

Your ref:

Our ref: R9675/rs

Date: 30 September 2019

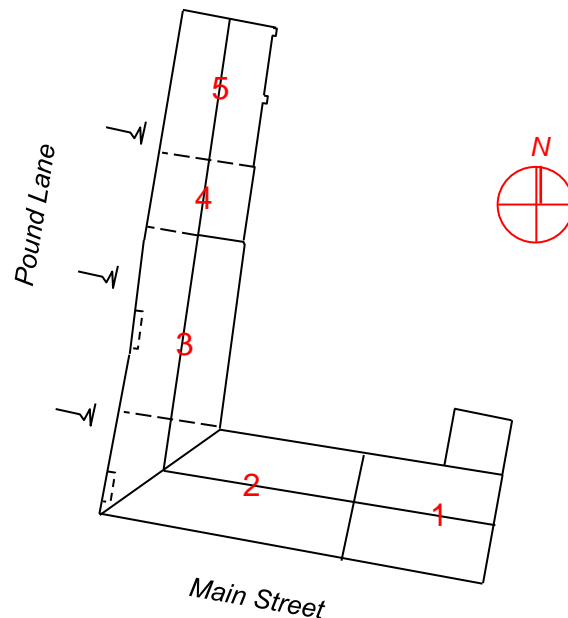
Mr and Mrs Broom  
Foxbury Farm  
Foxbury  
Upton  
OX15 6HT

Dear Mr and Mrs Broom,

**Buildings for conversion – Mawles Farm, Sibford Gower.**

**1.0 Introduction -**

- 1.1 We have now inspected the above property and can report to you.
- 1.2 In accordance with your instructions we carried out a visual inspection of the range of barns at the above property in sufficient detail to support a planning application.
- 1.3 The inspection assumed that the roof coverings, rainwater goods, below ground drainage, external joinery, ground floors and damp proofing would be overhauled and refurbished and the timber treated as necessary.
- 1.4 It is acknowledged that the extent of movement acceptable in an agricultural building is beyond the tolerances of modern materials, such as plaster. Finishes should be detailed to reflect this.
- 1.5 We have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the building is free from defects. Significant structural defects in timber were assessed: minor defects and infestation are assumed to be incorporated in the refurbishment.
- 1.6 The report is provided for your sole use and is confidential to you and your professional advisers. Responsibility for the report or any part of its contents is accepted to you and no other party or person without our express written consent.



Site Plan (nts)

## Buildings for conversion – Mawles Farm, Sibford Gower.

### 2.0 Description of the property -

- 2.1.1 All of the buildings are single-storey. A description of the structure of each building is given below.
- 2.1.2 There is a slope down from the west elevation to Pound Lane, increasing to a maximum of 1.2 metres at the south end.
- 2.1.3 There is a step down from the south elevation to Main Street increasing to a maximum of 1.2 metres at the west end – the external stone wall continues down to the lower level.
- 2.1.4 There are many weathered mortar joints in the external stone faces throughout that will require repointing with a natural lime mortar.
- 2.1.5 Trial holes will be required to establish the adequacy of the foundations and substructure remedial works, such as underpinning, may be required.

### 3.0 Observations/Comment -

- 3.1.1 Building 1 is covered with corrugated fibre sheeting supported by softwood purlins spanning between walls and an intermediate king post-type truss. The walls are solid stone. The floor is solid.
- 3.1.2 The roof structure is not substantial enough to accept a slate or tiled roof covering. It will require upgrading.



Building 1 roof



Roof elsewhere

- 3.2.1 Building 2 is covered with natural slates on tongue-and-groove boarding supported by purlins. The two rows of purlins in each slope and the ridge pole gain intermediate support from king post trusses. The external walls are solid stone. There is one timber framed internal partition below a truss. The floor is concrete.
- 3.2.2 The south west quarter of the floor steps down some 1.2 metres to the level of Pound Lane – there is a vehicle exit through the south end of the west wall to Pound Lane. The east end of the step is retained by a brick wall. It is not clear what retains the north edge of the step, although what is there appears to be working.
- 3.2.3 The hip and valley blades are unrestrained. A tie will be required between their feet.
- 3.2.4 There is localised rot in the roof boarding which will require treating.

