

## Building Better for Every Generation

E-book by Intrastack, part of Saint-Gobain Off-Site Solutions

Exploring the impact of steel frame solutions.



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<sup>-</sup> UK Government Response to MMC Inquiry\*

## We are Saint-Gobain

At Saint-Gobain, our purpose is simple yet powerful: to make the world a better home. That one word – better – drives everything we do. It means designing with purpose, building with care, and always striving to improve. For our customers, it means more than just delivering structures – it means creating buildings that are faster, easier, and safer to construct, and developing communities that are better to live, learn, and thrive in.

This e-book explores how
Saint-Gobain Off-Site Solutions uses
Intrastack's steel frame systems to
transform the way buildings are
designed and delivered. From earlystage design collaboration through to
on-site installation, we support
developers and contractors with
advanced solutions tailored to the
needs of modern construction.

As part of Saint-Gobain, we bring the strength of a 360-year legacy, the scale of a global leader (with over 168,000 employees and nearly 900 manufacturing facilities worldwide), and the reliability of a company that's here for the long haul. Unlike some newcomers in the off-site sector, we're not experimenting – we're investing, innovating, and building partnerships that last.

Read on to learn more about Modern Methods of Construction (MMC), discover how Intrastack's steel solutions support project delivery with speed and precision, and explore how we're helping to shape a better built environment for every generation – whether that's in schools, student accommodation, care homes, or hospitals.

If you're ready to build smarter, faster, and better - we're ready to help.



### INTRODUCTION

## Saint-Gobain Off-Site Solutions

Saint-Gobain Off-Site Solutions brings together the systems and solutions from established and innovative brands to deliver projects at speed, achieve factory assured quality and help to improve building sustainability, through precision manufactured building systems.

It is this combination of systems and solutions that makes Saint-Gobain Off-Site Solutions different. We work with our customers not to restrict their choice to a particular system, but to develop a project solution specific to their needs, and the changing needs of the construction industry.

Intrastack products are advanced light-gauge steel frame solutions, offering high-strength, low-weight structures ideal for rapid construction in residential, commercial, and mixed-use developments.

Scotframe, known for its high-performance timber frame systems, supports energy-efficient, fabric-first designs suited to both self-build and volume housing markets.

Pasquill specialist engineered roof trusses and flooring solutions, ensure structural integrity and design flexibility across a wide range of building types.

Roofspace Solutions delivers two standout products: i-Roof, an innovative room-in-roof system that optimises attic space for living areas, and i-House, a large format masonry panel solution that enables faster, more consistent housing construction.

Together, these product brands embody Saint-Gobain's vision for a smarter, more efficient future in off-site construction.

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# Modern Methods of Construction

### What is MMC?

Modern Methods of Construction (MMC) is a broad term that defies a single clear definition, but the quote below from the UK government guidance report is a good starting point:

Modern Methods of Construction (MMC) is a wide term, covering a range of off-site and on-site techniques. MMC provides alternatives to traditional methods and has the potential to deliver significant improvements in productivity, efficiency and quality for both the construction industry and public sector.

<u>- UK Government Guidance Note,</u> <u>September 2022\*</u>

When done well, MMC can speed up build programmes by using materials and workers more efficiently – often by carrying out key parts of the build off-site.

### Challenges & Benefits

As with any method of construction, MMC does not come without its challenges.

Although off-site manufacture has been around for decades in various forms, industry uptake has been uneven, and slower than anticipated in some sectors. For example, the majority of housing in Scotland is manufactured from timber frame, while in England and Wales, adoption has been much lower.

In part, this has been due to uncertainty regarding regulatory changes, a lack of availability of certified training, or a perception of customer preference for more traditional methods.

MMC, or more specifically, off-site construction, can offer benefits when implemented correctly, including faster project delivery, improved quality and on-site safety, and reduced costs. Taking manufacturing off-site, and using standardised techniques, can streamline the construction process and minimise waste.

### CHAPTER ONE

### The Seven Categories of MMC

The UK Government's Modern Methods of Construction Working Group developed a framework\* that defined seven categories of MMC, and which has become widely adopted. These categories range from modular buildings built room-by-room in factories and transported to site for installation, through to simple improvements in site processes that increase productivity.

