

Q3, 2022

Resibuild

INSIGHT

M A G A Z I N E

Sustainability:
Designing for the long term page 10

GLOBAL INSIGHT FOR THE HIGH-RISE RESIDENTIAL SECTOR

**Editor**

Hi, I'm Sam. I'd love to hear your ideas for future content, feedback on our current work or questions you'd like our experts to answer in future issues. You can reach me at sam.estall@sapphire.eu.com

EDITOR'S OVERVIEW

Welcome to Insight Magazine. Staying environmentally friendly is such a core focus for the construction industry that this quarter we're shedding a spotlight on sustainability – how you can best impact the environment with your actions and what the industry is already doing to help.

This month's Q&A comes from Nick Haughton, Head of Marketing at Sapphire Balconies, who shares his insight on whether it's possible to depend on your supply chain when taking sustainability into account. Furthermore, we're talking about

designing buildings for long-term usage, how MyDek's Luxura decking is innovating in the composite material market and the choice of materials now available when constructing balconies. It's exciting to be a part of the changing perspective in the construction sphere – I hope you enjoy reading all about it in this quarter's issue.

Sam Estall

UPCOMING RESIBUILD EVENTS

**Event Coordinator**

Hello, I'm Zdravka; we run regular industry roundtable events and CPDs. To join an event or book a balcony design, balcony fires or drainage CPD, email me at zdravka.petrova@sapphire.eu.com

Zdravka Petrova

**Hindsight**

Dublin Summit 25/5/2022

UK Delivering the Vision
20/7/2022

A Global Perspective
What does the future hold
for balcony design
& construction? Part 3
13/07/22

**Resibuild | Flagship Event**

3 November 2022



Key takeaways from recent events

Residential Construction in Dublin: Sustainability, Meeting the Needs of the Industry and More

On the 25th of May 2022, Resibuild hosted an event for the residential construction sector at the Guinness Storehouse in Dublin. The event brought together architects, cost consultants, developers, assigned certifiers and more who talked about the future of the industry and the most exciting innovations in the sector. Two-panel discussions were hosted during the event, the first on 'Construction's Carbon Footprint' and the second on 'Bringing Construction Up to Dublin's Needs'. Topics covered were:

- Circular Approach
- Designing for Sustainability
- Building for Reuse
- Modern Methods of Construction for Sustainability and Meeting the Needs of the Industry in Dublin
- Providing the Residential Construction Sector with Stability and Certainty

Sapphire in Canada: What does the future hold for balcony design & construction?

In 2022, Resibuild began hosting a four-part event on Global expansion by Sapphire Balconies. The event covers four topics, the final of the four upcoming on the 14th of September 2022. The event was held in the UK and broadcast globally with speakers such as Sapphire's Kevin Bonnar and Murray Hone and Antamex's Andrew Kennedy taking the reins. Topics covered were:

- Global Balconies: New trends and technologies for balcony design in North America
- Global Innovations: Antamex cover new ways to build balconies
- A Global Perspective: Covering sustainability and environmental concerns
- Global Solutions: Information on improving drainage and thermal performance.

Sign Up and Watch the Panel Discussions on Demand

If you want to learn more about Dublin's residential industry, the move towards net zero, or how the balcony industry is expanding in North America, sign up to watch the panel discussions on demand. The sessions cover the following topics:

- Construction's Carbon Impact
- New technologies and trends in North America
- MyDek Presentation
- Sustainability and environmental concerns in North America
- Getting Balconies Right in Dublin
- Improving drainage and thermal performance
- Bringing Construction Up to Dublin's Needs





Sapphire Balconies, a family-owned business established as a balustrading company in 1992, has hit its 30-year milestone this year.

2014 was a significant year for Sapphire Balconies, and it was when they made a massive shift in their business model and became the UK market leader in balconies.

Sapphire are now expanding globally with installs in New Zealand and Ireland underway. Plus, a showroom and technical team covering Canada.

They take great delight in being aligned with their values and perceived as personal, passionate and loyal.

As a celebration of their 30th anniversary, let's take a look at some of their 'WOW Moments' from their journey.



Year Wow Moment

- 1999 Installation of 90m handrails in half a day, which burned out the drills
- 2000 Installation of Primark balustrades. Alongside the invention of window guarding, escalators and cranes to lift the glass
- 2006 Moved to new office premises in Reading and Sapphire branched into southern Eastern
- 2007 Became the market leader in Crystal frameless structural glass
- 2009 Became certified in the environmental ISO 14001, in addition to already having ISO 9001
- 2010 Launched CABS balustrade configurator software
- 2010 Automation of Reading Balustrade factory including Laser cut 50 diameter posts for balustrades
- 2011 Putney Hill, innovative approach to a significant residential project
- 2012 Developed the Glide-On balcony system, which is patented all over the world
- 2012 Removed leading-edge risk from balcony installation and removing under load working during installation
- 2013 Preset drilling templates used on Flower Lane which led on to Baltimore Wharf
- 2013 Became a massive success in the balustrading business in the UK
- 2014 Created counterbalance lifters and development of tilt-lifter and installers kit
- 2014 First ever Glide-On balcony install on Staines Road (22 installed in 6 hours)
- 2014 Launch of Aluminium cassette
- 2015 Successful balustrade installation at Baltimore Tower
- 2015 Created dedicated balcony R&D lab
- 2015 Set up in-house training academy/ Practical install training rig
- 2015 The transition from a balustrade company to a balcony company. And a market shift to high-rise residential only
- 2016 Roof crane Installation of balconies to avoid the need for clients to pay for a crane
- 2017 Collaborated with accredited installers for dedicated training programme
- 2018 Our first event at The Gherkin, London – a Resibuild Event
- 2019 Installation at Pomona Wharf project achieved new record of 36 in a day
- 2019 Created remote locking device for balcony installation
- 2020 Research and creation of Laminate glass whitepaper on behalf of UK government
- 2021 Successful installation of 44 balconies in one day at Southall
- 2021 Move towards net-zero carbon and becoming carbon neutral
- 2021 First balcony installed in New Zealand and Ireland
- 2021 Hit a new record of balconies delivered to the site, a total of 235 balconies in a week
- 2021 Built up to 10 balcony manufacturing facilities. And increasing levels of training provided to the Supply Chain
- 2022 62 balconies installed in a day (110 in two consecutive days) at Bridge House, Uxbridge

UNITED KINGDOM

NHBC says new UK home registrations have increased

New home registrations increased 45% in the second quarter of this year, with completions returning to pre-pandemic levels, up 16% on Q2 2021, according to the latest data from NHBC.

