

**Historic building recording
at Wickham Hall, Hadham Road,
Bishop's Stortford, Hertfordshire
August 2012**



**report prepared by
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**commissioned by
Foxley Builders**

NGR: TL 4745 2302 (c)



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1 Summary

A programme of building recording was carried out by the Colchester Archaeological Trust on a complex of farm buildings at Wickham Hall, Hadham Road, Bishop's Stortford, Hertfordshire in August 2012, prior to the conversion of the structures to commercial and residential use. The work was commissioned by Foxley Builders. The historic farm buildings are arranged in a loose courtyard plan with the farmhouse to the west. The complex includes two 17th-century aisled barns, a 17th-century outbuilding (all Grade II listed), an additional barn, loose box, granary and wagon lodge dating to the 19th century and a 19th-century brick wall incorporated into a 20th-century horse shed.

Wickham Hall dates to at least 1487, with the present Grade II listed farmhouse possibly located on the site of a late medieval hall, set in a landscape that includes evidence of ridge and furrow field systems. The etymology of the place name suggests that Wickham Hall has a pre-Conquest origin.

The buildings surveyed at Wickham Hall are excellent surviving examples of post-medieval agricultural structures, which have been maintained (with the exception of structure 4) in good condition and are relatively unaltered from their original design. They form a complex that charts the history of high end farming on the Hertfordshire/Essex border, one that is essentially unspoilt by the intrusion of modern farm buildings.

2 Introduction (Fig 5)

This is the archive report on historic building recording of structures (in response to an application for their conversion) at Wickham Hall, Hadham Road, Bishop's Stortford, Hertfordshire. The work was carried out on behalf of Foxley Builders by Colchester Archaeological Trust (CAT) in August 2012. The development site consists of a complex of farm buildings, located at NGR TL 4745 2302. The historic farm buildings are arranged in a loose courtyard plan to the west of the Grade II listed farmhouse, which dates to the 16th and 17th centuries (HHER 10918). The farm has expanded to the east of the historic core with additional buildings constructed during the 20th century bringing the total number of farm buildings to twelve. These have been assigned an identifying number based on the development plans compiled by Sworders Agricultural and referenced by all previous reports and assessments. The historic farm buildings include two 17th-century aisled barns (structure 2, LBS 160918 and structure 4, LBS 160917), a 17th-century outbuilding (structure 5, LBS 160919), all of which are Grade II listed, an additional barn (structure 1), a granary (structure 3), a wagon lodge (structure 6) and a loose box (structure 6) dating to the 19th century and a 19th-century brick wall incorporated into a 20th-century horse shed (structure 10). The remaining buildings, all dating to the 20th century, include a modern stable block (structure 7), a Dutch barn (structure 8), a machine shed (structure 9) and a lean-to (structure 12). These structures are to be demolished as part of the redevelopment and do not form part of the building recording.

A planning application (3/10/1959/FP) for the conversion of structures 1-6 and 11 to office and residential use and the erection of five new dwellings was submitted to East Hertfordshire District Council. Given the impact of the proposed works on the historic integrity and the historical interest of the site, a full archaeological condition was attached to the planning consent. This condition was based on the advice given in the National Planning Policy Framework.

A design brief detailing the required work (historic building recording) was issued by the County Historic Environment Unit (Tinniswood, 2012). All work was carried out in accordance with a WSI (Written Scheme of Investigation) produced by CAT in response to the design brief and agreed with the County Historic Environment Unit (CAT 2013).

All work was carried out according to standards and practices contained in the Institute for Archaeologists *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (2008) and *Standard and guidance for archaeological investigation and recording of standing buildings or structures* (2008a), *Management of research projects in the historic environment* (MoRPHE), and *Standards for field archaeology in the East of England* (EAA 14).

3 Aims

The aim of the building recording was to compile a high quality record of all pre-modern farm buildings that were to be affected in advance of the development. This included the 17th-century aisled barns and outbuilding, the 19th-century granary, barn, wagon lodge and the 19th-century walls to the 20th-century horse shed.

This report provides a comprehensive review of the local and regional historic context of the structures recorded by the project.

The report is intended to be a high quality, fully integrated archive suitable for long-term deposition in order to 'preserve by record' the buildings in their forms prior to alteration.

