

04 December 2019  
NS19/012/DC/AH

Mr A Chaplin  
Rook Hill Farm  
Ipswich Road  
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IP8 4SF

Dear Sir

## ROOK HILL FARM BARN, OFFTON, SUFFOLK – STRUCTURAL ENGINEER'S INSPECTION REPORT

### 1.0 INTRODUCTION

We were instructed by Mr Andrew Chaplin to undertake a structural engineer's inspection of Rook Hill Farm Barn to appraise the condition of the barn and establish whether sufficient structural elements remain to be reused in a conversion to residential use. Our report is therefore limited accordingly.

### 2.0 DETAILS OF SURVEY

The property was inspected on Monday, 11<sup>th</sup> February 2019. A survey was undertaken from ground level externally and internally of the range of barn buildings. Weather conditions at the time of our inspection were dull and overcast following periods of overnight and morning rain, and with winds increasing throughout the morning. Photographs of the structure are located within Appendix A of the report and Key Plan within Appendix B.

### 3.0 GENERAL DESCRIPTION

The buildings comprise a range of agricultural barns, comprising the main barn, to be referred to as barn 1, a traditional timber framed Suffolk barn clad with black stained weather boarding, to which is annexed an open fronted cart lodge, barn 2, presenting a wing to the east side of barn 1, and a further single storey addition to the south of this, barn 3, creating a courtyard and providing further storage for agricultural vehicles.



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The ground levels generally fall from north to south across the site with the cart lodge, barn 2 partially embedded into the slope, with the external walls acting as semi retaining walls. There are various types of vegetation around the building, including the presence of shrubs and ivy, and with matured deciduous trees present to the west, approximately 22m from the southwest corner of barn 1, and with a young oak tree, approximately 15m remote to the west.

To the north of barn 1 young elderberry trees are present within the recess between barn 1 and 2 and a mature deciduous tree is located approximately 3m north of this point. Vegetation is extensive along the north wall of barn 2 with extensive ivy growth over, obscuring much of the wall and roof behind, in conjunction with a young sycamore tree sprouted from the east end of the range. Ivy growth is generally more concentrated at the western end of barn 2, diminishing towards the east. Similar heavy vegetation growth is present throughout the courtyard area, with ivy growing over the south roof slope and wall of barn 2, extending across the north end of barn 1, and extensive growth across the north facing wall of barn 3 (see photograph 1).

#### **4.0 DETAILED OBSERVATIONS**

##### **External Observations**

##### **4.1 *Barn 1***

##### **North Elevation**

The north elevation is substantially obscured by ivy growth. A small area of the north wall is visible, which reveals the timber cladding. A small portion of the cladding has been lost at the top of the wall due to decay and wind action, revealing the timber stud framework behind. There is evidence of decay to the surface of the structural timber visible and the remains of the traditional hand cut nails can be seen where the cladding has been removed. The ivy has also grown underneath the gable bargeboard and is migrating underneath the tiles loosening a few of these towards this end of the building.

The brick plinth supporting this area of the north timber framed wall is largely obscured by vegetation at ground level, with the sole plate partially visible approximately at ground level. Also visible is the slate packer / DPC which has been constructed beneath the cill / sole plate. Where visible, despite this low level, the cill plate appears in good condition.

### **East Elevation**

The east elevation presents the primary entrance to barn 1 through the enclosed courtyard area. The elevation is substantially obscured by vegetation in the form of a sycamore tree to the right hand side of the door opening and extensive ivy growth to the north of this. To the left hand side of the door opening young elderberry trees are present.

The barn structure comprises timber weatherboarding onto the timber frame structure behind. The timber frame walls are supported on a tall brick plinth to this elevation, which rises approximately 2.3m above ground level and therefore positions the current sole plate, believed to be the original girt beam, way above the damp ground around. A degree of racking of the timber frame can be observed at the door opening with movement of the principal structural posts being apparent in the north direction.

The roofline presents as an undulating plane with deflection of both the ridge and the roof plane itself occurring along the structure. Dipping of the roof plane around the purlin location can be observed to the south of the elevation with further dipping occurring over the main door entrance (see photograph 2).

