



R3347

SYKE HOUSE FARM – SYKE ROAD, LITTLEBOROUGH,
OL15 0AH

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REPORT ON STRUCTURE

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1.00 INTRODUCTION

- 1.01** We were requested by Mr & Mrs Bullock to carry out a survey and to provide a report on the structure of the three outbuildings known as:

A: The Cow Shed

B: The Garage

C: The Main Barn.

All at Syke House Farm, Syke Road, Littleborough, Rochdale, OL15 0AH.

- 1.02** The purpose of the report was to assess the structural suitability of the property for mortgage purposes and, where necessary, provide recommendations for the rectification of any defects.
- 1.03** For the purposes of this report all references to left, right, front and rear should be taken as viewing the property from Syke Road.
- 1.04** This report has been carried out on a purely visual basis. We have not inspected parts of the property which are covered, unexposed or inaccessible and such parts are assumed to be in good repair and condition.

The report does not purport to express an opinion about or to advise upon the condition of any uninspected parts and should not be taken as making any implied representation or statement about such parts.

We have not inspected nor tested the drains and other services and are therefore not in a position to advise upon any defects.

- 1.05** This report has been carried out for guidance of the person named overleaf and where recommendations are made these should not be used as a specification for carrying out the works.
- 1.06** This report has been carried out for the person named overleaf to be used in connection with their purchase, selling or repair of the property and should not be copied or sold to any other persons without the agreement of Healey Consulting.

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2.00 DESCRIPTION

- 2.01** The Cow Shed is a single storey structure with a gable elevation fronting Syke Road. Photograph 1. The property is built with cavity walls. It has a natural stone facing of a random nature and a blockwork inner leaf.
- 2.02** The roof is duo pitched left to right and has a stone slate flag roof. There are two Velux roof lights in each slope. Photographs 2 & 3.
- 2.03** There are two door openings to the property, one in the forward end of the right-hand side elevation, and one in the rear elevation. Photographs 4 & 5.
- 2.04** The left-hand side elevation abuts an existing boundary wall, photograph 6.
- 2.05** Internally the property is a single area, lined with blockwork walls and with a concrete floor slab.
- 2.06** The roof is vaulted and is supported by a steel ridge beam with timbers spanning from the ridge to the outer leaf. Photograph 7.

3.00 DISCUSSION

- 3.01** The external walls are of cavity construction with random stone facings and a blockwork inner leaf. There is a blockwork inner leaf to the left-hand face where this complements an existing stone boundary wall.

The internal walls are plumb and show no signs of distress. The three random stone external walls are also free of any distress.

The gutter and the area to the rear of the left-hand wall is filled with plant growth, some of which has extended into the rear of the cow shed. Photographs 8 & 9. This will need to be cleaned and removed.

The dry-stone wall to the rear is in reasonable order. This is not providing support to the roof.

The roof is of simple rafters spanning from a steel ridge to the outer leaf on the front elevation and to the block inner leaf on the rear elevation. Photographs 10, 11 & 12.

There are Velux roof lights in both slopes and there is an under-slate felt.

The roof is covered with a stone slate and is showing no signs of any distress.

The floor slab is acceptable for the given use.

2.00 DESCRIPTION

- 2.01** The garage is a two-car garage which fronts Syke Lane. Photograph 13.
- 2.02** The roof is duo pitched front to rear and has a stone slate covering.
- 2.03** The construction of the garage is similar to the Cow Shed. There are random stone outer leaf facings and a blockwork inner leaf. Photographs 14, 15 & 16.
- 2.04** There are openings in the front elevation which comprises of two garage doors. There are single window openings in both the left and right hand gable elevations, photographs 14 & 15.
- 2.05** The rear elevation partially abuts a boundary wall. Photograph 16. The inner blockwork leaf extends higher than this boundary wall. There is no physical access to this area. Photograph 17.

3.00 DISCUSSION

The external walls are of cavity construction. On the three sides which include the two gables and the front, there are stone facings of a random nature. This construction has a short return on the rear right. Photograph 18.

The internal leaf is of blockwork.

The floor in the left-hand section is a stone flag floor. The floor has been concreted in the right-hand section.

The property has previously suffered damage from a falling tree. This caused damage to the rear elevation. The area of damage can be seen as being repaired with new blockwork, photograph 19.

On the rear elevation there is cracking in the original inner leaf to the left of this new blockwork. Photograph 20. The crack is considered to be a remnant of the original damage and is not due to any recent movement.

We understand the above repair works were undertaken as an insurance claim.

As part of this claim, an internal blockwork pier was built centrally on the right-hand gable to provide additional support to the steel ridge beam. Photograph 21. This is serving its intended purpose.

There is a large steel beam spanning the opening for the two doors. This is of significant proportions and is well over designed for the span and load. Photograph 22.

