Structural Appraisal Report for Proposed Conversion of Sheds to a Dwelling (Class Q)

at

Holt Farm, Holt Lane, Holmfirth HD9 3BW

for

Mr. Rob Andrews

MDL Job Number: 11478

Survey Report

Dated: 03rd May 2025

51 Trinity Street, Huddersfield HD1 4DN

Tel: 01484 - 341426 Email: info@marshdesign.co.uk

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EXTERNAL BUILDING SURVEY

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1.0 INTRODUCTION

1.1 Clients Brief & Limitations of the Report

We have been instructed by Mr. Rob Andrews to undertake an appraisal of the structural condition of an agricultural barn with a view to its future conversion into habitable dwelling under 'Class Q' planning guidelines.

A visual inspection was undertaken from accessible areas only. The report is a structural appraisal only, and not a full condition survey report.

The survey was of a high level non-intrusive nature intended to identify any principal defects of both the internal and external building fabric suitability for domestic conversion and was limited to the main elements and their prime component(s).

The information was obtained by visual inspections made at ground level of the aforementioned building. This approach is identified in the survey.

1.2 Condition Survey Details

The two main building structures ages are approximately 40 years. Constructed from substantial steelwork, blockwork, timber and concrete elements respectively.

The survey was carried out during May 2025, the weather was dry.

As the survey was a surface level activity without either specialist access or investigative equipment the defects listed within are not exhaustive however, within those limitations it should provide an appropriate reflection of the overall building structures suitability.

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2.0 EXECUTIVE SUMMARY

2.1 Building Structure

The buildings generally comprise of individual single bay steel portal frame structures, with a variety of structural masonry walls; timber cladding. Fibre cement/ metal corrugated roof sheeting to pitched roof areas; concrete slabs to floors.

There is an additional attached open timber building structure to the side and rear of the left (viewed from front) building, finished with metal corrugated roof sheeting.

2.2 General Survey Findings Barns

The left side building comprises of an individual single bay steel portal frame structure 4nr total. With 215mm block walls @2.20m high. Vertical timber cladding, fibre cement boarding to elevations and fibre cement boarding to pitched roof areas; reinforced concrete slab floors; being approximately 1,250.00 sq. ft. Approximately 5.5m to the apex.

The right side building comprises of an individual single bay steel portal frame structure 5nr total. Block walling with RC concrete panels to the perimeter. Vertical timber cladding to elevations and steel sheeting to pitched roof areas; reinforced concrete slab floors; being approximately 2,900.00sq. ft. Inclusive of the returned area behind the left side building. Approximately 6.6m to the main apex.

The portal frame bays are at approximate 4.0m centres throughout, comprising of 212mm x 135mm UB's.

Inspection of the main structural steel members confirmed that they were free from defect, with no evidence of distress, buckling or excessive deflection of the steelwork.

The main bolt fixings between the stanchion columns and roof rafters were all in a serviceable condition, with no structural defects noted.

Very minor surface corrosion was noted to the steelwork; delamination of the steelwork was in evidence to sporadic areas however we do not consider this to be a structural concern.

There is no cause for concern with the slight cracks on all faces of the block walls, slight horizontal movement cracks noted to the left column around the door aperture of 1-3mm. Generally where there any slight degree of lateral cracks up to 5mm some additional external repointing may be required. **Pic Ref: 11-12 External Ares**

The masonry walls are generally vertically plumb. There are no further signs of any other movement in the form of moderate/ major cracks, both internal and external. Non mirrored internally.

At the time of our inspection, the foundations for the portal frame stanchions and walls could not be inspected, however they do appear to be performing satisfactorily, with no subsidence or settlement defects noted. It is our opinion that they would be capable and structurally adequate to support a nominal increase in loadings from any proposed conversion works. Subject to design.

The concrete slabs approximately 200mm thick were in a fair structural condition with minimal and moderate movement/ cracking defects in evidence. Areas missing for the use of previous livestock. We have no concerns over the strength of the existing concrete floors for the proposed change of use.

Finally, there was no evidence of previous remedial repairs to any of the individual structural elements of the building.

2.3 General Areas

Comprising of steel stanchions and timber/ sleeper walls. Lateral movement noted to steel. The roof is finished with steel sheeting to pitched roof areas; reinforced concrete slab floors.