4 Building recording methodology

The following are included in this report:

- A brief documentary and cartographic survey of the evidence pertaining to the history and evolution of the site.
- A large-scale block plan of the site based on pre-existing architect's drawings. The position of each structure has been given a number noting date and function.
- A fully phased floor plan using the English Heritage (2006) Level 3 conventions at scale 1:100 of all buildings scheduled for conversion. Doors, windows, partitions, truss positions and any surviving fixtures/fittings are shown, together with evidence of phasing. The plans show all major structural additions to the building/yards and any internal divisions, particularly where the alterations are associated with a change of function.
- A cross-section using the English Heritage (2006) Level 3 conventions of the barns. These include the most complete truss, the location of which is noted on the plan.
- A detailed description of each structure. The description addresses features such as materials, dimensions, method of construction, joinery, spatial configuration, phasing, reused timbers, carpentry marks/graffiti and any evidence of original fixtures and fittings.
- A discussion of the history and development of the buildings, including their design, date, form and function and any significant modifications/reuse.
- A brief overview of farming and how changes during the 18th and 19th century influenced the plan form.
- A full photographic record, comprising black and white 35mm transparencies (supplemented by colour) and digital photographs of both general shots and details of individual buildings/features (external and internal). Selected examples of the photographic record are clearly tied into the drawn record and reproduced as fully annotated photographic plates supporting the text (Appendix 1). The photographic record is accompanied by photographic registers detailing location and direction of shot (Appendices 2-4).

5 Historical background (Figs 1-4, 5)

A documentary and cartographic search was undertaken to assess the evidence pertaining to the history and the evolution of the farm buildings. Sources consulted include the Hertfordshire Historic Environment Record, (HHER), the Essex Historic Environment Record (EHER), the Hertfordshire Archives and Local Studies centre (HALS) and the Essex Records Office (ERO).

The name *Wickham* has medieval origins. It is an Old English form deriving from the Latin *vicus* and the Old English *ham*, which refers to a farmstead near to a former Roman settlement (Field, 1980). Such a settlement, *Wicheha*, is mentioned in the Domesday survey of 1086, divided into two holdings under the Bishop of London and Geoffrey de Mandeville. The first reference to Wickham Hall itself is in 1487 when the moiety was owned by Sir John Say, with part of the estate extending into the neighbouring parish of Little Hadham. In the 16th century, part of the manor of *Weekham* or *Wykeham* Hall was conveyed to the Hadham Hall estate, with the remainder following in 1633 (VCH vol IV,

1914). The lord of the manor, Arthur Capell, converted this into parkland, expanding his existing deer park and converting Wickham Hall to a park keeper residence and possibly a hunting lodge. This regeneration of Wickham Hall probably provided the impetus for the construction of the 17th-century barns and outbuilding.

The earliest map depicting Wickham Hall is a map of Bishop's Stortford for the purpose of 'Equalising the Poor Rates', dating to 1823 (HALS D/Z61/P1, Fig 1). This map shows the original hall in red, with later additions to the west and a perpendicular range extending south. The original hall and the later range form a courtyard with structures 2 and 4, the 17th-century barns. Structure 2 forms the southern boundary of the courtyard, whilst structure 4 provides the eastern side of the yard. The form of the historic yard has begun to be altered by the presence of structure 3, the 19th-century granary. Further expansion has taken place to the north of the historic farm core, with structure 1, the free-standing 19th-century barn, located at an angle to the buildings of the courtyard. A range of buildings, comprising stables and sheds (not included in the development area) extend north from the hall. A sizeable extension is shown attached to the north end of structure 4. An interesting omission is structure 5, the outbuilding believed to be contemporary with the 17th-century barns. This should be found at the south-west corner of structure 5 but there is no indication of a building in this location. However, the map does show a small structure attached to the west end of the barn, not present on the later Ordnance Survey mapping. It is possible that this represents the outbuilding, subsequently relocated.

