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Southview Farm Drynham Lane Trowbridge

Inspection Report

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Quality Assurance

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1.0 Introduction

1.1 Introduction

- 1.1.1 Mann Williams were instructed by Chris Beaver of Planning Sphere on behalf of Coulston Estates Ltd to carry out a structural condition inspection of the main farm house and barn buildings. This report is commissioned to review the condition of the buildings and their suitability for conversion into a multi-use facility including residential units on the upper levels of the farmhouse.
- 1.1.2 With reference to the site plan enclosed within appendix A, this inspection centres on the main farmhouse building and the stone walled barns to the north bounding the cycle / pedestrian footpath that links across the railway line to Sparrow Street.
- 1.1.3 Mann Williams carried out the inspection in February 2023. The inspection comprised a visual walkover inspection of the principal building elements. No opening up works, coring of the walls, timber testing, boreholes, trial pits or soakaway tests were undertaken as part of the inspection.
- 1.1.4 With reference to the heritage statement for the site, we understand the farmhouse dates from the mid 19th century and is not in an uncommon form for the Trowbridge area. The farmhouse comprises solid masonry walls with suspended timber floors internally and a double hip ended roof with central valley.
- 1.1.5 The ancillary buildings are thought to be of a mixed 19th and 20th century date and heavily altered. The barns are generally built of red brick with cut timber roofs where they remain.
- 1.1.6 With reference to the British Geological Society online maps, the site is shown to be underlain by the Oxford Clay Formation. No superficial deposits are noted on the maps.

2.0 Inspection

2.1 Farmhouse

- 2.1.1 The farmhouse comprises solid stone masonry walls with suspended timber floors and cut timber roof. The farmhouse is arranged over two storeys and has a pair of duo pitched roofs oriented in roughly a north south direction with a central valley gutter. There are 2no. substantial chimneys located in the central valley line.



Figure 1 Farmhouse – aerial view from northeast aspect



Figure 2 – Central Valley Northwest



Figure 3 – Central Valley Southeast

- 2.1.2 As can be seen in figures 1, 2 & 3 the central roof valley has no lead flashing (presumably stolen) and the temporary plastic sheeting has displaced revealing the valley boards beneath and voids into the roofspace / centre of the property.

- 2.1.3 Due to the damage caused by the penetrating rainfall into the centre of the property there is a lot of localised damage and the structure immediately beneath the central valley was saturated at the time of the survey (refer below).



Figure 4 – Southwest Elevation



Figure 5 – View from east side



Figure 6 – Northeast Elevation



Figure 7 – Northwest Elevation

- 2.1.4 The property was boarded up when we inspected and appeared to have been in this state for quite some time.
- 2.1.5 There are a number of large trees near the property particularly to the northwest and southwest sides. Elsewhere the property is surrounded by what was probably the garden to the house and which appears to have been largely laid to lawns.
- 2.1.6 The property has a partial basement which sits under the south room (no. 4 on the key plan) of the property. As noted in the photos below, at the time of the inspection the basement was flooded and full access was not available.
- 2.1.7 From what could be seen of them, the basement walls appeared to be of rubble stone construction and the line of the walls appeared good.
- 2.1.8 It was not clear whether the water in the basement was natural ground water or accumulated water from the leaks in the roof. We would suspect the latter, and that in general the basement would be clear of standing water. However the building needs drying out and the basement emptied of water to prove one way or another. There may be a drain in the basement floor that is currently blocked or has a restricted outlet.



Figure 8 – Steps to (partial) basement



Figure 9 – Flooded Basement



Figure 10 – G.F. Room 1 (North) Kitchen



Figure 11 – G.F. Room 1 (North)

- 2.1.9 Rainwater has cascaded through the property damaging floors and ceilings throughout. The worst of the damage is centred beneath the central north-south valley line that no longer has any finishes in place to channel water off the roof.
- 2.1.10 The original lathe and plaster ceilings have largely failed throughout the property and should be removed to allow a full inspection of all timbers to roof and floors.



Figure 12 – G.F. Room 2 (East)



Figure 13 – G.F. Room 2 Ceiling



Figure 14 – G.F. Room 3 (West)



Figure 15 – G.F. Room 4 Failed area of suspended floor

- 2.1.11 Due to the amount of debris in the building, it was not safe to access all areas of the property or to carry out localised inspections. There are air bricks in the building façade externally which would suggest the ground floor of the property comprises a suspended timber floor. Certainly over the basement this is the case, but some site clearance would be required to establish if this was the detail throughout the ground floor.
- 2.1.12 In the southern corner of room 4 at ground floor level the floor joist bearings have failed locally. It is quite likely that as part of any refurbishment project a new suspended ground floor with adequate cross ventilation will be required throughout the property.

