

# HEATING SYSTEM REPLACEMENT IN A GRADE 2 LISTED BUILDING

## The Challenge

We delivered this project at a historic building known for its philanthropic heritage, which continues today as a centre for charitable and community-focused activity. The site was experiencing a complete failure of its heating and hot water systems, rendering the building non-operational and placing its day-to-day function at serious risk.

The technical and operational challenges were significant. The building is Grade 2 listed, meaning any structural or visible alterations would require formal approvals, introducing restrictions and potential delays that limited the scope for conventional replacement works.

The existing system was an ageing pellet-burning biomass boiler installation, originally suitable during the building's previous use as a care facility where subsidies supported its operation. However, following a change in use to a charitable community hub, the biomass system was no longer economically viable or practically appropriate.

Alongside this, there was a critical requirement to restore full heating and hot water services quickly, while ensuring no impact to the building's historic fabric. The key constraint throughout was clear: modernise the heating system without making intrusive changes to existing infrastructure or compromising the architectural integrity of the property.

## What We Delivered

JBC undertook a full system replacement, removing the failed biomass boiler and replacing it with a modern, high-efficiency heating system designed to deliver both performance and long-term reliability.

The core of the installation was a 200kW Bosch hot water condensing boiler, selected to provide a stable, efficient and cost-effective heat source suited to the building's current operational demands. This marked a significant upgrade in both reliability and running efficiency compared to the previous system.

To ensure full compliance with listed building constraints, the new boiler system was installed externally within a discreet, containerised plant room located in the rear yard. This approach eliminated the need for any structural alterations to the building itself, ensuring that all visible and historical elements remained untouched.

A key aspect of the delivery was the retention and reuse of existing infrastructure wherever possible. The original pipework routes and distribution systems were carefully assessed, adapted, and incorporated into the new installation.

## The Outcome

The completed works delivered a fully operational, modern heating and hot water system, restoring full functionality to the building.

The condensing boiler has provided a reliable and efficient long-term heat source, significantly improving system performance and reducing operational uncertainty previously associated with the failed biomass installation.

The building is now fully operational once again, continuing to serve its community purpose with a dependable and efficient heating system that aligns with both its operational needs and heritage constraints.