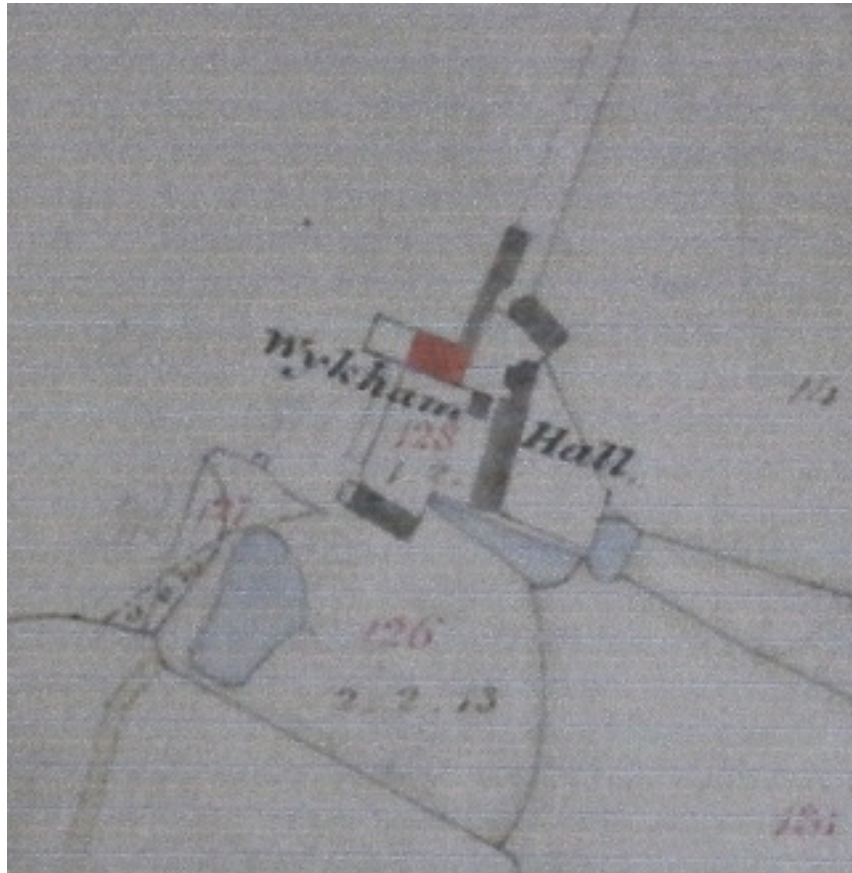


Fig 1 1823 map for 'Equalising the Poor Rates' (HALS D/Z61/P1)

The 1843 tithe map for Farnham parish (ERO D/CT 135B, Fig 2) shows little change to the 1823 layout. No additional buildings have been constructed at this point and the small structure at the west end of structure 2 is not present, although neither is there any indication for the 17th-century outbuilding, structure 5. The extension to the north of structure 4 has changed in shape and this may indicate a replacement building. The tithe

award lists the owner of the estate as Sir George Duckett (Baronet), the Rt Hon Earl of Essex, with the farm leased to William Stacey.

In the 19th century Wickham Hall straddled the county boundary between Hertfordshire and Essex. The hall itself and the outbuildings to the south-west were in Essex, whilst the farmyard and the remainder of the farm buildings were located in Hertfordshire. The first edition Ordnance Survey for Essex reflects this, only showing those buildings within Essex. Unfortunately there is no first edition Ordnance Survey map showing the Hertfordshire portion of Wickham Hall and the next cartographic source for the farm buildings is the 1898 second edition Ordnance Survey map (Fig 3).

