Your ref; Our ref; DC/RVH/01/06/20

Ringshall Village Hall Management Committee Ringshall Village Hall, Lower farm Road, Ringshall, Suffolk IP14 2JB

By Email Only

17th July 2020

FAO Mr Brian Robertson

Dear Brian

Re: Ringshall Village Hall, Inspection of Roof

Further to my visit to inspect the village hall roof on Monday of this week, I am pleased to provide you with my considerations based on the inspection as follows;

The purpose of the inspection was to consider the condition of the roof, and principally the tiled roof coverings in connection with which there had been some water ingress. This being primarily in the vicinity of the valley (the water being seen in the ceiling at the location of the wall between the main hall area and an extension). There is also understood to be concern regarding the fact that daylight can be seen through the roof coverings from within the roof space at various locations, and that tiles have been found to be slipping down / off the roof.

The inspection undertaken consisted of an external inspection from ground level and an internal inspection from within the roof space to the roof above the extension, and from which access was also gained into the roof area above the main hall.

It is understood the hall was constructed approximately 25 years ago, and the roof to the main hall provides the principle roof area, with an extension since being constructed approximately 6 years ago. The extension including a kitchen area. The roof to the extension having a lower ridge level than the original construction, there also existing a relatively steep pitch to both the original construction and extension. The extension exists to the north east of the original building, with to the south east there also existing a projection which has a mono pitch roof, and extension to the original roof but at lower pitch angle. The building generally has gutters at eaves level with rainwater down pipes, and at the junction between the extension to the north east and main roof valley gutters have been installed.

The building has been constructed such that its appearance is very much in keeping with the environment in which it exists, and for this reason the roof is clad with single clay pantiles.

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Tel: 07884 272730 E-mail: info@hesturltd.com www.hesturltd.com 53 Edwin Panks Road, Hadleigh Ipswich, Suffolk. IP7 5JL

The external inspection identified the following;

- The arrangement of the pantiles, i.e. line between adjacent tiles both horizontally and vertically up the roofs, varied.
- The tiles had been laid such that the cut corners to adjacent tiles could be seen suggesting that the side lap and head lap may not quite be as much as required.
- There was considerable variance in the quality of the tiles, some being formed such that as a consequence the overlapping side edge was considerably raised above the adjacent tile.
- There was the occasional damaged (cracked) and slipped tile.
- The valley gutter to the northern side of the junction between extension and main roof appeared to be badly formed and constricted in its width at mid height.
- To the northern side of the extension roof, the tiles immediately above the gutter turned down having an increased angle to the horizontal. rather than having a slightly less slope angle that those above.

The Internal Inspection identified the following;

- The roof structure, rafters etc. appeared in good condition and there was no obvious signs of distress in the structure inspected.
- Daylight could be seen through the roof finishes at various locations within the main roof.
- Where the valleys existed between main roof / extension the sarking felt did not
 extend fully below the valley construction / rafters, and in particular the northern
 side with there being evidence of debris collecting on the insulation within the
 ceiling below.
- Where the dampness had been identified, at the junction of the wall between main hall / extension, the ceiling boards have been repainted, the boards being sealed with an appropriate sealant to cater for the water staining before doing so. (The ceiling boards did not appear to be significantly blown as could be seen from below, and the insulation, where the debris existed, did not appear wet at the time of the inspection).

Taking the above into consideration it would appear that the workmanship to construct the roof, install the roof coverings, sarking felt and tiles, was not of the best quality.

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When using single clay pantiles, due to variation in the making of the tiles, care has to be taken to ensure the gauging reflects the actual tile dimensions and variances that may exist in these dimensions. By taking appropriate care when setting out the tiles this variation can be accommodated and the appropriate side and head lap achieved in the main. This would also achieve an appropriate, aesthetic, appearance in terms of tile line.

With regard to the variation in the quality of tile it is understood that some of the extension roof was tiled using tiles recovered from the original roof, where the roofs intersect. It is possible that other tiles used were from different manufacturers, and as a consequence this can result in tiles of slightly different sizes being utilised, and hence consistent gauging being difficult to achieve. Any variation in gauge will stand out in a roof of the size as exists on the main building. Also looking at some of the significant variations in shape it is suggested that it is possible that some tiles may be tiles salvaged from other roof constructions.

Often, other than the appearance the above may not be detrimental to the performance of the roof beyond that which would normally be anticipated for tiles of the type used. However, the daylight that can be seen internally would suggest the potential for some water to penetrate the roof coverings.

With regard to the water ingress in the area of the valley, the valley condition may well be contributing to this to some extent, but the way in which it has been formed, its profile, is suggested as being a potential issue in terms of allowing debris to collect and this can result in water entering below the roof tiles. The lack of sarking felt at the same location is also allowing any moisture penetrating the roof / moisture collecting below the roof tiles, on top of the membrane, to spill down onto the insulation and cause the dampness reported and debris seen.

With regard to the slipping tiles, as noted the pitch of the main roof and extension is relatively steep. It would be expected that the tiles have been nailed to the battens and tile clips used. Whether this is the case cannot be confirmed without lifting some tiles but could be a reason for this occurrence. The steep pitch makes this the use of appropriate size nails and tile clips, given the type / shape of tile employed, even more necessary.

When inspecting the roof internally the roof structure was found to be in good condition, but as mentioned during the inspection, it is unlikely to meet with current Building Regulations given changes that have occurred in these regulations since its construction. This does not mean it is in adequate, or there are any issues, but potentially deflection may be slightly greater than in a roof designed to current day standards. This may also apply to the battens used, noting that the rafters are spaced at approximately 600mm centres.

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Recommendations

It is suggested the roof wold benefit from an "overhaul" by removal and reinstatement of the tiles to deal with the matters referred to above. This will allow the tiles to be removed and re-laid to an appropriate gauge, with any tiles that are damaged / misshapen removed and replaced, the sarking felt repaired / installed where missing, and the locations where daylight is visible through the roof coverings repaired. It can also be ensured that all tiles are fixed securely using appropriate nails / tile clips. Any issues with battens can also be attended to at the same time. The valleys can also be formed correctly to avoid potential issues occurring.

It is suggested a suitable roofing contractor be approached to undertake the above, one who has experience with roofs of the size and pitch as exist, and is also experienced in the installation / fixing of single clay pantiles on such roofs.

I trust the above provides you with the information required, however, should you have any queries please do not hesitate to contact me.

Kind Regards

Yours Sincerely

David Clarke

on behalf of Hestur Ltd.