## Buildings for conversion – Mawles Farm, Sibford Gower.



Unrestrained hip & valley



Step in floor

- 3.3.1 Building 3 is covered with natural slates on tongue-and-groove boarding supported by purlins. The two rows of purlins in each slope and the ridge pole gain intermediate support from king post trusses. The external walls are solid stone. There is one timber framed internal partition below a truss. The floor is concrete.
- 3.3.2 There is a vehicle-sized opening at the south end of the west wall, surmounted by a timber lintel and blocked up along the inside face. The timber lintel appears in reasonable condition, as does the stonework it supports. It will need
- 3.3.3 There is a part mezzanine floor with timber boards and joists supported at one end by the internal gable and the other by a steel beam.
- 3.3.4 There is a personnel door through the west end of the north wall, the outer face of which is blocked up.
- 3.4.1 Building 4 was a drivethrough with a roof to match elsewhere. The floor is unmade.
- 3.4.2 A relict timber beam remains against the west wall, presumably to support the original roof.
- 3.4.3 The west elevation has been infilled with stone to match elsewhere. Each end of the infilled panel is butt-joint to the original adjacent walls. Restraint will need to be added across these joints, which could be done by, for example, stitching in helix bars.
- 3.4.4 Similar comments apply to the west end of the south wall, where the original door was infilled, and the east end of the north wall.
- 3.4.5 The north half of the foot of the wall appears to be dropping. Trial holes will be required to establish the adequacy of the foundations and substructure remedial works, such as underpinning, may be required. Similar comments apply to the north and south walls.



**Buildings for conversion – Mawles Farm, Sibford Gower.**



Drivethrough wall infilled



Timber panelling

3.5.1 The roof over Building 5 matches elsewhere. The east wall and the north gable above eaves are timber framed and boarded. The gable is open below eaves. The west wall is stone as elsewhere. The central roof truss and the gable frame are supported on brick piers in the east elevation. The floor is unmade.

3.5.2 The west wall leans out from ground to top an increasing amount to the south – the central roof truss is supported against the west wall by an acrow and the south end of the wall is poorly bonded to the south wall. The top of the wall is uneven – daylight can be seen between it and the wallplate. There is a vertical crack in the top half of this wall, 1.5metres from the north end. There is vegetation growing from the external face of the wall over the southern 3 metres – this is because to the head of the wall being outside the edge of the roof due to the lean noted above. Either the roof needs to be extended to protect the head of the wall or the wall needs to be locally rebuilt back to vertical. In any event, the wall requires additional restraint, which can be provided by stitching helix bars to the south gable and wallplate straps.



Vegetation



Blocked up opening

## **Buildings for conversion – Mawles Farm, Sibford Gower.**

### 3.5 General –

- 3.6.1 The major differences between a property of this age and the modern equivalent are the foundations, the materials used and the construction techniques. The older property is likely to have narrower and shallower foundations, masonry less restrained than currently required and softer and more pliable mortar and plaster - the first two lead to a higher tendency of the property to move and the latter gives a greater ability to absorb this movement without displaying distress than in a modern property.
- 3.6.2 Timber is an elastic material that will deflect under load and will return to its original form unless overstressed (overloaded). It will creep - gradually increasing permanent deformation under stress. It will also change volume and strength with changes in moisture content and temperature and rot if persistently damp and unventilated. Despite the softness of the mortar, brickwork is a brittle material that will retain one form until overstressed and then crack.
- 3.6.3 It is common to find the sizes of timber members (rafters, purlins, floor joists and support beams, etc.) in older properties, such as this, undersized to current standards. This can give rise to greater deflections than might be considered acceptable in a modern property.
- 3.6.4 The level of movement acceptable in a building of this type is significantly greater than for a recently converted scheme. Although there was no evidence of foundation related movement noted during the inspection and what little evidence of movement there was is attributable to particular, relatively simply rectifiable cases, the scheme should be detailed to allow for this.

### 4.0 **Conclusion** -

- 4.1 We have been asked to comment upon the general stability of the above barns with a view to their conversion to habitable accommodation.
- 4.2 We consider that, within the limits of our inspection and with local careful and sensitive repair, the barns are sufficiently stable to be retained and converted to the use proposed.

We trust that the above is clear. Please contact the undersigned if you have any queries.

Yours sincerely,

R.P.Strauss B.Sc. C.Eng. M.I.Struct.E.  
for and on behalf of Richard Strauss Associates.