Timber posts and beams cut from telegraph poles being the main supporting structure. Timber purlins and concrete retaining elements to the rear wall.

The external hardstanding areas being reinforced concrete slabs. General cracking and subgrade settlement noted.

2.4 General

It is common practice to categorise any structural damage. These are set out in the BRE Digest 251. See below:

0 - Hairline cracks less than 0.1mm. No action required. Hairline cracks are classed as negligible.

1 - Fine cracks of up to 1mm. Fine cracks can be treated easily using normal decoration. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork.

2 - Slight crack widths up to 5mm. Cracks easily filled. Recurrent cracks can be masked by suitable linings. Cracks not necessarily visible externally; some external repointing may be required to ensure weather-tightness. Doors and windows may stick slightly and require easing and adjusting.

3 - Moderate crack widths of 5 to 15mm (or several of e.g. 3mm). Cracks that require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small around of brickwork to be replaced. Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired.

4 - Major cracks - Extensive damage, 15 to 25mm. Extensive damage which requires breaking-out and replacing sections of walls, especially over doors and windows. Windows and door frames distorted, floor sloping noticeably. Walls leaning or bulging noticeably, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25mm, but also depends on number of cracks.

5 - Severe cracks - Structural damage, greater than 25mm. Structural damage that requires a major repair job, involving partial or complete rebuilding. Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25mm, but depends on number of cracks.

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3.0 General Conclusions & Recommendations

Our inspection has confirmed that the 2nr barns are free from major structural defect or distress.

A visual examination to all elevations has revealed no recent evidence of moderate/ major defects to all elevations. The overall structure we believe to be structurally sound and we can see no areas of major concern and no signs of progressive movement.

The portal framed buildings shows no evidence of excessive defections to the structural columns and beams and no evidence of vertical settlement or subsidence.

The foundations to the barns appears to be substantial and structurally adequate and we consider it to be suitable to support the nominal increase in loads from the proposed conversion into a habitable dwelling.

The sizes of steelwork, timber members used in the construction of the barn is typical of sizes used in modern day construction, and we consider these to be adequate for their intended use.

It is not proposed to change the roof covering, and the existing structure will be retained.

The roof structural is in a sound, stable and serviceable condition.

In its current condition the both sheds require no major structural intervention to upgrade or strengthen the main existing structure prior to the proposed conversions to ensure its long term stability.

Any proposed alterations will not affect the structural stability and the proposed internal works will not be relied upon to provide any additional structural support to the existing buildings.

As it currently stands, the barn buildings are in a sound and stable structural condition, and in our opinion, it can be deemed to be of a substantial and permanent construction suitable and capable for its proposed conversion into a habitable dwelling.

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4.0 RIGHTS OF ORIGINATOR

This is a structural report of specific items in relation to the structural integrity and suitability of the overall buildings structure with a view to its future conversion into a habitable dwelling under 'Class Q' planning guidelines.

We have not at this present time conducted any intrusive investigation of the existing foundations.

This report was for the sole use of the client. It must not be reproduced or transferred to any other third party without the express written consent of Marsh Design Ltd.

We reserve the right to refuse copies of the report to any third party (other than those named above).

We also reserve the right to amend our opinions in the event of additional information being made available at some future date. The Contracts (Rights of Third Parties) Act 1999 shall not apply in this agreement.

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Yours faithfully.

Redacted

D. Lee MCIOB
Chartered Builder & Building Surveyor

Report check and approved by:

