

Heating recommendation for St John's Chapel, Belper

Issue

The chapel is currently inadequately heated for meetings in the winter months. The temperature is too low within the main meeting space for staff, Councillors and members of the public to remain comfortable for the full length of meetings.

The current heating system is partially not working and outdated. It is causing harm to historical objects placed within the building and evidence of significant black staining can be seen on a large plaque on one wall. There is not widespread evidence of damage from damp visible on a basic inspection. It is likely that the system is only able to keep the building within historical levels of temperature and humidity. It would be good practice to purchase a data logger to record temperature and humidity to confirm this. The best option for conservation of the building itself is to maintain a constant low level of heat (8-10°C) and humidity, however to enable meetings to take place it is acceptable to occasionally heat the building.

This paper relates directly to the options for providing adequate heating for people using the building.

The current recommendation brought forward is for radiant heaters (please see the paper relating to this proposal for details). This paper proposes that this is not the most suitable option at this time.

About the site

St John's Chapel was listed as Grade II in 1966 (see listing <https://historicengland.org.uk/listing/the-list/list-entry/1335668>).

Belper Town Council currently lease the Chapel and adjacent land from the Church of England. All alterations must be agreed first with the owners. However, both the owners and the leaseholders have a duty of care for the building and must conform to the legal requirements for listed buildings.

The building displays a collection of unique historical objects relating to the local area, including a rare Pre-Reformation alter table in original position and several commemoration plaques. In addition, a group of hanging interpretation panels tell the story of Belper to engage visitors.

The Chapel celebrates its 750th anniversary this year and the Council will support celebrations of this event, providing new interpretation and public event/s within the building during the late summer and early autumn.

Options

Radiant heaters

Historic England state:

“Radiant (quartz ray) heaters - These heaters will generally not provide an acceptable means of heating your place of worship[historical building]. Rather than heating the building to a steady temperature they provide short bursts of heat and will almost always be highly visible and unsightly.

Their radiation can damage nearby objects. As the radiation heats the object it strikes, they do not create a general feeling of warmth.

We generally discourage the use of these heaters. We recognise however that they may sometimes be justifiable in discreet locations or, exceptionally, in places of worship[historic building] only used occasionally where there is no economic alternative.” (<https://historicengland.org.uk/advice/caring-for-heritage/places-of-worship/making-changes-to-your-place-of-worship/advice-by-topic/heating/>, accessed 27/02/2020)

The installation of this type of heater involves fittings hanging from the internal structure of the roof, in close proximity to the historically important wooden beams and struts. They will alter and restrict the view of this space and change the spirit of the building. It is possible that they will not effectively heat the space below and that they will be removed, leaving permanent marks and damage to the building. As alternative, economically viable options are available, radiant heaters are not justifiable as an ‘exceptional’ case.

This option is not recommended.

Electric storage heaters

The most appropriate form of heating recommended by Historic England for this type of building is modern electric storage heaters. This is partly due to the system already in place and to the type of steady heat they provide. However, the cost of replacing the system is restrictive and would require a long-term commitment to the site to make this option cost effective.

This option is not recommended at this time.

Portable fan heaters

Historic England’s view on portable heaters is as follows: *“Portable heaters, whether gas or electric, produce instantaneous, localised heating. We discourage them as a lasting solution as they carry increased fire risk.”* (<https://historicengland.org.uk/advice/caring-for-heritage/places-of-worship/making-changes-to-your-place-of-worship/advice-by-topic/heating/>, accessed 27/02/2020)

Considering this view, portable heaters may be a short-term, low-cost solution to heating the building, if the fire risk is managed. This method will result in no alteration to the building (presuming no additional plug sockets are required) and will provide fast and effective warmth in a localised area. They provide directional heat, so may be directed at occupied areas rather than attempting to heat the entire space – this will also protect the walls and historical objects from heat and the associated damage.

Additionally, these heaters benefit from being portable, which means that they can also be utilised to support the dehumidifiers recently purchased by the Town Council for loaning to flood affected homes in the local area. This option is also quickly achievable with no requirement for works on site.

The negatives of this option are that, should plug sockets not be in the correct position, table layout may be restricted. In addition, they must only be used when the room is occupied to manage the fire risk. They also create noise, which may interfere with meetings in the room.

It is recommended that this option be considered by the Council. If this option is chosen, purchase of these items is recommended:

- Two or three 230w 3kw Fan electric floor heaters (such as the SIP Fireball) for in the region of £80 per unit.

- A supply of health and safety lead covers and suitable extension leads for this type of equipment (if required). Expected cost in the region of £50-£100.

Rational use of the building

It must be noted that there is no fully suitable low-cost solution to this issue. Another option, which may be the most suitable at this time, is to only use the building for meetings during warmer months.

The council is currently 'travelling' around other local sites on a rota basis, with meetings every other month throughout the year are being held away from the Chapel. If these meetings are condensed in to the colder months, use of the building in uncomfortable temperatures will be significantly reduced. There is no additional cost to this course of action.

This may also be of benefit to the local residents, who will find it easier to attend meetings closer to their homes at times of inclement weather and in the dark evenings of winter months.

Any additional meetings in this period could be held with local community sites; it is possible that the cost of hire would be less than the cost of heating solutions and energy in the short-term.

It is recommended that this option be considered by the Council.

Conclusion

It is recommended that the council consider rational use of the building as a short-term solution. However, if the Council decide not to choose this course of action, the use of portable electric fan heaters as a short-term solution is the recommended option.

Councillor Ruth Bellamy

27 February 2020