- 2.1.13 From our cursory inspection the main walls of the property appear in good structural condition with no significant issues noted.



Figure 16 – G.F. Room 4 (South)



Figure 17 – Stair to First Floor



Figure 18 – Plaster fracturing to F.F. landing arch



Figure 19 – Daylight visible through central valley soffit

- 2.1.14 The staircase sits in the middle of the property giving access to basement and first floor. The landing at the head of the stair has been affected by long term water penetration but it is likely that a considerable proportion of the floor, and the floors to the first floor rooms, should be able to be retained as part of the conversion.
- 2.1.15 The timber joists are vulnerable at their bearing end, particularly where they bear into saturated walls, but we would imagine localised repairs rather than wholesale replacement would be the likely remediation strategy.

- 2.1.16 As with the ground floor the first floor lathe and plaster ceilings are badly damaged and need replacing.



Figure 20 – F.F. Bedroom 1(North)

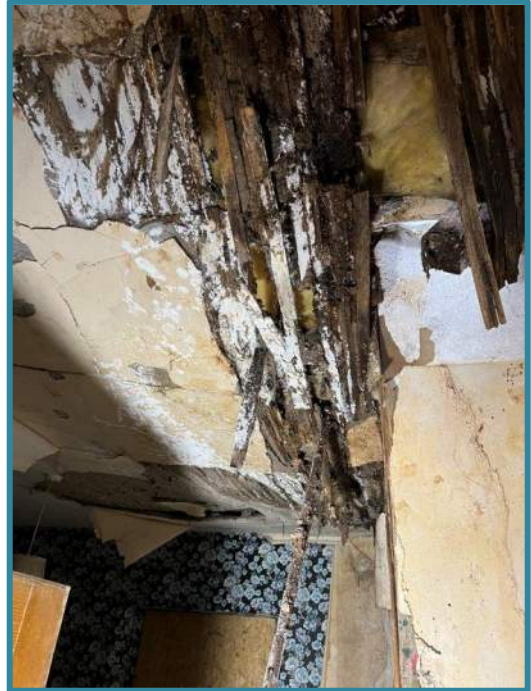


Figure 21 – F.F. Bedroom 2(East) Failed Ceiling



Figure 22 – Plaster fracturing to F.F. landing arch



Figure 23 – Daylight visible through central valley soffit

- 2.1.17 Access was not possible into the roof spaces at the time of the inspection due to health and safety concerns. When viewed externally the roofline, ridges and hips, all appear to have a good line therefore it would appear that the roof structures are holding up well.
- 2.1.18 We would imagine the roof to comprise timber trusses supporting purlins and common rafters. It is quite possible that there is some significant localised damage to these timbers due to the amount

of water penetrating the central core of the building. On a similar vein to elsewhere though, we would imagine that localised repairs can be carried out to remediate any such damage.

- 2.1.19 The roof finishes, ridge tiles and underlay will most likely all need carefully removing to allow a full refurbishment of the roof structures.



Figure 24 – Northeast lean-to

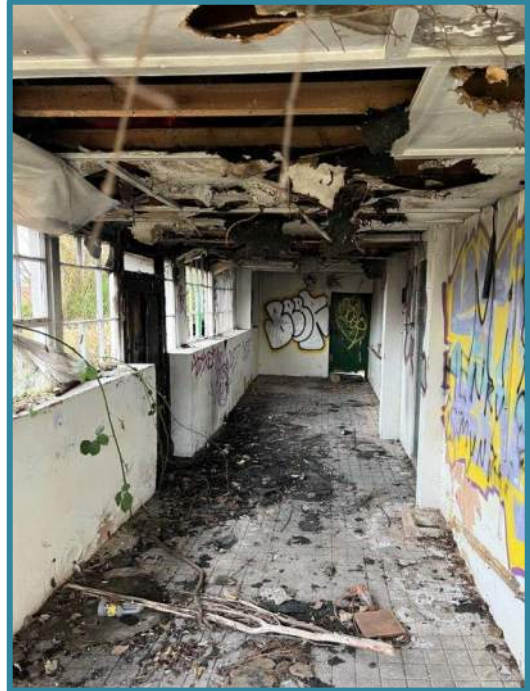


Figure 25 – Lean-to internal



Figure 26 – External lavatory



Figure 27 – Slight bulge to southeast elevation

- 2.1.20 Along the northeast elevation a single storey extension with corrugated asbestos sheeting mono pitch roof has been added. At the east end there is an external lavatory structure that was completely covered in ivy at the time of our inspection.

