



sigmat

LIGHT GAUGE STEEL FRAMING

GUEST BLOG

BUILDING A GREENER RETIREMENT

WHY SUSTAINABLE
RETIREMENT LIVING IS
THE FUTURE

McCARTHY STONE

Life, well lived

etex inspiring ways
of living

GUEST BLOG

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LIGHT GAUGE STEEL FRAMING

As the global climate crisis continues to accelerate, our sights are firmly set on developing ever-more sustainable solutions, that will have a positive and lasting impact on the communities we work within, and our planet.

That's why, when we got the chance to work alongside retirement living trailblazers, McCarthy Stone, it was a huge opportunity to elevate our green credentials even further and collaborate with a forward-thinking developer who had already embraced the benefits of offsite construction.

McCarthy Stone, who are the UK's leading developer and manager of retirement communities, are committed to creating high-quality, flexible, and affordable housing options for older people. Equally, as an early adopter of MMC, the McCarthy Stone team are also committed to ensuring the planet continues to offer positive opportunities for future generations.

As the UK's leading Light Gauge Steel Frame (LGSF) specialists, the partnership with McCarthy Stone has enabled us to demonstrate our commitment to our core sustainability goals and lead proactive change within our sector and beyond.

Our ground-breaking partnership also supports the Government's agenda to deliver more supportive housing for older people and provide greener and more affordable homeownership options, all of which are significantly undersupplied in the UK.

In addition to this, McCarthy Stone's MMC plan embraces the Government's Heat and Building Strategy to reduce carbon emissions, with each new retirement community built using MMC seeing an improvement in building performance, (fuel usage and thermal transmittance), in comparison to those built using traditional methods.

As a collective, both Sigmat & McCarthy Stone were awarded an NHBC Accepts Accreditation for their unique apartment system using LGSF. This will enable fast-tracking of benefits for customers including improved environmental performance and reduced impact from construction work on communities.

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“MMC is game-changing. Sigmat's unique solution will further increase our build quality, control our costs, and most importantly, build more energy-efficient and greener communities. This announcement paves the way to a more cost-efficient and sustainable future, and our long-term aim is now to build 50% of all our new retirement communities in this way. The new NHBC accreditation also adds further assurance and certainty.”

JOHN TONKISS - CEO MCCARTHY STONE

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The Story so far...

In December 2020, McCarthy and Stone confirmed their commitment to build 40 new sites using modern methods of construction, along with a long-term aim to build 50% of its future retirement communities this way.

The news was warmly welcomed with the then Construction Minister, Lee Rowley MP commenting: "I am pleased to see McCarthy Stone will be expanding their commitment to delivering more retirement housing using modern methods of construction. Their cleaner and cheaper construction method is helping the UK meet its net zero targets while also providing high-quality housing for our aging population."

Sigmat were selected to deliver the MMC solution, and in 2021 we kick-started our first build at Hewson Court in Hexham, Northumberland. The initial, ground-breaking pilot scheme, which was built using our Sigmat LGSF solution, delivered 23 one-bedroom and 20 two-bedroom apartments and the project was completed in September 2021.

“Thanks to our teams and the work of Sigmat, the build at Hexham tracked at two weeks per floor quicker than it ordinarily would, whilst maintaining the same, consistent high-quality. It’s a ground-breaking new technology that we are proud to have had the opportunity to pilot here in Hexham, which has been a much-anticipated new development for the town, that has brought with it many economic and societal benefits to the local area, and more housing choice for older people looking for the right solution for them in later life.”

IAIN FLEMING, CONSTRUCTION DIRECTOR, MCCARTHY STONE

The intrinsically speedy construction credentials of LGSF, meant that the McCarthy Stone team were able to reduce the overall build time by two-weeks per floor. The pilot helped reinforce the benefits of embracing offsite and demonstrated how LGSF in particular, delivers a more sustainable method of construction to help fast-track the delivery of much needed, high-quality housing for the retirement community.

A **GREENER** FUTURE WITH LGSF

So why would House Builders involved in suitable medium rise apartment schemes be enticed?

One of many benefits of our light gauge steel frame technology, is it can be built off-site, in our Leeds Manufacturing Facility, improving efficiency and increasing productivity. It has also been shown to improve energy efficiency, reduce energy bills (compared with a traditional UK home), and be better for the local environment with a high proportion of its materials recycled at source.

This method of construction delivers on the industry's desire to embrace offsite construction AND modern methods of construction all in one go. As well as being, arguably the most sustainable choice, with a lead time of around 16-18 weeks from point of order (or frozen design) to the commencement of the ring beam, LGSF structures can offer an accelerated programme with floor areas up to 1100m² (for an efficient design) normally constructed within a cycle period of 2 weeks. With a faster build programme, comes an earlier 'return on investment' opportunity for the developer. Faster, leaner and more financially effective in the short to medium term.

In addition to this, when you compare reinforced concrete frames (RCF) to our LGSF structures with concrete floors as standard, you'll find that LGSF can be up to *53% lighter. By utilising LGSF instead of an RCF structure for example, it could offer significant savings in the ground, making early engagement essential.

GREEN CHECKLIST

With a strong focus on innovation, our overriding aim is to reduce the impact our operations have on the environment, by providing effective, goal focussed solutions for our clients and the industry as a whole. LGSF has some of the strongest green credentials in the offsite market, which are helping our clients to reduce the embodied carbon in their developments and provide sustainable solutions for the communities they serve.



RECYCLING & WASTE

All Sigmat structures are built using steel with recycled content



LIGHTWEIGHT

LGSF structures are substantially lighter than traditional steel framed buildings allowing significant reduction in the construction of foundations.



REDUCED CARBON EMISSIONS

Substantial reduction in the overall carbon footprint of a building.



END OF LIFE RECYCABILITY

It is well known that steel is one of the world's most recycled materials with a potential recovery and re-use factor in excess of 90%.



SITE WASTE

Site waste is virtually eliminated using pre-engineered and fabricated product so contributes to zero waste targets on site.



REDUCED TRANSPORT

As the volume of material on our delivery is greater there are less vehicle deliveries to the project, which assist in reducing the impact on the environment.



SPEED OF CONSTRUCTION

Speed of construction increased by over 30% and less operatives enable social distancing which reduces site impacts - improves site safety due to less operatives.



SPECIFICATIONS

Floor concrete specification: C32/40
Steel specification: BS EN 10346
Galvanising specification: S450GD+Z27

THE FUTURE

So, What Is Next Step on The Sigmat / McCarthy Stone Journey?

With our second partnership project, Fairfield Manor, underway in Broadstairs, and a further four schemes in Warminster, Maghull, Gosforth and Stratford all due to break ground by early 2023, McCarthy Stone's commitment to construction 50% of their future homes using offsite methods shows no signs of slowing down.

As the UK's leading retirement living specialists, we are thrilled to be part of this journey with them and look forward to strengthening our relationship and sharing our expertise to help transition sustainable, offsite, retirement living provision to become the first choice for forward thinking developers across the UK.

“We are genuinely excited about all our upcoming schemes with McCarthy Stone. Working alongside colleagues who share our vision for more sustainable retirement living provision is, what has made this partnership work. That, along with the significant and demonstrable savings delivered at our first project in Hexham, has highlighted the significant advantages of constructing in LGS, and we look forward to building an ongoing relationship with the team for many years to come.”

PAUL SMITH, MANAGING DIRECTOR, SIGMAT

Want to know more? Get in touch with a member of our team



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