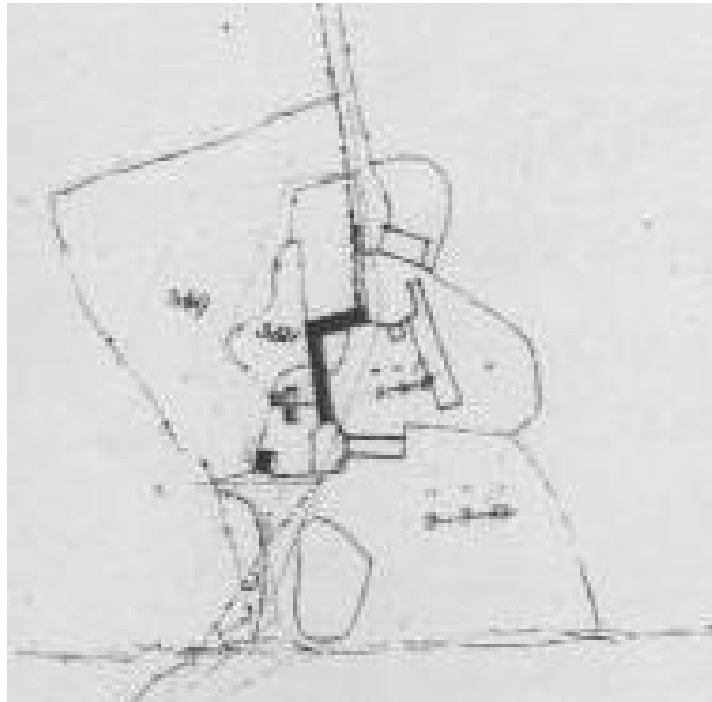


Fig 2 1843 tithe map (ERO D/CT 135B).

The second edition Ordnance Survey map shows that there was significant expansion at Wickham Hall between 1843 and 1898, in keeping with the national trend that saw these years described as the 'Golden Age of Farming', a boom time characterised by the construction of new agricultural buildings. Structure 2, the 17th-century aisled barn, has two walled yards added to its east end, whilst the second 17th-century aisled barn, structure 4, is shown with an extension to the east, as well the extension to the north. Structure 1, the 19th-century barn, is shown with a rectangular building attached to its south side, which must be structure 11, the loose box. There are additional structures on its north side, including the brick walls of structure 10 and the covered cattle yards. Additional buildings have been constructed throughout the farmyard. There is a small rectangular building to the north of the granary, structure 3, and a slightly larger building is located west of structure 4. South of structure 2, on the same alignment, is a rectangular building, the 19th-century wagon lodge, structure 6. This is shown larger than its modern dimensions, accounted for by a square structure on the east end which has since been demolished. Two smaller outbuildings are shown to the south of structure 6 but these have subsequently been demolished. Structure 5 appears for the first time on the second edition Ordnance Survey, which calls into question the accuracy of the listing date. Based on the cartographic evidence structure 5 should be dated to the mid or late 19th-century and not the 17th century. However, it is possible that based on the small size of the structure it was omitted from earlier mapping.

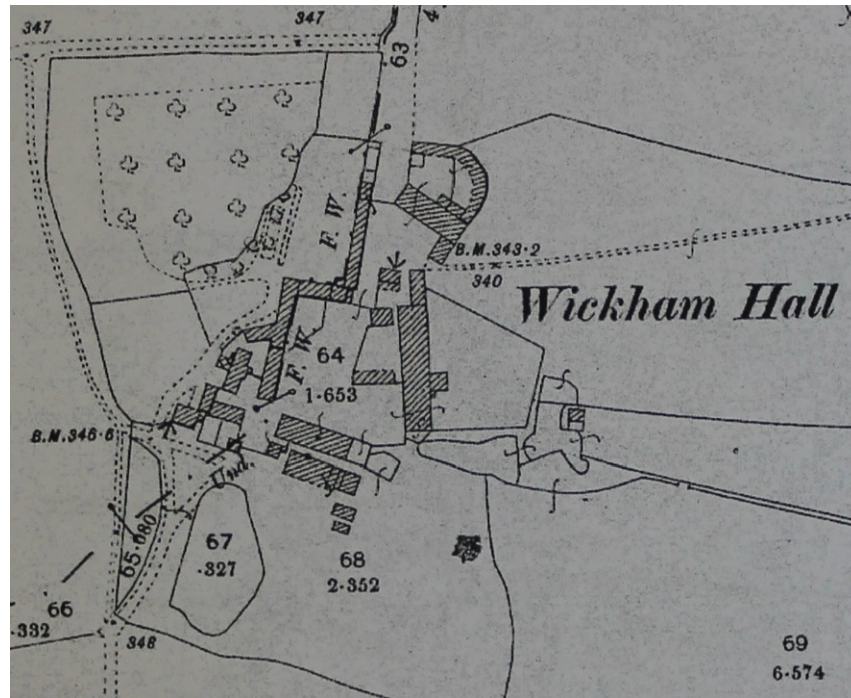


Fig 3 Second edition 25" OS map, 1898.

