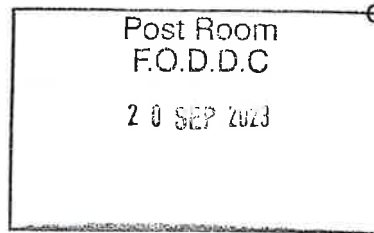


Ms A Fairbanks
The Old George
Dymock
Gloucestershire
GL18 2AJ



Our Ref: 2287/AW

Your Ref:

11th July 2023

Dear Ms Fairbanks,

Structural Appraisal of the Ground Floor Timber Structure over the Cellar at The Old George, Dymock, Glos.

Further to your recent instruction dated 17th May 2023, we have now carried out an inspection of the timber ground floor structure above the cellar. The structural appraisal of the ground floor was requested to determine the condition of the existing structural members and recommend any strengthening works.

The inspection was undertaken on 24th May 2023. The weather was dry. The inspection comprised a non-invasive visual inspection internally from the cellar.

As you will appreciate, we have not undertaken a full Building Survey nor carried out any specialist tests. Our inspection and report being limited to the areas accessible at the time of our visit.

Brief Description

The property comprises a two-storey dwelling of traditional build, comprising a cut timber roof, timber floors and load bearing masonry walls. The ground floor to the front of the property is of timber construction. Additional masonry piers and a timber beam have been added at a later date to support the floor. Refer to figure 1 and photographs 1 and 2 below.