During Q2 2022, a total of 66,855 new homes were registered to be built in the UK, compared to Q2 2021's 46,217. NHBC said this increase was partly

due to housebuilders wanting to beat the change in regulations in June "to minimise the cost impact".

New home completions totalled 40,289 during the period. The last time completions were above 40,000 according to NHBC's figures was in Q4 2019 when 42,354 new homes were completed.



NEW ZEALAND

New Zealand's housing price boom cools as rate rises bite

New Zealand has been in the throes of one of the biggest property booms in the world. A relative safe haven, with comparatively low cases of Covid-19, the median house price has surged by 43 per cent over the past two years, according to Sense Partners, an economics consultancy.

However, house prices are now declining throughout the country, even in regions such as Canterbury and Queenstown-Lakes where the chilling effects of the current market downturn have been slower to take hold.



THE NETHERLANDS

Rising interest rates lead to turning point in Dutch housing market



After recent years saw the Dutch housing market become increasingly competitive and inaccessible, new figures published by real estate association NVM indicate

that, in the first few months of 2022, the property market in the Netherlands slowed down as those hoping to buy a house faced rising interest rates.

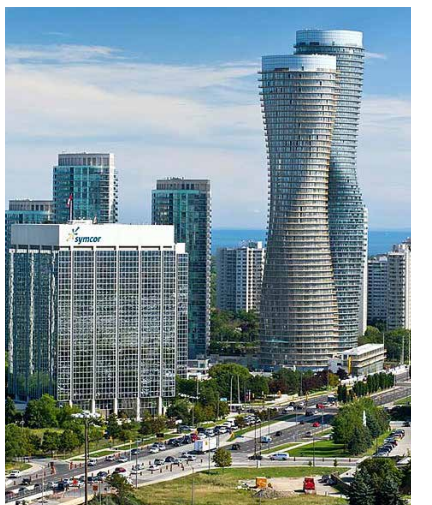
While many predicted that the coronavirus pandemic would lead to a housing crash, the reality is that house and rental prices across the county have risen at record-breaking rates over the past two years. By the end of 2021, house prices in the Netherlands were 20,4 percent higher than in December 2020.

CANADA

Apartment Growth Outpacing Detached Homes Across Canada

New census data reveals that the number of new apartments being built across Canada is outpacing that of single detached homes.

The data, released by Statistics Canada on Wednesday, reveals a continuation of the years-long trend of apartments taking up a larger and larger percentage of Canada's housing stock. Although detached homes still account for the majority of dwellings — 52.6% compared to apartments' 34.4% — its percentage fell 1% from the 2011 census numbers. The share of apartments, on the other hand, is up 0.9%.



Netherlands housing

Offsite-manufactured balconies could be poised to make apartments more desirable in growing numbers of high-rise buildings in the Netherlands.

Currently experiencing strong demand for new homes, the Netherlands is gripped by a housing shortage and minimal space for conventional house-building. The only way is up – providing it's affordable, convenient and comfortable.

Today's housing shortage reflects the fact that various forms of agriculture occupy more than 50 percent of its territory. The balance of its land is taken up by all the other needs of a vibrant modern economy including commerce, industry, infrastructure and housing.

It is reported that the housing shortage has been worsened by tighter European Union regulations on nitrogen emissions – reportedly delaying 18,000 projects – and further delays of up to two years before permitted developments are ready for occupation.

While plenty of Dutch families are ready to buy, many of the homes they could otherwise purchase are being acquired at a discount by investors – and often coming on to the market as Air BnB units in the lucrative tourism sector.

Arguably the simplest way for the Netherlands to beat its desperate housing shortage without sacrificing valuable agricultural land is to allow more high-rise apartment buildings – ideally on urban brownfield sites, to minimise commuting times and piggy-back on existing urban transit systems.

As in other Western countries enjoying a renaissance of urban housing, developers

in the Netherlands will be looking for practical ways to make their projects attractive to buyers, in terms of features and affordability, while still making a reasonable return on the investment behind the project.

Experience in other Western markets has demonstrated that quality rigid balconies add considerable value to high-rise housing developments, whether for rental or sale. Rigidity is important because it quickly dispels any worries about structural safety.

Private balconies – either protruding or inset – give flat-dwellers individual 'outside' space, the opportunity to leave a door open in good weather and a chance to grow some plants if they wish.

With a wide range of materials and finishes available, offsite-manufactured balconies can accommodate a wide range of architectural requirements. There is extensive choice in balustrade materials, which decking boards reflect the highest fire safety standards. Drainage options minimise the risk of rainwater dripping from floor to floor.

Assembled on specialist production lines, units are transported to site ready to be lifted on to support arms already protruding from the building envelope. The arms usually incorporate thermal breaks that avoid any loss of heat from the structure of the building.

The balconies are fixed to the arms by installers working safely from inside the building, through the open doorway. Once the balcony is locked in position, the final section of decking is clipped into place and the unit is ready for use.

Hooked on reducing carbon

At Sapphire, we're always looking to innovate and bring new technologies to the balcony industry. This year is no different.

Our dedicated research and development lab has been working on a method of installing balconies that require fewer carbon emissions but still fit to the same Sapphire standard that we have always endeavoured to achieve. By using less low-carbon material, we have found a way of creating and installing quickly and securely without compromising on the quality of our balconies. This in turn reduces the amount of embodied carbon

