

## Case Study Modular Field of Application

Stelling Properties Ltd are one of the UKs leading modular development companies. They offer a high quality and tailored approach to construction methods, as well as an additional level of control by producing prefabricated modules within a strictly controlled factory environment.

### The Challenge

Stelling Properties Ltd engaged with KFS to assist in developing their modular system through testing and data analysis, to maximise the flexibility within their modular design.

Due to the nature of modular construction and it being more complex than traditional construction methods it requires a higher level of engineering.

### The Solution

KFS provided independent recommendations for the specification and management of the fire resistance test which was conducted at a third-party laboratory. Initially, they advised on the proposed construction of the specimen to be used in a fire resistance test.

Following this successful test, KFS provided a comprehensive Engineering Assessment of the modular system, detailing how the components utilised within the design would be capable of achieving the minimum required period of fire resistance.

The Engineering Assessment was required to provide a scope for all the passive fire protection elements of the project, including board linings (which were also the primary protection to the structure), service penetrations and cavity barriers.

### The Outcome

KFS were able to utilise the primary test data generated by Stelling Properties Ltd, to provide a scope for the primary board linings for the system. Then they employed secondary test data from third parties (such as fire stopping manufacturers), to provide an actionable scope for construction elements that intersected the primary plasterboard linings.

The Analysis in the Engineering Assessment Report demonstrated the suitability of the various construction elements forming the modular system. This was in relation to the required period of fire resistance for various private and student residential projects.

This Engineering Assessment considered the performance of the Stelling Properties Ltd modular system against the British Standard to demonstrate the key fire resistance performance parameters of the system, including detailed analysis. This gave their clients greater confidence and trust in the performance of the modular design.

**Contracting Client:**  
Stelling Properties Ltd

**Location:**  
Winchester, Hampshire

**Sector:**  
Manufacturing

**Key Elements:**

- ✓ Fire Test Design Advice
- ✓ Engineering Assessment Report
- ✓ Modular Systems



Since our foundation, we have continued to deliver robust, innovative and cost-effective fire safety solutions.

Indeed, we have lent our expertise to developments right across the built environment spectrum, from the necessities of Residential, Education and Healthcare to the more iconic buildings of the past, such as historical royal palaces and stately homes.