Wickham Hall had expanded still further by 1921, with the New Series Ordnance Survey map for that year (Fig 4) showing two large buildings to the east of structure 4 and a long building at the east end of structure 1. The remainder of the farm buildings appear unaltered.

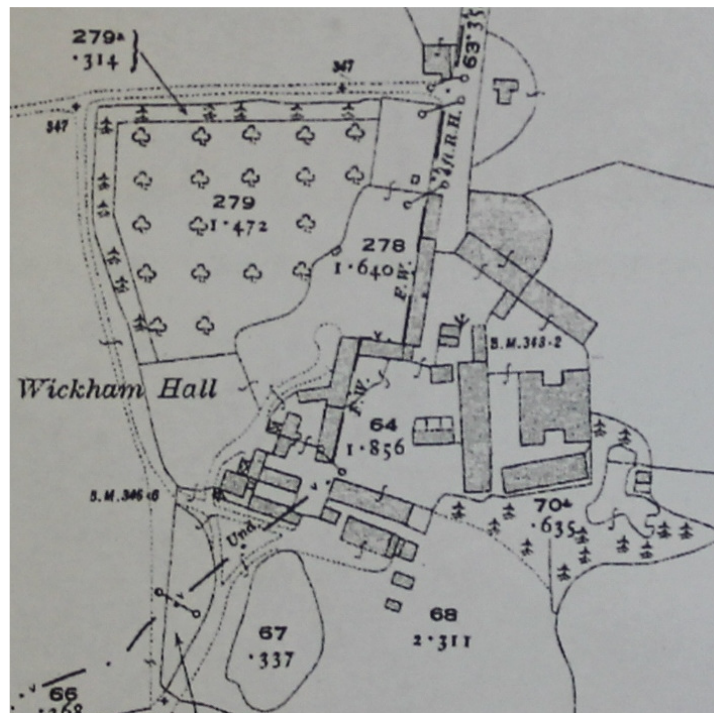


Fig 4 New Series Ordnance Survey 25" map, 1921.

A sales catalogue (ERO SALE/B8980) was produced in November 1932 by Sworder and Sons of Bishop's Stortford for the auction of the estate of the late Mr Frank Stacey, which included Wickham Hall. The catalogue claims the estate was in his family for the previous 140 years, a claim that is substantiated by the name of the tenant farmer mentioned on the tithe award, William Stacey. Wickham Hall is described as being a homestead in good condition with three large barns, including well-planned milling floors, loose boxes and granary. It is also described as having 'first-rate covered cattle yards for 60 bullocks, with a carefully planned water supply laid throughout.'

6 Descriptive record (Figs 5-43)

Wickham Hall is located to the north-west of the Roman and medieval town of Bishop's Stortford accessed by a private road leading northwards from the A1250 (Fig 5). Although the urban development of Bishop's Stortford has drawn closer to the farm, the landscape around Wickham Hall is characterised by open arable fields interspersed with small, scattered areas of woodland.

The buildings within the survey comprise seven distinct structures and part of an eighth. These structures have been identified by a number in the following text which corresponds to those on the block plan (Fig 6). At the time of the survey, with the exception of the dilapidated structure 4, all of the buildings were in use as part of the working farm. The farm buildings were constructed in three phases. The earliest of these, Phase 1, dates to the 17th century and includes structures 2, 4 and 5. Phase 2 dates to the early 19th century, pre-1823, and comprises structures 1 and 3. Phase 3 dates from the mid-late 19th century, 1843-98, and includes structures 6, 11 and part of structure 10.

Structure 1: 19th-century barn (Figs 6, 7-12)