### **South Elevation**

The south elevation is the gable end of barn 1 which is substantially clad in timber weatherboarding (see photograph 3). This arrangement at the south end appears to be a relatively modern construction with timberwork supported on an improved plinth of modern red brickwork laid in sand and cement mortar and in stretcher bond coursing. This assembly is supported on the concrete floor slab of the barn, which suggests that the barn has been shortened in length at this location. The remains of the original brick plinth can be observed to the south of the floor slab, suggesting a modern intervention and probably replacing decayed original south gable end at some point. The original brick plinth has deteriorated, with the whole rotating outwards and southwards at the top, with extensive open joints, loss of bricks, cracks and spalling occurring along the length. This has permitted an inspection of the modern concrete slab edge and this too shows signs of damage, with pockets and voids being apparent beneath the slab edge, possibly due to rodent activity or washout from the splashback of rainwater. Whilst this does not appear to have affected the brick plinth and timber gable ends supported above, this would need reviewing in any conversion plans (see photograph 4).

### **West Elevation**

The west elevation of barn 1 presents a predominantly timber clad elevation with feather edged weatherboarding, as elsewhere. This is substantially present on the elevation with historic repair patches apparent and a few localised areas of loose boards and / or missing boards. A single pedestrian door is present within the approximate centre of the elevation and the pattern of weatherboarding here and the termination of the brick plinth in the centre of the structure suggests that this area would originally have been a large door opening for the unloaded carts when they egressed the barn. The brick plinth is in variable condition with evidence of repair and renewal towards the northern end. Generally, the brickwork is of soft Suffolk red bricks laid in lime mortar which has weathered and eroded in various areas along the length of the wall. Vegetation growth is apparent toward the southern end of the wall with remnants of render at the south corner of the brick plinth. The alignment of the plinth is variable with evidence of it bellying outwards along its length. This coincides with lateral movement of the timber frame structure above.

The roof presents in an undulated fashion as per the east elevation, however, the dipping of the roof plane is less apparent on this face with only the ridge undulation most obvious (see photograph 5).

## **4.2 Barn 2**

### **North Elevation**

The north elevation is substantially obscured by ivy growth and with the visible wall portions at eaves level showing bricks in conjunction with flintwork panels. Flint cobbles have been laid unknapped generally, in a lime mortar matrix. This construction continues for the entire length of the north elevation. The roof is supported directly onto the walls via a timber wall plate and with the roof construction comprising clay pantiles overlying timber rafters and purlins. The roof generally presents as reasonably uniform with minor ridge undulation where visible and with a reasonably level eaves line. As previously noted this elevation supports the lateral pressure from the ground as barn 2 is partly embedded into the slope at this location. The wall presents in reasonable condition with minor loss of flintwork towards the eastern end of the elevation and with relatively minor mortar loss where the wall is visible (see photograph 6).

### **East Elevation**

The east elevation presents the gable end. The gable itself is typical weatherboarded and presenting in good condition. There is evidence of historic ivy growth, mainly on the weatherboarding. The gable is supported on a red brick wall beneath with the external face of brickwork presenting in a random bond with bricks laid vertical and diagonally along the elevation. These are set between red brick quoins at each end of the elevation. The quoins have been augmented with the addition of sand and cement facing. There is minor loss of mortar in random areas across the elevation and with minor fracturing present towards the northern end of the location of an imbedded metal fixing. Bricks appear in good condition generally with relatively minor spalling and rounding due to weather action (see photograph 7).

### **South Elevation**

The south elevation of barn 2 presents the open cart lodge placed at the east end of the elevation and with closed storage buildings, probably former animal enclosures, at the west end.

The east end presenting the cart lodge is simple construction of beam and post arrangement with a substantial 75mm wide x 280mm deep timber beam present at eaves level, supported on a 160mm diameter timber post. The post still contains the original bark in places and is supported on a concrete or rendered brick plinth. A steel channel section is present beneath the eaves beam, and measures 125 x 65 and is providing additional support at the centre span onto the timber posts.

The west end of this elevation is largely obscured by ivy growth and therefore cannot be commented upon. The roof generally undulates, as previously advised, with dipping in the cart lodge area apparent (see photograph 8).