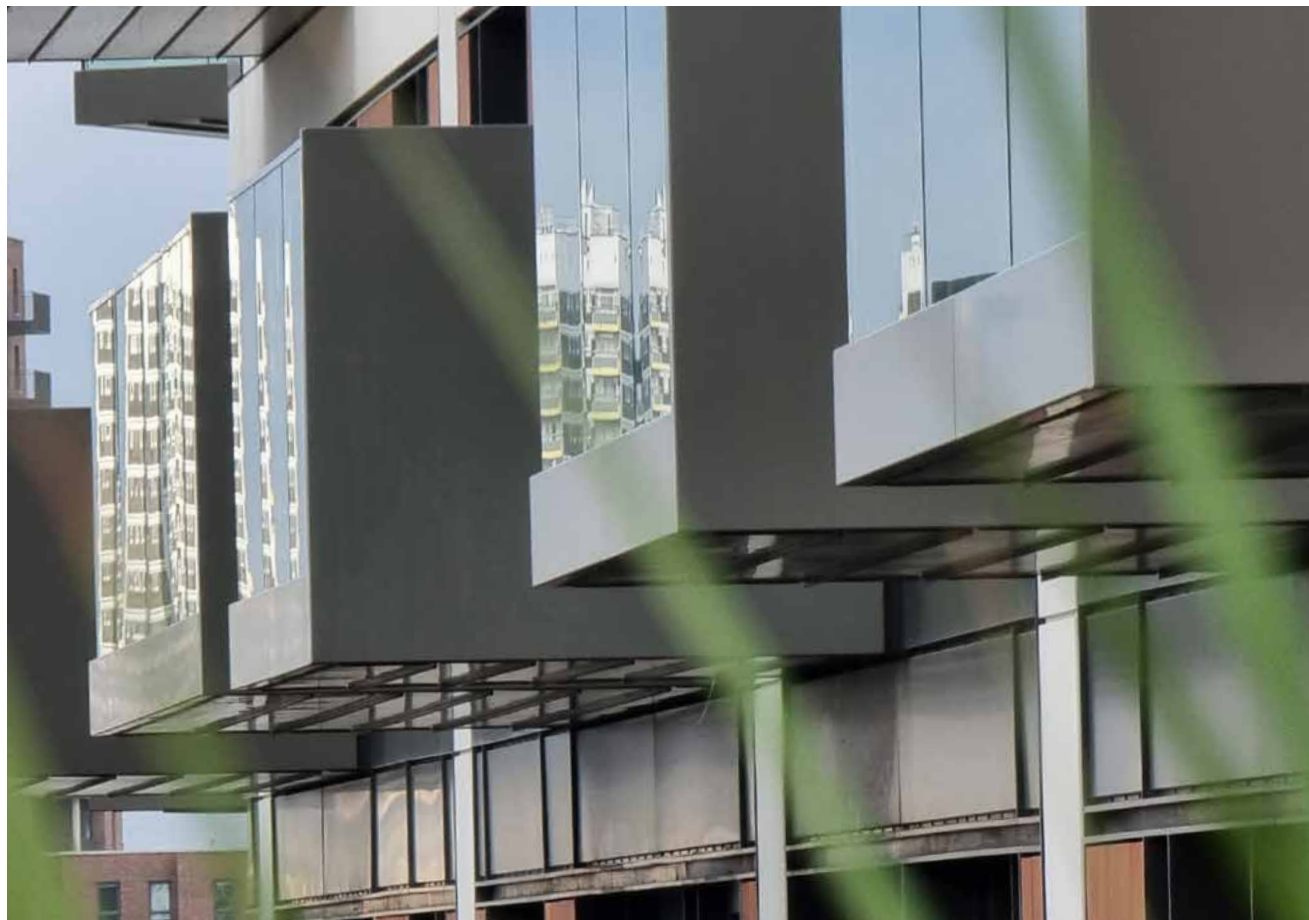
present in our product and allows us to emit fewer tonnes of carbon per year.

With the global push for sustainability, all modern methods of construction must be carbon efficient. Reducing the carbon emissions in the fabrication and construction of the balcony (the embodied carbon) is one way to achieve a lower-carbon process and by reducing the amount of embodied carbon in a product, the carbon offset that an eventual resident will need to consider can be lowered.

It is crucial to keep researching, developing, and investing in new

technologies as it allows us to expand and achieve sustainability, economic and governance milestones at a pace consistent with global development. We can afford to offer our customers better services, expand as a business, and stay current with all carbon emission standards.

We aim to innovate to prosper the community. By engaging in sustainable practices, we can make those goals a reality, strive for a target of net zero carbon emissions, and make the construction of today work for tomorrow's generations.



What did Sapphire do?

Keeping your project on time is vital and we're always keeping an eye out for our next huge achievement. We recently achieved an incredible number of installations in one day, here are the facts:

62

Balconies installed in a single day, the fastest completed in 1 minute and 34 seconds!

110

Installations overall, each balcony assembled off-site and thoroughly checked before installation using our Passport process.

2

Days from start to finish for the Bridge House installation project – the fastest Glide-On installation ever!



Record breakers

Designing for the long-term

Innovation in building design can come in many forms – heat loss reduction, methods to improve the speed of installation or even a simpler way of draining water from a balcony.

However, it can be easy to forget why we strive to innovate in the first place. It is a sad truth that our climate is warming and buildings that last will have taken into consideration the needs of future generations. Renewable energy, on-site electricity generation and Passive design are all ways to avoid extra costs for the residents and avoid the need to be retrofitted in the future. All design elements must be cost-effective to maintain over time.

There are specific requirements in London for balcony design for example. The London Housing Design Guide, published in 2010, forms a common set of design standards across all of London. One point to mention is that in all two-person dwellings, a minimum of 5m² of private outdoor space is required, with an extra 1m² for each additional occupant. As this is observed, it gives residents the option of fresh air and ventilation as standard.

In colder climates such as Canada, a focus needs to be maintained on

reducing heat loss to keep each building sustainable for long-term use. As it is not always possible to design a building with an unbroken façade, it is important to consider thermal breaks. Simulations, risk analysis and research can yield powerful insights and avoid excess heat loss in cases such as the Aqua Tower in Chicago, where concrete slabs and windows were butted together, and the measures of heat loss were enormous.

New Zealand architects and builders are adopting innovative solutions in construction as their population grows, the demand for high-rise developments increases and the stricter requirements of the New Zealand Building Code continue to permeate. As the rate of construction and installation quickens, solutions such as Glide-On™ balcony Cassettes®, intelligent drainage solutions and reduced installation costs can ensure that a build stays as affordable as possible, meaning that quality builds are possible in ever-shortening timeframes.

The necessity for premises built to last is ever-increasing in the 21st-century climate. By making intelligent choices in the design phase of any new building, we can make sure future generations have access to the very innovations we have enjoyed ourselves.



Material decisions

Concrete – or aluminium? Yes, there's now a choice for architects and multi-storey apartment developers to consider for balconies in their new high-rise projects.