The rafters are fixed down to the outer leaf on the front elevation, and to the blockwork wall on the rear elevation. This blockwork wall is a liner to an existing boundary wall. Photographs 20, 22 & 23.

The ridge beam is also of significant proportions and although there are no padstones at each end of the beam, we do not believe this to be a significant structural issue. Photographs 24 & 25.

There is an under-slate felt. Photograph 26.

2.00 DESCRIPTION

The main barn is a large stone structure which has been built in two, possibly three different time periods. There are two distinct vertical joints visible between the different sections.

On the left-hand side, the property is partially attached to the farmhouse. Photographs 27 & 28.

From the left at ground floor, there is a cart arch set in a coursed stone elevation. Above this is a circular window. Photograph 29. To the right of this is a small arch window with no lintel over and to the right is a door. Photograph 30.

Immediately to the right of the door is the first of the straight joints. The door on the right leads into a feed store and a tack room at the rear. On the left the cart arch leads into a double height space, in which there is stair access to a hay loft. Photograph 31.

On the rear elevation of this section. The cart arch has been infilled with a door and a window. To the right of this is a further small arch window and a door mirroring that at the front. Photograph 32. There is a straight joint between this and the next part of the property. There are tie bars and pattresses on the rear elevation of this section. Photographs 33 & 34.

In the central section there are gable pediments to both the front and rear elevations. Photographs 35 & 36. In the front gable pediment, there is a high-level arched window opening and at first floor there are three windows serving a hay loft.

At ground floor there is a central door with a window either side serving stables.

This elevation is also faced in coursed stone but of a more regular and larger sized stone. Photograph 37.

In this central section there is a stone flag floor. Six stables have been formed. There is a hay loft over.

The hay loft is supported by central cast iron columns with substantial wrought iron beams spanning left to right. Timber members span between the beams. Photographs 38 & 39. The rear elevation of this is a mirror image of the front elevation but the stone facings are of a more random size, albeit coursed.

The front elevation of the right-hand section steps back. Photograph 40. There is a partial gable of the centre section exposed on the left, photograph 41.

The front elevation is of a large, coursed stone, similar to the original dwelling but the exposed gable is in a much smaller stone. The right-hand section of building is lower in height than the main building.

Internally within this area there are two stables.

The front elevation comprises of a single door at ground floor and an arched window at first floor. The rear elevation has a similar door on the right of the elevation and a similar window at ground floor. There is an additional arched window at ground floor. Photograph 42.

The main roof to both the left-hand side and the central section is duo pitched front to rear and has a stone slate covering. The smaller section on the right-hand end is hipped to the right. Photographs 43 & 44.

Over the central section there is a hay loft. The hay loft floor level is extended into the right-hand section where it serves as a store, Photographs 45 & 46.

Over the hay loft there are four Queen post trusses that provide the main support for the roof. Photograph 47.

In the centre section, new purlins, new rafters and an under-slate felt have been introduced. Photograph 48.

3.00 DISCUSSION

3.01 EXTERNAL WALLS

The external walls are of a substantial nature and are of solid construction. They are approximately 400mm thick.

On the front elevation of the property there is a single crack above the right-hand window in the main elevation. This extends to the cill above. This is not of any structural significance. This should be tied with helical bar as required. Photograph 49.

There is slight movement at the junction of the separate builds, but this is considered to be well within acceptable tolerances and does not give cause for concern. No remedial action is required. Photograph 50.

The left-hand side of this front elevation is generally satisfactory. Both exposed sections of the gables also appear satisfactory. Photographs 51 & 39.

The front elevations are considered to be true to plumb to within acceptable tolerances.

The pattresses for the tie bars could clearly be seen on both the front elevations. The tie bars are visible internally, spanning front to rear. These show no signs of distress and are serving their intended purpose.

The rear elevation is more out of plumb, hence the need for the tie bars and pattress.

There has been past movement over the right-hand door into the tool store. The lintel in this, falls towards the left. This is clearly old and longstanding and does not give cause for concern. Photograph 52.

The remaining external elevations are generally satisfactory externally.

Internally there are nominal cracks under the truss on the front left. These should be stitched with helical bar. Photograph 53. See attached data sheet CS01.

3.02 ROOF

The whole roof is covered with a heavy stone slate. The main roof line when viewed externally is uneven on most parts of the property but considered to be within acceptable tolerances. The right-hand hipped roof is visually uneven, particularly on the rear hip, but seems to be serving its intended purpose at the time of our survey, photograph 54.

Clearly remedial action in the form of strengthening and the provision of additional supports to the trusses have been introduced.

The property roof has leaned to the right at some point in the past, causing distress to the trusses.

The trusses have been strengthened and repaired in the past. There are steel plates and additional blockwork piers under the supports, Photographs 55 & 56.

