

BMC/BMC/MS02203

Mr P Voller
Tars Farm
Church Lane
Barnham

8th October 2013

Dear Mr Voller,

Tars Farm, Church Lane, Barnham.

Further to your recent instructions, we confirm we have visited the above to carry out a limited visual inspection so as to advise on the suitability for conversion to residential accommodation, and report as follows.

1. INSTRUCTIONS

- 1.1 Instructions were received from Mr Paul Voller, the property owner, to carry out a limited visual inspection of farm buildings so as to briefly report on their suitability for conversion to residential accommodation, in line with Architectural proposal drawings received from Folkes Architects.
- 1.2 The report is not to be considered as a Structural Engineers Report which would be substantially more detailed and would advise on obvious structural defects.
- 1.3 The Client's attention is drawn to the rear of this report for the Conditions & Limitations.

2. INSPECTION

- 2.1 The inspection was carried out by Brian McCarey BEng (Hons) CEng MStructE during the morning of 11th September 2013.
- 2.2 At the time of the inspection the weather was clear and sunny.

3. GENERAL DESCRIPTION

- 3.1 The site comprises of a collection of small farm buildings which combined with adjoining boundary walls form an enclosure around a central grassed area, all contained, like an island enclosure, within large open fields.
- 3.2 The collection of buildings included two serviceable large barns of masonry construction with tiled pitched timber roofs. There was a third smaller barn of similar construction but in a less serviceable condition. The other buildings were of varying lesser condition to the point of being collapsed.

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4. GEOLOGY

- 4.1 An inspection of the Geological Drift Map for the region indicates that the site stands in an area of River Terrace Deposits.
- 4.2 From our own local knowledge of the subsoil in this district we would expect moderately dense flint gravels with sand, silt and clayey layers.

5. OBSERVATIONS & RECOMMENDATIONS

Northeast Piggery. Building 1

- 4.1 This was a single storey structure with extremely low eaves height, the walls of which had been constructed of single leaf dense concrete block work.
- 4.2 The northwest corner of the masonry structure was partially missing. The southwest end of the building appeared to have been an open structure, possibly animal pens. The northeast end of the building appeared to have been once roofed.
- 4.3 The mortar jointing to the gable ends suggested that the roof was once of duo pitch and at some stage had been altered to a mono pitch.
- 4.4 The roof structure appeared to have long since collapsed with dense vegetation now present within the structure.
- 4.5 The northeast wall had been strengthened by buttressing.
- 4.6 Slight cracking was noted to the southeast elevation. Moderate cracking was noted to the northeast elevation.
- 4.7 A partly exposed foundation to the southeast corner of the building suggested a very shallow foundation, possibly a raft.
- 4.8 If the existing superstructure were to be retained then the masonry walls would require underpinning.
- 4.9 A damp proof course would need to be incorporated into the existing walls.
- 4.10 The existing walls would need to be extended in height in order to make the interior space usable.
- 4.11 Reconstruction of partly demolished walls would be required.
- 4.12 A complete new roof structure would be required.
- 4.13 Given the extent of works required, in our opinion, it would be more economical to completely demolish and reconstruct.

Northwest Barn. Building 2

- 4.14 This was a single storey large barn of solid dense concrete wall construction supporting a corrugated concrete sheeted roof.
- 4.15 A pair of large full height sliding doors were located centrally on the southeast front elevation.
- 4.16 Access to the barn was prevented by hay bale storage to the extent that it was impossible to determine the roof construction.
- 4.17 A partly exposed foundation to the southeast corner of the building suggested a very shallow foundation, possibly a raft.
- 4.18 Slight efflorescence was noted to the northwest rear elevation.
- 4.19 A localised section of gable eaves fascia was missing near the ridge.
- 4.20 If the existing structure were to be retained then it is likely that the external masonry walls would require underpinning. It is recommended that a trial hole be excavated adjacent to the external walls in order to assess the extent of the existing foundations.
- 4.21 A damp proof course would need to be incorporated into the existing walls.
- 4.22 The existing structure was in relatively good order and in our opinion economically worth retaining.

West Shed. Building 3

- 4.23 This was a single storey mono pitched roofed barn of timber construction with timber frame walls to the northwest rear and the northeast side, both of which were corrugated metal sheet clad. The cladding to the northeast side wall was heavily corroded and missing in places. The timber framing to the elevations was generally structurally inadequate.
- 4.24 The southwest side wall was of flint wall construction. The top of the wall was partially missing in places along with the southeast leading edge of the wall. The southeast elevation was fully open.
- 4.25 The roof structure, which was partially collapsing, was of timber beams supporting corrugated metal sheeting.
- 4.26 No ground floor slab was present with the inside simply being dirt finished.
- 4.27 The timber frame walls and roof will require demolishing and reconstructing in new on a new foundation.
- 4.28 The southwest flint side wall could be retained but would require underpinning and general repointing along with repairs to the top and southeast front end of the wall. A damp proof course would need to be incorporated into the existing walls.