### **West Elevation**

The west elevation presents a small area of structure comprising a timber clad gable overlying brick walling beneath. A large portion of the flintwork panel has collapsed outwards revealing the inner brickwork lining. The remaining flintwork and brickwork are in good condition with the flint cobbles generally unlapped, laid in lime mortar as elsewhere (see photograph 9).

### **4.3 Barn 3**

#### **North Elevation**

The north elevation is substantially obscured by ivy and vegetation growth. It was not possible to observe this structure behind generally, however, where small pockets are visible, most typically abutting barn 1, a timber weatherboarded wall above the brick plinth was visible. The roof consists of corrugated iron sheeting bearing onto traditional timber work.

#### **East Elevation**

The east elevation presents the gable end and this is substantially open to the elements to permit historic storage of farm vehicles, assumed. The gable end comprises a timber frame construction with a weather clad finish and bearing onto tall brickwork plinths. There has been damage to the timber frame possibly from impact damage and this has resulted in localised dislodging of the framework in an easterly direction.

#### **South Elevation**

The south elevation comprises a similar roof construction as before with walls of weather clad timber framing built above a brickwork plinth. The brick plinth is in good condition where visible (see photograph 10).

Gable end to the east and comprises timber clad gable and upper wall bearing onto a brick plinth as elsewhere. The brickwork plinth is laid in stretcher bond of red brick and sand and cement mortar. It generally presents in good condition.

#### **Internal Observations**

### **4.4 Barn 1**

Barn 1 is a traditional Suffolk timber framed building of five bays with a central door opening in the middle bay. Bays are formed by structural timber bay posts tied across at eaves level with structural timber tie beams and supported on the jowled perimeter wall plate. The walls are typically timber studs built off the cill beam and with a mid rail / girt beam present to the north, east and west elevations and with the south gable end elevation having been reconstructed.

The roof comprises a simple form of construction which is believed to be a later shallow pitch addition, comprising common rafters bearing onto a single purlin located asymmetrically (nearer towards the ridge than eaves), which in turn is braced against intermediate collars. Collars are located on approximately every fifth rafter. There is no strutting or additional support to the purlins or the rafters along the roof slope.

Longitudinal bracing to the roof has been provided by braces fixed between the gable rafter and the wall plate at each end of the building. The roof members do appear relatively slender in relation to their span and this is most apparent at the southwest corner of the building. The detailing here is unusual in that the rafters have been cut and spliced onto the bracing member, which is required to support the entire loading. It is further complicated at this location due to a split in the purlin.

The timber frame has been altered over the years as is commonplace for agricultural buildings from this period. The immediately obvious change is the removal of some of the arch braces connecting the bay post to the lateral tie beams. Two No. arch braces remain on the western elevation at grid reference C1 and D1. Please refer to the sketch within the appendix for location of grids. Elsewhere, replacement knee braces have been employed. Further alteration is apparent at the southern gable, as previously reported, with the majority of the gable end having been replaced with softwood timber studs replacing the original hardwood. The studs rise from a blockwork plinth with a brick outer skin, the plinth being constructed directly off the concrete floor slab. The blockwork plinth is approximately 900mm high supporting a sole plate and studs measuring 75mm wide x 150mm deep and spaced at 60mm centres. These continue upwards until they meet tie beam where they are terminated. Smaller softwood sections continue above this point to create the gable triangle.

There is obvious movement in the timber frame as predominantly occurring on the west elevation where the outward roll of the brick plinth has caused the base of the studs to move similarly and tending to drag the base of the bay post and studs with them. This has led to an opening up of the joints between the bay posts and the tie beams at eaves level. Movement in some areas is quite extensive and has led to splitting of the jowled post tops and this is noticeable at locations A3, B3, C3, D3 and E3 (see photograph 11).

Two large grain cylinders are located within the footprint of the barn, predominantly in the centre bay and in the northernmost two bays. These partly obscure sight lines throughout the barn, although it can be observed that these have been constructed around the arch brace of gridline C1. Above the column at this location the wall plate is split and a rudimentary repair undertaken at some point.

Racking of the timber frame here occurs in a norther direction and measures approximately 3° from vertical. Lateral movement measures approximately 1.2° to 1.6° from vertical (see photograph 12).