In the case of the fourth truss from the right, there are steel posts providing additional support. Photographs 57 & 58.

Of the blockwork piers, the rear left blockwork pier extends through ground level but the pier on the front right does not.

The support for the two steel posts providing the additional support to the fourth truss could not be determined. We believe the post nearest to the front elevation is propped directly off the hay loft floor and rear post is in line with one of the main wrought iron support beams.

There are no signs of any current movement. No remedial action is deemed necessary at this time.

The first truss from the left is propped by a timber member but directly off the floor. Photographs 59 & 60.

In the right-hand section, the roof is supported by a mono pitched truss, photographs 61 & 62.

The roof covering has been replaced; we saw no signs of any major issues with this at the time of our survey.

3.03 HAY LOFT

The hay loft structure is of timber joists, photograph 63.

This floor has been raised from its original level. This reduces head room under the Queen post trusses. This is not a structural issue.

The hay loft structure is serving its intended purpose.

3.04 GROUND FLOOR

The ground floor is a combination of paving and insitu concrete.

The ground floor is fit for purpose. Photograph 64.

4.00 CONCLUSIONS & RECOMMENDATIONS

- 4.01** The Cow Shed is considered to be in a good structural condition and is deemed fit for purpose.
- 4.02** The rear gutter area should be cleaned, and the vegetation should be removed. No further remedial action is required to the Cow Shed.
- 4.03** The garage structure is also deemed fit for purpose. Clearly the inner leaf of the rear wall simply provides lining to the boundary / retaining wall to the rear. There were no signs of visible distress, and we are of the opinion that the garage will continue to serve its intended purpose for the foreseeable future.
- 4.04** The main barn has not suffered from any significant subsidence or settlement. There has been past settlement noted in the rear door over the tool room. This is old and longstanding and does not give cause for concern. Movement to this property is mainly of a lateral nature where the trusses have rotated towards the right.

The rear elevation has also bulged in places causing the need to introduce tie bars and pattresses. There is no evidence of any current movement associated with the above.

- 4.05** The movement and the decay to the trusses has resulted in significant past repairs. At the time of our survey these were deemed to be generally satisfactory.

Some of the areas of additional support are not structurally provable by calculations. There are props on the hay loft floor and there are areas where the new blockwork piers do not extend to ground level. Notwithstanding the above, there are no signs of any current distress, and no remedial action is deemed necessary at this time.

- 4.06** There are nominal cracks in the masonry both internally and externally. These can be stitched with a helical bar or similar. A data sheet explaining this has been added to the rear of this report.

5.00 EXCLUSIONS

Please note the following exclusions to our report.

Please satisfy yourself that condition of the items excluded are known prior to purchase.

We do not cover:

- Electric Services
- Gas Services
- Water Services
- Rain Water Goods
- Drainage.
- Damp & timbers.
- Roof Finishes
- Windows – unless structural, e.g., bay windows where structural mullions are present.
- External areas – e.g., detached garages, outbuildings and garden retaining walls unless they appear to offer support to the building, or we are specifically requested to do so.
- Cost Estimates for remedial works.
- For any works carried out to or adjacent to a party wall, the client is advised to seek legal advice with regards to The Party Wall etc Act 1996, and to appoint the services of a qualified Party Wall Surveyor.
- Asbestos.

SIGNED... *P. Healey*.....

PAUL MICHAEL HEALEY
BSc (Hons) C.Eng M.I. Struct.E. M.a.P.S.

