



Case Study:
Welwyn Hatfield

Innovation

Fuelled.

Case Study: Welwyn Hatfield



Client	Welwyn Hatfield Borough Council
Architect	Fuse Architects
Contractor	MSPS
Installer	BTS
Project	Refurb
System	K Systems M (Mineral Wool), Silicone Thin Coat Render (TC 15)

Background

The Welwyn Hatfield project highlights K Systems' commitment to **technical excellence, sustainability, and resident well-being**, underpinned by our collaborative approach to tackling some of the most **complex retrofit challenges** in occupied social housing.

Delivered in partnership with **Morgan Sindall Property Services**, this scheme demonstrates how **intelligent system design, robust fire safety compliance, and aesthetic sensitivity** can be seamlessly integrated to deliver successful outcomes for both residents and stakeholders.

As part of a wider refurbishment programme across the borough, the project was supported by the **Government's Warm Homes: Social**

Housing Decarbonisation Fund. The initiative is designed to improve the energy performance of homes, raising EPC (Energy Performance Certificate) ratings from D–G to at least C, tackling fuel poverty and helping to reduce energy bills for residents.

A comprehensive package of **energy-efficient upgrades** was completed, including loft and cavity wall insulation, internal and external wall installation, low-energy lighting, and solar panels.

These properties had previously been among the **lowest performing council houses for energy efficiency** in the borough, and for Welwyn Hatfield Borough Council the **end result is outstanding.**

Residents now benefit from homes

that are **warmer, safer, and more comfortable**, while also being **more energy-efficient and environmentally sustainable.**



Low-rise Residential



Refurb



2 Storeys

Our Service

The Welwyn Hatfield project presented a range of construction challenges, particularly around **rigorous fire safety compliance.**

Integrating fire breaks within existing façades—especially at shared access points such as ginnels—demanded **precise detailing and close on-site coordination.**

Delivering a system that was both **high-performing and fully compliant**, while maintaining value for money, remained a key

focus throughout the project.

K Systems supported Morgan Sindall with **detailed specification support and material guidance** that maximised both performance and budget efficiency.

With residents remaining in their homes during the works, **minimising disruption** was vital. Our team provided **hands-on technical support** on site, enabling smooth progress and helping to sustain tenant satisfaction throughout.

Expectations around final finishes were understandably high. We worked to **balance the design aspirations** of the Council and residents with the technical constraints of the system, ensuring outcomes that were both **visually appealing and technically robust.**

From **design advice through to installation**, K Systems offered a **partnership approach** which aided a smooth installation process with minimal disruption.



Mark Keen, Managing Director, BTS said:

“This refurbishment was a highly complex undertaking, involving intricate technical detailing and bespoke specifications across multiple properties. Collaborating closely with the K Systems team enabled us to meet the client’s expectations precisely. Every element of the project was executed with excellent care and professionalism, underpinned by K Systems’ unparalleled expertise. The end result is a collection of properties that not only have an exceptional thermal performance but also stand out with striking visual appeal.”

Technical Project Details

Given the council’s strict fire safety requirements, K Systems’ **Mineral Wool EWI system** was selected as the optimal solution. This **non-combustible, high-performance system** provided the robust fire resistance needed for a high-density, occupied housing environment. The system was chosen for its ability to deliver across multiple priorities:

- **Thermal efficiency** – Outstanding U-value improvements (**0.29 W/m²K**), helping reduce fuel poverty by cutting energy use and costs.
- **Design flexibility** – Adaptable to architectural features such as stone cills and banding.
- **Fire performance** – Full

compliance with stringent fire safety standards, including fire breaks and ginnel detailing, achieving A2, s1-d0 classification.

The **Silicone Thin Coat Render finish** delivered a clean, consistent aesthetic that uplifted entire streets while ensuring long-term resilience.

To address the project’s complexity, our technical team provided **bespoke detailing** and conducted **on-site pull-out tests** to validate the suitability of fixings, especially in challenging areas such as shared access points and mixed substrate façades.

In the Attimore Close area of the project, stone cills and banding were subject to conservation planning

requirements. Achieving a seamless integration between insulated and non-insulated properties was critical to preserve architectural character. K Systems’ ability to **refine detailed design solutions** played a key role in ensuring both compliance and visual success.

This project exemplifies K Systems’ **technical leadership, collaborative ethos, and commitment to safer, more sustainable homes**. By successfully navigating **fire compliance, conservation constraints, and live-site challenges**, we delivered not just a high-performing EWI system, but a solution that residents, contractors, and the local authority can take pride in.

Innovation

Fuelled.