



STRUCTURAL APPRAISAL REPORT [REV 1]



ON BEHALF OF: Carter Jonas, Taunton

BARN AT
HIGHWAY FARM
CALNE
SN11 8SR

DATE OF ISSUE: 11TH MAY 2026

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MB/jc/35/11808

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INTRODUCTION

Instructions

Croft Surveyors is an independent, regional firm of Chartered Building Surveyors offering detailed practical knowledge of buildings and construction from offices across the Southwest.

In accordance with instructions received from Mrs Nicola Quick of Carter Jonas, Quad 4000, Blackbrook Park Avenue, Taunton, TA1 2PX, an inspection was made on 24 March 2025 of a barn at Highway Farm, Calne, SN11 8SR in accordance with the general terms of our letter dated 24 February 2024, confirming our instructions and terms and conditions.

We understand it is proposed to convert the barn with lean-to into a single residential dwelling subject to obtaining relevant planning consent.

Weather

The weather on the day of inspection was overcast and dry.

Occupation

The barn is currently occupied and appears to be used for agricultural purposes.

Limitations of inspection

We did not disturb any parts of the structure which were concealed during the course of construction, for example, foundations were not exposed, nor cladding removed from the walls and roof of the barns.

We were only able to inspect those parts of the structure which were accessible without removing equipment and fittings.

We inspected all those parts of the barn relevant to our instructions, which could be seen either from ground level externally or from within each barn, without causing damage.

It follows that for practical reasons we have not inspected all the masonry, timber and other parts of the structures which are covered, unexposed or inaccessible and we are unable to report that any such parts are free from defect.

EXECUTIVE SUMMARY

This report has been prepared in accordance with BRE Digest 366 (Structural Appraisal of Existing Buildings, including for a material change of use). It is not a Building Survey or full Schedule of Condition and is limited to the matters set out in the Digest.

With respect to the structural safety, strength and stability of the building under normal loadings, and the sensitivity of the building to disproportionate collapse under accidental loads and actions, the main elements of the building (roof, external walls/ structure, foundations and floors) were found to be in fundamentally sound order.

ROOF:

- Preventative treatment of the concrete structure
- Localised repair of roof covering

WALLS:

- Preventative treatment to the steel and cladding
- Preventative treatment to the concrete structure
- Reinstatement of cladding panels

FLOORS:

- The foundations appear to be constructed to a suitable specification and to be in reasonable condition
- No significant defects seen

The main elements of each building (roofs, external walls/ structure, foundations and floors) were fundamentally in sound order, with respect to the structural safety, strength and stability of the building under normal loadings, and the sensitivity of the building to disproportionate collapse and accidental loadings and actions (A1, A2 and A3 of the Building Regulations).

The buildings will be enclosed and insulated internally to comply with Building Regulations applicable at the time of the conversion.

THE PROPERTY

Property Address

Barn at Highway Farm, Calne, SN11 8SR

Property Description

The barn comprises a single detached agricultural barn with lean-to. The Asymmetrical roof, the barn is divided into two spaces, with a central division.

The barn is constructed with a prefabricated concrete frame and enclosed with concrete block wall and corrugated tin wall cladding. The roof is asymmetrical and is covered with fibre cement roof sheeting.

A concrete ground bearing floor slab extends across the barn and adjoins concrete covered courtyard/track externally.

The barn comprised two spaces internally, which are divided by a concrete block wall.

The barn appears to date from the latter 1900s and appears to follow its original footprint and use.

The Site and Surrounding Area

The barn is accessed directly from the track that extends across Highway Farm. The barn is the last of a series of agricultural buildings and is located not far from the farmhouse. Beyond the barn are fields.



Image by GoogleMaps

The site is located a short distance from Calne and the A4.

Orientation

Directions within this report are given as front, rear, left and right hand from the perspective of standing on the track and facing the principal elevation to the main barn.

The principal elevation to the main barn faces approximately south.

Proposals

Outline project drawings have been provided showing existing and proposed layouts and elevations. The site plan also shows the positioning of the barn/proposed dwelling in relation to its surroundings.

A single residential dwelling is proposed to occupy the footprint of the barn. The proposed dwelling will include three bedrooms creating a reasonable sized dwelling around a courtyard.