Redacted

D. Haigh B. Eng (Hons)
Director
For and on behalf of
MARSH DESIGN LIMITED

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Photographic Reference -

Internal Areas

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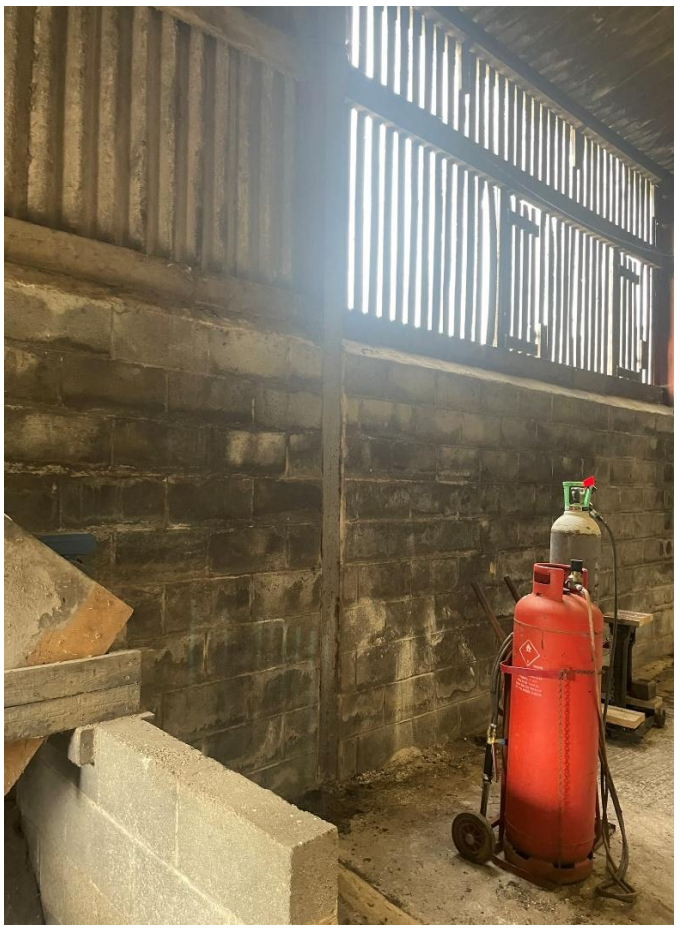

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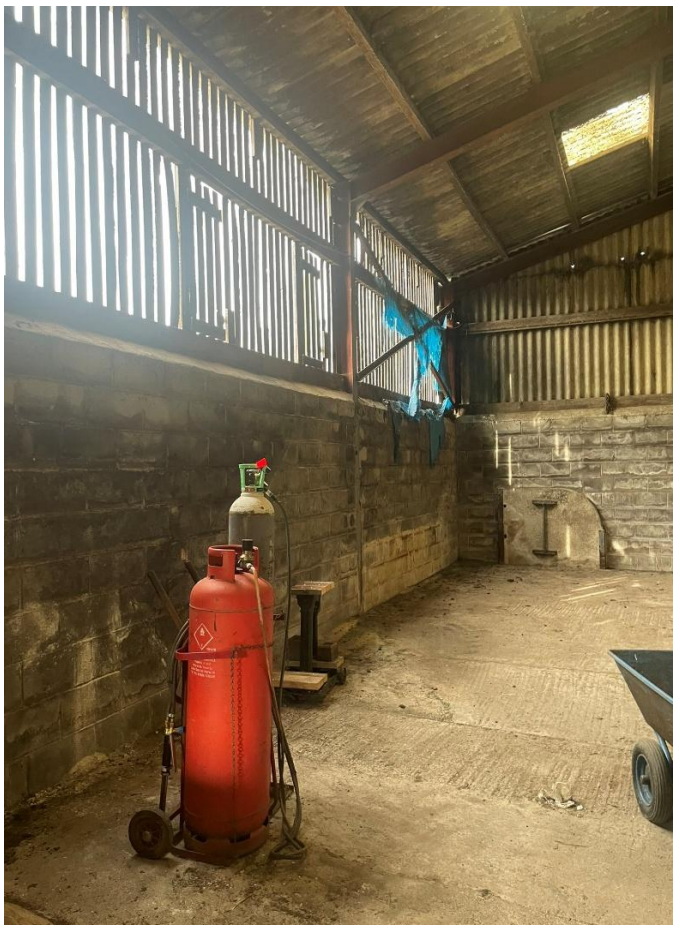

