Structural Survey



South Barn, Croxton Farm, Hamner, Whitchurch, SY13 3BS.

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1.0 Preliminary Information

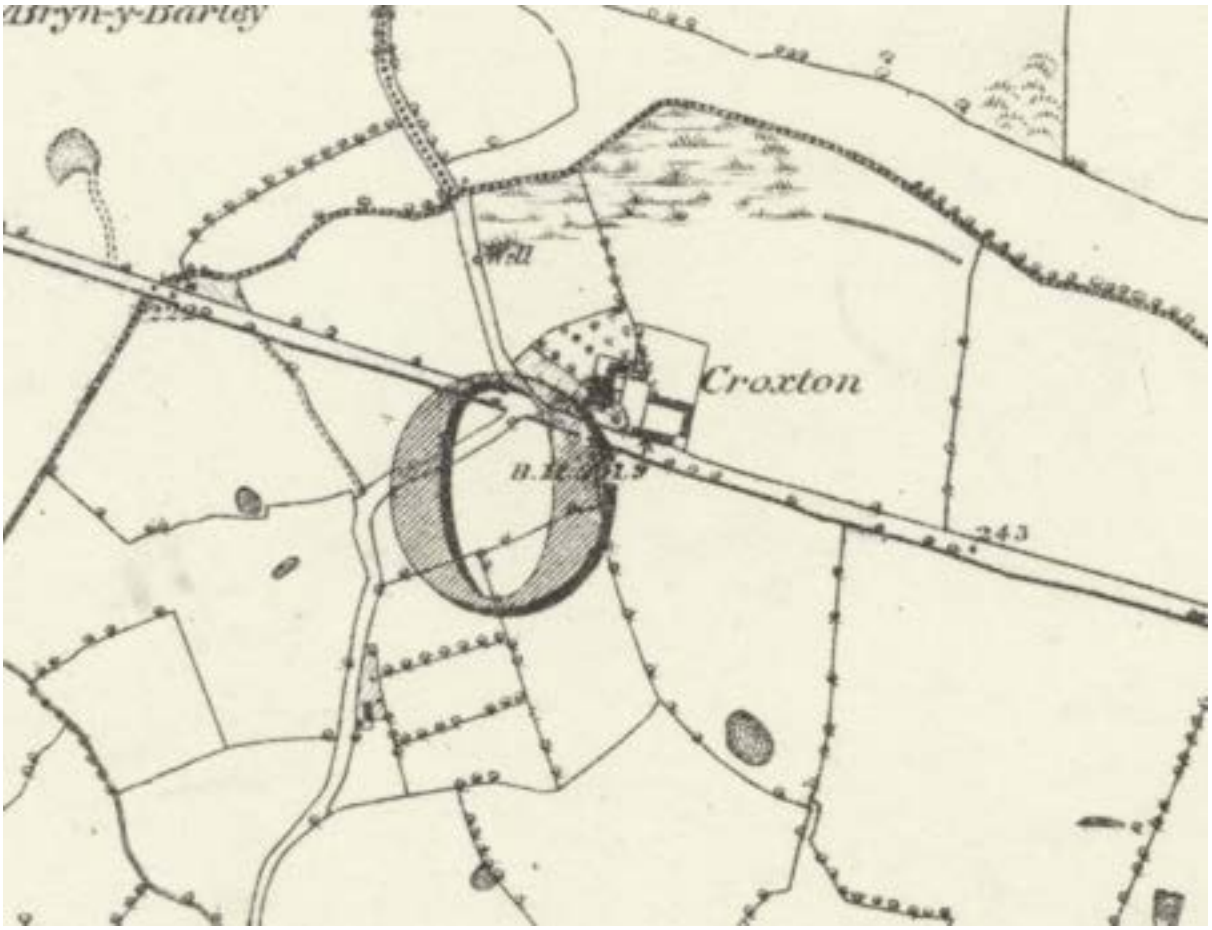
1.1 Name/Address of Client(s):	Croxton Farm Hamner Whitchurch SY13 3BS
1.2 Address of Property:	South Barn Croxton Farm Hamner Whitchurch SY13 3BS
1.3 Date of Instruction:	17.06.2025
1.4 Date of Inspection:	01.07.2025
1.5Circumstances of Inspection:	Building vacant.
1.6 Weather Conditions:	Warm and dry.
1.7 Current Use:	Storage.
1.8 Other Matters:	This report has been commissioned to ascertain the general structural condition of the barn and its suitability and adequacy for restoration and re-use. Inspection has been restricted due to access limitations, in turn due to poor structural condition in areas where roof framing has failed. In consequence, it has been necessary to generalise. The report might be updated when the building has been made safe and full access made available.
1.9 Confidentiality:	The report has been prepared solely for the use of the named clients and their other professional advisors. It must not be relied upon by any other parties. The terms under which the inspection has been carried out and the report prepared have been set out under separate cover.

