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REPORT ON A STRUCTURAL INSPECTION

Little Woodfield Farm

Longsight Road

Clayton Le Dale

Blackburn

BB2 7JA

Project No. 1716

REV B

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1.0 BRIEF

We have been instructed by Mr John Barlow to carry out a structural survey on the above barn. The reason for this report is to determine the amount of re-building required to the external walls in order to convert this building in accordance with Ribble Valley Borough Council's policy on conversion of barns to dwellings. The report is limited to this aspect only.

We have confined our inspection to those elements of the building that are visible and have not investigated woodwork or other parts of the structure that are covered, unexposed or inaccessible. We are therefore unable to report that any such part is free from defect. The client's attention is drawn to the condition of inspection appended to the report.

2.0 GENERAL

The property is a Stone built two storey barn which is attached to a farm house. There is a single storey building attached to the left gable of the barn

The barn was built circa 1900.

The ground is generally level

The survey was carried out on 20 May 2019 and it was a sunny day.

There are photographs and two diagrams at the end of this report to assist the reader in understanding this report.

3.0 OBSERVATIONS

Notation; Left Hand (LH), Right Hand (RH), Front (F), and Rear (R) are relative to an observer standing and facing the building as shown in photograph 1.

EXTERIOR

3.1 Front Elevation

See photographs 1 & 2 details of this elevation.

The wall is constructed from stone and built as a solid wall 400 thick. The wall has been rendered and then received a white coating. The farm house is located to the right.

Reporting from the left gable wall there is a ground floor window. This has a stone cill, lintel and jambs. Then there is a panel of wall to a large double doorway. As seen internally this was a much larger doorway but this has been blocked in. There is cracking around the profile of the original opening. There is a 1mm. wide vertical crack running up from the top right corner of the arch to the eaves.

Then there is a large panel of wall to a ground floor window. This has a small stone cill. Then there is a pair of windows one above the other. These windows are serving the farmhouse.

The wall is acceptably vertical and flat.

At the far left side of the front elevation there is the wall of the single storey building. This wall is constructed from blockwork. There is a central window and a horizontal coping to the top of the wall. See photograph 3.

Where the front wall of the extension abuts the gable wall of the barn there is a gap of 25mm. at the top of the wall and this reduces to zero at the bottom. See photograph 5.

3.2 Left Gable wall

See photographs 3 & 4 for details of this elevation. The wall to the barn is constructed from stone and built as a solid wall 400 thick. The wall has been rendered and then received a white coating. The extension building abuts this wall. The side wall of the extension is constructed from blockwork and this has been rendered.

There is a central window in this wall. The cill is rotting.

The wall is acceptably flat but the top of the wall is leaning outwards by 30mm. See photograph 6.

3.3 Rear wall

See photographs 6 & 7 for details of this elevation.

Reporting from the right side wall of the extension (as viewed), this wall is constructed from blockwork and has been rendered. There is a garage door in the centre of this wall. This has a timber lintel over. There is a 1mm. wide horizontal crack running out from the right side

(as viewed) of the bearing of the lintel to the side wall. There is crazed type cracking in the render above the lintel. See photograph 6.

Where the wall of the extension abuts the gable wall of the barn there is a gap of 30mm. at the top of the wall and this reduces to zero at the bottom. See photograph 6.

Reporting on the rear wall of the two storey barn the wall is constructed from stone and built as a solid wall 400 thick. The wall has been rendered and then received a white coating.

Close to the gable wall there is a doorway. Then there is a large stone panel there is some fine cracking in the render. Then there is another doorway. To the left of this there is a large pair of double doors. To the left of these there is a single storey projecting extension belonging to the farm house.

The wall is acceptably vertical and flat.

INTERNAL GROUND

3.4 Barn area 1

This area is to the left of the main barn. This is shown on Fig. 2 and designated area 1. This room is the single storey extension to the side of the main barn.

There are windows on the front and side walls. There are timber lintels over these openings. On the rear wall there is a garage doorway with a timber lintel over.

The side wall is leaning out at the top by 30mm. There is a crack running down the butt joint of both the front and rear walls where they abut the gable wall of the barn.

This area has a lean-to roof. The rafters supporting this are very weak and have pulled out from the support provided by the barn gable wall. One of these timbers has rotted away at the support.

