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BJW/ESH/18/185  
18<sup>th</sup> October 2018

Ms Josephine Fox  
Progress Farm  
Base Green Road  
Wetherden  
Stowmarket  
IP14 3LR

Dear Ms Fox,

**Barns at Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR**  
**Report on Building Condition**

Further to my site visit and in accordance with your instructions I confirm my report and recommendations as follows:-

**1. Introduction**

- 1.1 The survey and inspection was carried out on the instruction of Ms Josephine Fox.
- 1.2 There are a number of buildings at the farm numbered 1-9 on the plan provided to us prepared by Lacey Scott & Knight LLP. This inspection and report is limited to Barns 2 and 7 only.
- 1.3 The purpose of the inspection was to assess the principal structural elements of the buildings in order that a report can be given on the overall condition and capacity for the buildings to be converted to residential use.
- 1.4 The inspection was carried out on Tuesday 4<sup>th</sup> September 2018 in warm and dry conditions.
- 1.5 References to left and right are given as if standing in front of the building facing the principal elevation. For barn 2 this is the south elevation and for barn 7 the east elevation.
- 1.6 A selection of photographs is appended at the end of the report.

**2. Barn 2**

**Description**

- 2.1 This building is a purpose-built agricultural building of steel post and beam frame construction, four bays with intermediate columns supporting the ridge. To the left

- hand side a steel framed lean-to extension has previously been added in similar form.
- 2.2 There are hollow concrete block plinth walls up to approximately 1.5m in height. The roof is clad with corrugated steel sheeting and some translucent sheets providing daylight. The walls are clad with a mixture of undecorated plywood sheeting and vertical timber (Yorkshire) boarding. The rear elevation has single sheet steel profile cladding.
- 2.3 There are a number of door openings principally to the main front (south) elevation, some fitted with sliding doors.
- 2.4 The floor construction is cast concrete which, given the slope of the existing site, is stepped through the building.
- 2.5 We did not carry out any excavation or opening up works so cannot comment on the nature and detail of existing foundations. However, we would anticipate that given the age and construction of the building the steel columns are on concrete pad foundations with a shallower perimeter strip foundation supporting the plinth walls. This will need to be confirmed prior to any construction work.

### **Observations**

- 2.6 The roof covering is supported on timber purlins running between the portal frame rafters. There is evidence of some sheeting having been replaced over time and evident damage to others including a missing translucent sheet. This will allow significant water ingress and there was evidence of decay to some timber purlins.
- 2.7 It is envisaged that the roof covering and purlins will be renewed as part of any conversion works to ensure watertight and properly insulated structure.
- 2.8 Although the steel framework is in reasonable condition there is some delamination of steelwork columns particularly at low level. This may require some treatment or provision of strengthening plates as part of the conversion works subject to further advice from Structural Engineer or the Building Control Authority.
- 2.9 We also noted that there is no continuous eaves beam between stanchions at roof level and would anticipate that this needs to be provided to give lateral stability and secure compliance with Building Regulations. The structural requirements for an agricultural building are less onerous than those for a residential building.
- 2.10 The concrete block plinth walls are in a reasonable condition for the most part or there are some areas of damaged blockwork and missing mortar which will need to be repaired.
- 2.11 There is significant weathering and erosion of blockwork to the attached lean-to section to the left hand flank wall and rear wall which may necessitate some of the infill block panels being reconstructed.
- 2.12 The timber and plywood cladding to the exterior walls is severely weathered and in generally poor condition and we would expect this to be renewed with new insulated cladding as part of the conversion works in compliance with Building Regulations requirements.
- 2.13 For the most part rainwater gutters and downpipes are defective or missing and require complete renewal.

### 3. Barn 7

#### Description

- 3.1 This is a two storey structure of nine bays with timber posts with steel base/shoe connecting to the pad foundations, concrete blockwork infill panels at ground floor level and vertical timber boarding at first floor. The roof is covered with corrugated steel sheeting.
- 3.2 Internally the building is divided with concrete block walling at ground floor level to form individual pens in the left hand part and more open plan arrangement to the right hand half with low block walls and railings forming penned areas.
- 3.3 The central section which has a slightly raised roof houses the staircase access to first floor.
- 3.4 The first floor is constructed of timber joists on intermediate timber beams supported on external wall and intermediate posts.
- 3.5 The roof is constructed of site framed timber trusses with timber purlins spanning between.

#### Observations

- 3.6 The roof covering is a mix of corrugated steel sheeting, some galvanised, some not. Consequently, there are a number of corroded sheets and trims.
- 3.7 It is envisaged that the roof covering and purlins will be renewed as part of any conversion works to ensure watertight and properly insulated structure.
- 3.8 The timber roof trusses appear to be at the limit of their ability as there is evidence of distortion and deflection of the bottom cords. It is our expectation that these elements will require some strengthening to support the new insulated roof covering required to meet Building Regulations requirements in conversion.
- 3.9 The timber purlins also show signs of decay and infestation by wood boring insect and again we would anticipate these will be renewed with any new roof covering.
- 3.10 The vertical timber cladding at first floor level is in generally moderate to poor condition with a number of missing boards and boards showing signs of timber infestation and decay. As this is vertical Yorkshire boarding we would anticipate that new insulated wall cladding will be required as part of any conversion works.
- 3.11 The boarding is supported on a loose framing of studs and rails between the main storey posts. We anticipate further infill wall construction will be required to fix any new cladding.
- 3.12 The concrete blockwork at ground floor level is in reasonable condition although there are areas of eroded blocks and mortar joints and some cracked blockwork which will require localised repair as part of the conversion works.
- 3.13 The intermediate timber posts forming the structural support for the building are of modest section size and all exhibiting severe timber decay at lower level with corrosion and delamination of steelwork at ground level to a greater or lesser degree. Although not compromised at this time these will require splice timber repairs, treatment and strengthening plates as part of any conversion works.
- 3.14 The first floor structure has timber boarding over the timber joists. There are signs of infestation by wood boring insects and timber decay which will require treatment as part of the conversion works and may also necessitate some repair or

replacement of severely affected individual joists. We anticipate that the entire floor boarding will be renewed with a modern timber deck.

