

SHADOW Industrial Infrared

CASE STUDY



ST PETER'S CHURCH, FROXFIELD, PETERSFIELD

St Peter's Church in Froxfield faced a challenge familiar to many historic buildings: preserving its heritage character while creating a warm, comfortable environment that could be used year-round.

Its ageing oil-fired heating system was no longer fit for purpose. It had become inefficient, unreliable, and was contributing to damaging condensation within the building. A modern, sustainable solution was urgently needed.

The church embarked on a transformation designed not only to resolve its immediate heating challenges, but also to future-proof the building for generations to come. The completed installation included:

- 3 x Shadow Chandeliers with integrated lighting
- 4 x Shadow Solace ceramic heaters

Together, these elements provide a discreet, highly efficient heating solution that complements the church's historic interior.

The Shadow Chandelier

An infrared heating solution designed specifically for heritage buildings and churches.

Elegantly designed, the Shadow Chandelier ensures your space remains warm and inviting without compromising aesthetics or heritage preservation.



Visitors are often surprised to learn that the chandeliers double as heaters, as they integrate seamlessly into the space. Both the congregation and the wider community have warmly welcomed the enhanced comfort and increased flexibility provided by the new heating system."



SHADOW SOLACE

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The Challenge

The church's previous heating system consisted of an old oil-fired commercial heater, which had become increasingly problematic. The system contributed to ongoing condensation issues within the building and the church faced a critical failure when the oil tank split.

Initial plans explored replacing the oil infrastructure with a new oil tank and boiler system. However, this would have involved excavating approximately 40 metres of roadway, tunnelling beneath a listed wall, a quarry, and a listed lych gate, as well as excavating trenches across rows of graves. Alongside the associated cost, archaeological requirements, and overall logistical complexity, these challenges quickly made the proposal impractical.

The church investigated several alternatives, including oil, gas and electric heating systems. Ultimately, electric infrared heating emerged as the most viable long-term option for the building and congregation.

The Outcome

The completed installation has transformed comfort levels throughout St Peter's Church, while modernising the building's heating infrastructure with an efficient, responsive and future-ready solution.

Replacing the outdated oil-fired system has not only reduced operational complexity but also introduced a far more practical and flexible approach to heating a historic church environment. The new zoned infrared system allows the church to heat occupied areas only when required, significantly reducing warm-up times and improving operational flexibility for smaller services, meetings and community events.

The project has received positive feedback from both the congregation and wider community, while also demonstrating how historic churches can support net zero carbon goals without compromising the character, functionality, or heritage of the building.



THE SYSTEM

Following extensive research and consultation, St Peter's Church selected an infrared heating solution designed specifically for heritage and ecclesiastical environments.

The installation comprised three illuminated Shadow Chandeliers within the nave and two suspended Shadow Solace Ceramic heaters within the side aisle, and a further two within the chancel, integrated with an intuitive zoned control system to deliver discreet, responsive, and energy-efficient radiant heating throughout the church.

To support the new system, a major three-phase electrical upgrade was required. Through practical redesign and close collaboration, the church significantly reduced the original electrical upgrade costs by implementing a simpler, less intrusive solution, helping make the overall project both viable and cost-effective.

The heating system was installed with five separate heating zones, allowing the church to operate specific heaters only when required.

This provided greater flexibility, improved energy efficiency and faster heat-up times, making the system ideal for smaller services, meetings and varying occupancy levels throughout the building.

