Report on Structural Appraisal
Of

Sheep Shed

At

Norris Hill Farm
Brokerswood

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Contents

1.0 Introduction

2.0 Limitations

3.0 Summary

4.0 Observations

5.0 Proposed conversion

6.0 Conclusions

1.0 Introduction

This report has been commissioned to provide an assessment of the existing outbuilding structure in relation to the proposed conversion to residential use. A site visit and a visual inspection was undertaken on 30 June 2023.

The proposal for the site is for the creation of a new dwelling house which will utilise and convert the existing structure currently forming the outbuilding. The proposals are as shown in the Atelier 17 ltd drawings A17 22 51 S01-05,P01-04.

A visual inspection was conducted at the time of the visit in order to assess its general condition and identify any areas of historic or progressive distress together with any structural inadequacies within these buildings.

2.0 Limitations

No removal of finishes or opening up works was conducted other than that described, and the findings of this report are therefore limited to those items that are apparent from the visual inspection undertaken from the accessible areas of the buildings. I have not inspected other parts of the structure or parts that were covered, unexposed or inaccessible and I am therefore unable to report that any such part of the property is free from defect. This report is provided for the benefit of the addressee and should not be relied upon by any other party without express permission from the author.

3.0 Summary

The building stands on substantially level ground. The building is rectangular on plan, single storey and covers a footprint of approximately 12.0metres by 6.0metres with a dual pitched ridged roof & timber clad walls.

The outbuilding comprises a timber stud frame construction built off a brick plinth with a timber trussed roof. The building has substantial concrete footings and a concrete slab floor.

The proposed conversion will include the provision of new window & door openings, new internal walls, internally lining of the external walls and roof other builders work to form a dwelling and comply with building regulations. The building is of generally

sound construction and can accept the works necessary for conversion without significant structural intervention; subject to the works required to perform as a dwelling will be suitable for conversion.

4.0 Observations

On the north east side the building is in close proximity to the over grown hedge and as such detailed inpection of this elevation externally was limited.

The building is structured with the external walls built with timber studs at regular centres which support the roof along the front and rear sides.
The studs support the external cladding boards and internal lining sheets.
The walls are generally true to line and plumb and the rof line is straight.
The roof comprises manufactured timber trussed rafters spaced at 600mm centres along the building, which carry the metal sheet roof covering and currently provides for some material storage at the ceiling level.

Trial pits excavated around the perimeter revealed substantial trench fill concrete footings, estimated to be approximately 450mm wide and 350mm deep, to a depth of around 600mm onto a firm yellow grey clay.
On top of the foundation, a blockwork and brickwork plinth wall rises to above ground level to support the timber stud walls.

There are local areas on the external wall where the cladding boards and studwork have been effected by moisture leading to decay of the timber. These areas are in need of repair to maintain the building integrity.

5.0 Proposed conversion

The preliminary layouts indicate new window and door openings to external walls, these can be in the most part formed between the studs, with additional studwork let in to allow for specific setting out requirements.

The retention of the existing trusses and studs will maintain the lateral stability, which will be enhanced by the insertion of the new internal partition walls.

It is anticipated that the external walls will be lined to provide the necessary insulation and internal finishes and that the roof will be recovered with new insulation and internal finish.

The detail of the new roof build-up will introduce a some additional load and it is considered that the existing trusses will be retained and currently have additional capacity to take the additional load.

The foundations are of a robust concrete construction onto suitable ground strata and will be able to sustain the modest load increase from the conversion.

6.0 Conclusions

I conclude that, subject to the detail of the alterations to comply with current regulations, the building can be successfully converted to residential use as the structure will accept the new load and alterations for openings etc without significant intervention.

Where repairs are noted above, these are necessary to maintain the integrity of the existing building in its current form and are not part of the conversion process.

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Appendix A

Photographs of existing building.

SE elevation



SW elevation



Appendix A

Photographs of existing building.

Internal view



Trail pit (NE side)
Showing foundations

Appendix A

Photographs of existing building.

Trial pit (NE side)



Trial pit (SE side)