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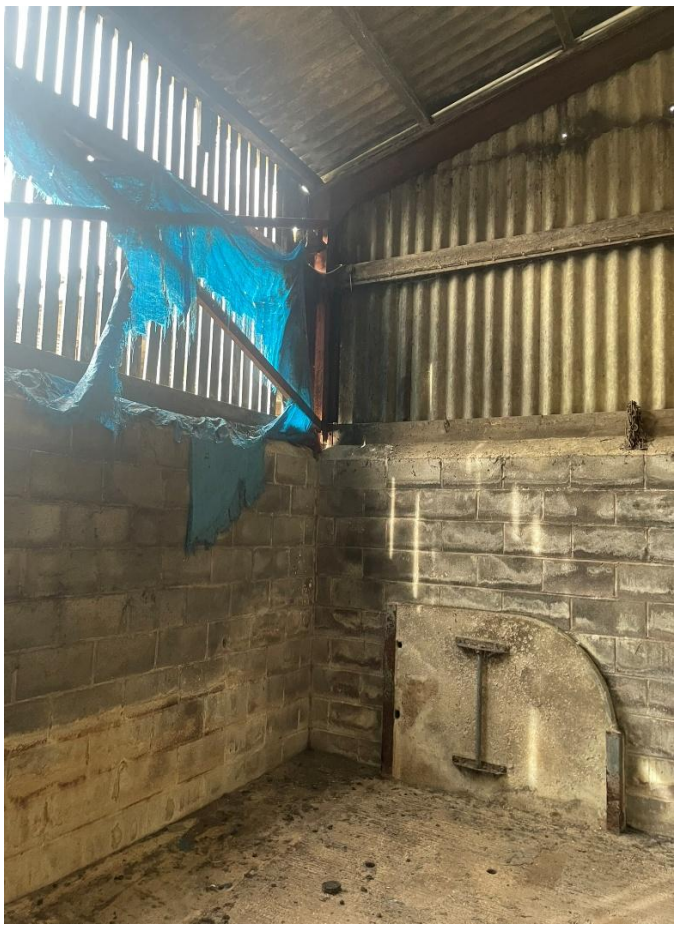

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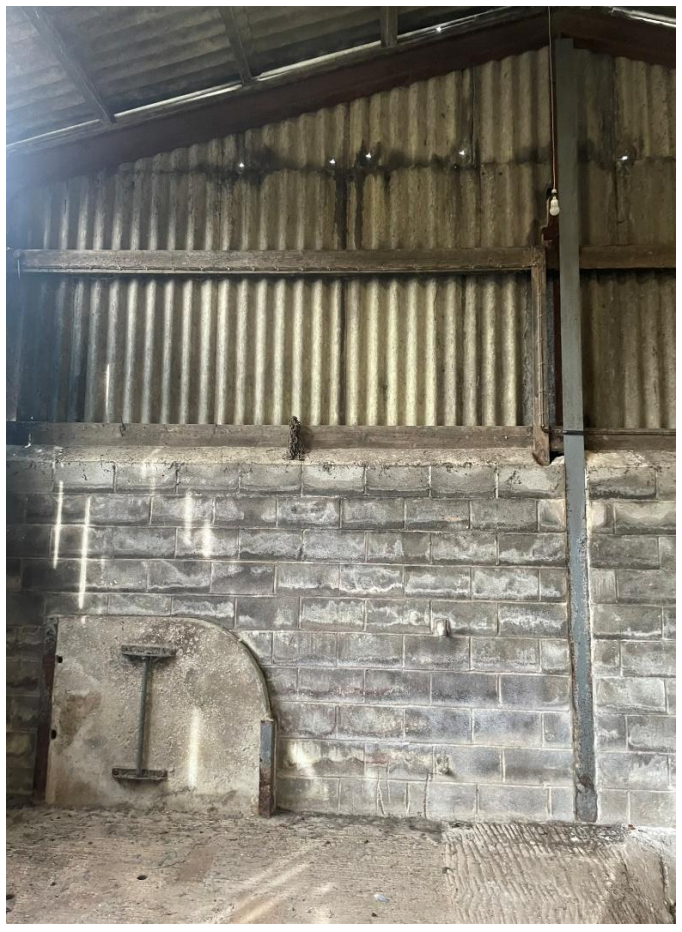