External description

This is a rectangular two-storey timber-framed barn, 9.4m wide by 24.7m long, constructed from softwood timbers and with a gabled roof of corrugated asbestos sheeting. It is aligned north-west to south-east and clad in black-painted horizontal weatherboarding (Plate 1). There is a loose box (structure 11) projecting from the south-west elevation and a single storey extension attached to the north-west end, which dates to the 20th century. The north-east side is obscured by structure 10, the 20th-century horse shed (structure 10). The entire structure sits on a plinth constructed from red brick laid in Flemish bond. The south-west elevation (Fig 9) has a large, centrally located doorway that has been reduced in height, with the original cart doors replaced by a pair of sliding doors. There are two small windows on the north-west corner and two larger blocked openings to the right of these. An iron drive wheel is mounted at the north-west corner of the elevation (Plate 2). The north-west elevation (Fig 8) is partially obscured by the 20th-century extension and is unremarkable. There is a small window inserted near the apex of the gable. The south-east elevation (Fig 10) has plywood sheeting replacing much of the weatherboard below the gable. Towards the north-east corner of this elevation the brick plinth has been cut by the insertion of a doorway. The north-east elevation (Fig 11) has a centrally located doorway. Although this is in the same position as the original doorway, the doors are much smaller replacements, with the original opening partially blocked. A doorway has been inserted through the brick plinth to the left of the larger opening.

Internal description

The interior of the barn is divided into seven bays of roughly equal width (Fig 7, Plate 3). The floor is of loose dirt, apart from bay 4, part of bay 5 and a section connecting the two inserted doors, which is of degraded concrete. The principal posts are large section, square-cut timbers rising from a sill beam carried on the brick plinth, with girding beams in between. The wall frames have close studs with primary straight braces, although in places, notably the north side of bays 5-7, the studding has been replaced and the bracing omitted. The principal posts are held under tension by tie beams carried on the wall plate. These support queen post trusses, the joints of which are strengthened with iron strapping (Fig 12, Plate 4). Queen post roofs were often constructed when the width of the building required a tie beam longer than the timber available. The tie beam would then be

fabricated from several timbers connected by a scarf joint. However, the tie beams of structure 1 are formed from single timbers, which might suggest they originate from abroad, possibly the Baltic, which was a major provider of timber to Britain in the post-medieval period. This theory is supported by the presence of Baltic shipping marks on the tie beam of truss D (Plate 5).

The roof of the barn has been rebuilt at least once and possibly twice. A queen post roof would be expected to have at least two purlins to spread the weight of the roof covering, one (or possibly two) supported by the principal rafter and one held at the junction of the head of the queen post with the straining beam. The present roof has a single purlin to each pitch, high up on the principal rafter. The common rafters, which are modern machine-cut timbers, are secured at the wall plate with a lime mortar and connected to a ridge board at the other end. The ends of the roof show that the replacement roof was originally half-hipped (Plate 6) but has subsequently been altered to a gable roof. The half-hipped roof is likely to have been modelled on the original design which was probably thatched, in keeping with the roof covering of the other two barns. However, the close spacing of the battens on the rafters of the replacement roof indicates that thatch was abandoned in favour of plain tiles or slates, probably plain tiles to complement the nearby farmhouse. The modern roofing of asbestos sheeting was probably added at the same time that the half-hipped roof was converted to a gabled roof.

In addition to the Baltic marks there is also graffiti on the tie beam of truss D. The name 'Simon' is scratched onto the south-east face. The south-east face of truss C, however, carries a carved inscription 'G 1832 P' (Plate 7). It is uncertain what the initials stand for but it seems likely that this is a reference commemorating the erection of the barn, with the initials perhaps belonging to the builder. As the farm was rented by the Stacey family in 1832 it seems unlikely that the initials refer to the tenants or the owner, the Earl of Essex.

No carpenters' marks were observed on either the wall frames or the trusses, although it is possible they exist on the exterior of the frame, obscured by the weatherboarding.