While traditional in-situ concrete balconies are good, there is growing evidence that offsite-manufactured aluminium balconies are better – especially in cold climates.

In fairness, concrete balconies have some merits. For example, they are easy to construct – either projecting or inset – as part of the concrete decks. But they tend to be thicker than metal alternatives. And without thermal breaks they can bring significant heat loss, which translates to higher energy costs for occupants.

Concrete balconies also require on-site finishing – both in terms of decking and balustrading – which may put construction workers' safety in question.

On the other hand, aluminium balconies offer a simpler, safer alternative that minimises on-site work – and safety concerns – while avoiding long-term expense for occupants.

Sapphire is a world leader in aluminium balconies, ticking all the right boxes for property developers, contractors and occupants.

Sapphire's Glide-on™ Cassette® balconies are ideal for both protruding or inset applications.

Assembled to the highest quality standards on specialist production lines, to ensure flawless accuracy and quality, Sapphire balconies are delivered to site ready for immediate installation. They are simply craned into position, then bolted to supporting arms protruding from the building.

The big advantage of this system is that the support arms are anchored into the adjacent concrete deck through all-important thermal breaks. This means the balconies do not drain heat from the interior in winter – nor conduct it in during summer.

Another major plus factor is that installers are able to work safely from within the building envelope. Usually, one decking board arrives unfixed to give the installers

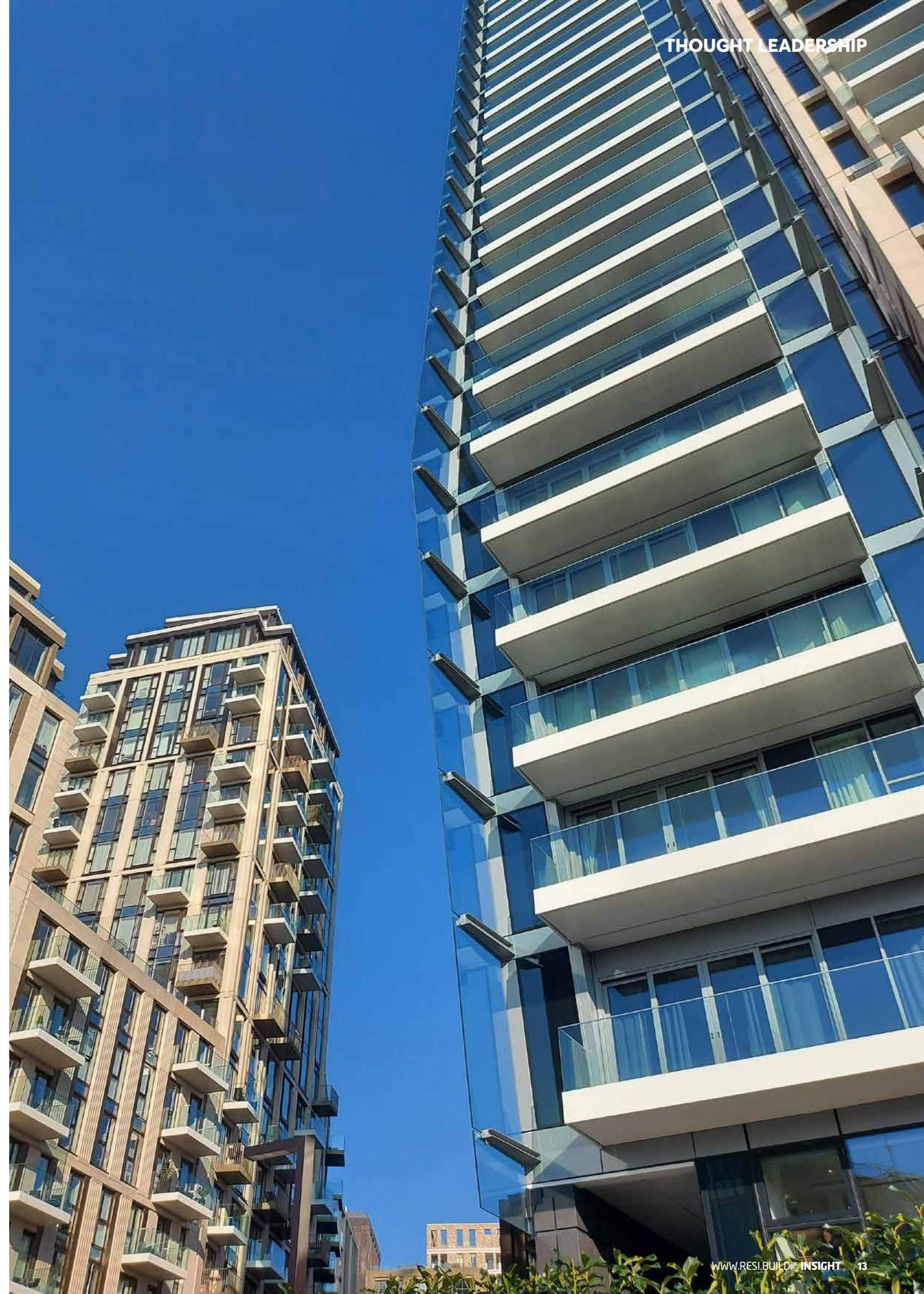
access to the bolts anchoring the support arms. Once the bolts are tight, the installers clip the final decking board into place, after which the balcony is 100% rigid and safe.

While most balconies are rectangular in shape, the Sapphire system facilitates creation of longer balconies with units joined end-to-end, or angled to allow balconies on outside or inside corners.

The Sapphire system also gives freedom of expression for architects, with aluminium components durably powder-coated and in a wide range of colours. Balustrades can be railings or safety glass, with or without patterns.

Decking is a composite material that resists water and fire, although use of an open flame for any purpose is never recommended.

As urban building sites often lack space, Sapphire balconies are often stored off-site, for delivery to suit the contractor's schedule – a key benefit on restricted urban sites.



9.6%
price growth in UK
construction output
12 months to June
2022; the strongest
annual rate since
records began

ASK THE EXPERT



LEE GOODENOUGH

Lee Goodenough is Sales and Commercial Director at Sapphire Balconies and looks after customers from early tender stage to contract signing, with a keen eye on developing long-lasting relationships.