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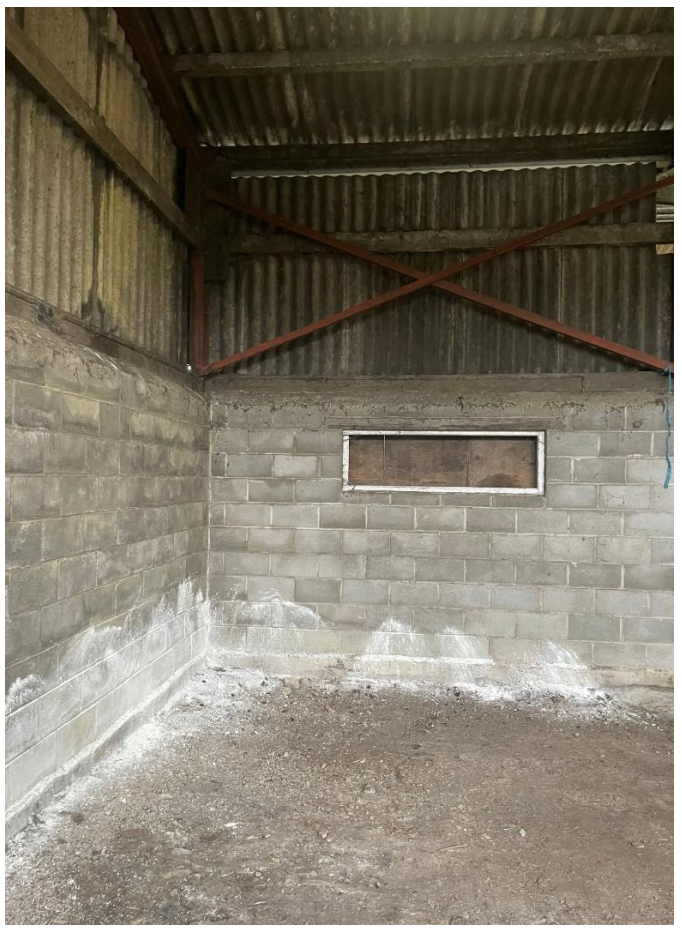

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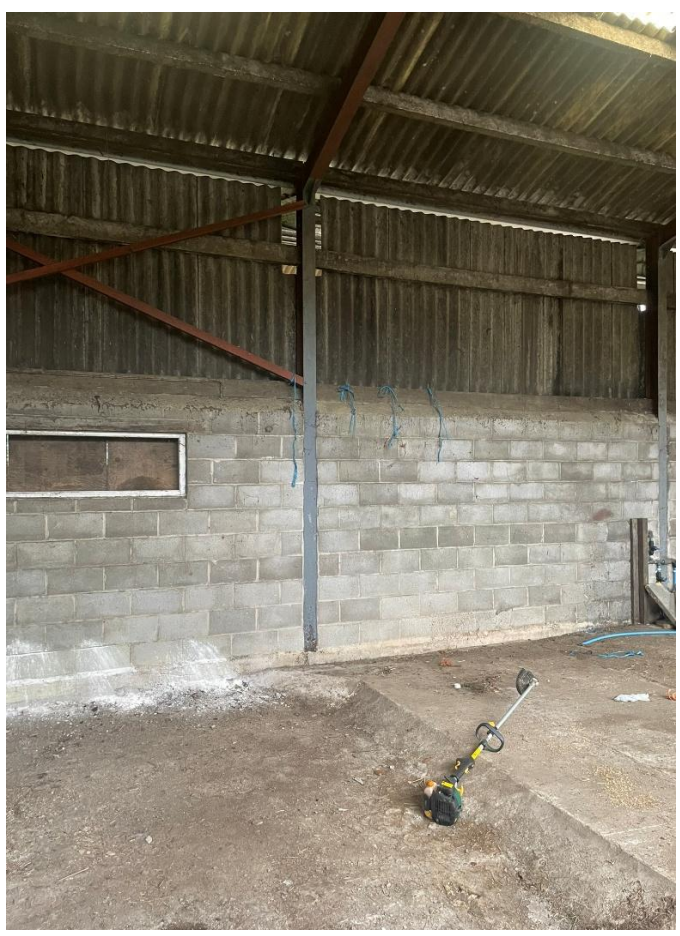

