

Town Planning - Architectural Design - Building Regulations - Surveying

## Structural Appraisal carried out on 12<sup>th</sup> March 2014

at

# Cowley Brook Farm Higher Road Longridge

on behalf of Kate Butcher

For the Proposed Barn Conversion to 2 Dwellings

**Project Ref: BUTC/02** 

#### A: Introduction

It was given our task to perform a structural survey of the existing barn at Cowley Brook Farm, Higher Road, Longridge, PR3 2YX with regard to convert the existing barn into 2 domestic dwellings.

We visited the site address on 12<sup>th</sup> March 2014 to carry out our inspection and the barn is identified on the attached layout plan.

A Full survey was carried out on the day of the site visit, but any parts of the building that were inaccessible have not been included within the report. We have also not examined any woodwork and therefore cannot confirm that this is free from rot or other defect.

Please note this Report is solely for local authority use, and no liability to anyone else is accepted. Should you not act upon specific, reasonable advice contained in the Report, no responsibility is accepted for the consequences.

#### Objective

The Principal objective of the Report is to assist you to;

- Assess whether or not the Property is in a reasonable state for conversion
- Be clear as to what decisions and actions should be taken before work is undertaken
- Assess what structural elements should affect the design

#### Content

The general condition and particular features of the Property are covered, but the Report focuses on the matters which the surveyor judges to be significant. Significant matters are defects judged to be an actual or developing threat to the fabric of the building which may affect the decision to convert this building.

## **Overall Opinion**

Below are the Surveyors conclusions, in brief, on whether or not this Property is in a reasonable state for conversion.

It is hoped that this overall view will help you to keep in perspective the detailed facts and advice which follow. You are asked to bear in mind particularly that it can be misleading to treat individual matters in isolation. You are most strongly advised to read and consider its contents as a whole.

The building is structurally sound with all the walls standing straight. There will be no need for rebuilding of any areas, but there will be the need for additional works which will enhance the stability and allow the building to comply with current Building Regulations. The building would need repointing to the walls and the roofs would need changes to the membrane and covering but are on the whole structurally sound.

## **B: The Property & Location**

This section covers the important general background information on the Property and its location, occupation and the weather at the time of the inspection.

## Occupation

The main farm house is currently occupied residentially; with a two storey attached barn to the East and a single storey lean-to at the rear, which houses 3No. Stables.



## Weather

mild to moderate

#### Construction

The External wall construction consists of a Rough Cast Render Finish over Stonework to the Front and Rear Elevations and Random Stonework to the Gable Elevation and External walls of the Stables. The windows and doors that are installed within the barn are timber framed having stone heads and cills. The roof covering to the Barn is Blue Slate.

Location

Client

Cowley Brook Farm, Higher Road, Longridge, PR3 2YX

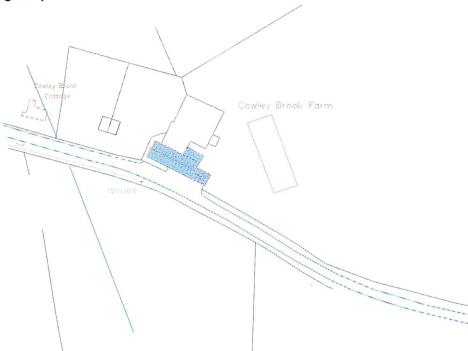
Ms Kate Butcher

#### **B2: Movement**

There seems to be no signs of movement within any part of the building, and all walls stand plumb and the roof has been replaced.

**C: Existing Condition of Structural Elements** 

C1: Site Plan (Figure 1)



Site Plan

## C2: Roof

The roof construction to the barn consists of a blue slate roof covering fixed to timber battens, over timber rafters, of which are then supported on timber purlins. The roof construction to the left hand side of the barn has a feature truss supporting the purlins and to the right hand side of the barn, the purlins have been built in to the wall construction. Apart from there being no felt covering, there is no evidence as to why the roof needs to be replaced as there are no signs of deterioration on the main roof truss or other roof timbers. The roof construction above the Stable part of the building is of the same construction, from blue slate, over rafters supported on purlins. Again the roof in this area is of a satisfactory standard and no major defects have been noted.

## **C3: Existing Walls**

The existing external walls of the building are in a relatively sound condition. The walls are random stone solid construction (approximately 500mm thick). All the walls appear relatively plumb and straight and there appears to be no sign of settlement.

There is an internal stonework wall separating the two sides of the barn which is approximately 400mm thick and continues to the underside of the roof construction. There seems to be no signs of settlement and evidence suggests that this wall is coping with the loadings currently imposed on it. Within the left hand side of the barn, it has been noted that there are purpose built structural pillars constructed from brickwork (300mm x 300mm) supporting a First Floor Mezzanine construction. It is

evident that these pillars have been added at a later date from the original construction, and they are in good condition.

Within the right hand side of the building, there is a stonework wall construction (approximately 500mm thick) separating the front and back of the building and it continues to the underside of the Mezzanine floor level above.

Within the Stable part of the building, there are separating walls (approximately 400mm thick), constructed from stonework, but they are only 1000mm high and have not been recorded as being structural.

With all walls, external and internal, there seems to be no apparent structural issues.

## C4: Existing Floor

The existing floors throughout the buildings are the original barn flooring constructed from concrete/stone. These would need to be removed and replaced with new concrete ground floors with insulation and D.P.M to comply with the current Building Regulations .

In the Mezzanine Areas the construction consists of flooring board, fixed to timber joists, spanning on to timber beams. The construction in general is of an adequate standard for its intended use but some of the flooring board is of poor quality. When the conversion works are carried out most of the floors will have to be upgraded to meet requirements in terms of loadings.



#### **C5: Foundation Statement**

It is impossible at this time to make an accurate assessment of the existing foundations; exploratory excavation should be done to assess the depth of foundations throughout the site. If the foundations are found to be insufficient underpinning may be needed to rectify this problem, dependant on exactly what is proposed.

#### **C6: Conclusion**

From the findings of the limited visual inspection there are no obvious indications of any recent significant foundation movement.

An external survey was not carried out to the roof area, and it may be that the slate roof covering may require replacing/repair in certain areas but from the building fabric internally it suggests that the roof covering is to a satisfactory standard.

We have no information with regards to the condition of the timber, however we recommend a timber specialist be engaged to confirm the condition of the timber and appropriate treatment work.

The existing external walls would require to introduce a cavity/inner blockwork lining and insulation. The new blockwork lining walls would be tied to the existing external stonework thus providing stability.

The existing Mezzanine Floors would have to be replaced/upgraded using appropriately sized timbers in accordance with TRADA.