West Enclosure. Building 4

- 4.29 This was a rectangular enclosure formed on three sides by flint walling the tops of which were in various degrees of decay.
- 4.30 The roof was missing.
- 4.31 A vertical crack was present on the rear wall with signs of previous repair.
- 4.32 The flint walls are unlikely to have foundations and would require underpinning and general repointing along with repairs to the top sections and cracked rear. A damp proof course would need to be incorporated into the existing walls.

Southwest Enclosures. Buildings 5 & 6

- 4.33 These were rectangular enclosures with missing roofs formed with flint walls to the rear and sides and separated by a dense concrete block wall.
- 4.34 The flint work was heavily weathered in places with decay to the top edge. The wall appeared to have been repointed in places with an inappropriate modern hard mortar, as opposed to a correct softer traditional lime mortar. The southwest corner section of wall was partially missing.
- 4.35 The southwest wall forming the enclosed collection of farm building was significantly out of plumb and partially ruinous.
- 4.36 The flint walls are unlikely to have foundations and would require underpinning and general repointing along with repairs to the top sections and corner section. A damp proof course would need to be incorporated into the existing walls.
- 4.37 The southwest section of wall forming the enclosed collection of farm buildings should be fully rebuilt.

Southeast Barn. Building 7

- 4.38 This was a single storey small barn of flint masonry construction with a slate tile covered timber partially trussed hip ended duo pitched roof.
- 4.39 Timber rafters were supported on inclined purlins which spanned between timber trusses.
- 4.40 No membrane was present with the tiles and battens being visible from within the structure.

- 4.41 Tiles were missing in localised areas of the roof with decay to the tops of the flint walling coinciding with missing sections of roof.
- 4.42 Vertical cracking was present to sections of the walling. The southeast rear appeared slightly out of plumb.
- 4.43 No ground floor slab was present with the inside simply being dirt finished.
- 4.44 If the existing superstructure were to be retained then the masonry walls would require underpinning.
- 4.45 A damp proof course would need to be incorporated into the existing walls.

East Barn. Building 8

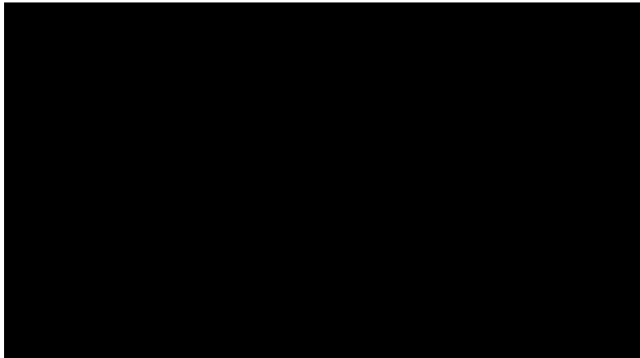
- 4.46 This was a single storey medium sized barn of dense concrete block work construction with a modern prefabricated trussed duo pitched roof supporting profiled concrete tiles.
- 4.47 No longitudinal or diagonal bracing was present to the trusses.
- 4.48 A concrete floor was present within the barn. This floor may be of raft type construction which may support the external walls of the barn.
- 4.49 A damp proof course was present to the single leaf external walls.
- 4.50 If the existing superstructure were to be retained then the masonry walls may require underpinning. Trial hole excavations would be required to confirm this.
- 4.51 Longitudinal and diagonal bracing should be added to the roof structure.

General

- 4.52 Generally a high percentage of the existing structures could be retained; however, the extent being retained is likely to be driven by economic considerations and the wish to retain as much of the flint/barn character of the site. The majority of the flint walls could be retained; however they are likely to require time consuming underpinning throughout.
- 4.53 Where being retained, all buildings will need to be upgraded to comply with current Building Regulations in respect of but not limited to;
 - a. Resistance to moisture from the ground. The majority of walls did not contain a damp proof course. Where ground floors were present, they appeared to be of ground bearing insitu concrete with no damp proofing evident.
 - b. Resistance to moisture from the outside. All buildings were of single leaf solid wall construction. The roofs, where present, were un-insulated with no membrane moisture protection present.
 - c. The general structure would require appraisal by calculation to confirm the adequacy of such things as roof members, wall panels resisting horizontal wind loadings, lintels and existing foundations, where present. The existing structures were for agricultural/out-building use and would not have needed to comply with more rigorous domestic requirements. Standard domestic building practice would need to be followed in terms of such things as strapping roofs and floors to walls etc.

We hope the above is clear and meets with your approval. If you have any queries or wish to discuss any point raised then please do not hesitate to contact us.

