



WE. Consulting Engineers
Black Barn
Fen Road
Guyhirn
Wisbech
Cambs
PE13 4AA

Structural Survey Report

on
Agricultural Barn for Domestic Conversion

at
184 Seagate Road
Long Sutton
Wisbech

for
Ms. A. Hoey

Job reference: WECE-26-679

Issue date: April 2026

1. Client

1.1. Ms. A. Hoey

By email

2. Brief

- 2.1. Instructions were received from Ms. A. Hoey to undertake a structural survey of the agricultural barn at land rear of 184 Seagate Road, Long Sutton.
- 2.2. The purpose of the survey was to assess the structural condition of the existing barn, with the intention of conversion to a single storey semi-detached dwelling. The believe the barn was previously part of Seagate Nurseries.
- 2.3. The survey was undertaken on 21st April 2026 with Bradley Whyatt from WE. Consulting Engineers in attendance.
- 2.4. The survey was a walkover and visual inspection from the ground only. No intrusive investigations have been undertaken.
- 2.5. There was no specialist access equipment utilised during the investigation and no monitoring or testing of materials was conducted.
- 2.6. In accordance with our standard practice, this report is for the sole use of the parties to whom it is addressed, and no responsibility is accepted to any third party for the whole or any parts of its contents.
- 2.7. The recommendations in this report are based solely on the findings of the site visit. We highlight that, other conditions may occur elsewhere on the site of which we have no knowledge and therefore cannot accept any responsibility.

3. Site Location and Background

- 3.1. See location plan.
- 3.2. The site lies approximately 1.3km south-southeast of Long Sutton and is situated north-northwest of 184 Seagate Road. Long Sutton is a market town in South Holland District, located about 18.5 km east of Spalding.
- 3.3. The agricultural barn proposed for conversion is located in the field immediately north-northwest of 184 Seagate Road.
- 3.4. The site is bounded by a dyke (with the A17 beyond) to the north, Seagate Road to the east, 184 and 186 Seagate Road to the south, and agricultural land to the west.
- 3.5. There are no trees within the site boundary; however, hedgerow and tree growth is present around the site perimeter.

4. Observations

- 4.1. The agricultural barn is a rectangular, duo-pitched building approximately 8m wide x 20m long with an eaves height of about 2m.
- 4.2. The barns envelope walls are thought to be constructed as half-brick leaf bonded with lime mortar. Some openings have been infilled or repaired historically; these repairs may include mortar containing ordinary Portland cement.
- 4.3. There are no internal partition walls. Regular projecting masonry piers (102.5mm x 590 mm) occur at approximately 2.8m centres and provide lateral restraint to the side walls. Overall, the wall planes appear straight and true.
- 4.4. Some wall panels show weathering, notably at mortar joints, and there is occasional minor hairline cracking (typically 1–2 mm).
- 4.5. The roof covering appears to be predominantly fibre-cement sheeting with translucent areas affording light into the building. Evidence of some local holes and historical repairs; extensive moss growth obscures much of the roof surface.
- 4.6. The roof is supported on purlins regularly at around 1.2m centres which are supported by king-post trusses with two bearing struts either side; transferring load from the purlin bearing points to the tie beams. Truss centres align with the masonry piers at roughly 2.8m centres. The ridge line appears straight and true. There is currently no ceiling in the building.
- 4.7. Plan stability bracing has been provided in the roof structure near both ends of the building.
- 4.8. The gable end walls incorporate two projecting masonry piers (215mm x 102.5mm) located at approximate third points to stiffen the panels.
- 4.9. Strapping is present, tying the gable end walls to the roof structure. The roof and side walls together provide lateral restraint to the gable panels.
- 4.10. There are no stormwater gutters or downpipes currently fitted to the building.
- 4.11. A concrete floor slab covers the front half of the building and appears in reasonable condition with no signs of settlement. The rear half has a patterned floor finish comprising pairs of rectangular panels to the sides of each bay, header brick bands bound by concrete strips. The regular arrangement appears intentional and appears to have been laid to a fall.
- 4.12. The existing ground floor structures abut the external brickwork, and the brick envelope continues to a greater depth below ground, indicating the walls are founded independently of the ground floor slab.
- 4.13. A pre-cast concrete lintel supports the masonry gable triangle above the double sliding door on the south elevation. Given the low eaves height and the position of the lower purlin, lintels were not provided at the head of the other openings around the building.

5. Conclusions and Recommendations

- 5.1 The primary structural elements of the existing building are in good condition and have performed adequately to date, with no visible signs of significant defects, deflection, settlement, differential settlement, or subsidence.
- 5.2. The minor issues noted in our observations - general weathering, assumed limited maintenance, and the failure to control climbing and creeping vegetation - appear superficial and readily remedied. Had routine maintenance been carried out, these matters would likely not have arisen.
- 5.3. With allusion to the Architectural drawing ref: SE-2490-SE-P100 by Swann Edwards, we comment that the proposed single storey semi-detached building layouts could be constructed without subjecting the existing structures envelope to significant additional loadings.
- 5.4. Moreover, the addition of internal walls, provided they are tied in appropriately with the existing masonry envelope, would enhance the current buildings structural integrity through the provision diaphragm action of ceiling and walls.
- 5.5. As part of general maintenance, we recommend the following:
1. All moss and vegetation are to be removed from the building envelope; treat and clean external surfaces accordingly. Inspect all fibre-cement sheets; replace damaged sheets as required.
 2. Inspect purlins, trusses, bearings and connections; repair or replace any damaged, decayed or weakened timber and provide corrosion-protected fixings.
 3. Undertake a full condition survey for wood-destroying organisms (dry rot, wet rot, woodworm) and remediate any infestations; replace affected timbers or provide treatment as required.
 4. Retain existing strapping where effective; and replace or supplement with corrosion protected steel ties or straps where corrosion or inadequate capacity is found.
 5. Repoint and repair mortar using a compatible lime mix (not hard OPC) to avoid trapped moisture and differential stiffness.
 6. Stitch with Helibar by Helifix (or similar proprietary system), or locally repair hairline cracks (1–2 mm) in masonry walls where active or where water ingress is possible.
 7. Replace severely weathered bricks or provide localised rebuilding of panels where masonry integrity is compromised. Where openings have been blocked with incompatible mortar, carefully cut out and rework to provide compatible joints.
 8. Ensure damp-proof courses are intact or retro-fit where missing.
 9. Install a new stormwater drainage system including guttering, downpipes underground pipework and soakaways as necessary should be installed as part of the proposed conversion. We expect that any new drainage system will be designed and installed to current Build Regulations.