From the drawings provided we anticipate it is proposed to retain the main structure of the barn; the drawings show the following information:

- **Walls** – The existing exterior barn walls are shown in their existing positions and to their existing extents. The main structure of the barn is also illustrated on the drawings. The proposed elevation drawings show the use/retention of concrete block walling and corrugated sheet cladding which matches the existing. This supports the retention of the existing walls.
- **Roof** – The roof is shown on the proposed drawings including on the Proposed Roof Plan to its existing extent and design. The proposed elevations show a corrugated roof covering, which is consistent with the existing roof covering installed. This supports the retention of the existing roof and roof covering.
- **Window and door openings** – These are shown on the proposed drawings across three of the elevations. Doors and windows are shown to domestic sizes and are located between the primary columns of the barn, which further supports the retention of the primary structure.

CONDITION AND STATE OF REPAIR

MAIN ROOF

The barn is rectangular on plan and the primary structure is constructed with a prefabricated concrete frame. The barn has a footprint that measures 13.6m left to right and 18.8m front to rear.

Eaves are positioned at 3m across the right-hand side and 6m across the left-hand side, and the ridge is at 6.7m in height, as measured from the floor slab internally and approximately centrally to the barn. The roof is pitched with an asymmetrical ridge, and slopes fall to the left and right-hand sides.

The primary structure of the barn is constructed with a prefabricated reinforced concrete frame, and the roof element contains primary concrete rafters, and concrete purlins, which are all mechanically fixed together.

Reinforced concrete primary rafters measure 240mm in height reducing to 160mm at the ridge, with a width of 155mm, the primary rafters span between the eaves to the main barn and ridge; a distance of 4.2m.

Across the right-hand side lean-to, the primary rafters measure 295mm, reducing to 160mm at the main barn eaves, and are 155mm wide. These span between the lower and upper eaves of the lean-to; a distance of 6.6m.

The primary rafters are positioned at 4.6m centres across the barn and lean-to, and there are 5 frame portals in total.

Reinforced concrete purlins are installed perpendicular to the primary rafters, and measure 100mm in height above each primary rafter, increasing to 180mm at centre span. The purlins have a thickness of 120mm. They are generally arranged at 1.3m centres across the barn and span 4.6m between the primary rafters.

At the eaves 230mm x 110mm reinforced concrete eaves beams are installed, which span between the primary rafters a distance of 4.6m.

The roof is covered with a single skin of profiled fibre cement sheeting which extends continuously across each roof slope.

Eaves and verges are flush to the top of the barn and lean-to walls. Profiled verge flashing and a moulded ventilated ridge are installed.

Images



Images showing the barn and lean-to roof

Condition

At the lean-to, four concrete eaves beams have minor spalling at their underside, revealing the steel reinforcement inside. The end of the primary rafter, located at the front, right hand corner of the lean-to has similar deterioration. The spalling is the result of minor rusting of the steel reinforcement embedded inside these components.

The beams should be repaired and sealed, with an appropriate treatment and filler material.



The roof covering is intact and extends across the entire barn. The roof covering contains four minor splits and four minor perforations through, which given the extent of the roof covering demonstrates only minor defect to be present. Whilst not a structural issue, the roof covering should be repaired, either by filling the splits and perforations or by localised reinstatement.



The eaves flashing has generally been lost across the front elevation, and rainwater goods are incomplete. These are not of structural concern but should be reinstated.



The roof structure and roof covering are in reasonable condition and free from significant defect, requiring only minor repair.

The roof element is robust and not particularly sensitive to disproportionate collapse and may be retained by the conversion. No additional structure is required for its retention.

Proposals

Proposed drawings show the conversion will be contained within the envelope of the building and the proposed roof is shown to the existing scale and design. Corrugated sheeting is also shown.

The proposed drawings support the retention of the roof and roof structure.

The proposed roof must be suitable for a dwelling and must adhere to current Building Regulations, especially in terms of thermal performance, as stated in Approved Document 'L'.

We anticipate the roof will be insulated and ceilings installed below. The roof structure is robust, and the structure is capable of supporting this slight additional load and no additional structure is required by the conversion. The retained structure will not be compromised by the proposals.

Summary

SUMMARY:

The roof is in reasonable condition and requires only minor maintenance, as stated.

- Preventative treatment of the concrete structure
- Localised repair of roof covering

No significant issues were found in terms of structural safety, strength and stability to the roof under normal loadings. The roof is not particularly sensitive to disproportionate collapse under accidental loads and actions.

The roof may be retained by the conversion and no additional structure is required for its retention.

EXTERNAL WALLS/ STRUCTURE

As stated under the 'main roof' section, the primary structure of the barn is constructed with a series of reinforced concrete frames which are arranged at 4.6m centres across the barn.

The structure to the main barn comprises 280mm x 145mm reinforced concrete primary columns, which extend between the ground and the eaves, a height of 6m at the left-hand side and 5.5m at the right-hand side.