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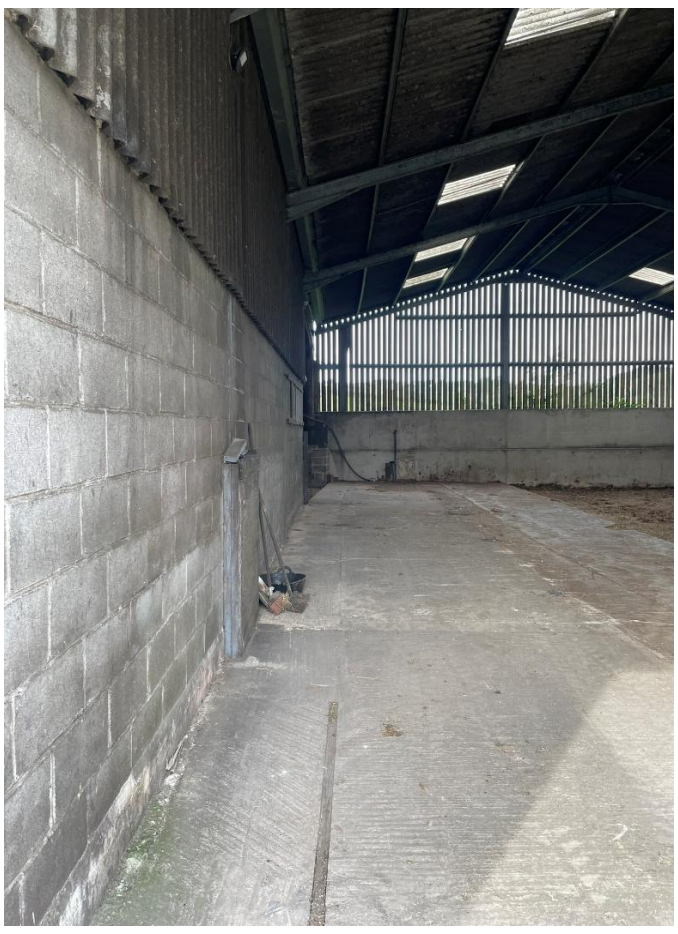

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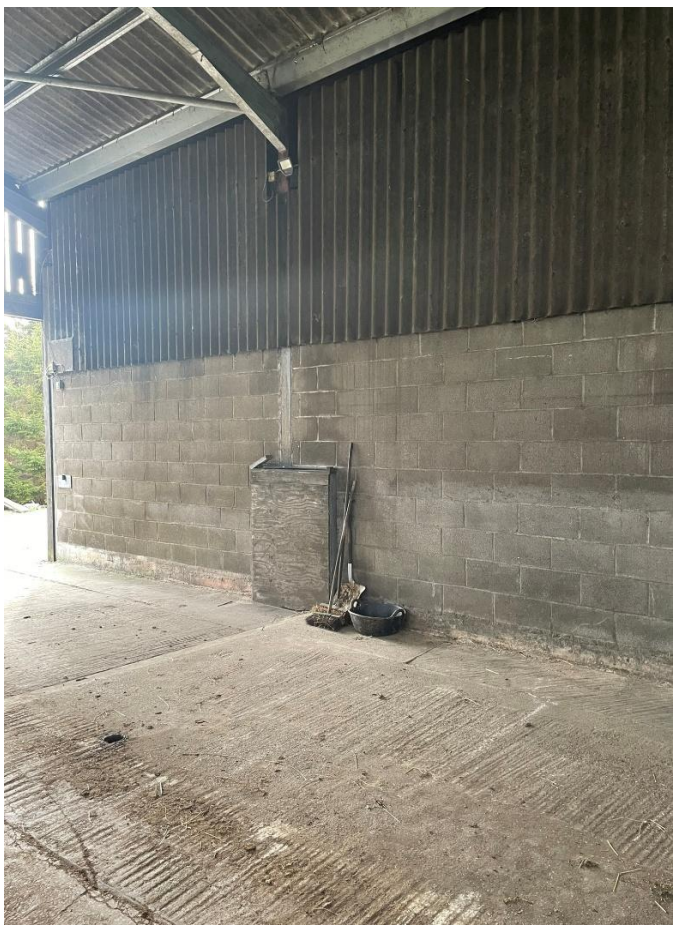