3.5 Barn area 2

This area is to the left side of the main barn. This is shown on Fig. 2 and designated area 2.

On the front wall there is a window by the gable and a double doorway. The lintel above the double doorway is at a height of 2.2m. Above this at a height of 4m. there is a stone arch which was the top of the original barn doorway. See photograph 10.

The other walls appear to be free from any structurally significant problems.

The roof over this area consists of rafters bearing on timber purlins which are supported on two timber trusses and the walls. There is one purlin to each roof slope. The truss close to the party wall has a strut missing. This does not appear to have caused problems but it should be reinstated. See photograph 13.

3.6 Barn area 3

This area is to the right side of the main barn. This is shown on Fig. 2 and designated area 3.

On the front wall there is a window and on the rear wall there is garage doorway. There is a first floor over this area.

The other walls appear to be free from any structurally significant problems.

4.0 DISCUSSION

The intention is to convert this barn into a dwelling. Generally the walls of the main two storey barn are acceptably vertical and not suffering from any significant structural distress.

The single storey extension has suffered from differential settlement. The building should be demolished and if needed to be re-built.

The timber truss in the main barn has had a strut removed. This should be replaced.

All timber lintels to the external walls should be replaced with suitable stone lintels.

There are some cracks to the internal walls and these need raking out and pointing.

The introduction of an inner leaf of block together with new internal partition walls and a first floor would greatly improve the robustness of the building.

CONCLUSION

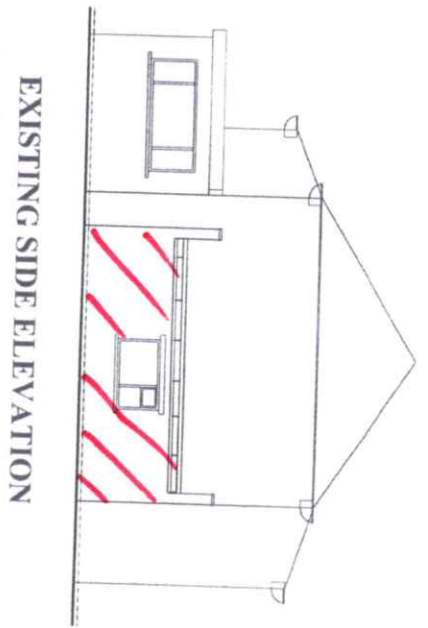
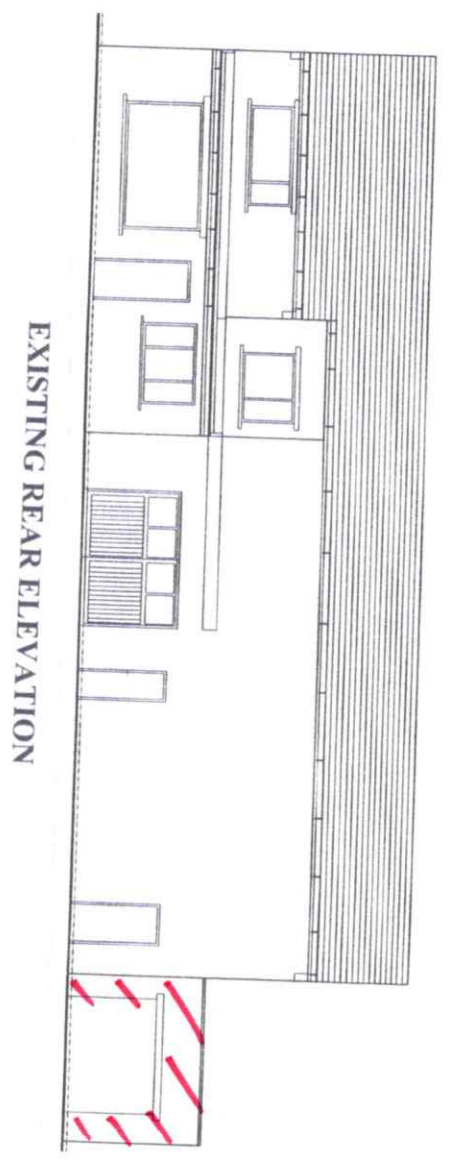
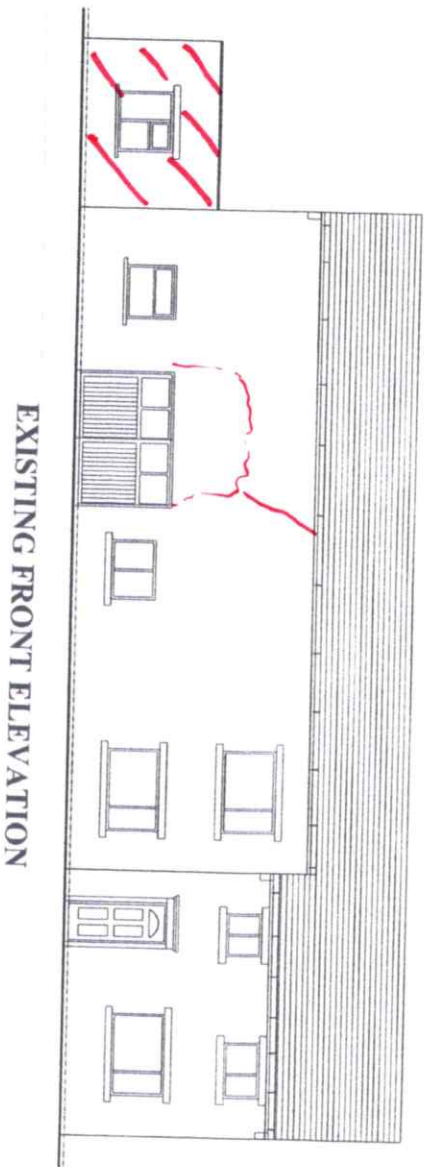
The main two storey barn is in a good structural condition. The single storey extension has suffered from differential settlement and needs to be demolished.