At the lean-to, the columns measure 280mm x 150mm and extend to a height of 3m.

A corbelled section is fabricated into the upper part of each primary column, to provide a lower fixing/seat to each primary rafter, this also increases the thickness of the structure at the eaves, essentially providing eaves haunching to the frame, thus making it more robust.

The barn walls are enclosed with 220mm thick, dense concrete blockwork, which is finished with render internally.

Externally 240mm x 450mm concrete piers are constructed at mid span to each concrete block wall. The concrete block walls rise to a general height of 2.8m, above this the external walls are enclosed with corrugated tin and fibre cement corrugated roof sheeting, supported by angle iron beams. At its upper extent the wall cladding is generally fixed to the concrete eaves beams.

Internally the barn is divided into two spaces, the main barn and the lean-to. An internal concrete block wall extends across this abutment.

The primary opening to the barn is located towards the left-hand side of the principal elevation, occupying the width of the main barn, the right-hand elevation to the lean-to is also left open.

Images



Images showing the barn walls

Condition

General minor surface rusting to the angle iron supports for the wall cladding, where the surface protective coating has been lost. The corrosion appears to be limited to the surface of each component and there are no signs of more significant corrosion; no visible loss of material was seen.

The cladding supports should be rubbed down and treated with a rust inhibitor then sealed and redecorated to prevent further corrosion and increase their durability.



Minor surface corrosion to the corrugated tin cladding, to localised areas. This should be rubbed down and treated with a rust inhibitor.



Minor spalling at the surface of seven primary columns, which appears to be the result of minor rusting of the steel reinforcement embedded inside these components.

The columns should be treated and refaced to provide additional cover to the reinforcement inside.



The cladding has historic impact damage towards the front side of the left-hand elevation, where one panel has deflected. The panel could be straightened and pressed back into shape as a repair.



One wall cladding panel is missing, located centrally to the front elevation wall. Whilst not of structural concern, this should be reinstated.



The walls/ structure of the barn are plumb, are in reasonable condition and are intact. They require minor repair only, as stated.

The wall element is robust and not particularly sensitive to disproportionate collapse and may be retained by the conversion. No additional structure is required for its retention.

Proposals

The proposed drawings show the retention of the walls, with the proposed layout shown inside the envelope of the existing structure and walls finished with existing/matching materials. Openings are shown to domestic sizes.

Walls will be insulated and presumably lined internally to comply with current Building Regulations, especially in terms of Thermal Resistance; Approved Document 'L'.

A new inner wall leaf is shown to be installed across the barn and is likely to be constructed over a new foundation and free from the existing structure, therefore, no additional structure is required, and the existing structure will not be compromised by the proposals.

Summary

SUMMARY:

The walls are in reasonable condition and require only minor maintenance, as stated.

- *Preventative treatment to the steel and cladding*
- *Preventative treatment to the concrete structure*
- *Reinstatement of cladding panels*

No significant issues were found in terms of structural safety, strength and stability to the walls under normal loadings. The walls were not particularly sensitive to disproportionate collapse under accidental loads and actions.

The walls may be retained by the conversion and no additional structure is required for their retention

FOUNDATIONS AND FLOORS

The foundations are fully concealed below ground level and therefore, we are unable to make specific comment on them. However, for this type of structure we anticipate concrete pad foundations below the concrete columns and concrete strip foundations below the concrete walls.

No significant cracking or movement was evident at ground level however, which would otherwise indicate foundation movement or failure. As a result, we anticipate the foundations to be constructed to a suitable depth and scale for this structure.

The footprint of the barn including the lean-to measures 13.6m left to right and 18.8m front to rear. A concrete ground bearing floor slab is present across both areas to the barn and connects to the concrete covered yard/farm track that extends across the barn.

Images



Images showing the barn floors

Condition

No significant defects were identified to the barn floor and each floor slab is complete across the barn.

The floor generally slopes down towards the front, left hand side of the barn. The floor across the lean-to is however generally level.

The barn floor is likely to be levelled across the barn during conversion, alternatively areas may be levelled and the floor stepped.

The floor element appears to be robust and not particularly sensitive to disproportionate collapse and may be retained by the conversion. No additional structure is required for its retention.

Proposals

The floor to the lean-to is positioned 470mm above the floor to the main barn. The proposed design accommodates this.

The proposed drawings show the proposed dwelling to be contained within the envelope of the existing barn, which suggests the retention of the floor.