Rising costs, shipping delays, and materials and skills shortages have led to unprecedented supply chain uncertainty across the construction industry and caused significant delays in construction projects. In turn this is forcing many to find alternative, and possibly inferior, products or to adapt their building and construction management processes in order to keep work moving, or in the worst case, folding. Here Lee looks at some of the ways you can identify reliable project partners.



With a fast-changing market, is your supply chain keeping pace?



Your suppliers' financial stability is key. As prices continue to rise across the construction sector and with a potential recession imminent, financial stability has never been more important. An assessment of suppliers' economic and financial standing reduces the element of risk. With UK consumer prices up from less than 1% to more than 10% in the past 18 months, inflation is currently a major concern. As yet, we do not know the full impact this will have on costs in our sector, but reliable suppliers will monitor the situation closely and stay in touch with customers.

Many companies are folding because they can't weather the current financial storm; a careful assessment of potential partners will reduce the risk of them being part of your supply chain. Sapphire, for example, has been minimising risk for customers by operating on sound and fair business principles for more than 30 years.



Is your supply chain ready for the influx of mass regulation?



Can you be sure your supply partners are keeping abreast of the the changing market? The Hackitt report, issued following the Grenfell tragedy, highlights the importance of keeping a golden thread of digital information. End-to-end traceability should be transparent and whilst some companies may not have the financial ability to invest in a digital golden thread, this should be a priority. Competency will be regulated in the future, so having a supply chain that's able to invest now is key.



How do you trust your supply chain to deliver?



Check track records. Ask who else your supply chain has delivered for and how well versed in your industry they are. Accreditation and testing in good facilities are crucial, leading you to be able to give company guarantees that can give you proof of honesty and quality.



Want more context?
Read more on page 22

Elephant Park balcony order provides 'jumbo' logistics challenge

Residents of two major apartment buildings in a new London development get their own bit of 'open space' with Sapphire offsite-manufactured balconies – but they will probably have no idea of the technology, skills and management needed to get them installed.

Elephant Park is a vast £2.5 billion, 28 acre redevelopment by Lendlease at Elephant and Castle, in the heart of the capital. This landmark project is being delivered in partnership with Southwark Council and is primed to deliver significant social value not only to the residents of Elephant Park, but also the surrounding community.

Elephant Park has set itself the high ambition of being among the most sustainable inner-city urban regeneration projects in the world, aiming to achieve net zero carbon emissions by 2025 and absolute zero by 2040. This is in line with the challenging environmental targets that Lendlease has set itself.

Designs for H4 and H5 included balconies – 235 and 184 respectively – to be manufactured offsite. Sapphire was selected as the chosen specialist manufacturer thanks to our products incorporating the best in materials and technology (the embodied carbon of a Sapphire balcony is already lower than that of its concrete counterparts – the embodied carbon of aluminium is estimated at 2.44 tonnes per balcony compared with 3.79 for steel and 4.23 for concrete) which added to the overall sustainability of the development. Sapphire balconies are almost entirely recyclable – an important consideration for this development and its stringent carbon reduction and sustainability targets. The project also brought interesting challenges that sparked fresh thinking and led to new solutions.

Most of the balconies had controlled drainage, with rainwater channelled down 400mm soffit trays to discharge on the outer edge – preventing staining

of the façade or flooding of balconies beneath. They were all designed originally without soffits, but some of these were added later where necessary to ensure compliance with updated fire safety regulations. Some balconies were also provided with privacy screens. Inset Glide-On balconies were provided for a single stack on one of the buildings.

Aluminium components durably powder-coated and in a wide range of colours. Balustrades can be railings or safety glass, with or without patterns.

Decking is a composite material that resists water and fire, although use of an open flame for any purpose is never recommended.

As urban building sites often lack space, Sapphire balconies are often stored off-site, for delivery to suit the contractor's schedule – a key benefit on restricted urban sites.