- 2.1.21 Whilst this structure could be retained and refurbished, it may well be worth removing it and replacing it with something more appropriate and fit for a modern purpose.
- 2.1.22 There is a slight bulge in the external face of the southeast elevation at the upper level. This wall is finished externally in rubble stone and most likely comprises an inner and outer leaf of large section rubble stone with the heart, or core of the wall filled with smaller stones and mortar. It is quite possible the outer leaf of stonework is becoming delaminated from the core and inner leaf of the wall. This can be remedied by installing some discreet ties, localised grouting of voids and repointing the wall.



Figure 28 – Front ashlar façade (southwest)



Figure 29 – Fractured lintel SW elevation



Figure 30 – Fractured lintel NW elevation



Figure 31 – Fracture NE elevation

- 2.1.23 Unlike the rubble stone facades to sides and rear, the southwest facing front elevation of the property is finished in ashlar stonework. This wall generally appears to have a good line but has suffered from a small degree of movement in the past evidenced by fractured lintels to the central doorway and fractured cills and lintels to the windows on the façade.
- 2.1.24 The nearby trees may have been a contributing factor in this movement and it would be wise to remove the closest trees to prevent any ongoing damage occurring; note - by removing trees the ground water content in the ground can recover potentially triggering small foundation movements until a new equilibrium is reached.
- 2.1.25 Overall though the wall appears in good structural order.
- 2.1.26 The northwest elevation is finished in coursed rubble stone. This elevation appears in good structural order, but again there are fractures in the ground floor stone lintels to the window openings suggesting a small amount of movement in the walls.
- 2.1.27 The lower portion of the northeast elevation is partially obscured by the single storey appendage. A small fracture was noted in this elevation above ceiling level, but again this is localised and small in nature and not indicative of any more widespread structural issues.

2.2 Barn Buildings

- 2.2.1 The barn buildings sit on the north boundary of the site with the west gable facing Drynham Road and the north wall forming the boundary with the cycle route that crosses the railway line.



Figure 32 – Barns west end aerial



Figure 33 – Barns east end aerial



Figure 34 – Elevation west end



Figure 35 – Elevation east end



Figure 36 – East gable



Figure 37 – North elevation (part)

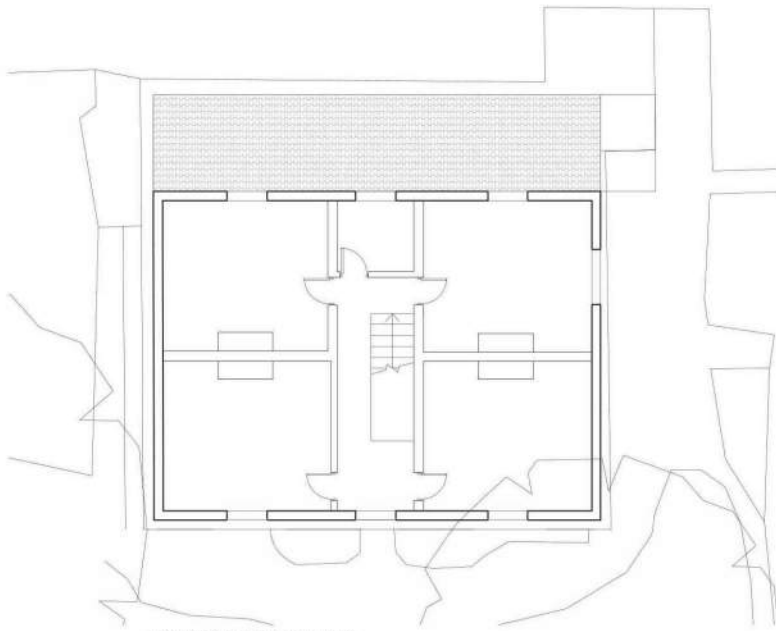
- 2.2.2 The barns are in a very poor condition and are currently fenced off on the north side and have a large bank of vegetation concealing the south elevation.
- 2.2.3 The barns appear to have a natural rubble stone wall to the north and west sides with red brick walls elsewhere. Strangely the upper gable on the west side has been built in a crazy paving style with reclaimed stone masonry units.