REVISED:...29th June 2022



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



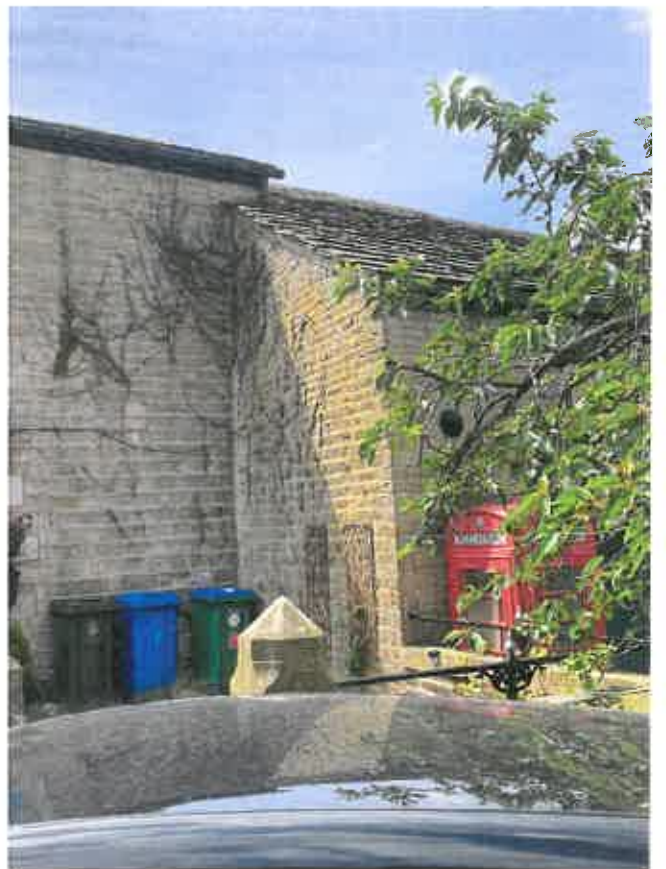
Photograph 25



Photograph 26



Photograph 27



Photograph 28



Photograph 29



Photograph 30



Photograph 31



Photograph 32



Photograph 33



Photograph 34



Photograph 35



Photograph 36



Photograph 37



Photograph 38



Photograph 39



Photograph 40



Photograph 41



Photograph 42



Photograph 43



Photograph 44



Photograph 45



Photograph 46



Photograph 47



Photograph 48



Photograph 49



Photograph 50



Photograph 51



Photograph 52



Photograph 53



Photograph 54



Photograph 55



Photograph 56



Photograph 57



Photograph 58



Photograph 59



Photograph 60



Photograph 61



Photograph 62



Photograph 63



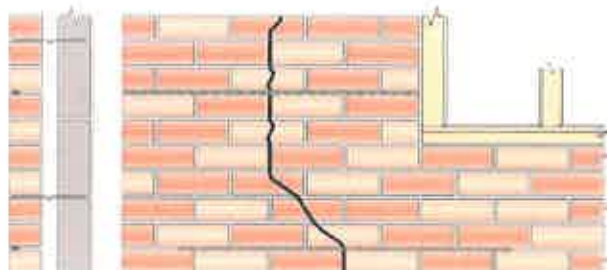
Photograph 64

Crack Stitching a Cavity Wall using HeliBars

METHOD STATEMENT

1. Using a twin-bladed, diamond-tipped wall chaser and vacuum attachment, cut slots into the horizontal mortar joints, to the specified depth and at the required vertical spacing. Ensure that NO mortar is left attached to the exposed brick surfaces in order to provide a good masonry/grout bond.
2. Remove ALL dust and mortar from the slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the slot is damp or primed prior to commencing step 5.
3. Mix HeliBond cementitious grout using a power mixer and load into the Helifix Pointing Gun CS.
4. Fit appropriate mortar nozzle.
5. Inject a bead of HeliBond grout, approx. 15mm deep, into the back of the slot.
6. Push the 6mm HeliBar into the grout to obtain good coverage.
7. Inject a second bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond as necessary, leaving 10-15mm for new pointing.
8. Point up the remaining slot with a suitable matching mortar and make good the crack using an appropriate Helifix bonding agent depending on the width of the crack.
9. Clean tools with clean, fresh water.

N.B. Pointing may be carried out as soon as is convenient after the HeliBond has started to gel.



RECOMMENDED TOOLING

- For cutting slots up to 40mm deepTwin-bladed cutter with vacuum attachment
- For mixing HeliBond3-jaw-chuck drill with mixing paddle
- For injection of HeliBond into slotsHelifix Pointing Gun CS with mortar nozzle
- For smoothing pointingStandard finger trowel

Specification Notes

The following criteria are to be used unless specified otherwise:

- A. Depth of slot into the masonry to be 25mm to 40mm.
- B. Height of slot to be equal to full mortar joint height, with a minimum of 8mm. For thin mortar joint specifications refer to the Helifix Technical Dept.
- C. HeliBar to be long enough to extend a minimum of 500mm either side of the crack or 500mm beyond the outer cracks if two or more adjacent cracks are being stitched using one rod.
- D. Normal vertical spacing is 450mm (6 brick courses)
- E. Where a crack is less than 500mm from the end of a wall or an opening the HeliBar is to be continued for at least 100mm around the corner and bonded into the adjoining wall or bent back and fixed into the reveal, avoiding any DPC.
- F. In hot conditions ensure the masonry is well wetted or primed to prevent premature drying of the HeliBond due to rapid de-watering. Ideally additional wetting of the slot, or priming with HeliPrimer WB, should be carried out just prior to injecting the HeliBond grout.
- G. Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the slot must be thoroughly damp or primed prior to injection of the HeliBond grout.

The above specification notes are for general guidance only and Helifix reserves the right to amend details/notes as necessary.

GENERAL NOTES

If your application differs from this repair detail or you require specific advice on your particular project, call the Helifix Technical Sales Team on 020 8735 5222. Our Technical Department can provide you with a full support service including:

- Advice, assistance and recommendations on all structural repair matters
- Devising and preparing complete repair proposals for specific situations
- An insurance-backed warranty via our Approved Installers scheme