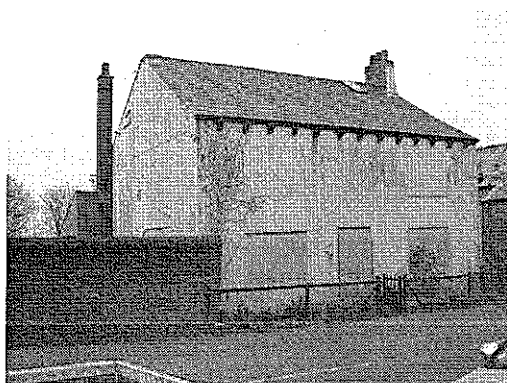




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**REPORT ON INSPECTION
OF
FORMER BARN AT 53 CHAPEL HILL
LONGRIDGE, LANCASHIRE**



Client United Utilities
Lingley Mere
Lingley Green Avenue
Great Sankey
Warrington
WA5 3LP

Date November 2011

Ref 09/027

Report - Inspection Of Former Barn 53 Chapel Hill, Longridge

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SECTION 1.0

BRIEF

Morley Design Associates Limited were commissioned to carry out a structural inspection of the detached former barn adjacent to 53 Chapel Hill, Longridge to supplement an application for full planning permission with a structure report and recommendations on the future adaptability or otherwise of the building.

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SECTION 2.0

PROPERTY DESCRIPTION

The barn is in two storey form with the north gable end approximately 600mm from the roadside. Built in a buff stone, which appears locally sourced, there are single storey outrigger buildings to the western elevation.

The barn is set at a lower level than the house with sandstone retaining walls dividing the two. There is a larger difference in ground level towards the rear of the barn than towards the road.

The main entrance to the barn has a substantial original timber lintel above the doorway.

The roof covering appears to be asbestos corrugated sheet supported on counterbattens over jack rafters and purlins, in turn supported on loadbearing masonry walls.

The mezzanine floor combines timber boarding joists spanning onto large timber sections, all of original construction. Only partial access to the north side of the barn could be facilitated due to bolt through locks on the main barn door.

The ground floor is concrete and sloping throughout.

PROPERTY INSPECTION

Standing at two storeys to the roadside the barn is constructed in stone. The gable to the roadside has previously been rendered and has all but fallen away. A number of original openings have been infilled.

The gable has slight outward movement at first floor level although the walls are quite robust in width. There is no sign of extensive movement in the form of cracking.

The roof has been replaced with cement corrugated sheets. The sheets are uneven with many open joints at the end lap. The covering has long since passed its serviceable lifespan.

The eastern gable is in a reasonable condition with no evidence of structural distress in the form of cracking although some longitudinal distortion has occurred.

A large original timber lintel exists over the barn entrance, which appears to have had a previous use, although substantial in section. The lintel appears to be performing adequately.

We suspect rot exists in the centre section and top due to the open nature of the face, which has a large longitudinal shake.

The elevation is reasonably plumb from ground to eaves.

The southern gable is in reasonable condition with no evidence of structural distress in the form of cracking. There is evidence of distortion to the gable pike but not to any excessive extent.

The western elevation has a single storey lean-to building. The roof construction has been removed leaving a line of three purlins exposed. The walls are approximately 450mm thick and reasonably plumb. The main elevation to the barn has suffered extensive damp, which has eroded the mortar and also areas of stonework at the lower level.

The ground is raised around the outrigger causing damp ingress to the external elevation.

There is a central dividing wall in common brickwork and the doorway to the barn has been infilled with blockwork.

The remainder of the western elevation is in reasonable condition with a minor adaptation around a door / window adjacent to the gable. The mortar has perished to the pier, which is out of plumb and requires re-building.

Internally, the upper storey of the barn adjacent to the road has the original roof construction exposed. The original rafters are unwroughted at close (300mm) centres spanning over large rounded section timber purlins. The original construction appears to be in reasonable condition.

The original construction appears to be in reasonable condition considering its age although we suspect that some rot may have occurred to the topside of the rafter and purlins.

The first floor is of substantial construction comprising large section timber joists spanning onto substantial timber baulks.

There appears to be evidence of rot at the bearings of the principle members.

Damp is extensive throughout the external walls.

The retaining walls between the property were generally in good condition with no evidence of distress or distortion.

The floor is solid and uneven throughout again with evidence of damp ingress.

The inspection to the barn was limited to this area as the remainder of the barn was ineligible for access.

CONCLUSIONS

The form and construction of the roof of the barn external walls and mezzanine floor are of substantial proportions again, historic settlement has occurred throughout, but no evidence of on-going subsidence can be seen.

Extensive lateral movement has occurred to the external walls to the full perimeter, which will require some form of restraint to arrest further movement.

The ground floor construction has settled considerably throughout the area inspected, which we assume will be reflected in the remainder of the barn.

Again the solid nature of the external envelope has been susceptible to extensive damp ingress, particularly on the exposed westerly elevation.

The roof covering has failed and daylight can be seen in numerous places. The replacement asbestos covering is saturated and covered in moss and lichen growth.

There is limited doubt that extensive wet rot will have occurred in all principle roof timbers, including any wall plate, which may be present.

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SECTION 5

NOTES ON ADAPTABILITY

Although the property has structural defects, they are such that they do not render the building in a dangerous condition to the extent that they require demolition.

Whilst addressing the defects to the fabric, the upgrading will be required to comply with current environmental legislation and Building Control standards in addition to requiring full Planning Permission.

