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# SURVEY & RECOMMENDATIONS

# SUPPLEMENTAL

## Pickmere Parish Hall

## Client: Pickmere Parish Council

Report compiled by: P H Roberts, BSc, MSc, CEng. MICE

Date: 14.01.2022

## Description

Following on from my initial investigation and report, dated 08.11.2021, I re-visited the site on 12.01.2022, to further investigate the problems with the floor slab in the WC area.

A small number of floor tiles had been removed by others (in the corner of the male WC under the hand basin). I measured the moisture content of the floor slab , the adjacent skirting boards and lower levels of the plastered walls. I broke through the concrete floor slab in the corner, exposing the perimeter brickwork.

The skirting boards and walls exhibited moisture levels in the region of 20 – 30%. The floor slab moisture levels were excessively high and recorded "off the scale".

There was no evidence of a damp-proof membrane (DPM) under the concrete slab nor dressed up the perimeter brickwork as it should have been.

## Conclusions

The findings of this supplemental investigation confirm my initial analysis, that the cause of the problems lies in the absence of a DPM under the concrete floor slab.

## Recommendations

In my opinion there are two courses of action available:

A: Full replacement

1. Remove all floor coverings (tiles), skirting boards and sanitary ware
2. Hack of plaster to low level (up to 1.0m above floor level)
3. Break out concrete floor slab
4. Excavate below slab level (approx..25mm) and install 25mm sharp sand "blinding" layer, followed by 1200g DPM, which must be dressed up the sides of the brickwork
5. Re-cast concrete floor slab (min. 100mm of C30 concrete)
6. Replaster walls (using renovating plaster or sand and cement with a waterproofing agent)
7. Fit new skirting boards and re-install sanitary ware
8. Lay new floor coverings (such as porcelain tiles with a non-slip surface)

B: Remedial Works

1. Carry out items 1 & 2 as in A above
2. Clean off top of concrete slab (brush and vacuum)
3. Apply 3 coats of waterproofing slurry ("Sika" or similar), in accordance with manufacturer's instructions. Any areas of damage to the floor slab will need to be repaired in advance, using a trowellable mix of the slurry. Form a triangular fillet, against the wall
4. Finish by carrying out items 6,7 & 8 as in A above

The works described in Section A above should provide the greatest protection against future problems but are obviously more disruptive and expensive.

I have experience of similar works to those described in Section B, carried out to cure problems with damp in basements. I believe that this course of action will give a satisfactory solution to the problem.