Towards the northern end of the building the concrete floor level changes, raising by approximately 100mm in height. The concrete has been continued up the face of the inside of the brick plinths in the form of concrete render, which continues around the northern gable end. At the northern end, holes in the external timber cladding have permitted moisture ingress and this has lead to localised decay of the girt beam at the northern end, at the junction of the west wall plate and the northwest timber bay post, and localised decay of stud feet and the tops of the sole plate. These defective areas are relatively localised however, the majority of the remaining timber frame is presenting in good condition. In this location it appears that the knee brace of bay post of E1 is abutting the grain tank, suggesting the grain tank is now supporting partial loading from the timber frame. Splits in the jowled bay post behind the knee brace are also apparent at this location.

The relatively modern timber infill can be observed to the former western door opening. This has been formed using smaller section timber, but with a mid height girt beam just above the head of the door, with the assembly supported on the formed concrete edge of the ground floor.

On the west elevation it would appear that the historic timber frame between the ground level and girt beam had at some point decayed warranting reconstruction in the brick and flintwork walling which is present up to the girt beam. This is visible both internally and externally and presents in reasonable condition. Towards the southern end of the building traditional diamond ventilation slots are present, although these have deteriorated in places leading to partial collapse of the brickwork assembly. Flint cobbles are laid in a lime mortar matrix in between red brick quoins. There is minor evidence of movement in this assembly, however this is within expected condition parameters (see photograph 13).

## **Barn 2 – Cart Lodge**

The cart lodge features a vaulted roof construction comprising common rafters bearing onto an a symmetrically located purlin towards the ridge, as previous. This is in turn supported laterally by intermediate collars located on every fifth rafter as per barn 1. At the collar locations the rafters have been increased in width to 60mm to add to the form of principal rafter. A central circular section tie beam, approximately 200mm diameter is present, tying the wall plate on the north side to the plate on the south side. An isolated area of moisture has occurred in the north eastern corner of the roof although relatively small scale (see photograph 14).



A diagonal crack is present in the eastern gable end, visibly internally but not externally. The crack measures approximately 15mm width and typically follows bed and perpendicular joints, however has fractured through two bricks on its journey through the masonry. The timber gable above is weatherboarded as per external face.

The northern wall presents the flintwork panels in between the soft red brickwork quoins and this appears in good condition, albeit partially stained with moss growth due to historic moisture ingress at this location. At the division wall between the cart lodge and the adjacent cattle sheds is solid red brickwork presenting in good condition. This has a timber stud wall above supporting a gable triangle and weatherboards and this too appears in good condition. The cattle shed buildings feature a solid concrete floor in part and the presence of extensive rubble which appears to relate to the north walls. A large area of the north wall has been reconstructed in concrete blockwork and laid in sand and cement mortar. There is a partial flat ceiling above this area comprising timber boards onto timber joists. This is assumed to have acted as a feed store or similar. The remains of the cattle stalls are present towards the east end of the area. The roof cannot be observed at this location clearly however a brief inspection suggests common rafters supported on purlins and collars, as per the cart lodge end of the building (see photograph 15).

The remaining walls are either solid brickwork or flintwork panels as elsewhere and present in reasonable condition. The storage area leads through to a further small room to towards the western end, which is located at the immediate north end of barn 1. The floor level increases by approximately 100mm and reveals a mono pitch roof construction comprising common rafters bearing onto a mid purlin. The purlin is of greater dimensions than previously, measuring approximately 100mm wide x 100mm deep and spans the full width of this room. A central tie beam is present connecting the eaves level of the lean-to to the north end of barn 1. There is extensive vegetation growth within this space as a result of the ivy above which has penetrated into structure and therefore daylight is relatively limited. There is also extensive storage materials on the floor, however, from a preliminary inspection residual structures appear to be in fair condition.

