



*The newly re-ordered church with its striking heated limestone floor*

## Pioneering dry flooring system at St Mary's, Broadwater 1/08/09

The re-ordering of this Medieval Grade I listed church is significant as it is the first time an insulated and heated stone floor has been installed in an English church without a concrete sub floor. It also demonstrates how tried and tested technologies from different industry sectors can be combined to create a highly effective bespoke system.

When the project eventually went on site in January 2009 the project team was faced with an accelerated timetable as the church needed to be fully operational again by the summer wedding season. This had a major impact on their approach to the new flooring and underfloor heating installation. The project required a system that could be implemented quickly. It also required a system that could accommodate various sub-floor levels and provide a load bearing surface suitable for large format limestone tiles as well as for cherry picker access to high level lighting equipment. Given the project timescale, a lime concrete sub-base was not an option. There were also concerns about introducing 'wet trades' into a 900 year old structure. Working with JUPITER Heating Systems Ltd, Lee Evans Partnership developed a dry installed robust floor construction approach. They sourced a 'dry' substrate, used extensively in highway construction, on which to lay the proprietary 'JUPITER system'. A recycled material the lightweight foamglass aggregate interlocks when it is compacted producing greater stability. Following consultation with statutory amenity societies, English Heritage and advisors from the Chichester DAC the system was fine tuned and tested. [Technical details of floor construction.](#)

Implementation of the dry flooring system took just twelve working days after which the limestone tiles were laid. An additional benefit of the striking new floor is that it can be removed easily for future archaeological investigation.

**For further details contact:**

**Lee Evans Partnership, St John's Lane, Canterbury, Kent CT1 2QQ**