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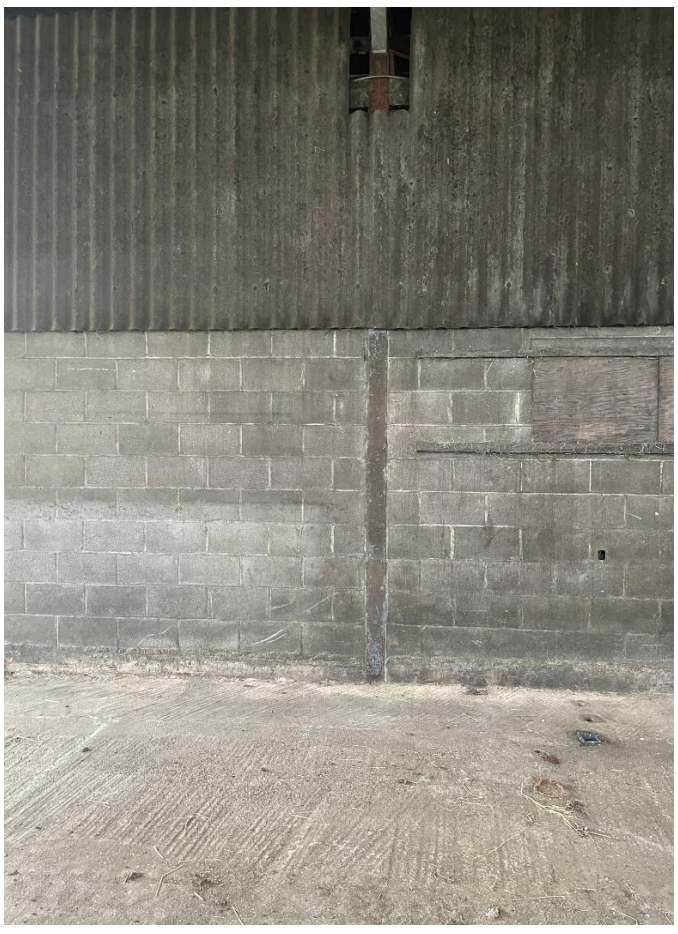

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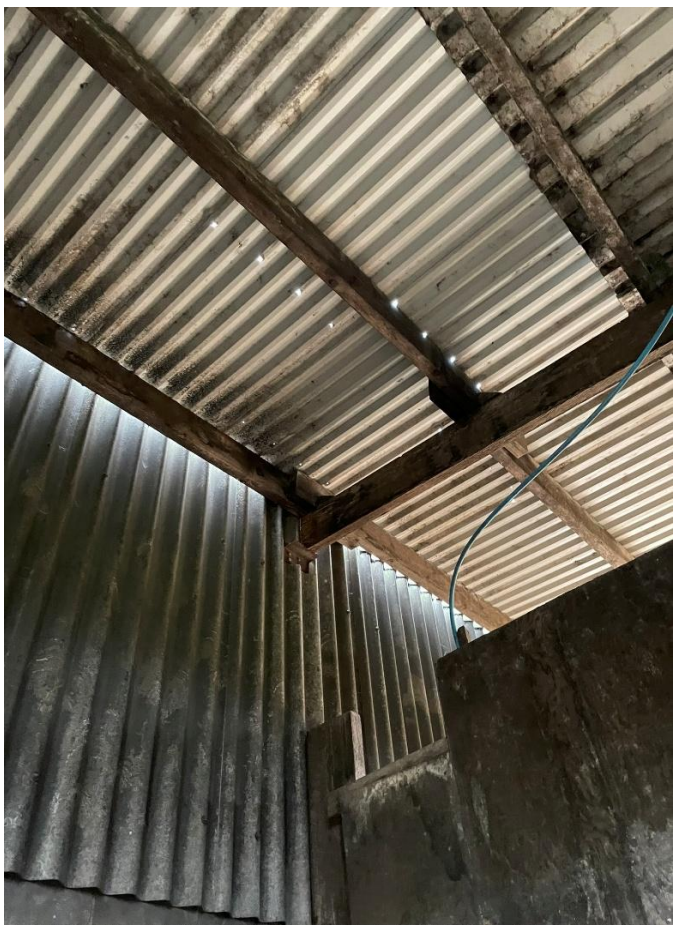