### **Barn 3**

Barn 3 is a simple structure comprising a raised collar tie truss roof supporting five purlins per roof slope and corrugated iron sheeting above. This assembly is supported directly on short timber frame stud walls to the externals, which in turn are supported on a brick plinth, approximately 100mm wide brickwork laid in stretcher bond and stiffened with piers along its length. The roof construction is very lightweight and the arrangement of high level collars does not adequately support the outward thrust of the roof. Consequently there has been a degree of outward movement of the timber frame walls

supporting the roof. There also appears to have been moisture ingress, as the extensive build up of silt and mud on the concrete floor was very damp and wet at the time of our inspection. This may have originated from the open gable end on the east elevation which has permitted moisture to enter the building with the affects of wind driven rain. The extent of this moisture ingress does continue through to the rear most end of this barn at its abutment with barn 1. This building was used for the storage of farm machinery, many of which are still present (see photograph 16).

## **5.0 LIMITATIONS**

The structural inspection is a specialist survey, whose purpose is to enquire into the structural stability of the building.

The work of a structural inspection consists of a visual inspection of all accessible parts of the building, assisted by a check for abnormal distortions where practicable. Reference may be made to local geological conditions, and to records of structural damage to other houses in the vicinity.

The limitations of structural inspections are similar to those of most other domestic surveys. We are not permitted to dig trial holes, lift floor coverings or remove decorations. We will therefore remain unaware of hidden defects or unusual construction details. In most cases, these limitations are not important, because structural problems are usually evident on the surface (walls, ceilings, door openings) before they become severe. But it does mean that we cannot detect problems that are latent or concealed. We always recommend, regardless of the structural condition of the building, that the owners maintain cover for all insurable perils, as these are never 100% predictable.

Except where specifically noted otherwise, our advice is concerned solely with current structural performance, and we do not report on the condition of finishes, waterproofing, damp penetration or timbers.

We recommend carrying out structural maintenance as part of good housekeeping, the most important tasks being:

- Ensuring drains remain free flowing and watertight
- Ensuring vegetation does not grow uncontrolled close to the building
- Ensuring the building remains weatherproof
- Repairing or replacing deteriorated materials
- Taking professional advice on any proposed alterations or extensions

We can provide detailed advice on structural maintenance if requested. We are not able to detect the presence of asbestos materials. We can provide standard literature on the risks associated with asbestos, if requested. This report is for our client's personal use, and is confidential, non-assignable and carries no admission of liability to any third party.

## **6.0 DISCUSSION & CONCLUSION**

It is apparent that the barn complex has received relatively little maintenance during its' lifetime. That said, there have been areas of repair and reconstruction, such as the south gable of barn 1, the application of a roofing felt to barn 1 and to the rear of the north wall in replacement blockwork to barn 2. Nonetheless, despite this low maintenance regime, the buildings have weathered well and there is substantial structure remaining which can be considered for reuse in the proposed conversion project.

In consideration of barn 1, the most notable deviation from its original built form is the lateral and longitudinal movement of the timber frame. This was recorded as approximately 1.2° to 1.6° rotation from vertical laterally and approximately 3° rotation from vertical longitudinally – known as racking. Whilst the lateral rotation is of a relatively modest degree, the movement has nonetheless contributed to splitting of some of the vertical bay posts and this has weakened the joint between the jowled post and tie beam. This has occurred in a number of bay post locations across the building. It would further appear that the lateral movement is partially being buttressed by the presence of the grain storage bins within the barn footprint.

The current roof of barn 1 is relatively simple in nature and comprises cut common rafters supported on a small section purlin which in turn is restrained by intermediate collars on every fifth common rafter. This arrangement appears to be a later construction and it is expected that the original roof would have been a steeper pitch comprising a form of roof trusses or principal rafters with collars and struts onto tie beams. Nonetheless, the current roof configuration is satisfactorily supporting the existing loading, however it is likely that this arrangement will need augmentation to limit further deflection of the common rafters and to satisfy the general requirements of the Building Regulations Part A.

There are isolated areas where rainwater has penetrated through the fabric of the structure, both at roof level and through the external walls. This has caused localise decay of the rafters, wall plates and timber studs. These are small localised areas however, and can be addressed by conventional timber repair techniques.

It appears that the west elevation of barn 1 has received significant alteration with the studwork between the sole plate and girt beam / rail having been replaced with flintwork panelling and brickwork quoins. This is likely due to deterioration of the former timber elements and their subsequent replacement is performing adequately. There is minor dislodgement of brickwork forming the ventilation diamond in the flintwork panel, however this can be readily corrected in the course of the conversion process.