2.0 Description of the Property

2.1. Age and Construction

2.1.1 The building comprises a large agricultural barn set over two storeys.

2.1.2 The south barn awas likely constructed during the nineteenth century, comprising traditional solid brick walls.



1873 map shows barns and farmhouse on existing footprint

2.2. Accommodation

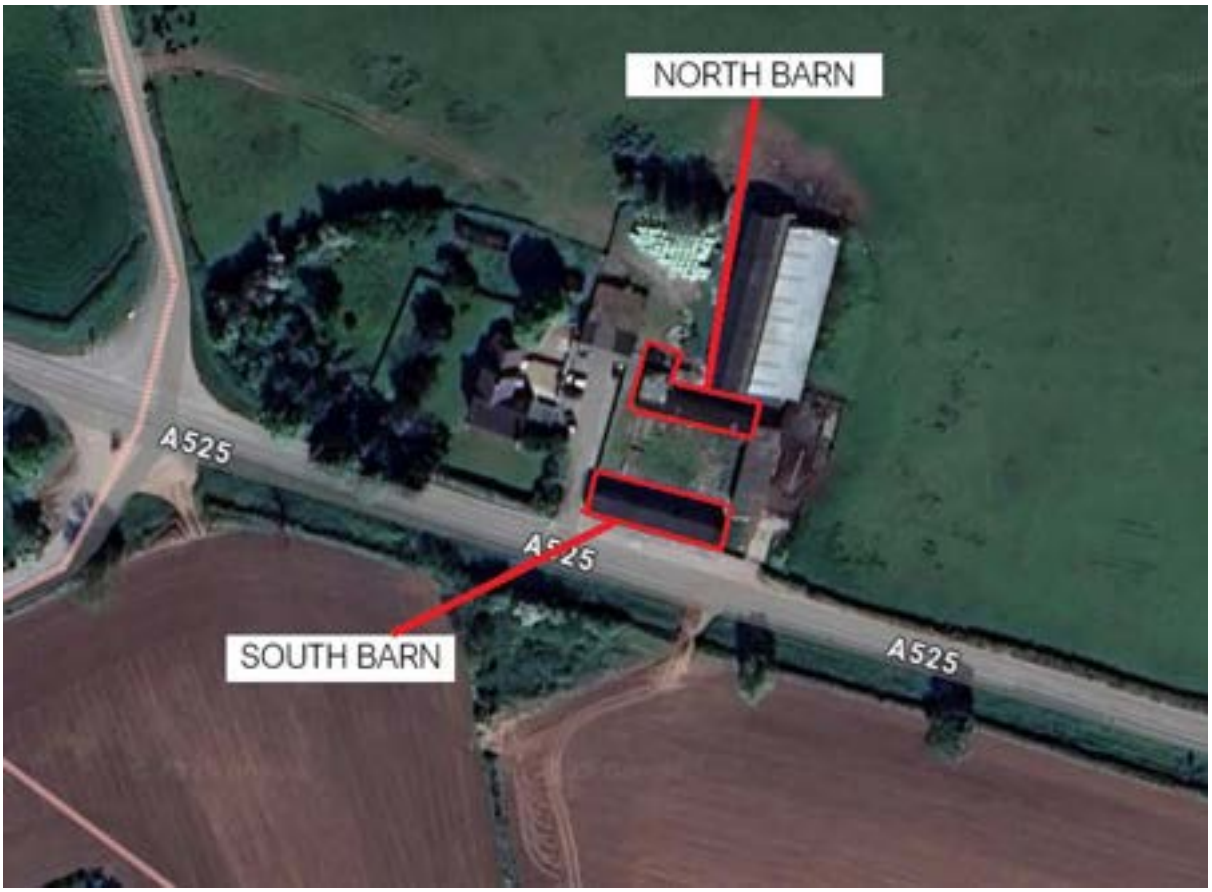
2.2.1 The barn is set over two storeys and separated into bays by brick partition walls.