Pre-manufacturing
(3D primary structural
systems)

Pre-manufacturing (2D primary structural systems)

Pre-manufacturing components (non-systemised primary structure)

Additive manufacturing (structural and nonstructural) Pre-manufacturing (non-structural assemblies and subassemblies)

Traditional building product led site labour reduction productivity

6

Site process led site labour reduction/ productivity/ assurance improvements

Across the Saint-Gobain Off-Site Solutions business we are active in the five categories shown above in blue.

Categories 2 and 5 are the primary focus for the Intrastack systems. These are off-site panelised construction of 2D panels delivered to site to construct full 3D structures, and non-structural assemblies of SFS/infill delivered to site.

\*BuildOffsite MMC Seven Categories Framework

\*Government Modern Methods of Construction working group

### CHAPTER ONE

## Category 2: Pre-manufacturing (2D primary structural systems)

Saint-Gobain Off-Site Solutions specialises in off-site panelised construction and, with Intrastack's steel frame solutions, offers an attractive proposition to commercial projects, reducing the number of man-hours required on-site, reducing on-site health & safety risks, and speeding up the construction programme.

### **66** Off-Site Panelised Construction

Panelised construction is an approach where panel units are produced in a factory environment and come to the site 'flatpacked', typically a series of floor, wall, or roof panels, which are then assembled on-site to produce a three-dimensional structure.

 CITB Report: Impact of modern methods of construction on skills requirements for housing







## Building Better for Every Generation

### **Build Better**

With more pressure than ever to deliver high-performance buildings faster, more cost-effectively, and with greater precision, the way we build needs to evolve.

As part of Saint-Gobain Off-Site Solutions, we're helping contractors and developers rethink traditional construction methods – offering not only light-gauge steel frame, but also a comprehensive range of off-site manufacturing solutions.

From structural frames to integrated building components, our solutions are designed to meet the needs of today and tomorrow, for every generation.





For Every Generation

Whether you're building schools, hospitals, care homes, or multi-residential developments like apartments or student accommodation, our approach helps you to:

- Build faster: Reduce on-site time and labour with precisionengineered, pre-assembled steel frames manufactured off-site.
- Build smarter: Improve project predictability with fewer delays, streamlined deliveries, and reduced delays due to poor weather.
- Build for every generation:
   Create buildings that are better insulated, and optimised to reduce costs and carbon emissions over their lifetime.

### CHAPTER TWO

## Benefits of Off-Site Construction by Building Type

MMC, particularly steel frame off-site construction, is transforming the way we deliver buildings. By moving much of the process into a controlled factory environment, projects become faster, more predictable, and safer. When applied to specific building types, such as care homes, student accommodation, and schools, the advantages become even more compelling.

### Schools

Educational facilities require robust, future-proofed buildings delivered to tight budgets and timescales.

Steel frame MMC supports this by offering:



- Accelerated Build Programmes: Panelised buildings, classrooms and core facilities can be delivered and installed over school holidays, minimising disruption to learning.
- Design Versatility: Steel frames allow for large, open-span areas ideal for flexible learning spaces, halls, and sports facilities.
- Cost Certainty: Off-site production reduces the risk of delays and budget overruns, giving local authorities and trusts greater financial control.
- Long-Term Durability: Steel's structural integrity ensures long-lasting performance, crucial for public sector investment.



### **CHAPTER TWO**

## Benefits of Off-Site Construction by Building Type

### **Student Accommodation**

In student housing, where speed, cost, and repeatability are critical, panelised light-gauge steel frame solutions provide:

- Rapid ROI: Fast-track construction enables developers to meet academic calendar deadlines and begin generating revenue sooner.
- Standardisation and Efficiency:
   Standardised sections can be developed to ensure efficient, low waste construction with consistent quality across multiple buildings.



 Design Flexibility: Steel frame structures accommodate open communal spaces, en-suite layouts, and integrated M&E systems without compromising on design.