There is an existing concrete floor throughout the barn with a level change on gridline D. It is likely that this floor will be removed to facilitate the necessary construction of an insulated ground floor slab for the purposes of habitation. In order to achieve two storeys, it is often necessary to lower the ground floor level and this, in conjunction with the condition of the low lying brickwork plinth walls on the north west and to a certain extent, south elevation, will require either underpinning of the existing brick plinths, or partial reconstruction on new foundations. Of note, the south gable end is constructed on a modern brickwork plinth, constructed directly on the existing concrete floor slab. This arrangement will require consideration going forward for long term stability and it may be desired to reconstruct the south gable wall on the original alignment to reinstate the original building footprint.

Barn 2 features very attractive flintwork walls to the north elevation and diagonally bonded brickwork to the east gable end elevation. The condition of both, where visible appears to be fair to good and with modest degree of weathering to each. A diagonal fracture was noted to the inner brickwork lining of the east gable, however, this appears historic and generally follows the mortar joints. It is considered capable of easy repair during the conversion. Elsewhere, brickwork of the north elevation has been replaced internally with concrete blockwork laid in sand cement mortar. The origin of this is unclear, however, debris present on the floor surrounding this area suggests that there was a partial collapse of the original masonry, warranting a repair to stabilise the external flint and brick skin.

A traditional timber roof has been provided to barn 2 comprising common rafters supported on a purlin to each roof slope. The purlins in turn are restrained / supported onto collar members which are nailed to oversized common rafters which are acting as principals. This assembly is functioning adequately for the current loading. They will require additional eaves level ties to assist with the expected imposed loading required for building regulations to counter horizontal thrust at eaves level. This could be undertaken in the form of traditional timber ties or alternatively by cross walls inserted within the building footprint, which will no doubt be required in the compartmentation of the barn to create habitable spaces.

A small area of flint panelling has collapsed in the west gable of barn 2, however the internal brick lining, which is laid in the diagonal bond, featured on the east elevation, remains as a backing and the flintwork can be usually reinstated using traditional techniques.

Barn 3 is the most recent construction at the barn complex and comprises a lightweight roof construction bearing onto timber framed walls overlying brick plinths. The roof construction comprises A frame trusses at approximately 1.1m centres with support purlins and corrugated sheeting. This arrangement is performing satisfactorily under the current loadings, however as elsewhere, will require the addition of eaves level ties to ensure that lateral movement under the additional loading from insulation and finishes and the allowance of snow loading does not cause undue lateral deflection of the timber framing. A degree of outward rotation has occurred under the current loading, however this appears to have abated. The brick plinth walls appear in good condition where visible and are laid in half brick thickness in stretcher bond. These walls are to be reused as part of the conversion scheme, consideration to waterproofing and insulation will be required that may necessitate the insertion of an additional masonry skin internally, or indeed a timber frame lining.

The existing barn appears to have a concrete floor present throughout, however, this is obscured largely by the build up of silt and the presence of agricultural machinery. It may be possible to reuse this floor slab with consideration given to an application of insulation and necessary screeding, subject to the final architectural proposals.

The east elevation is currently open to the elements and will therefore be enclosed during the conversion, unless this area is proposed to be used as a form of cart lodge or stabling for vehicles.

## **6.1 Conclusions**

We have considered the buildings' current condition and extent of structural fabric remaining. Whilst there has been areas of deterioration, we consider that the remaining elements are capable of reuse and for inclusion within a domestic conversion. In the event of conversion to domestic use, it is expected that further walls will be constructed internally throughout the barn complex and this will have the serendipitous affect of adding further stiffness to the arrangement, particularly to barn 1 where longitudinal racking has occurred and lateral sway. The addition of plywood sheathing to the timber frame, which is necessary to contribute to air tightness, will also provide additional stiffness and augment the existing timber frame for long term stability under wind gust. It is likely that additional roof timbers will be required to strengthen the existing common rafters and this could be undertaken using a secondary tier of purlins, which can be strutted against the tie beams, or by inserting feature trusses to provide additional support. The final method of augmentation will be agreed with the

architect during the detailed design stage. The split jowled posts will require local repair to ensure stability in the long term.