- 2.2.4 The barns were largely inaccessible internally at the time of the inspection. Therefore drone imagery has been relied upon to make an informed assessment of their condition.
- 2.2.5 The imagery clearly shows that the roofs are largely missing in areas and have large holes in the finishes where some semblance of roof still remains. It is clear though when observing the roofline from a distance that the purlins and ridge beams, that most likely span between internal timber trusses, have all largely failed as the ridge line dips significantly between what we believe are the principal truss locations.
- 2.2.6 Where visible the stone walls to the barns have delaminated and collapsed over significant lengths and where still standing are in poor condition with the mortar that binds the masonry units badly decayed from prolonged exposure to the weather conditions.
- 2.2.7 We do not feel there remains any section of the barn that can be practically retained and repurposed for a new use. It may be possible to reclaim a proportion of the masonry units for reuse elsewhere, but in our opinion the remaining barn structures should be demolished as at present they present a health and safety risk to anyone accessing the site.

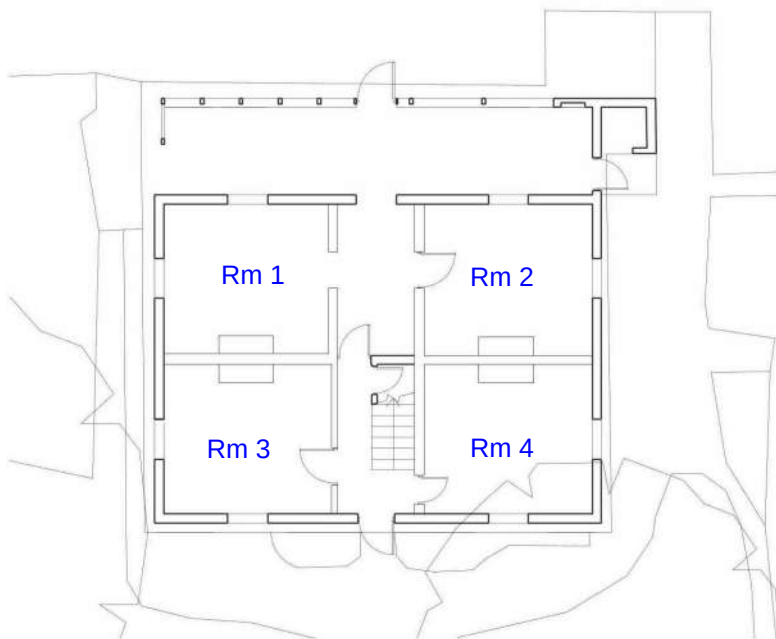
3.0 Summary & Conclusions

- 3.1.1 The main farmhouse appears to be robustly constructed, but has suffered from long term ingress of rainwater which has badly damaged internal plaster finishes and in all likelihood locally damaged timber structural elements.
- 3.1.2 We were not able to access the roof structure, but from our cursory inspection we believe localised timber repairs, rather than wholesale timber replacement will be appropriate to remediate the current structural issues with the upper internal floor and roof.
- 3.1.3 Is it likely though any suspended timber floors at ground floor level will need replacing and properly ventilating to ensure a sound structure is provided going forwards.
- 3.1.4 The delamination noted on the southeast upper wall needs further investigating, but will most likely need some localised consolidation anchors installed (Cintec or similar) to stabilize the wall.
- 3.1.5 The lean-to building appended to the northeast elevation ought to be removed and reconfigured if required, as the corrugated roof finishes are not fit for purpose and the roof structure is rudimentary.
- 3.1.6 The external lavatory structure could not be fully inspected, but again it is not fit for purpose as presently configured and should be removed.
- 3.1.7 Any trees close to the building should be removed in a timely fashion to allow the ground to recover its natural moisture content before extensive refurbishment works are undertaken.
- 3.1.8 The roof finishes should be removed, roof timbers repaired where necessary, new underfelt provided and roof finishes and flashings replaced in order to prepare for drying out the building internally. It could take upwards of a year to fully dry out the saturated internal walls.
- 3.1.9 The fractured lintels on the northwest and southwest elevations can be retained insitu but need stitch repairs to hold the masonry units in their current locations.
- 3.1.10 The barn structures to the north of the site are in very poor condition and are not structurally competent enough to be retained for any future use.
- 3.1.11 The remaining barn structures should be demolished as they present a health and safety risk to anyone accessing the site.

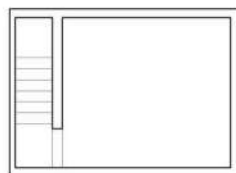
Appendix 1 – Key Plan



EXISTING FIRST FLOOR PLAN



EXISTING GROUND FLOOR PLAN



EXISTING BASEMENT PLAN

Southview Farm
Drynam Lane