

# Juxon Ltd

Asterleigh Farm Kiddington Estate, Oxon

Report on the Condition of Plot 1

May 2023

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Project Number: 03271



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## Report on the Condition of Plot 1

at

## Asterleigh Farm, Kiddington Estate, Oxon

SWJ Consulting Ltd has prepared this report in accordance with the instruction given by Alex Edge of Edgars on behalf of Juxon Ltd (The Client)

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### Issue

Date	Status	Status Sheet No		Recipient	
19/05/2023	S2	All	All	Alex Edge	

### **Amendments**

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### 1. Introduction

### 1.1. Date of Instruction

27th March 2023

#### 1.2. Brief

We have been appointed by the client, to undertake an assessment of the buildings at Asterleigh Farm on Kiddington Estate and to determine their suitability for conversion to residential use.

### 1.3. Objective

The purpose of the report is to record the buildings' condition and determine their suitability for conversion to domestic use.

### 1.4. Scope

The scope of the report was limited to a visual inspection of the stables and no intrusive works, e.g. trial pitting were undertaken as part of the assessment.



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### 2. Inspection

### 2.1. Date

18th April 2023

### 2.2. Weather

Sunny, partly cloudy

### 2.3. Present During Inspection

Rhys Skym of SWJ Consulting and Mr M Fielden of Juxon Ltd (part)

### 2.4. Method of Inspection

Visual, non-intrusive survey of the superstructure. No surfaces were opened up within the property.

### 2.5. Terms of Reference

The description of the various elements is given assuming that we are standing in front of the stables looking North.



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### 3. Existing Construction

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#### 3.1. General

Plot 1 is formed of two sections: a stable block to the east of the building and what appears to be a later extension at the western end, which is used as an external store room. The stables are predominantly of stone construction with the exception being the front wall of the store room which is of brick construction.

#### 3.2. Construction

### 3.2.1. Roof

The slate-clad roof of the stables is a traditional cut roof with loose rafters which are supported by hardwood purlins which are, in turn, supported by timber trusses spanning from front to back. (Please see Figure 1)

The storeroom roof is of traditional construction but the purlins span the whole length from gable to gable. (Please see Figure 2)

#### 3.2.2. External Walls

The front wall of the western building is of blockwork construction with the remaining walls being of stone construction.

#### 3.2.3. Ground Floor

The ground floor appears to be a concrete floor slab but the overall thickness and make-up of the slab could not be ascertained during our visit.

#### 3.2.4. Foundations

The nature and depth of the foundations could not be determined during our visit but it is assumed that the foundations are of masonry construction and bear onto the underlying limestone.



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### 4. Observations

#### 4.1. Storeroom Roof

The storeroom roof shows signs of significant deflection, which is visible from the front of the barn (Please see Figure 3).

The cause of the movement is moisture penetration through the missing roof coverings which have led to the decay of the rafters at their bearing onto the rear wall and failure of the timber purlin to the rear of the stable block. (Please see Figure 4).

#### 4.2. Outward Movement of the Brickwork

The brick wall is bowing outward by approximately 35mm at the worst point. The cause of the movement is the excessive deflection of the purlins resulting in horizontal loads being applied to the head of the wall.

More worryingly, the bond between the inner and outer skin of the brick wall has failed leaving a substantial vertical crack adjacent to the existing door which is visible. (Please see Figures 5 and 6).

#### 4.3. Stable Roof

The stable roof is generally free from signs of significant moisture ingress or decay of the timber except for the lower purlin at the left-hand end of the block which appears to be damp although fungal decay does not yet appear to have set in. (Please see Figure 7).

#### 4.4. External Walls

Other than the front wall of the storeroom, the external walls are in generally good condition although there are some areas where the mortar has eroded and the walls would benefit from some repointing.



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### 5. Conclusions and Recommendations

### 5.1. Suitability for Conversion

The barns of Plot 1 are suitable for conversion from agricultural use to residential use subject to the following maintenance works being undertaken.

### 5.2. Repair the Storeroom Roof

The roof covering of the storeroom should be removed and set aside for reuse.