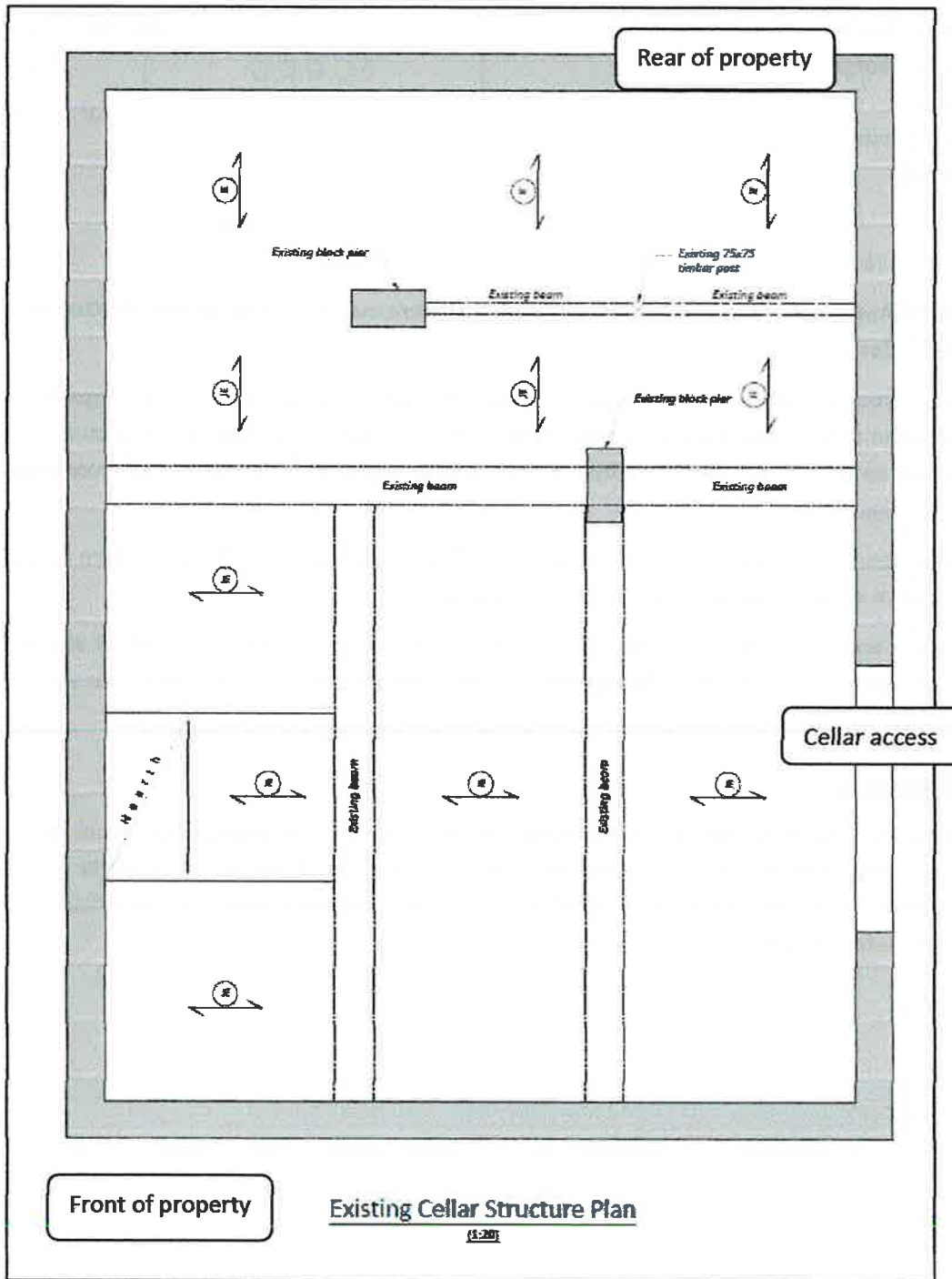


Figure 1: Ground Floor Structure Plan



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Photograph 1: View of Cellar looking towards the rear of the property



Photograph 2: View of Cellar looking towards the front of the property

Observations

The section of floor beam spanning from the masonry pier to the external side wall (adjacent to the cellar doors) has deteriorated significantly.

Additional supports have been added to the fireplace hearth in the form of two acro props and timber planks. The hearth is formed with vaulted brickwork supported off trimmer timbers.

The ground floor has a couple of dips which can be felt when walking on the floor. The dips are located in front of the hearth and between the next two adjacent beams.

A timber beam and post have been added to the rear section of the floor to strengthen the floor joists.

Two block piers have been constructed to support the timber beam and at the junction of two main floor beams. A timber post to the side of one pier, which appears to be aiding the beam bearing has rotted at the cellar floor level.

Overall, the remaining floor timbers are in a satisfactory condition.

Discussion

The deteriorated section of floor beam spans a short distance between a block pier and the external side wall. The beam supports a short section of floor to the rear section of the cellar. The reduced cross section of the floor beam should be capable of supporting the floor area. However we would suggest new timber beams are located either side of the existing beam to support the floor.

A further masonry pier constructed at the other floor beam junction will aid the support of the floor.

The acro props and timber planks are adequate to support the brick vaulted hearth. An alternative would be to construct a couple of engineering brick piers with timber support beams.

Where the ground floor dips, the existing timber joists are adequate to support the floor. The boards between the joists are likely to be causing the dip. Additional joist can be added between the existing joists. The new joists can be lightly jacked into place to removed some of the dip.

The timber post located next to the added block pier appears to have been added to aid the bearing of the timber beam being supported on the pier. Although not structurally significant, the post should be replaced with a new timber post with a DPM between the floor and timber.

Recommendations

Provide 2x 150x47 C24 timber joists either side of the rotten floor beam. The timbers can bear into the external wall, although the ends of the timbers will require protection in the form of a DPM wrapped around the joists at the bearing. Alternatively the timber can be fixed to the masonry/timber beam using joists hangers. Refer to photograph 3 below.