Yours sincerely



BRIAN McCAREY
McCarey Simmonds Limited





Northeast Piggery. Building 1



Northwest Barn. Building 2



West Shed. Building 3



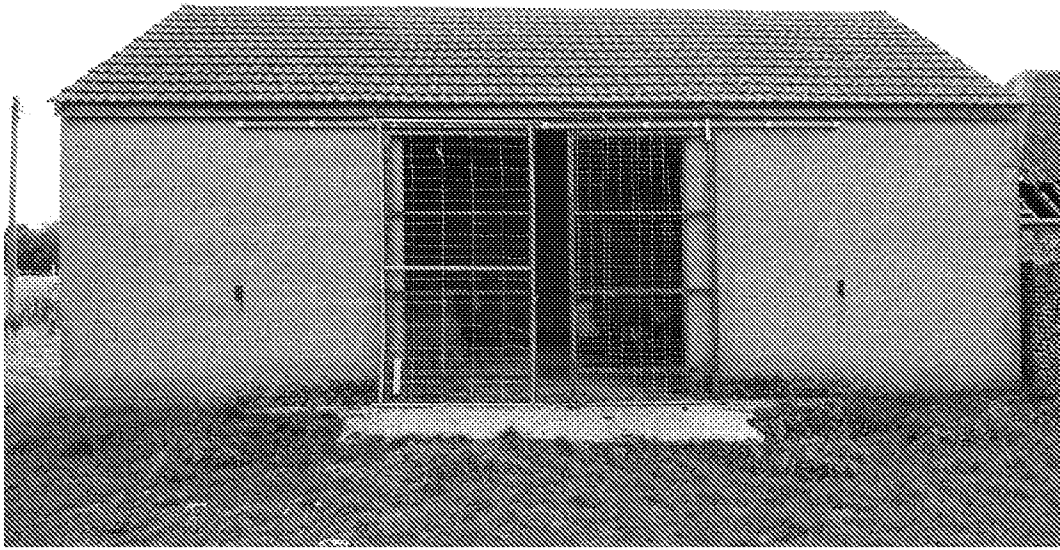
West Enclosure. Building 4



Southwest Enclosures. Building 5 & 6



Southeast Barn. Building 7



East Barn. Building 8

STRUCTURAL ENGINEER'S INSPECTION – CONDITIONS & LIMITATIONS

1. The report is a record of a visual inspection carried out by, or under the direction of a Chartered Civil or Structural Engineer and must not be misinterpreted as a Structural Survey, such as would be carried out by a Chartered Surveyor. The report is not a Valuation Report.
2. The inspection is strictly limited to the items requested and these will be detailed in Clause 1 of the report. No consideration will be given to any other aspect or parts of the building.
3. The report is confidential to the Client(s) stated in Clause 1 and has been prepared to their instructions for their own purposes only and it is not permitted to disclose this report to any other parties (except the Client's own Solicitors, Surveyors, Building Societies or Estate Agents) without the prior consent of McCarey Simmonds Limited.
4. The copyright of this report remains the property of McCarey Simmonds Limited.
5. No liability for the contents of this report is accepted to any parties other than the Client(s) stated in Clause 1. No parties other than the Client(s) stated in Clause 1 should rely upon this report.
6. Unless specifically stated otherwise:
 - 6.1 Trial holes will not be excavated prior to the preparation of the report and the depth and construction of the foundations and type of sub-soil will not be inspected.
 - 6.2 All external observations will be carried out by eye from the ground level only. Internal inspection is made within the limits of ready accessibility and it is not normal practice to lift floor coverings or floorboards, remove fixtures, panels or plaster or move heavy items of furniture or bulky goods or materials.
 - 6.3 No inspection will be made of any roof voids, floor joists, wall cavities, drainage pipe work or any other hidden or inaccessible parts.
 - 6.4 No timbers will be checked for damp, rot, infestation by wood-boring insects or other defects.
 - 6.5 It should not be construed that any parts of the construction comply with the requirements of the Building Regulations Act or standard practice either current or as current at the time of the original construction. No enquiries to any Authorities will be made.
 - 6.6 No testing or enquiries into the presence of or susceptibility to pollution, contamination, radiation, methane, radon or other gases or hazardous substances has been carried out.
7. Unless specifically stated otherwise in the report, any recommendations for works given in the report are outline only and are to be confirmed or modified as appropriate as detailed design stage.
8. Where trial holes are specifically included in our instructions the condition of the footing and the founding soil relates only to the point of excavation and does not necessarily confirm a continuation of the same conditions throughout the non-inspected areas of the structure. Whilst such trial pits will usually provide a reasonable indication as to the general state of the foundations and ground conditions, these cannot be determined with complete certainty.
9. Under the Construction (Design & Management) Regulations 1994, the Client has obligations for ensuring Health and Safety arising from any construction work. If it is proposed to proceed with construction work based upon information or recommendations contained in this report, these regulations probably apply. Further details of any issues arising from our report or the Client's obligations generally are available on request.
10. Unless dealt with more specifically above, the Association of Consulting Engineers Conditions of Engagement 1995, Agreement D applies, including optional clauses 2.11, 3.7, 8.1A, 8.1B and 8.1C. Optional clauses 8.2A, 8.2B and 8.2C do not apply.