Consideration will need to be given to the external walls of barn 2 as these are currently acting as restraining structures and a method of tackling damp penetration through the walls will need to be agreed successfully removes damp from the internal spaces, but also allows the current permeation of moisture through the walls to continue without detriment to the existing wall structures.

The extensive ivy growth will need very careful removal, which may require it to be initially cut at its base to allow the ivy to die back. This will attempt to prevent damage to the masonry structures during the removal of the ivy, which can penetrate deeply into mortar joints.

Barn 3 will similarly require a careful approach when removing the vegetation to prevent damage to the structure. Any increase in roof loading should be modest to prevent undue deflection of the structure.

In summary, we consider the structures to be capable of reuse as a domestic dwelling. We would note that the above commentary is not exhaustive, and that further consideration will be required once the architectural proposals are finalised to ensure compliance with Building Regulations.

To provide immediate and ongoing protection of the buildings, the following are recommended:-

- Carefully cut back vegetation, trees and shrubs from the immediate vicinity.
- Cut back ivy growth and remove, once die back has occurred.
- Patch up any significant holes in the external fabric to prevent moisture ingress.
- Where possible, close extant doors, to reduce moisture penetration, or otherwise provide temporary screening.
- Where possible, temporarily strap / restrain split joweled posts to prevent further damage. Do no drill or bolt – use ratchet straps or similar.
- Periodically inspect the buildings and monitor any obvious further deterioration.

Yours faithfully



D Cantrill  
On behalf of J P Chick and Partners Ltd  
[david.cantrill@chick.co.uk](mailto:david.cantrill@chick.co.uk)



Countersigned.....

D Arend  
On behalf of J P Chick and Partners  
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# **APPENDIX A**

## Photographs





Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



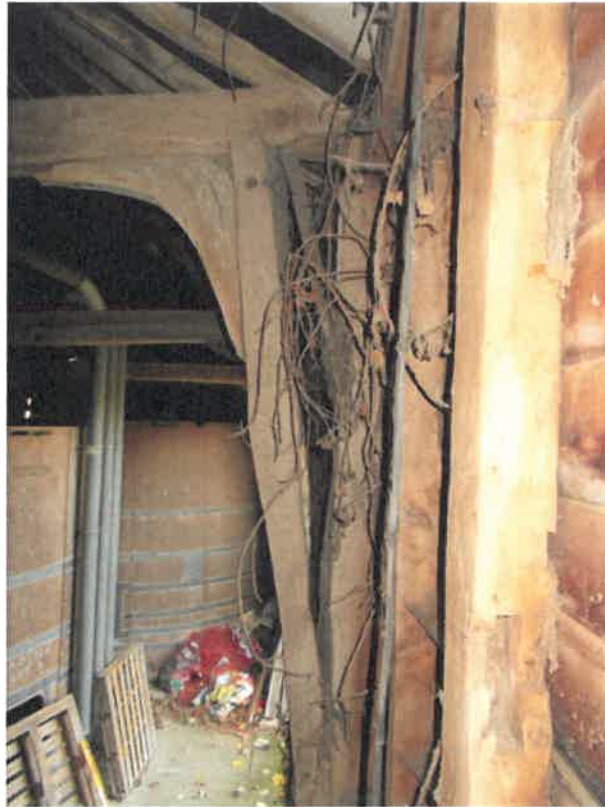
Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