2.3. Site

2.3.1 Croxton Farm comprises a farmstead including a farmhouse, agricultural barns, and paddock lands either side of the main road.

2.3.2 The farmhouse is understood to be used as a childrens home and is separated from the barns and paddocks with fencing. The barns form part of a working farm, used for livestock purposes and general storage.

2.3.3 The main farmhouse is a Grade II listed building. Listing typically includes all buildings within the curtilage, in this case being the accompanying barns that are subject to this inspection.



Barns within the site

Barns within the site

2.4. Location

2.4.1 The farm is located in a remote area on the A525, approximately 5 miles east of Whitchurch.

2.5. Services

2.5.1 There appears to be electrical and water supplies provided into the barn.

2.5.2 Existing drainage facilities are for agricultural purposes and likely connect into a cesspit. The dwelling will need to be connected to a new private sewage treatment plant – design subject to percolation tests.

3.0. Condition

Please refer to Appendices 1 for the condition of the barn.

4.0 Summary

The south barn at Croxton Farm is a historic building that has been largely neglected over many years. In consequence, minor structural issues are apparent to the main walls and damage to the masonry is evident. Despite some deterioration of roof coverings, no significant weather damage has occurred to the main roof frame, and it continues to perform its structural function well enough.

The existing structure can almost certainly be repaired and made good as part of a conversion process. The door and window openings are all clearly identifiable and help to define the architectural style and merit of the barn. Necessary building repairs can be guided by BS7913 on conservation, to preserve the original design, style and construction materials where relevant.

The barn offers significant historical merit in the context of the local area and forms an important part of the local landscape. Conversion will inevitably require alterations and repairs, however the existing shape, openings and aesthetic form can be respected and maintained.

The barn meets the criteria set by Wrexham LDP for conversion in every aspect and I see no reason why this project cannot proceed. When the application is approved, this report can be updated to provide a more detailed structural specification. In its present form the report is considered sufficient to inform the planning process by demonstrating the general condition of the building and confirming that it is capable of conversion.

APPENDIX 1 – CONDITION: South Barn, Croxton Farm, SY13 3BS

Element	Description	Condition	Recommendation
EXTERNAL			
1. Roof Coverings	The main roof is clad with natural slates.	Neglected condition. Slates are slipping across both slopes indicating failure of the nail fixings. Slate slippage has led to rainwater entry. Existing coverings remain in fair condition and can reasonably be salvaged.	Strip and re-slate main roof. Existing slates should be carefully removed and set aside for reuse.
2. Roof Structure	The roof frame comprises oak purlins, ridge beams and wall plates supported by King Post trusses.	Undulation of the roof is evident highlighting deformation of the timber frame. Timbers are in a predictably worn state. Decay is apparent to rafter feet and wall plate. Localised evidence of wood boring beetle infestations noted. Damage is	Retention of the main roof existing frame.

