

STRUCTURAL REPORT BARN MILL HOUSE BARN

INTRODUCTION

The building is a substantial stone build barn on Mill House Farm constructed in solid external walls with two principle timber roof trusses purlins and asbestos profile roof sheets. The barn is attached to the farmhouse it was extended at the rear with a single storey lean-too. There are window openings on the ground floor and vertical ventilation slots in the upper walls.

The main area is a double storey open area, with cellular rooms in the extension.

The building has been altered as farming practices changed and the original slate roof finish replaced with cheap profile cement sheets which are inappropriate in the Ribble Valley. The rafters are at 900 centres to suit the sheets and should be replaced with rafters at 600 centres.

Existing door and window openings have been built up, the principle barn doors are missing leaving the building vulnerable to water ingress and wind damage.

The walls are structurally sound with local areas of bulging on the front elevation caused by roof spread in the past.

The principle truss,s are in good condition and should be retained, the main purlins appear sound though the wall bearings should be inspected.

The cement fibre sheet roof should be removed and replaced with a natural slate roof on a breathable sarking felt, tanalised slate battens and new rafters at appropriate centres. The roof timbers should be tied at high level to triangulate the roof and prevent spread loading being applied to the wall.

The lean-too rear extension walls are not bonded to the main building but but jointed. Mechanical ties should be provided to bond the walls to-gether.

The rear store wall has been partially removed and a steel beam inserted to provide a large opening, the opening will be reduced in width and a stone lintel built in to replace the exposed steel beam.

Minimal structural alterations are required to complete the conversion. These are forming new door openings in the existing walls and forming small window openings to the first floor bedrooms. The works are small and will not affect the structural integrity of the building.