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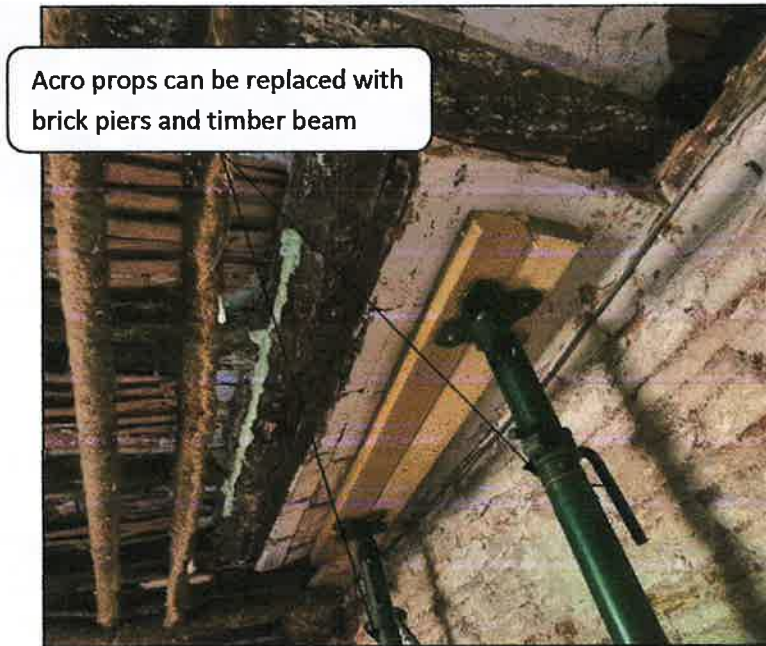
Photograph 3: Rotten timber floor beam

A block pier should be built to support the other timber beam junction. The blockwork laid on its side, can be built off the cellar floor using 7N blocks. Refer to photograph 4 below.



Photograph 4: Existing timber floor beam connection

Although not a specific requirement, if the acro props are to be replaced then 2x 215mm x 215mm engineering brick piers should be constructed to support a 100mm x 100mm timber beam fitted to the underside of the hearth. Refer to photograph 5 below.



Photograph 5: Chimney hearth support

At the floor dip locations additional 120mm x 75mm C24 joists should be located between the existing floor joists. The new joists should be 'lightly' jacked into place to stiffen the floorboards. The joists can be fixed to the adjacent timbers with joist hangers. Refer to photograph 6 below.



Photograph 6: Floor adjacent to hearth



Generally, better air circulation must be provided in the cellar.

The timber forming the floor should be treated by a specialist.

So long as the recommendations of this report are carried out, the floor will remain structurally satisfactory.

This report has been prepared on behalf of and for the exclusive use of A Winterbotham Ltd.'s client and is subject to and issued in connection with the provisions of the agreement between A Winterbotham Ltd and its client. A Winterbotham Ltd accepts no liability or responsibility whatsoever for or in respect of any use or reliance upon this report by any third party.

We trust the above is of assistance. Should you have any queries please do not hesitate to contact me.

Yours faithfully,

A Winterbotham Ltd

Andrew Winterbotham

Director

M: 07496 789 007, E: andrew@awinterbotham.co.uk

APPENDIX A - REFERENCES

BRE Digest 251; Assessment of Damage to Low-Rise Buildings: *Building Research Establishment*

Guide to Surveys and Inspections of Buildings and Similar Structure: *The Institution of Structural Engineers*

Appraisal of Existing Structure (Third Edition): *The Institution of Structural Engineers*

APPENDIX B - SCOPE OF INSPECTION

The structural inspection of the building did not include:

The disruptive exploratory opening up of finishes or fabric nor have the foundations inspected during this survey.

The inspection and reporting do not include for any dimensional surveys or sizing of structural elements.

Testing and the measurement of deterioration caused by dampness, rot and infestation to structural timber requiring the involvement of a specialist have been excluded.

The condition of damp proof courses/membranes together with the testing for dampness in masonry has been excluded.

We have excluded the identification of asbestos or asbestos containing materials (ACM's) which would be the responsibility of others.

We have not included for the design and preparation of engineering details associated with any remedial proposals. We assume cost estimated or quantity surveying duties associated with the remedial works will be undertaken by others.