Implementing the above measures will minimise risk of potential future structural issues with forms of settlement, water ingress and structural deterioration; and will provide a robust basis for conversion to domestic use.

- 5.6. Overall, subject to final architectural and structural design (to include load assessment and foundation review), we would currently consider that most of the existing building structure can be retained and utilised sustainably and would facilitate the conversion of the barn to domestic use without the requirement for significant structural works to the existing structure.

Report prepared by

B. Whyatt

B. Whyatt BSc (Hons)

For and on behalf of WE. Consulting Engineers



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Appendix A: Google Maps Location Plan



 01945 479 689

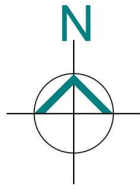
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Subject barn

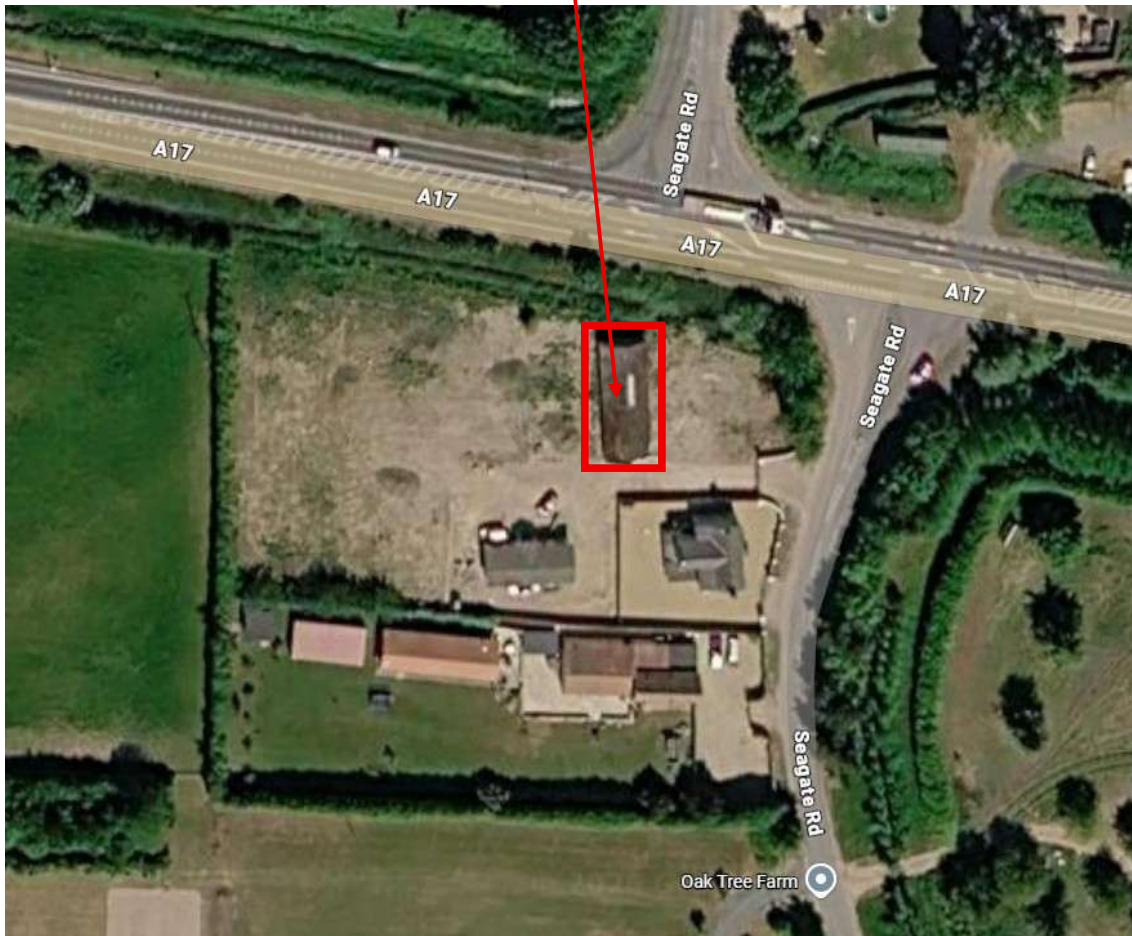


Figure 1. Google Maps Location Plan

Appendix B: Site Photos



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Photo 1. East Side Elevation – southern end



Photo 2. East Side Elevation – northern end



Photo 3. West Side Elevation – northern end



Photo 4. West Side Elevation – southern end



Photo 5. Nothern Gable End Elevation



Photo 6. Building Interior



Photo 7. Bricked-up Window



Photo 8. Bricked-up Door



Photo 9. Front Door on Southern Gable End Elevation take from inside. PC Lintel above door



Photo 10. East-side of Southern Gable End Elevation. Typical weathered masonry and hairline cracks