a bigger challenge than it actually is."

Jonathan Knowles, of DLA Architecture, says net-zero carbon is a priority for them in 2022 when it comes to investment and educating its clients.

The practice recently filled the position of head of sustainability to drive its sustainability ethos, take a lead in promoting a more integrated environmental design culture while developing the ability to deliver net-zero carbon architecture across all sectors.

Knowles says: "What we are seeing is that the refurb market is still very much in its infancy.

"What is happening more and more within the industry, both with refurb and new builds, is the thinking around what that building could be in 20 years. There's a real agenda coming – as in, if we can't reuse stuff, try to design stuff that can be reused and repurposed. And we're trying to plan for that."

Technology is thankfully becoming smarter, though, he says.

"The benefits of smart tech are increasing. For example, agents in London are telling us that if you've got a BREEAM

A low-carbon neighbourhood

Aligning with the 15-minute neighbourhood concept at the heart of sustainably led masterplanning is Red Bank's 5,500 low-carbon homes scheme in north Manchester.

Hilary Brett-Parr is heading up the first phase of development within Victoria North, with FEC acting as the council's joint venture partner. She tells *Insider*: "A total of 5,500 low-carbon homes – 4,000 of which will be delivered by FEC – will be coming to Red Bank over the next ten years.

"Central to the scheme is ensuring residents are in walking and cycling distance of local amenities and social infrastructure to promote wellbeing and minimise car use."

Alongside low-carbon ambitions, the neighbourhood will also have a strong connection to nature, with access to the river's edge and woodland. "A target 50 per cent of the neighbourhood will be open space including streets, landscapes and habitats," adds Brett-Parr.

"With a long-term project such as this, we would always expect to react and evolve the approach to delivery over time. For example, you can see how the advancement of battery storage systems will play an increasing role in meeting carbon targets.

"It's more than possible that we may see more innovations adopted before the Red Bank project concludes."

As she points out, though, the unprecedented volume and severity of challenges in recent years, from construction inflation to supply-chain pressures, is unlike anything the industry could have anticipated five or ten years ago.

However, she says: "Out of uncertainty and challenge often comes resourcefulness and innovation.

"So, while carbon offsetting will remain a necessity for developing in high density neighbourhoods for the foreseeable future, given that the costs of offsetting are continuing to rise, we're likely to see the industry increasingly tackle the root cause of carbon and find solutions to cut emissions in the first place."

Victoria North

Outstanding or a high-performing building, you can get between a 10 and 12 per cent increase on rent. The rent is underpinning investments."

Robert Wood, investment director at Igloo Investment Management, recently launched the Lancashire Urban Development Fund (LUDF).

"It's a £20m pot made available via the European Regional Development Fund [ERDF] aimed primarily at supporting the delivery of industrial development in Lancashire," he says.

"As a fund we actively promote and incentivise high build quality that will meet the 2030 minimum energy efficiency standards [MEES]. This will require non-domestic properties to have an EPC rating of grade B or above."

As Wood points out, across the UK – and in Lancashire in particular – there is a significant proportion of existing stock that is simply too old to meet the modern standards which occupiers and investors require.

"Many of the properties date back to as early as the 1960s," he adds. "They are in danger of becoming completely obsolete and unfit for letting or sale unless significant changes are made."

According to Wood, the LUDF ultimately wants to work with developers to future-proof both new developments, and these legacy properties.

"This can be done by bringing them up to a higher standard through refurbishment," he says.

"Furthermore, it will mean they can be made fit for purpose again and meet, or exceed, future standards."

One long-term £1bn project growing in stature is the Middlewood Locks Neighbourhood. Salford City Council recently approved plans for the next phase of development at the 25-acre mixed-use site.

"Middlewood Locks is a true city centre brownfield reinvigoration," says Paul Kelly, development director at Scarborough Group International (SGI).

He adds: "The site has a very extensive and diverse history. And this new urban community that has so far been created will of course become a sustainable one."

Indeed, as Kelly explains, there is already urban wildlife living in the middle of the scheme.

"This is only going to further expand when we develop around five acres of public realm within the 25-acre site," he says.

To date, more than 6,000 jobs have been supported through the delivery of 1,117 new homes at Middlewood Locks.

And approximately 76 per cent of contractor BCEGI's workforce for phases one and two came from the local area – with 98 per cent of waste removed from the site recovered for recycling. ■

> "Middlewood Locks is a true city centre brownfield reinvigoration."
> **Paul Kelly**
> Scarborough Group International

Middlewood Locks

4 Angel Square
NOMA, MANCHESTER

Designed by Simpson Haugh, the 11-storey 200,000 sq ft grade-A office building will provide 19,000 sq ft across nine floors with a 16,840 sq ft top floor featuring a 2,100 sq ft roof terrace.

- The ground floor will offer a business lounge and retail units while a 32,000 sq ft basement will provide 55 car parking spaces including three disabled spaces with 26 electric charging points and 215 cycle spaces.
- The development will be one of the first in Manchester to feature smart technology to enhance the occupier experience through the use of a visitor app providing features such as contactless access, local information, air quality information and energy monitoring.
- 4 Angel Square will be a best-in-class example of a highly sustainable and efficient commercial office building. It is a Building Better Partnership Pioneer Project which is working towards a NABERS UK 5-star rating and BREEAM 'Outstanding'. The project is on target to be UK Green Building Council 2030 compliant, and it is set to achieve an EPC 'A' rating.