

Little Farm, Halsham
Structural Appraisal carried out by Griffin Toomes.

Since the Structural Appraisal was carried out in conjunction with the application for works to the East Range the modern foldyard canopy has been removed restoring the original form of the foldyard. This is shown on photographs 1, 2, 3, 4 and 5. Photograph 5 shows that, although mutilated by blocked up openings and crude repairs, the original Victorian East Elevation of the West range can be discerned with a succession of stable door openings and windows. These will be restored as part of the proposal for conversion to form part of the new dwelling.

Photos 6 and 7 looking from the South West show the more modern semi flat roofed timber clad former piggery extension on the West side which would be completely demolished and partially replaced with 2 independent wings at right angles to the West range.

Photos 10 and 11 show the large L-shaped space on the North West corner of the foldyard with the huge Bullnose Brick Pier to the left supporting 2 King Post Trusses. Photo 10 shows a succession of door openings through the cross walls which would eventually form a corridor route for the bedrooms.

The Bullnose Brick Pier would be retained as a key structural and visual feature.

Photo 12 is the view looking North among the East side of the West range.

Photo 13 shows one of the cross walls separating the original stables to the West Range and a blocked-in opening through to the modern piggery beyond to the West.

Photo 14 shows again a typical intersection of cross wall to West wall and a blocked-in opening.

Photo 15 shows the North West corner of the L-shape that will become the living kitchen.

Photo 16 ground floor of 2 storey barn with floor to office above looking North.

Photo 17 shows the North range with the original wagon arches on the North Elevation and what is now the office windows over with the covered vehicle parking to the far right.



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Structural REPORT

on

Outbuildings at

Little Farm, Halsham

DATE: Jun 2016

REF: J2205-01

Client:

M Evison
Little Farm
Withernsea Road
Halsham
East Yorkshire
HU12 0BT

REV: B

1.0 INTRODUCTION

This report has been prepared at the request of Mike Evison who is the owner of the property.

The client intends to refurbish the outbuildings and convert them into residential accommodation. It is our brief is to undertake a full inspection and desk top study of the property to determine whether or not it is structurally sound and fit for conversion. In addition, to propose remedial works where necessary to allow the conversion works to be carried out.

2.0 BACKGROUND

The outbuildings are a collection of one and two storey buildings arranged in a 'C' shaped block. To the west there is a steel framed steel clad lean to along the full western elevation. The central part of the 'C' has been filled in with a timber framed timber and steel clad drying shed. It has not been possible to determine the age of the outbuildings to any degree of accuracy, although it is thought the original structure was constructed around the turn of last century with the various alterations and additions added at a later date.

The site is located on level ground some 150m to the north of Withernsea Road.

The building appears to be of a conventional construction and mainly comprises a pan tiled roof on roofing felt on a traditional kingposts and/or purlin roof structures supported by solid brick walls these walls are generally 325mm thick in the two storey sections and 225mm thick in the single storey sections. The floor appears to be constructed from brick setts in areas and a concrete slab in others.

The central part of the building has been extended to provide a timber frame steel sheet clad timber slatted dry area forming an open barn

We have not included for specialist items such as testing of services, dampness, or timber infestation.

3.0 INSPECTION

A visual inspection of the external elevations and internal areas of the outbuilding was carried out on the 5th April, 2016.

The remainder of the property was not included within our report unless specifically stated.

We do not intend to comment on every defect - only those that appear to be relevant to the overall structural adequacy of the building.

The weather was fine and dry at the time of our inspection.

4.0 OBSERVATIONS

4.1 EXTERNAL

4.1.1 Front Elevation Facing East

The gable wall comprised a solid brick 225mm wall and is one of the older sections of the building. There is a door opening to the gable elevation.

The timber lintel supports to the opening to the east has failed causing cracking and deformation to the supported brickwork above and it is now in an unstable condition.

The gable wall has weathered significantly with failed brick faces in areas.

The remaining elevation appears to have been constructed more recently and is in fair condition with no major structural defects.

4.1.2 Side Elevation Facing South

Two gable wall sections were visible from this elevation separated by the infill drying shed.

The eastern gable comprised a 225mm solid brick wall and had a single brick arched door opening.

The wall appears true and level with no signs of major structural defect. Though the brickwork is damp and has signs of weathering in the lower sections.

The external walls to the drying shed had significant weathering with loss of brickwork face in areas.

The western gable comprised a 225mm solid brick wall and had a single timber lintel door opening. The lintel had failed causing distortion of the brickwork above. This is now in an unstable condition.

The remaining brickwork on this elevation appears true and level with no signs of major structural defect.

The south face of the old barn structure can be seen from within the more recently constructed drying shed. This comprised a solid brick 225mm wall. There are two windows a first floor level and two door openings at ground floor to this elevation.

The wall appears true and level with no signs of major structural defect. Though the brickwork is damp and has signs of weathering in the lower sections.

4.1.3 Rear Elevation facing West

This comprised a steel clad lean to light weight structure with block walls onto the old barn. This appears to have been erected recently to provide dry storage. It is intended to dismantle this structure so its condition is not relevant to this report.

4.1.4 Side Elevation facing North

This elevation formed the rear of the two storey section and comprised 325 solid brickwork at ground level and 225mm solid brickwork at first floor level.

There were two arched door openings to the ground floor and a door and window opening supported by a timber lintel. There is a window opening and one door opening on the first floor with timber lintel support.

