



WRD Engineers

Civil & Structural Consulting Engineers

WRDEL\W73963A\211221 sgh GSI (1/10)
21 December 2021

Mr M and Mrs C Adcock
68 Church Road
Bishopstoke
EASTLEIGH
SO50 6DL

The Stables, rear of 60
The Avenue
SOUTHAMPTON
SO17 1XS

tel: 023 8072 0770

Dear Mr and Mrs Adcock

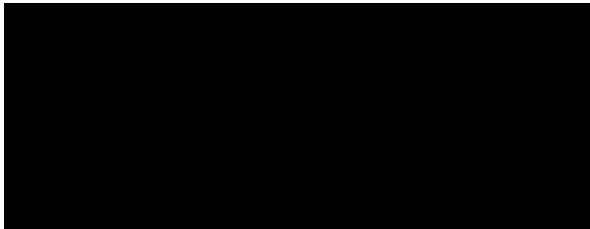
Barn at 148 Church Road, Bishopstoke, EASTLEIGH, SO50 6DS

We hereby present our General Structural Inspection report in respect of the above property.

Should you have any administrative queries, or require any further services, please contact us on the above number.

Should you have any queries regarding the report, please contact me in accordance with the details below.

Yours sincerely



M D Royall ACGI BSC CEng MICE MFPWS
for and on behalf of WRD Engineers Limited

tel: 
email: royall@wrdengineers.co.uk



WRD

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Civil & Structural Consulting Engineers

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21 December 2021

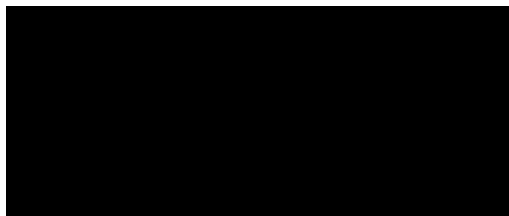
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GENERAL STUCTURAL INSPECTION

Barn at
148 Church Road
Bishopstoke
EASTLEIGH
SO50 6DS



M D Royall ACGI BSC CEng MICE MFPWS
for and on behalf of **WRD Engineers Limited**

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email: royall@ wrdengineers.co.uk

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21 December 2021

1.0 BRIEF

- 1.1 Scope and limitations:** This is a general structural inspection report limited to a visual examination of the loadbearing elements of the property to assess their structural adequacy and condition. The inspection was undertaken externally and internally, subject to access being available. We have not moved heavy furniture, lifted fitted floor coverings, or made exploratory holes unless noted in the report. The report has been prepared in accordance with the addressee's request and therefore any liabilities which may arise are restricted to the addressee.
- 1.2 Orientation of the property:** For the purposes of this report, unless otherwise stated, the front elevation is considered to be that which faces the public road or path from which access to the property is given and all references to left and right are given as if viewing a plan of the property with the front elevation located to the bottom, and the rear elevation located to the top of the plan.
- 1.3 Inspection:** The property was inspected by M D Royall ACGI BSC CEng MICE MFPWS on 15 December 2021.

2.0 BACKGROUND INFORMATION

- 2.1** The barn consists of a timber framed building set on a brick plinth. The external cladding is part vertical timbers and part corrugated steel sheets. It has a pitched roof covered with slates.
- 2.2** The building is in two parts. The front is about 4.8m wide, with a 2.8m wide x 1.8m high opening, and extends back nearly 6m. To the rear is a similar structure although of lighter weight construction and possibly an addition. This is the same width as the building and extends back around 2.4m. It has an opening to the left side.
- 2.3** The building is in very poor condition. Seemingly it has been heavily overgrown in the past although much of the vegetation has recently been cleared.