KEY STATS

Architect: Alford Hall Monaghan Morris

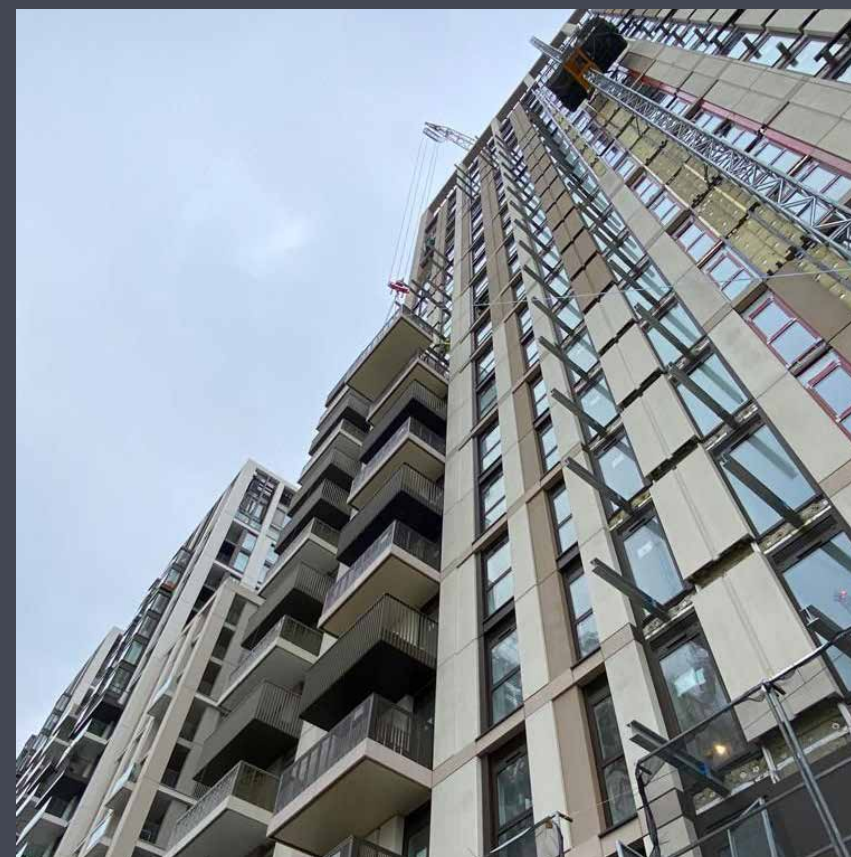
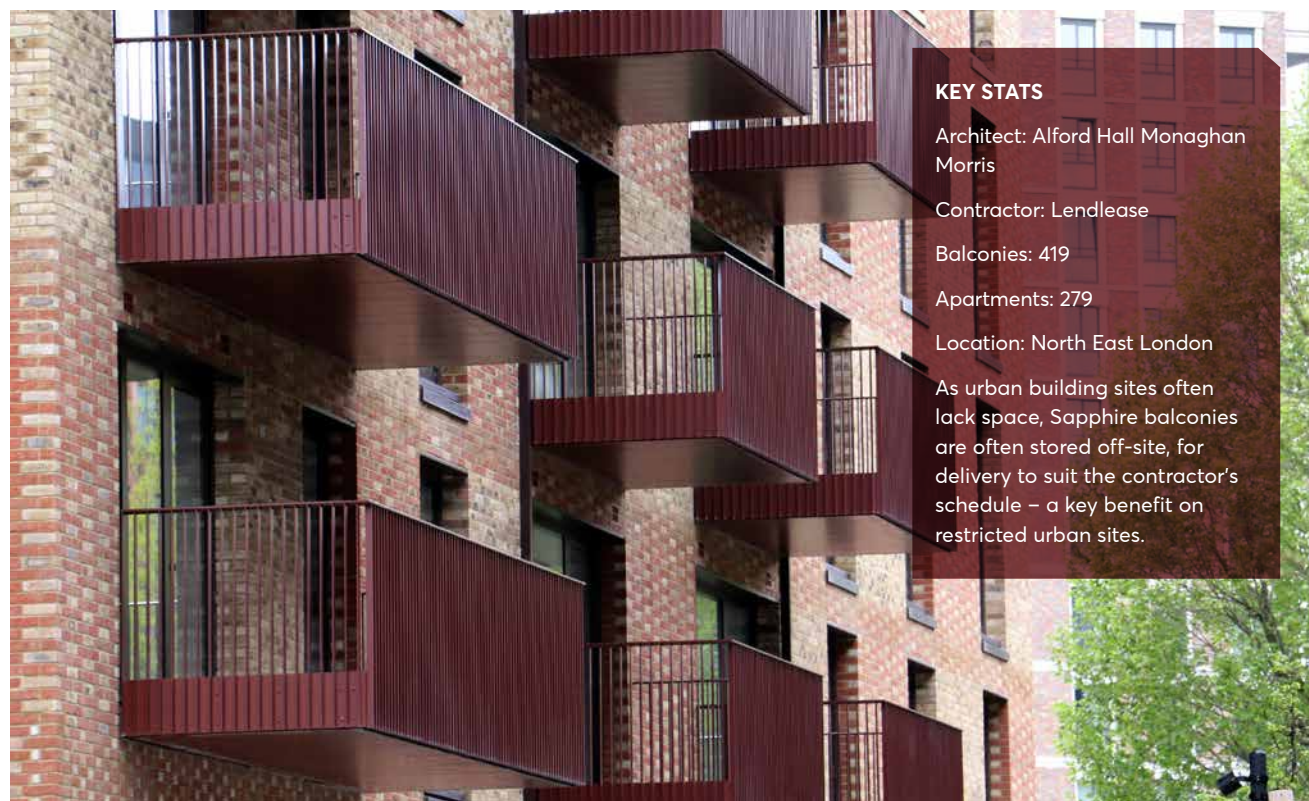
Contractor: Lendlease

Balconies: 419

Apartments: 279

Location: North East London

As urban building sites often lack space, Sapphire balconies are often stored off-site, for delivery to suit the contractor's schedule – a key benefit on restricted urban sites.



White City Phase 2

White City living is at the heart of its new neighbourhood and offers a unique opportunity to live by the water's edge and surrounded by nature. Credit: D&A

Gascoigne West

This scheme is set to improve the health and wellbeing of Gascoigne residents with its attractive and accessible open spaces. Credit: TP Bennett



South Oxhey, London

Beautifully crafted, South Oxhey is a mixed-use development located adjacent to Carpenders Park Overground. Credit: Dantaag



Deptford Foundry

Located in a historic area of south-east London and sits on a former metal foundry dating back to 1831 and was once home to engineer Josiah Stone. Once a thriving centre of exceptional design, the area is now home to premium apartments each benefitting from access to private balconies and terraces. Credit: Anthology



“There is no Standard but the Steel Build Standard”

Design, fabrication and installation of:

Structural steelwork
Architectural metalwork
Glazed balustrades
Balconies

I found Steel Build one of the most helpful and knowledgeable contractors on site.

The supervisors were courteous and felt as part of the team. When the programme had to be hit they pulled out all the stops. I would not hesitate to use the company again.

Job: ALTO
John Connell
Wates

All of the Steel Build team have been very professional.

Any issues have been dealt with, no problems and straight away.

I will look forward to working with Steel Build on future projects. One of the most professional contractors I have ever worked with.

Job: Carnarvan Road
Stuart Bennett
Hollybrook

What you hope for with a specialist sub-contractor is that they take ownership of their element of your works and complete them without any negative effect on the rest of your package.

I experienced a willingness to be part of the larger site team, which enabled us to provide a seamless installation to our client.

Job: Wates NW06
Steve Harris
OCL Facades



ISO 9001:2015



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At the recent Resibuild Summit event in Dublin's Guinness Storehouse on the 25th of May, Richard McMullan of MyDek took to the stage to discuss the importance of fire safety in building & material design, to showcase MyDek's new 'Luxura' material and to answer common questions on the unique properties of the mineral composite.

The importance of fire safety and the history of MyDek

Formed in 2019, MyDek has specialised in A-rated, non-combustible decking and provided these benefits to over 42,000 customers. Since the tragedy at Grenfell Tower five years ago, fire safety in cladding, balcony materials and interior design has been at the forefront of our minds. To that effect, it is vital that the combustibility of material in design is considered. Richard McMullan spoke about the importance of A1 and A2-rated, non-combustible material. By manufacturing these highly fire-safe material composites, such as their new Luxura range, further conditions such as the rating of smoke production and flaming droplet no longer need to be considered as "there's no smoke without fire".