		slight and has not affected structural integrity.	
3. Rainwater Fittings	Rainwater fittings are formed in cast iron.	Poor condition. Fittings have largely failed and remain incomplete.	Installation of new rainwater gutters and downpipes – to be connected to soakaway drainage via storm gullies.
4. Main Walls:	The main walls are formed in 320mm width solid brickwork. Original lime mortar pointing remains to brick joints. Structural openings incorporate a combination of brick arches and stone sills and headers. Footings not seen. There was no visible damp-proof course (DPC) to the main walls.	Minor structural damage has occurred above all structural openings. Issues relate to rot and decay of supporting lintels and frames. Walls bow outwardly and downward movement has occurred to the front left corner (south facing elevation). Localised frost damage and subsequent erosion of brick faces is evident, particularly to the south facing elevation. Owing to the extent of erosion localised rebuilding will be necessary. Mortar pointing has eroded extensively around all walls.	Structural repairs needed/partial rebuilding of failed wall sections. Laboratory testing of original lime mortar required to specify correct mix. Areas of cement mortar to be raked out and walls re-pointed in more appropriate mix e.g. Ty-Mawr lime. Re-point eroded mortar joints (as above). External walls to be repaired with traditional materials to promote moisture evaporation or 'breathability'.

		Localised usage of sand and cement mortar is evident. There is no requirement for invasive damp proofing interventions (as per BS7913:2013 – Conservation of Historic Buildings).	
5. External Joinery	Timber framing for windows and door openings.	Timber framing is in neglected condition.	Complete replacement of all framings and entrance doors.
<u>INTERNAL</u>			
6. Walls and Ceilings	Ground floor level walls comprise exposed brick faces partially lime washed. Ceilings formed with a combination of exposed joists and boards, lathe and plaster, and asbestos cement boards.	Dividing walls between bays are load bearing and must form part of future design layout. Structural damage evident to spine wall around upper opening. Older lathe and plaster is fractured and detaching. Asbestos cement sheeting relatively well formed.	Structural repair required to central spine wall, such as crack stitching with Helifix bars. Safe removal of asbestos cement sheeting required by licensed contractors. Internal linings to be informed by project design.

7. First-floor timbers	Upper floors all comprise timber boards laid over joists bearing into main walls. Floor structures are supported by oak crossbeams.	Supporting joists and crossbeams remain functional and continue to adequately support the upper framework. Wood boring beetle infestations evident. Appears to be largely historic. Localised rot and failure noted to floorboards where damp entry has occurred.	Fix and replace damaged timber boards. Crossbeams to be retained. Careful consideration to be given to any insecticide treatments, that can be harmful to oak.
8. Ground-floor structure	Concrete hardstanding and brick paving throughout.	Floor surfaces uneven. Designed for agricultural purposes.	Complete replacement using suitable materials. Consider limecrete.

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

1.	ROOF COVERINGS
1.1	
	Dislodged slates to main roof
1.2	
	Slippage on rear slope

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

2	ROOF STRUCTURE
2.1	
	Roof frame
2.2	
	Decay to rafter feet

3	RAINWATER FITTINGS
3.1	
	Cast-iron gutter and drainpipe
4	MAIN WALLS
4.1	
	Main walls

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

4.2	
	Disruption to front corner wall
4.3	
	Large fracture through brickwork

4.4	
	Disruption to brickwork above gable window opening owing to failure of supporting frame
4.5	
	Mortar erosion and frost damage to brick faces on front elevation lower walling

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

4.6	
	Accelerated frost damage to front wall brick faces
4.7	
	Fracturing to front wall correlates with location of drains – poyential drain failure

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

4.8	
	Frost damage where hard cement mortars have been used for repointing
4.9	
	Disruption above rear window – possible undersized concrete lintel

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

4.10	
	Fracture above rear opening owing to decay of timber lintel
4.11	
	Disruption to supporting pillar for rear barn opening

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

5	EXTERNAL JOINERY
5.1	
	Basic joinery to openings
5.2	
	Metal framed window on gab;e elevation retaining original form

6	WALLS AND CEILINGS
6.1	
	Internal brick walls
6.2	
	Rendered and lime-washed walls

6.3	
	Fracturing above inner spine wall opening – lintel failure
6.4	
	Asbestos cement ceiling

6.5	
	Lathe and plaster ceiling
7	FLOORS
7.1	
	First-floor level concealed by straw

APPENDIX 2 – PHOTOS: South Barn, Croxton Farm

7.2	
	Ground level floor