## **APPENDIX B**

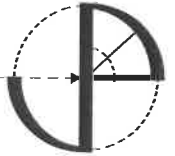
Key plan and floor plan

Barn 1

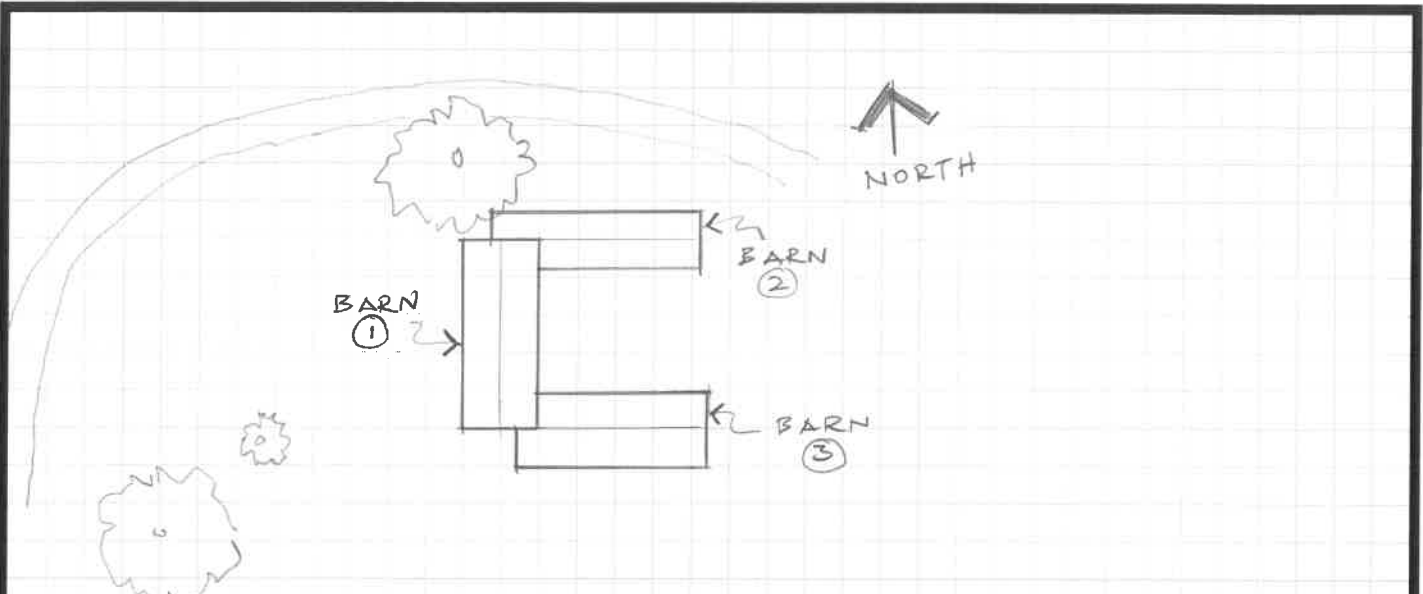
# SKETCH SHEET

LOCATION: ROOK HILL FARM BARNS

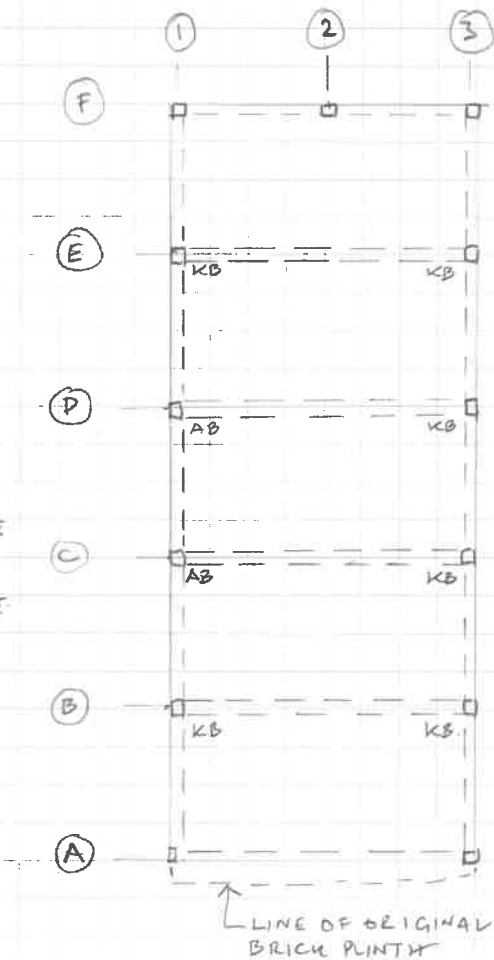
JP Chick & Partners Ltd  
Consulting Civil & Structural Engineers



Eng: dl Date: NOV 2019 Job No.: NS Sheet SK01 .... of ....



**KEY PLAN (NTS)**



NOTES.  
AB = ARCH BRACE  
KB = KNEE BRACE

**BARN 1 - PLAN (NTS)**