The Luxura range

McMullan showcased MyDek's newest product, the Luxura composite material. Useful in application to various landscaping options such as balconies, boardwalks or garden decks, Luxura was demonstrated as a composite material made from a combination of natural minerals and recycled ore runoff. The range is low maintenance, highly durable and, dimensionally stable, resistant to warping, with a lifespan average of 60 years.

The demonstration of Luxura's properties was extensive, McMullan explaining



that whilst Luxura can be installed with little-to-no specialist training using their SupportRail or BoxRail systems, other products can be very labour intensive, making Luxura an attractive option for consumers. Furthermore, Luxura was described as cost-effective due to it being a recycled material, resistant to high heat, staying skin-comfortable in sunny weather and having sophisticated waterproofing.

The product was finally subject to extensive testing, awarded an A1 EN13501 fire classification, and tested for slip resistance at a beyond-one in a million chance of risk from slipping and impact resistance from 1.8m at 18 joules of impact force.

Frequently Asked Questions (FAQs)

McMillun finally answered some of the most burning questions often asked of the Luxura range. He detailed the product's lean 35kg per square metre weight and lifespan of 60 years, then further described how the product features no

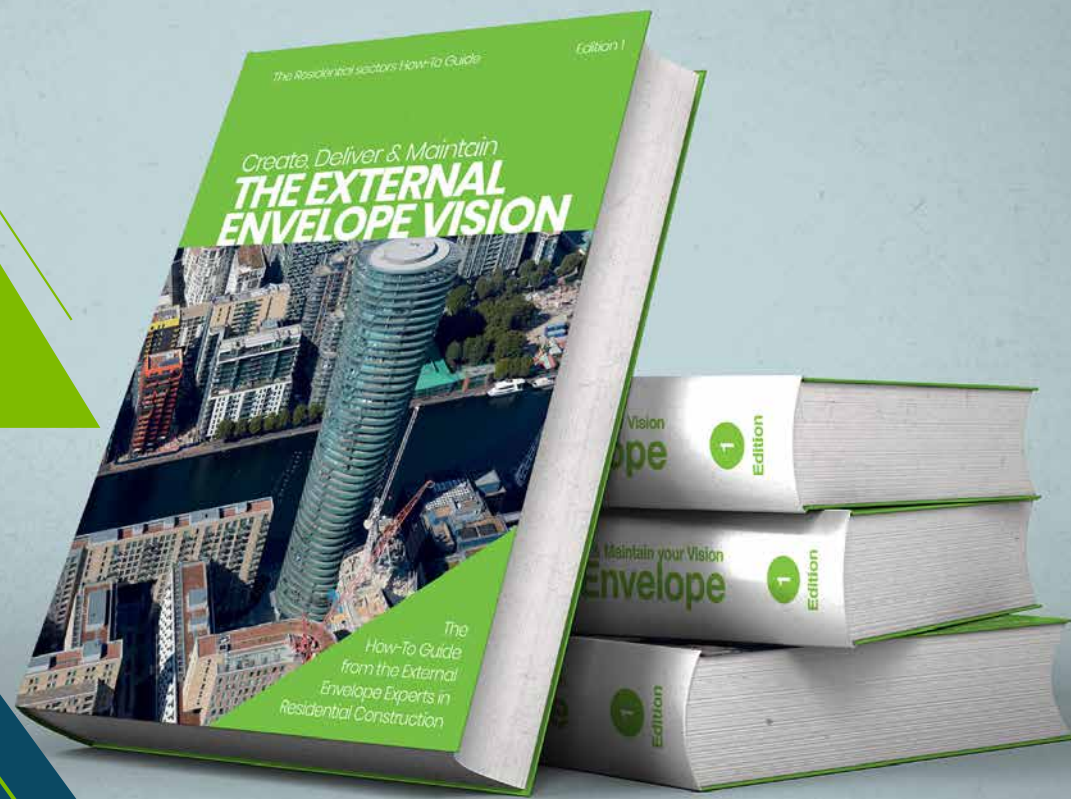
external coating, hence mild damage from scratching will not cause the product to visibly deteriorate. Luxura is resistant to salt and sea spray due to its natural mineral makeup - further praised by the lack of treatment needed on the cut ends of the material.

Luxura is heat-resistant and dimensionally stable, meaning no warping or contraction will occur in extreme high or low temperatures. The material needs minimal maintenance other than an occasional wash, common with all types of decking. Finally, McMullan displayed a unique property of Luxura in that it can be laser engraved for customisation. One use of this property has been on a town's boardwalk, where a timeline of local history has been engraved for local visitors to read over as they visit.

The product comes in two colours, 'Aged Oak' and 'Hickory' and is available today from MyDek's website, where you can get in touch to learn more.

MyDek promises Luxura will innovate in the composite material market

Experts Guide on
the Creation, Delivery
& Maintenance of the
External Envelope



80 Experts — 1 Book

Bringing together industry experts to provide a holistic overview of key considerations for your residential project's external envelope.

 www.resi.build/external-envelope-vision



 Scan QR code

**Request
a copy**

Resibuild
Events



Carbon savings reports with COACH

Once you've designed your perfect balcony using COACH, you'll be offered the chance to download and browse several documents created about your design. Between IFC models, 2D drawings and balcony specification reports, you'll also receive a carbon savings report.

A carbon savings report is an in-depth analysis of how well your balcony design will perform against current carbon emission standards. More than just a generic series of ticked boxes, the carbon savings report will inform you of how many fewer embodied emissions your balcony will contain as an aluminium Cassette® compared to a traditional concrete slab.

The data you are given will let you know in fine detail how many tonnes of CO2 you can save annually per balcony, what the total potential heat loss of your balcony could be when compared to a conventional concrete base and even the percentage of carbon emissions you will save by switching to an aluminium foundation.

In the modern age, companies need to submit their carbon footprint when in the construction process. Having access to a carbon report generated by COACH allows these companies a level of transparency when speaking about both embodied carbon in their building and what the company themselves will need to do to offset any remaining carbon emissions.

Reporting on carbon savings can increase carbon efficiency and significantly reduce operating costs. By staying aware of your carbon footprint in the manufacture and delivery of our balconies, it's far easier to analyse your own processes and activities to let you know how to act on your carbon footprint to achieve net zero emissions and work in line with the national standard.

By using the innovative, dedicated COACH platform to design your balcony solution, your carbon savings report will be instantly at hand, letting both you, your stakeholders, and eventual residents not only how efficient their balcony is, but how well they are prepared for the future.