The brickwork on this elevation is badly weathered with a loss of brick section in areas and in one place a localised collapse. The corbelled eaves detail is missing in parts and generally in a poor condition.

There is also a section of the single storey barn visible and comprised 225mm solid brickwork.

There was a single arched door opening to this section. The arch had failed with missing arch bricks. The structure above was supported by the remaining timber door frame.

4.1.5 **Vegetation**

There was no vegetation within a distance of the property that would affect its structural integrity.

4.2 **INTERNAL**

4.2.1 **Roof**

The roof remains original with no signs of refurbishment or repair. In areas there are signs of water ingress and the timbers are suffering decay with some areas indicating progressive failure.

In some areas the ceilings have been under-drawn and this is generally in a poor condition with localised failure.

4.2.2 **Foundations**

The foundations were not exposed but they will probably be corbelled brick footing at shallow depth.

4.2.3 **Walls**

Some walls are sand/cement rendered others remain exposed. The walls are generally in a fair condition and little sign of movement.

4.2.3 **Floors**

The ground bearing floors vary dependent on use. They are generally solid concrete however there are a number of openings and pits in some of the areas.

The first floors are timber with some signs of localised failure however generally they are level.

5.0 **CONCLUSIONS**

The building has suffered from a lack of maintenance in its life which has led to the observed defects.

The general structure however remains stable and could be utilised to form the basis of a building project once the recommendations of this report are carried out.

6.0 RECOMMENDATIONS

We recommend that the following works be carried out.

Foundations

Following submission of an approved scheme consideration should be given to underpinning the walls if the bearing pressures increase beyond the permissible ground bearing pressure.

Walls

All walls should be power washed and any defective bricks replaced. All joints should be re-pointed by an approved method.

Any areas of cracking should be rebuilt for a distance of 325mm each side from the face of the crack.

It would be advisable to take down the top few courses of each wall and rebuild to ensure the future integrity of the corbelled brick detail.

Roofs

All roofs should have the tiles removed and de-latted, The timber items can then be inspected for decay. In addition replacement and/or strengthening works will be required to some areas.

Openings

All openings should be strengthened by the introduction of new lintels.

All works should be inspected and approved by an Engineer upon completion.

7.0 GENERAL

Our inspection and report deals with the structural and conditional aspects as specifically commented upon.

We have not inspected for timber infestation/decay, dampness or tested services to the property unless specified in the report.

Sampling and testing of materials is beyond the scope of this report.

We have not inspected parts of the structure, which are covered, unexposed or are inaccessible and we are therefore unable to report that any such part of the property is free from defect.

This report is applicable to the condition and state of the building at the time of inspection. The building may be subject to deterioration in the future and the opinions expressed in this report may need to be revised accordingly.

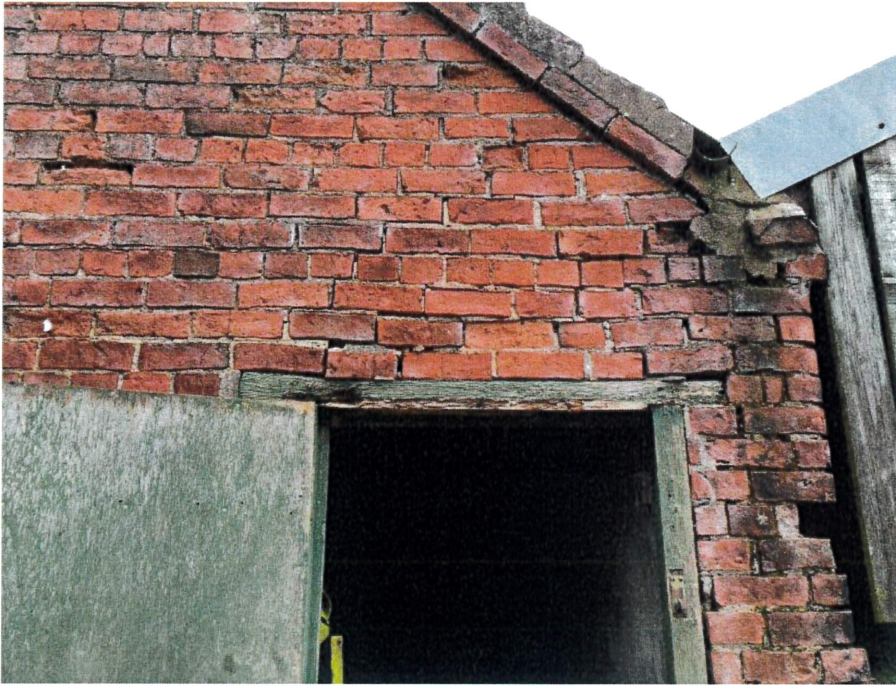
A photographic record has been taken and will be retained on our files.

Signed:

A handwritten signature in black ink, appearing to be 'S. Hirst', written in a cursive style.

**Steve Hirst BSc. C.Eng. M.I.C.E.
for GTCE Civil & Structural Consulting Engineers**

APPENDIX 1 - PHOTOS



Dislodge brickwork above door – South Elevation



Weathered brickwork – South Elevation



Rear Of Northern Barn Showing Infill Section



Failed Lintel Above Door – East Elevation



Trusses and Roof Covering North Barn



Dislodged Brickwork In Wall Panel– North Elevation



Failed Arch Above Door– North Elevation



Condition Of Timber Elements Western Barn
Were Roof Covering Collapsed



Roof Covering Collapsed - Western Barn