The rafters should be assessed for suitability for re-use with any decayed or damaged rafters replaced with similar size and cross-section timbers.

The timber purlins should be replaced with timber or steel beams that are adequately stiff to resist the roof's applied loadings and prevent the walls' outward spread.

### 5.3. Repair the Masonry to the Front Wall of the Storeroom

The front wall of the storeroom should be taken down and rebuilt.

### 5.4. Renew the Roof Coverings

The roof coverings of the stables should be renewed to ensure that the timber roof structure remains dry.

### 5.5. Repoint the Masonry

Where the masonry has been damaged by water ingress or where frost action has eroded the mortar at or just above ground level, the walls should be repointed with a suitable lime mortar



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## **APPENDIX A - PHOTOGRAPHS**



Figure 1 - View of Stable Roof



Figure 2 - View of Storeroom Roof

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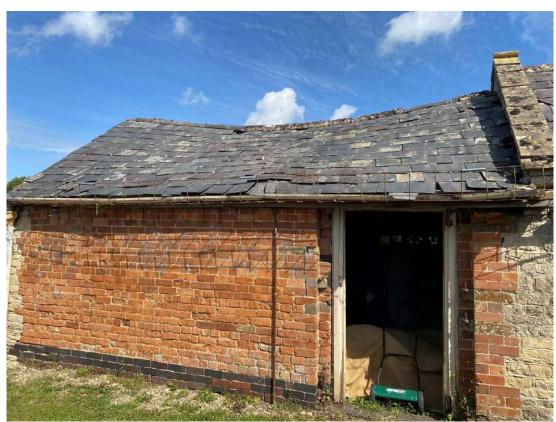


Figure 3 - Excessive Deflection of Storeroom Roof



Figure 4 - Evidence of Moisture Penetration, Decay of Timber Rafters and Failure of Supporting Purlin

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Figure 5 Damage to Masonry At Bearing of Lintel Above Entrance Door



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Figure 6 - Outward Movement of Brick Wall



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Figure 7 - Moisture Penetration Through Roof and Possible Decay of Purlin

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Figure 8 - Separation of Gable Wall From Rear Wall

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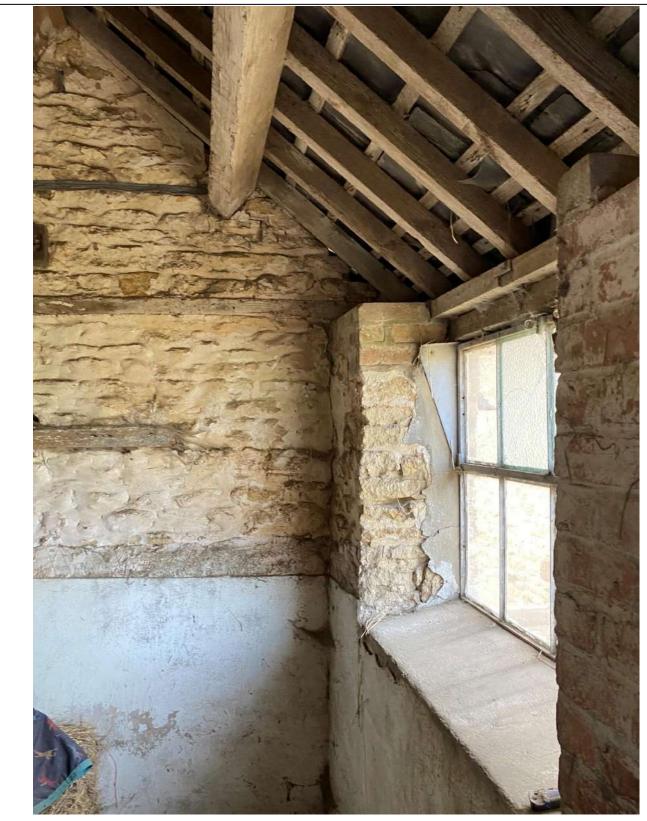


Figure 9 - Separation of Gable Wall From Wall