- 3.15 The existing floor is cast concrete which is generally reasonable condition although eroded. There is a large hole to the left hand side front which will need to be repaired as part of any conversion building works.
- 3.16 We did not carry out any excavation or opening up works so cannot comment on the nature and detail of existing foundations. However, we would anticipate that given the age and construction of the building the steel columns are on concrete pad foundations with a shallower perimeter strip foundation supporting the plinth walls. This will need to be confirmed prior to any construction work.
- 3.17 To the rear of the building in close proximity is a significant tree and hedgerow which forms the boundary with the adjoining property, The Old Rectory.

#### **4. Conclusions and Recommendations**

##### **Barn 2**

- 4.1 This is clearly the more modern and substantial of the two buildings inspected and is in reasonable condition commensurate with its age and method of construction. It would be suitable for conversion to residential accommodation without wholesale demolition although some isolated repairs will be required as identified together with replacement roof and wall cladding.
- 4.2 Although there are some door and window openings in the building it is envisaged that there will be additional and resized door and window openings required for the conversion to residential use.
- 4.3 The existing concrete floor will be suitable as a base although a new insulated floor will be required as part of the conversion works complete with damp-proof membrane to comply with Building Regulations requirements.
- 4.4 As mentioned in the report it is expected that in providing a new insulated roof covering new purlins will also be provided. As part of this process we expect that the design Structural Engineer will check the design of the existing steel rafters and columns and recommend any strengthening, bracing etc. that may be required.
- 4.5 It is envisaged that gutters and downpipes serving the building will be completely renewed and run to a new surface water disposal system.

##### **Barn 7**

- 4.6 This building is in a less satisfactory condition being what appears to be an older building and of less substantial construction. However, we are of the opinion that subject to some repair and strengthening of the existing columns, roof and floor elements the building can be converted into residential accommodation without wholesale demolition.
- 4.7 The roof and roof trusses will need some strengthening and additional support to carry the new roof loads and cladding.
- 4.8 The external wall storey posts will need splice repairs near ground level where they are currently decayed and refixed to the steel shoe supports.
- 4.9 Damaged and defective blockwork will need to be repaired.
- 4.10 All rotten and decayed timbers to the first floor roof and lintels etc. will need to be replaced with remaining timbers treated to eradicate insect and fungal infestation.

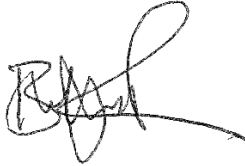
- 4.11 The exterior wall cladding we anticipate will be replaced with new insulated wall cladding as part of the conversion works.
- 4.12 The existing concrete floor will be suitable as a base although a new insulated floor will be required as part of the conversion works complete with damp-proof membrane to comply with Building Regulations requirements.

**General**

- 4.13 Two small test pits should be excavated adjacent exterior walls on both barns in order to assess the existing foundation depth and ground conditions. These excavations should be inspected by the Building Control Authority and Design Structural Engineer when appointed.

I trust this is suitable for your present purposes, however if you require any further information or clarification please do not hesitate to make contact.

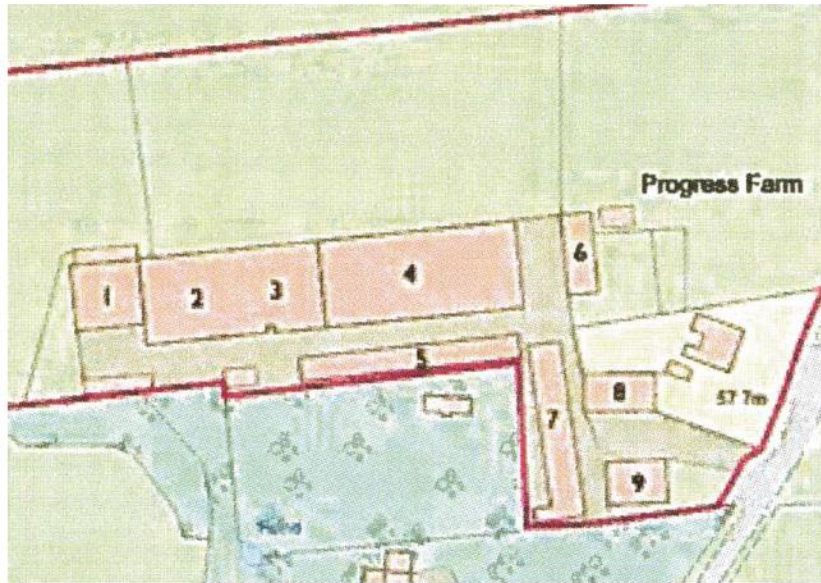
Yours sincerely,



**B. J. Whymark, MSc, FRICS, C.BuildE, FCABE**

**Enc.**

SITE PLAN



BARN 2





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Report on Building Condition



BARN 7