The proposed floor slab will need to comply with current Building Regulations, therefore will be insulated and include a damp proof membrane. Whilst the floor slab may be retained, in practice it may be removed and renewed to ensure full compliance of the Building Regulations (e.g. radon preventions measures, damp proofing, load bearing capacity, etc).

The floor is in reasonable condition and may be retained by the conversion.

Summary

SUMMARY:

Whilst not seen, the foundations appear to be constructed to a suitable specification and to be in reasonable condition.

The floor is in reasonable condition, as stated.

- *No significant defects seen.*

No significant issues were found in terms of structural safety, strength and stability to the foundations and floors under normal loadings. The foundations and floors are not particularly sensitive to disproportionate collapse under accidental loads and actions.

The floor may be retained by the conversion and no additional structure is required for its retention.

CONCLUSION

We provide a summary for each element of the barn below:

ROOF:

- Preventative treatment of the concrete structure
- Localised repair of roof covering

WALLS:

- Preventative treatment to the steel and cladding
- Preventative treatment to the concrete structure
- Reinstatement of cladding panels

FLOORS:

- The foundations appear to be constructed to a suitable specification and to be in reasonable condition.
- No significant defects seen.

The main elements of the building (roof, external walls/ structure, foundations and floor) were fundamentally in sound order, with respect to the structural safety, strength and stability of the building under normal loadings, and the sensitivity of the building to disproportionate collapse and accidental loadings and actions (A1, A2 and A3 of the Building Regulations).

We trust that our report provides the information and advice you require but if we can be of further assistance, please do not hesitate to contact us.

We mention that our report has been prepared for you as our client, in connection with your planning application for the conversion of the above barn. We cannot accept responsibility for it to any third party who may become acquainted with its contents without our prior knowledge and consent in writing.

Signed



Surveyor's Name

**MARTIN BOWDEN BSc Hons MRICS
FOR AND ON BEHALF OF CROFT SURVEYORS**

Date of issue:

11th May 2026

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APPENDIX 1

TERMS AND CONDITIONS

CONDITIONS FOR A STRUCTURAL APPRAISAL

The purpose of a Structural Appraisal is to comment upon the structural safety, strength and stability of the building under normal loadings, and the sensitivity of the building to disproportionate collapse under accidental loads and actions. These correlate with Requirements A1, A2 and A3 of The Building Regulations.

To do this we will undertake a visual inspection of as much of the exterior and interior of the property as is visible, and readily accessible with safety. This means those parts of the property which are visible from ground level within the boundaries of the site and adjacent public areas, and from within the building. We will open trap doors where visible and readily accessible with safety, and subject to the same limitations will inspect any void areas accessible through such trap doors.

The Appraisal and report are limited to the elements described in the covering letter.

It should be appreciated that we are inspecting another person's property and should not therefore cause damage to that property and should leave it in the condition in which it was found. We will not, therefore, raise fixed floorboards, or inspect those areas of the property which are covered, unexposed or not readily accessible with safety. We will not move furniture, remove fitted floor coverings, or other fixtures and fittings, nor remove plaster, nor expose foundations, and we will, therefore, be unable to report that such parts are free from defects. We will, however, exercise professional judgement and advise of potential defects, should this be appropriate.

Should we, in our professional judgement, consider that there may be hidden, potentially significant, defects or other issues we will advise further investigation as a secondary process. This further investigation may include the use of specialists, special analytical approaches, or simply the services of a Building Contractor to carefully remove and properly reinstate disturbed areas. The costs of these secondary investigations are additional to our quoted fee and primary inspection. Such secondary investigations will normally require the written consent of the vendors.

Flat roof areas, safely accessible from within the property, or from a standard Surveyors' 3m ladder, set safely, and within the grounds, will be inspected.

Unless otherwise expressly stated, in preparing our report we will assume that no high alumina cement, asbestos, concrete or calcium chloride additive, or other potentially deleterious material or technique was used in the construction of the property, or has since been incorporated.

The report is confidential to the client, and is solely for the purpose for which it was prepared. Whilst it may be shown to legal advisers acting for the client, the contents should not be disclosed to, nor made use of by any third party without our prior written consent. Without such consent we can accept no responsibility to any third party.

Our report will be provided in writing as soon as reasonably possible after completing our inspection and investigations. It is our aim to forward the report to you within five working days following the inspection, but you are welcome to telephone us to discuss matters prior to, or after, your receipt of the report. Any oral comments prior to the receipt of the full written report are given in good faith, but in order to avoid any possible misinterpretation, or misunderstanding, you should not act upon these oral comments until the full written report has been received and studied.