



Hertfordshire
Growth Board

Hertfordshire Offsite Manufacture

Factsheet 8

27.05.2022

Factsheet 8: Why Elements Europe?

Who are Elements Europe (EE)?

Elements Europe has been delivering offsite solutions to the construction industry since 2005, and in this time has become one of the UK's leading manufacturers.

Over the years, their accredited systems have successfully delivered solutions across a multitude of sectors including housing, hotels, student accommodation, defence, healthcare, education and most recently what is proving to be the fastest growing sector for EE, the Private Rented Sector.

EE manufactures both a fully volumetric whole property solution as well as room pod solutions to these sectors.

EE offer complete flexibility, with the ability to offer completely bespoke solutions. From concept to completion its teams collaborate to ensure it consistently exceeds client's expectations.

Building information modelling (BIM)

EE's offsite factory produces housing portfolio options, uses state-of-art BIM software offering Developers and Designers pre-made BIM Objects. BIM Objects use three-dimensional design and on-time information sharing, offering an effective solution for handling the organisation and budget challenges of today's complex construction projects.

BIM object concept design and cost certainty enables developers and design teams to use BIM Objects of the modules to build conceptual modular project solutions at viability, land purchase and pre-application stages with a high degree of accuracy. The BIM Objects data provides detailed schedules and bills of materials enabling immediate, transparent cost certainty from these early stages, reducing the risk in development and construction.

BIM Object Production Management and Procurement ensures that once the project is given the green light to proceed to construction the BIM Objects move into the production stage with data being translated immediately into procurement and build schedules for the factory ensuring a quick, efficient and quality controlled process. There is no waiting for estimators, quantity surveyors or schedulers to calculate quantities.

BIM Object production progress combined with their Smart Factory production monitoring system will provide on-time information sharing regarding the projects overall progress.

BIM Object Completion – even before actual completion the BIM Objects are used to build detailed operations and maintenance information for operators of the homes. The data information will match production and be fully detailed enabling long term benefits for users.

Elements Europe's Housing Portfolio – BIM Objects will help projects by:

- Increasing certainty at early stages of development – time, cost and quality
- Reducing design time and cost
- Providing ideas for developers and designers to develop into projects
- Improving accuracy in design
- Improving accuracy in materials scheduling reducing costs and increasing time certainty
- Reducing traditional estimating, quantity surveying and scheduling times
- Providing on time transparent information sharing regarding the projects progress
- Removing risk of co-ordination with clash control being completed in the BIM Object model

External links:

[Elements Europe](#)

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Portfolio

EE's portfolio of modular residential solutions is extensive, having delivered homes across a spectrum of house types and tenures, ranging from detached family homes to multi storey dwellings. Whether it be for a local authority, housing association or the open market, EE has the experience to deliver.

All homes are manufactured offsite in a factory environment before being delivered to site fully finished and ready to install. The offsite manufacturing process guarantees a higher standard of quality and a streamlined process leading to reduced build programmes and a reduction in waste during construction.

Flexibility is key, EE can build up to 23 storeys high with a range of external finishes, roof design, and window styles to choose from. Internally they offer high quality fixtures and fittings to provide clients with a desirable living space.

EE offer:

- Housing design options which can be Nationally Described Space Standards (NDSS) compliant
- Options to fulfil the Approved Document M requirements
- Options which are compliant with The London Plan
- Options to fulfil requirements set by the Supplementary Planning Guidance (SPG)
- All homes are fully mortgageable and covered by the industry standard
- NHBC building warranty, or Building Life Plans (BLP) which are accepted by all major lenders
- BOPAS accredited



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External finishes

What really sets our product apart is the ability to choose a wide range of external finishes to suit the design of the building. Both modern and traditional vernacular solutions are available to satisfy the planning authority's requirements. Clients can also select the roof design and window styles as well as features such as balconies, solar panels and green walls.

Environmental principles

EE is leading the way in the sector having committed to a low carbon future and signed up to the United Nations Race to Zero and Science Based Target Initiatives.

As members of the SME Climate Hub, EE have committed towards halving their emissions before 2030 and strive to achieve net zero emissions before 2050.

EE has also committed to the target validation process and benefits from regular detailed feedback and support from the SBTi's (Science Based Target Initiative) technical experts.

Science-based target setting makes business sense – it future-proofs growth, saves money, provides resilience against regulation, boosts investor confidence, spurs innovation and competitiveness – while also demonstrating concrete sustainability commitments to increasingly conscious consumers.

Key environmental initiatives which EE has adopted include:

- Increasing the use of sustainable off grid energy production in our manufacturing facilities
- Reducing waste through design
- Manufacturing in a controlled environment and segregation
- Grey water recycling
- Maximising offsite construction
- Minimising energy in transport and logistics by the use of electric vehicles and plant
- Designing to Future Homes Standards
- Adoption of latest Building Regulations
- Provision of Energy Performance Certificates for our products

EE's ISO 14001 standard accreditation ensures a robust approach to general environmental management in all aspects of our business.

Key performance information:

- 35% less waste compared to traditional construction
- 77% more waste recycled than in traditional construction
- 33% better performance than current building regulations