The amount of rebuilding is in accordance with Ribble Valley Council's policy on barn conversions.



John Davis B.Sc.(Hons.), C.Eng., F.I.Struct.E., M.I.C.E.

29 May 2019



┌ Indicates a crack
/// Area to be rebuilt

FIG. 1

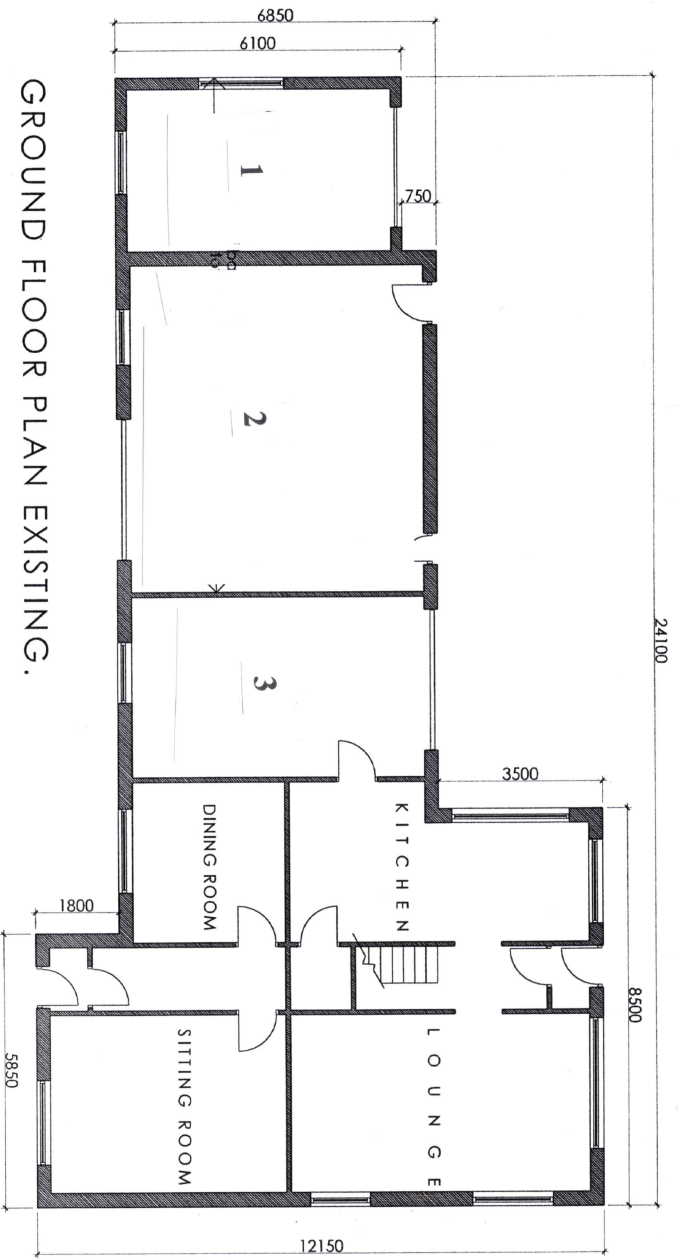
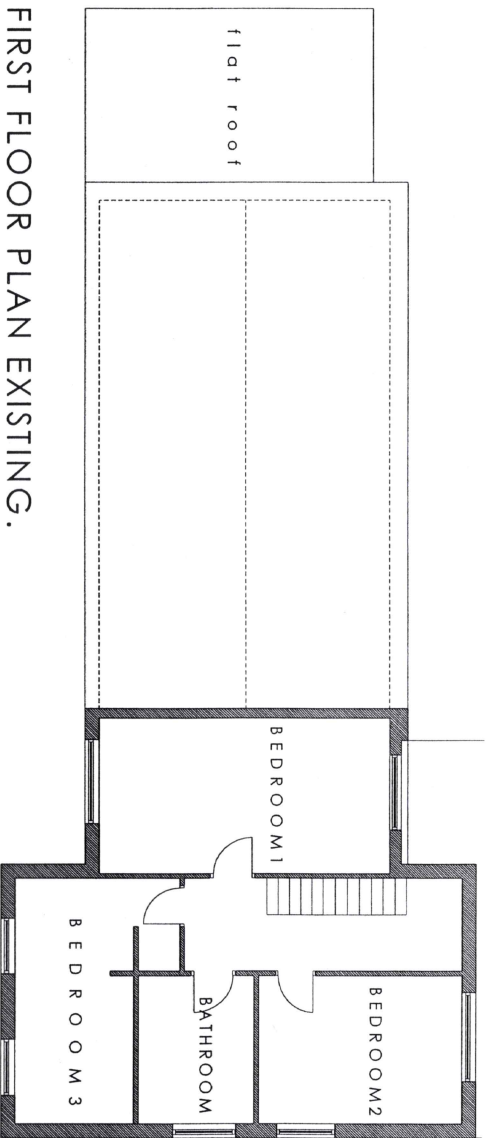


FIG. 2

CONDITIONS OF STRUCTURAL INSPECTION

Instructions to carry out a structural survey are accepted on the basis of the following conditions.

1. The report is confined to the structural elements of the property. This will include foundations (if visible) walls, columns, floors and roof members.
The report will not refer to non-structural items such as doors, window frames, plasterwork, fitted furniture, decoration or services.
2. Any structural elements which are covered, unexposed, or inaccessible will not be inspected and therefore we are unable to report on these elements.
3. The inspection carried out may not reveal all defects in the property. Defects in concealed areas such as foundations and underfloors, and walls covered by wallcoverings and plaster will not be revealed. Where there is evidence to suggest a more detailed investigation then such a recommendation will be made. Further investigation will incur further costs and may involve lifting of floorboards, digging of trial pits and breaking out of brickwork.
4. The building will be inspected externally from ground level.
5. Internally all exposed surfaces of rooms will be inspected. The Engineer will not move or disturb finishings, fittings, fitted carpets, furniture or any other items which cannot easily be moved. No responsibility will be accepted for defects which are concealed.
6. The roof space will be inspected but high or low confined areas will not be inspected.
7. Outbuildings (including detached garages) will only be briefly inspected. Sheds and greenhouses will not be inspected.
8. The grounds and boundaries will not be inspected. External ground levels will be reported on if they have potential for causing distress to the house structure.
9. Easement, planning and other topics in connection with statutory authorities are not within the scope of this report.
10. Potential flooding and other natural problems are outside the scope of this report.
11. Advice can be provided on extensions or modifications to the property but this is outside the scope of this report.
12. This report is provided for the sole use of the named client and is confidential to the client and their professional advisors. Responsibility for the report is to the client alone and we accept no responsibility to any other person.
13. The report remains the property of Davis Consultants and permission to use it for litigation or any other purpose is withheld until full payment is received.
14. Payment is due by the person named in this report irrespective of any claims against third parties.