### Care Homes

For care homes, where residents often have complex health needs and build projects are time-sensitive, steel frame off-site construction offers:



- Speed to Occupancy: Rapid assembly of panelised components shortens build times, helping providers meet growing demand and operational deadlines.
- Enhanced Quality and Performance: Factory
  production ensures precision and consistency.
   Tested wall configurations ensure excellent thermal
  performance and reduced energy costs.
- Minimal Disruption: With much of the construction occurring off-site, on-site disruption is greatly reduced - beneficial when expanding or replacing homes in residential neighbourhoods.

# Supporting Contractors & Developers

### **How we Supports Partners and Projects**

At Saint-Gobain Off-Site Solutions, we partner with contractors and developers to deliver smarter and faster building solutions using Intrastack light-gauge steel frame systems.

With in-depth industry experience and a fully-integrated service model, we support every stage of the build - from concept to completion - with tailored guidance, responsive support, and providing certainty at every stage of the build programme.



### CHAPTER THREE

## Support for Contractors & Developers

### Sales Support

We don't just supply a product - we build partnerships. Our experienced sales team works to understand your project goals and identify the most efficient and cost-effective solutions.

### We offer:

- Responsive, knowledgeable support from first enquiry through to contract.
- Tailored commercial solutions, backed by transparent pricing and reliable lead times.
- Assessments and presentations to support planning and stakeholder engagement.

### **Effective Off-Site Solutions**

Intrastack steel frame systems reduce risk and enhance build performance. Our solutions are ideal for a wide range of building types, providing:

- LGSF systems manufactured in controlled environments for accuracy, speed, and consistency.
- Customisable designs to suit both repeatable and bespoke architectural visions.
- Tested thermal, acoustic and fire performance, of wall build-ups designed with Saint-Gobain products.

### **Technical Project Management**

Our dedicated project management team works closely with clients to ensure every project runs smoothly, on time, and to specification. From earlystage design coordination through to manufacturing schedules and on-site logistics, we provide:

- End-to-end project oversight, ensuring alignment with your build programme and key milestones.
- Collaborative design support, including early engagement with consultants and architects.
- **Precision scheduling**, to streamline delivery and minimise on-site time.
- Compliance expertise, ensuring all systems meet relevant standards and certifications

### Expert Advice You Can Rely On

With years of experience in modern construction methods, our team brings extensive technical knowledge and practical insight to every project.

### We advise on:

- Design optimisation, helping to maximise available space, reduce materials, and simplify installation.
- Buildability reviews, flagging potential issues early to avoid costly delays.

### CHAPTER FOUR

# Steel Frame Off-Site Solutions

### Light-Gauge Steel Frame (LGSF) Load-Bearing Solution

The Intrastack system can deliver fully load-bearing structures up to 12-storeys in height. Each project is specifically designed to optimise the use of LGSF structural technology – minimising materials, waste, labour and, ultimately, cost.

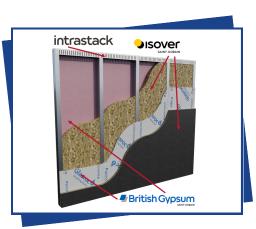


### SFS Infill System

Infill walls, also known as SFS, are the non-loadbearing external walls built between floors of a primary structural frame; they are used to provide support for the cladding system. A lower carbon steel option is available on request for infill and GypLyner Xternal SFS.

### GypLyner Xternal -Through-Wall Solution

GypLyner Xternal is a full Saint-Gobain through-wall SFS solution that has a range of detailed and tested fire and thermal performance specifications, all supported by market leading technical evidence.



### CONCLUSION

## Building Better with Saint-Gobain Off-Site Solutions

### **Building with Confidence**

By choosing Intrastack from Saint-Gobain Off-Site Solutions, contractors and developers get more than just a steel frame system - they gain a trusted partner committed to quality, efficiency, and delivery certainty.

Partnering with us means building better for every generation – delivering high performing buildings with shorter, more predictable build programmes. With our expertise in off-site steel construction, combined with end-to-end support and innovative solutions, contractors and developers can reduce risk, improve efficiency, and unlock long-term value across every project.

When you're creating high-quality environments for care, education, or residential living, we're here to support your project. Providing certainty at every stage of the build process, from early design to final installation. Whether you're developing new care facilities, student accommodation, or extending a school, we provide the technical expertise and planning support to help you plan and build with confidence.