Simplicity could help the construction sector lessen the impact of rising costs and shortages of materials and labour.

This is the view of Lee Goodenough, Sales and Commercial Director at Sapphire Balconies. With responsibility for guiding customers through the re-contract stages, he helps them find the best balcony solutions – combining longevity with simplicity of installation.

He says the sharp increases in steel and aluminum prices since 2020 have significantly impacted construction as other sectors have enjoyed priority for these materials. Coupled with a skilled labour shortage, this has seen the building industry flat-lining.

However, he says, better collaboration could help to mitigate the problem.

“The skills shortage has been felt for some time now and many feared the implications of Brexit on the UK labour market. Offsite manufacturing and other modern methods of construction provide many benefits, so even before these issues arose, there has been a way to mitigate a skills shortage.

“Sapphire’s innovation and standardisation of balconies and balcony products further

reduces the need for labour on site, a saving that benefits the customer.”

He says while materials shortages are affecting businesses worldwide, sectors other than construction are enjoying priority.

“There are many for geopolitical reasons for this. One was that, as we come out of the pandemic, manufacturing of white goods and cars would increase. Those industries have a greater influence through their associations, which construction doesn’t have. We need to create a single strong voice to protect everyone’s interests.”

Problems of poor productivity, materials shortages and under-supply of skilled labour can, he says, be solved through wider adoption of Design for Manufacture and Assembly methodology.

“Encouraging standardisation and early engagement with specialist contractors will lead to effective materials and workload forecasting and help to overcome unnecessary design complexities.

“Standardisation has a reputation for being restrictive, but it also lends itself easily to rationalisation – learning from previous designs and applying

improvements to future designs. These improvements can often mean a large saving, which can be passed on to the customer. Not only that, an architect’s design may only need a few adjustments to fit with a standardised product, allowing for unique features to remain in the design.”

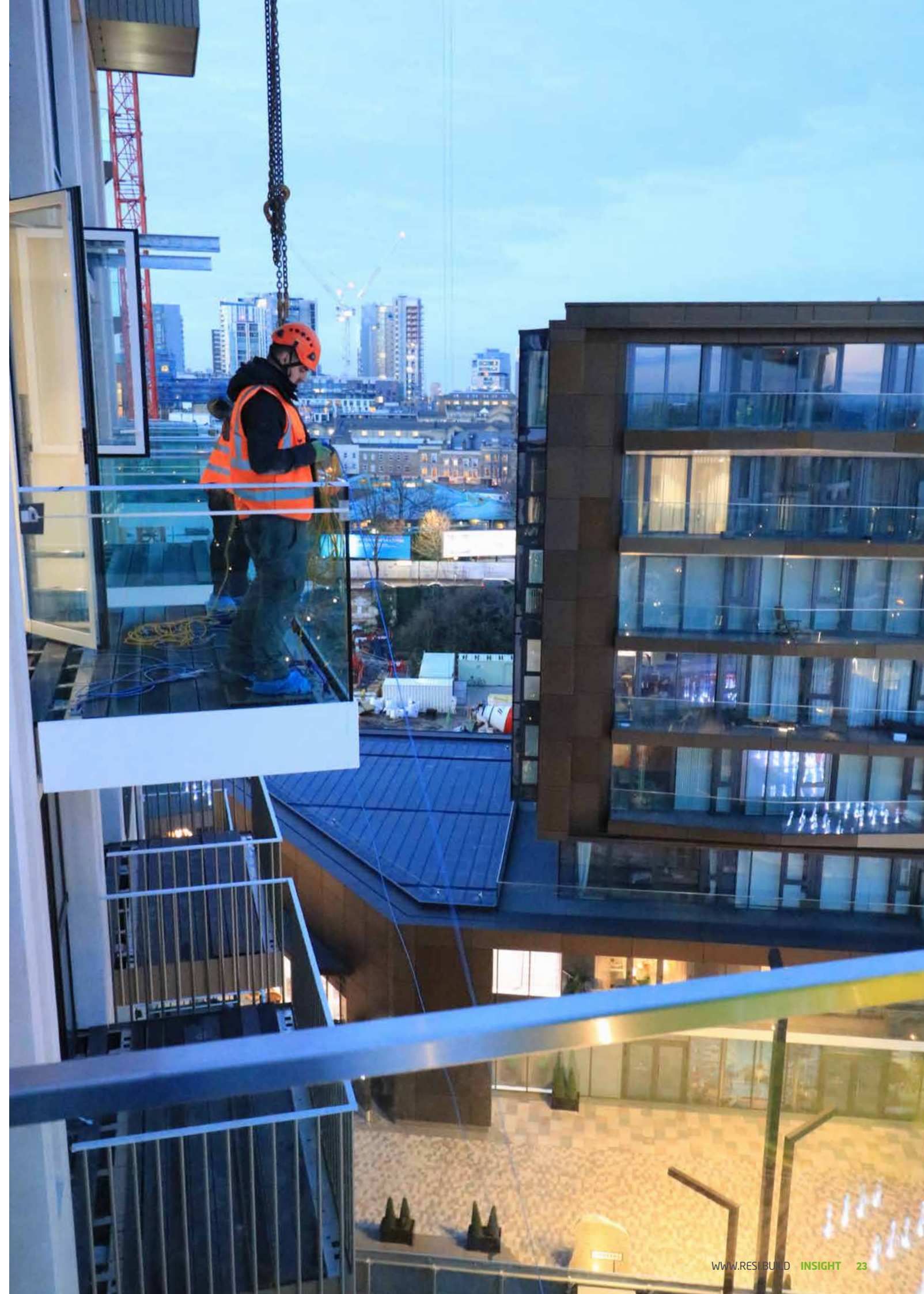
He warns that ‘unlimited’ designs for any building comes with time, labour and cost implications.

“Early engagement is important to establish key principles from the start. Tools like COACH, our online configurator, enable architects to see the ramifications of different design choices in real time so they can make the best choices for their project.

“COACH allows faster balcony designs than traditional approaches, while maintaining an architect’s unique vision. It offers choices on cost and design elements within buildable design parameters.”

And, says Lee Goodenough, openness and preparedness to share best practice across construction will enable the industry to improve its practices and mitigate future issues with skills and materials shortages.

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