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3.0 OBSERVATIONS



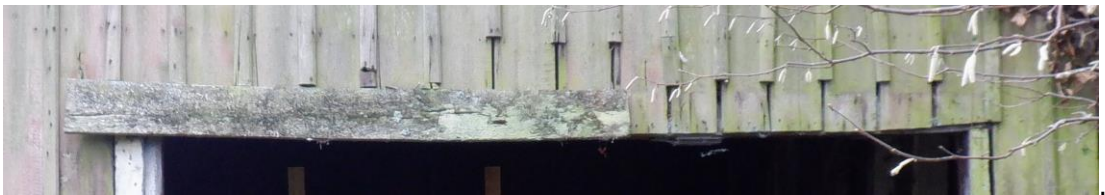
- 3.1** The building construction comprises timber studs built off 9-inch brick walls. The roof comprises timber rafters of varying sizes spanning from eaves to ridge with a single internal tie beam to prevent eaves spread along with the front and rear/internal walls.
- 3.2** The front and left side are clad with vertical timbers, 180 x 20mm with a 10 - 25mm gap between which is covered with a 50 x 15mm cover strip which is chamfers out at the corners. The right side and rear are clad in corrugated steel sheeting. The roof is covered with slates.
- 3.3** The structural walls comprise timber studs of varying sizes and spacings. There have been many alterations to door and window openings, most of which have been boarded over or otherwise blocked off, and there appears to have been numerous repairs to the frame resulting in an assortment of stud types and sizes.

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- 3.4** The front wall leans into the building at around 60/1000. To the right side of the opening the cladding is severely decayed at the base.



- 3.5** The 100 x 100 timber beam over the 2.8m wide front opening sags an estimated 75 – 100mm



- 3.6** To the left side the eaves sag midway along which appears to have resulted in rainwater from the roof saturating the wall timbers over a long period of time, causing them to decay. There appears to be an old door opening which has been boarded over but the wall appears to have kicked out at the base and now leans into the building at around 100/1000. The timbers are saturated and extensively rotten, particularly towards their bases. The plinth along this side is 1 brick high above slab level.



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- 3.7** To the right side the brick plinth is 4 bricks high above the slab level. The timber frame here is in very poor condition with extensive repairs and strengthening, including what appear to be props to support what appears to be roof structure and eaves in places. The bases of most timber studs are decayed to greater or lesser degrees.



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- 3.8** The brick plinth to the right side is cracked. Externally the original timber boarding has been overlaid with corrugated steel sheeting and various bricks and building debris are piled against this area.



- 3.9** The roof structure comprises rafters of varying sizes (roughly spaced at around 400mm) which span from eaves to ridge. Resistance to eaves spread is provided by the front wall and back wall to the main front of the building as well as the rear wall of the addition, plus there is also one single tie beam approximately 1/3 distance from the front wall. The roof can be seen to be sagging when viewed externally. There is no underfelt and daylight is visible between the slates in places



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- 3.10** To the main part of the building the floor is of concrete construction. The surface is very uneven and very rough. There is a pit in the centre of the building indicating it has been used for car maintenance.



- 3.11** The building appears to have been extended to the rear. The timber framework of this is of lighter weight construction and there is no internal lining to the right side wall, just simply with a single layer of corrugated steel sheeting externally. The brick plinth the right side wall is cracked.



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- 3.12** The rear wall has vertical boards internally supported by a light weight timber frame and also has corrugated steel sheets added externally. The rear wall leans to the rear at around 20/1000. This appears to be in keeping with the overall racking of the building to the rear.



- 3.13** All corrugated sheeting is in poor condition and corroding extensively.

- 3.14** The floor of the rear extension is of brick construction. It was covered with a blue tarpaulin at the time of our inspection to preserve it. It slopes gently down to the left side.



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4.0 CONCLUSIONS AND RECOMMENDATIONS

- 4.1** The barn is in a very poor, dilapidated condition, requiring major refurbishment and repairs if it is to be retained. In the first instance it would be necessary to strip the roof and remove all external cladding. This would leave the timber frame which is of a flimsy construction and would require around 50% replacement of the existing timber studs. Notwithstanding this of course, the brick plinth on which the timber frame is supported is in poor condition with cracking in various places and repairs will be necessary to this as it is exposed. The brick plinth undoubtedly has shallow foundations which will always present a risk of future foundation movements affecting the superstructure.
- 4.2** If the frame were to be repaired, it would also require additional bracing and strengthening to ensure the overall lateral stability of the building. The roof structure would also require additional ties to prevent spreading of the eaves.
- 4.3** Taking all the above into consideration it would be far better to demolish the entire building and replace it with a new structure built to modern standards. This would include new foundations taken down to a reasonable depth, with the ground level to the right side lowered or a proper retaining wall and tanking being provided in this location. The superstructure would best be blockwork walls which could be clad in timber similar to the existing. The roof can then be properly constructed with simple trussed rafters or a properly designed cut-timber roof and re-covered with the existing slates.

END OF REPORT