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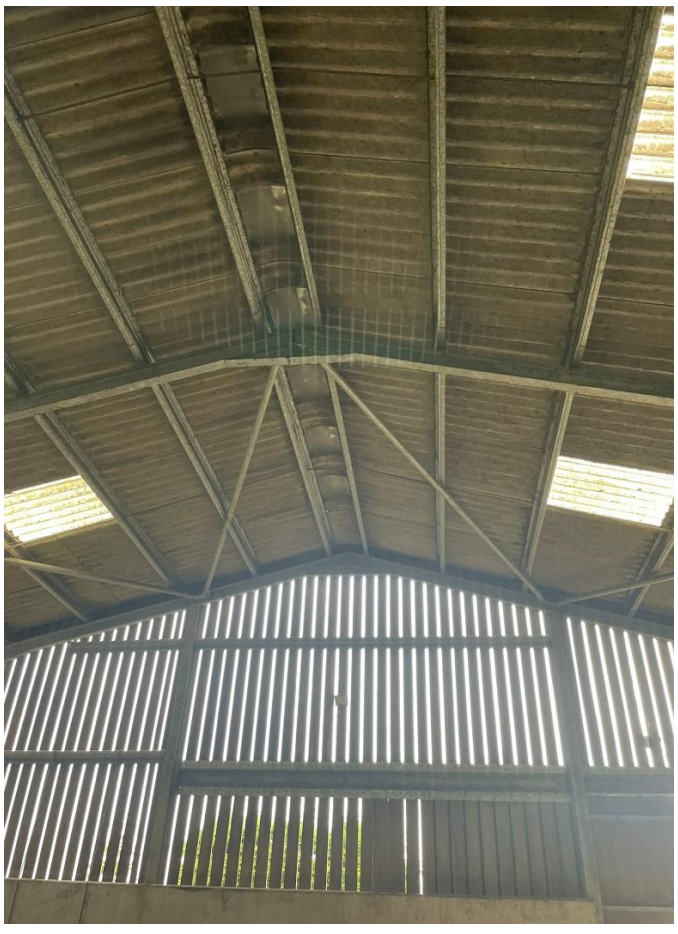

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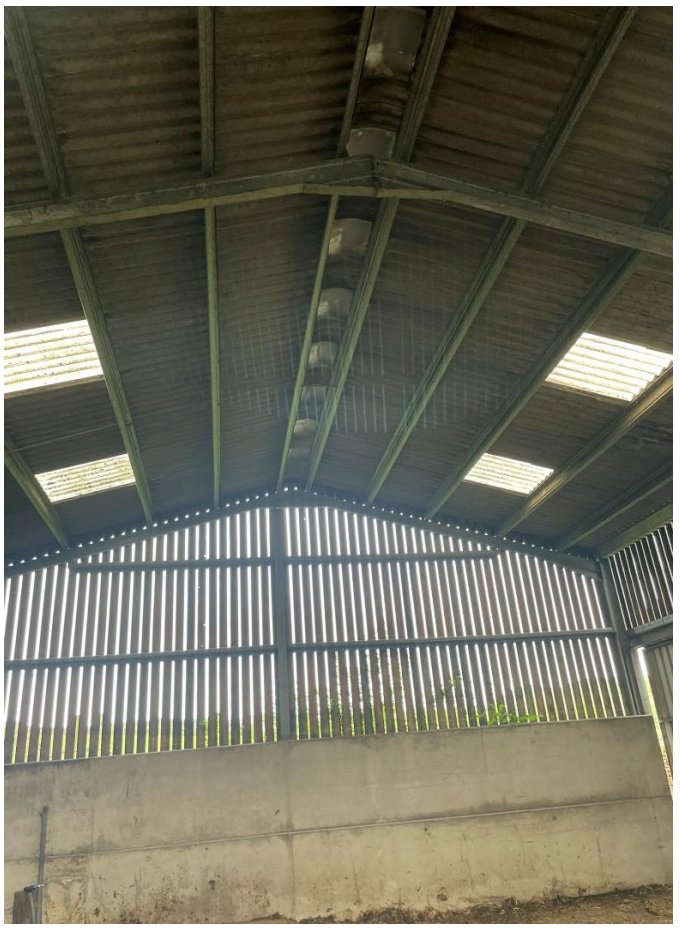

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Photographic Reference -

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