To follow is a list of minimum requirements in respect of the property to meet the above criteria.

1. Strip all asbestos sheeting from existing roof.
2. Replace existing rafters with new structure including tanalised battens rafters, insulation and membrane.
3. Allow for new wall plates and rot treatment to adjacent masonry.
4. Allow for strengthening and rot treatment to existing purlins.
5. Remove all residual render and re-paint entire envelope.
6. Renew all guttering and rainwater goods.
7. Treat outrigger roof purlin ends for rot and strengthen as necessary.
8. Reduce all external levels to perimeter and provide injected dpc throughout all internal and external walls.
9. Remove existing slabs to floor, excavate and provide 150mm insitu slab reinforced with A14 mesh on insulation and damp proof membrane on compacted clean stone minimum 150mm thick.
10. Re-build all timber lintels (except main barn door) with concrete lintels.
11. Provide tie bars to first floor perimeter onto external all to enhance restraint.
12. Re-point external retaining walls.
13. Dry line external walls with membrane and insulation.

In conclusion of the inspection, the building is structurally sound and capable of conversion for the proposed use without the need for extensive building or major alterations.

SECTION 6

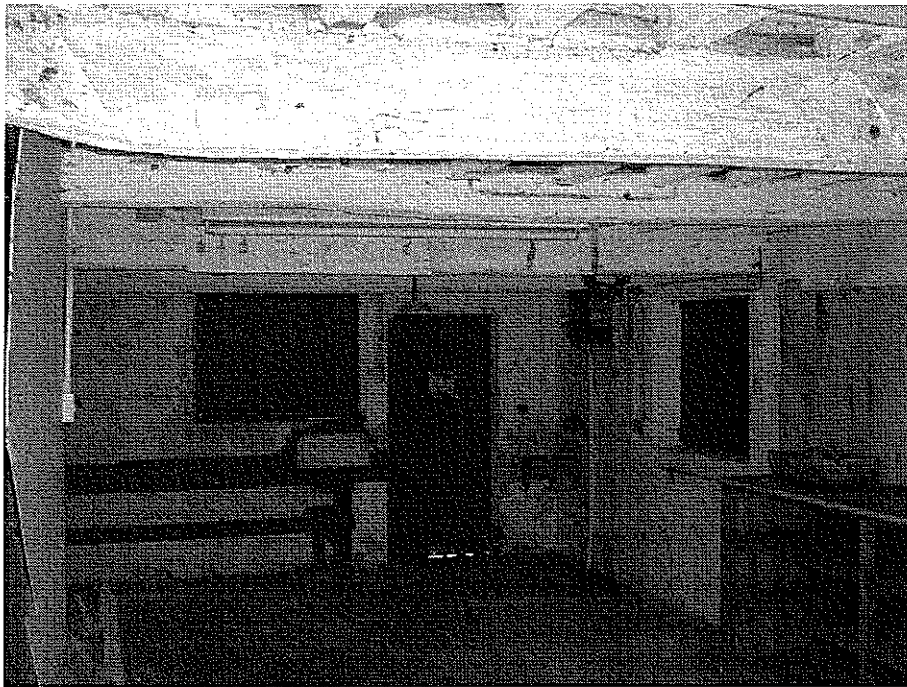
PHOTOGRAPHS



MAIN ELEVATION



REAR GABLE



GROUND FLOOR

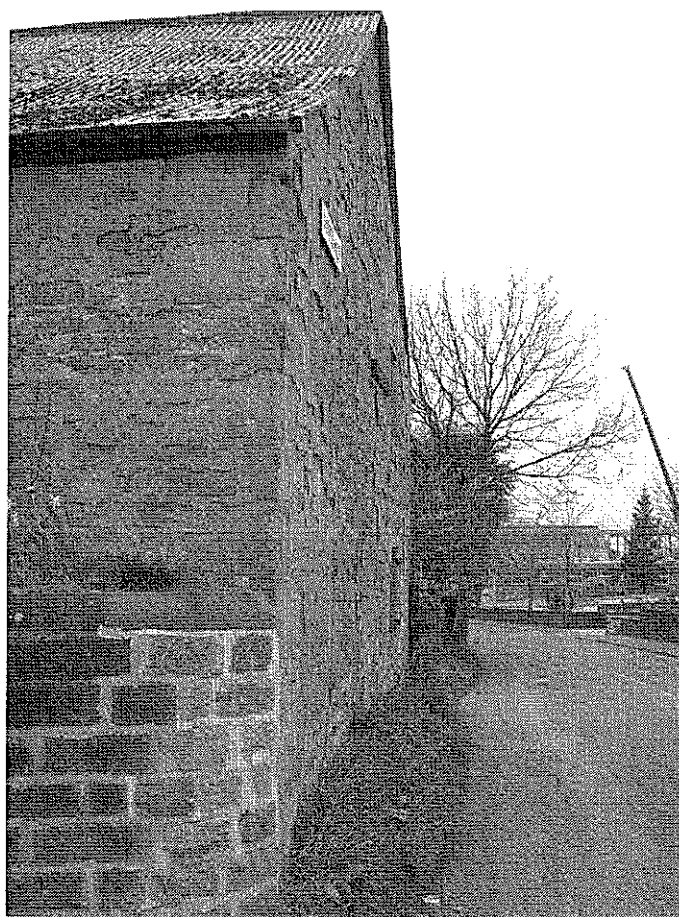


ROOF CONSTRUCTION

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REAR ELEVATION



CHAPEL HILL GABLE