Alterations to the original structure are minimal. The opening for the cart doors on the south-west side of bay 4 has been reduced in size and sliding doors inserted: the doorway opposite has likewise been reduced in size. The presence of these doors, in the middle bay of the barn, suggests the barn may have been used for threshing, with grain-laden carts entering via the farmyard-side doorway and exiting from the opposite side. There is no obvious architectural indication of a midstrey (although the conversion of the cart door opening to a sliding door may have removed any trace of this) and the cartographic sources do not suggest one's presence. Even if the barn was not used for threshing, these doors were clearly intended to allow carts to pass through, loading and unloading agricultural produce. Smaller doorways have been inserted through the brick plinth in bays 6 and 7 and these are most certainly linked to the construction of the covered cattle yards and later horse shed (structure 10) to the north of the barn. A small window has been inserted to the lower register of the north-west end, although this has subsequently been covered over by the 20th-century extension. The main alteration to the barn is an inserted mezzanine structure with two floors that occupies the entirety of bays 1 and 2 and functioned as a grain store and feed preparation area (Plate 8). This is supported on posts with the floor level just below the level of the girding beams and is accessed by a steep flight of stairs. The underside of the mezzanine floor carries a variety of modern electrically-powered machinery, such as grain hoists, but at the rear of bay 1, parallel to the exterior wall, there is a belt drive assemblage linked to the drive wheel on the exterior of the barn (Plate 9). Power, provided by a traction engine attached to the external drive wheel, was transferred to the internal wheels and thence to machinery on the first floor via belts passing through voids in the mezzanine floor. This machinery was placed on a bench on the first floor and was used to prepare food for the farm animals. Surviving machinery includes an oil cake breaker (oil cake being a Victorian innovation to feed to cattle) and a Rapid Grinding Mill by Bamfords of Uttoxeter (Plate 10). These machines help to date the mezzanine and suggest it was contemporary with the construction of the cattle yards to the rear of the barn. Both machines prepared feed for cattle and the grinding mill was in production between 1883 and 1890, a date in keeping with when many arable farms began to diversify in order to address the slump in farming that occurred in the late 19th century. The remainder of the first floor is occupied by two large grain stores. The second floor, smaller in area than the first floor, is accessed by a ladder. Although a modern water tank takes up much of the floor space, it is still possible to see that the purpose of this floor was

to act as a grain loft, evidenced by pulleys and a trap door through which grain sacks would be hoisted (Plate 11).

Structure 2: 17th-century aisled barn (Figs 6, 13-23)

External description

Structure 2 is a rectangular timber-framed barn, 25.25m long by 10.25m wide, aligned roughly east to west and constructed from hardwood timbers. There is a lean-to on the east end and the entire structure is thatched, with a half-hip roof at the west end and a catslide roof at the east end (Plate 12). There is a centrally located opening with high cart doors and a threshold leap in the north elevation with a smaller doorway to the east of this (Fig 14). The structure sits on a brick plinth laid in rough English bond which is exposed to a greater depth at the east end. The plinth has an area of rough, irregularly bonded brickwork to the east of the cart doors, suggesting an opening has been blocked (Plate 13). The exterior walls are a combination of black-painted horizontal weatherboard and areas of render/daub. The south elevation has a small doorway in line with the cart doors (Fig 15) but is otherwise unremarkable. The west elevation shows a window inserted off-centre (Fig 16) and the east elevation is obscured by the single-storey lean-to (Fig 17). The lean-to, although not contemporary to the original building, appears to be almost as old and probably dates to the late 17th century. The north wall of the lean-to has a centrally located doorway and the weatherboard (wide and thick plank cladding) and the plank door are possibly original (Plate 14).

Internal description

The interior shows the barn to be aisled and divided into five roughly equal bays (Fig 13, Plate 15). These bays are split between two separate structures, joined by abutting jowled arcade posts (Plate 16). Bays 1-2 form a structure to the west, whilst bays 3-5 form a structure to the east. Both are similar in design and construction, with bays 1-2 being an extension to the larger barn. The documentary sources and the list entry suggest an early 17th-century date for bays 3-5, a date supported by the carpentry techniques employed in their construction. The other bays also have carpentry techniques that date the structure to the 17th century, but it seems more likely that a mid-late 17th-century date is applicable to this end of the barn. At the time of the survey the barn was in use as a workshop, filled with a large amount of tools and machinery.

The aisle walls are timber frames with sill beams carried on the brick plinth, although the studs are nearly all partially or completely concealed by a modern render (Figs 18-21). The aisle walls are linked at each bay to the arcade posts by low brick plinths that carry short sill beams, from which the arcade posts rise. A secondary beam ties together the aisle plate and the centre of the arcade post and is supported by a short straight brace. The joints of these timbers are double-pegged and some of the frames have later infill (Figs 22-23). The arcade posts all have jowled heads, those to bays 3-5 being flared and those to bays 1-2 being tapered. The roof trusses in both sections of the barn are of queen post construction, but trusses C-E, in the early 17th-century portion of the barn, have straight queen posts rising from the tie beam supporting a collar beam (Fig 22, Plate 17), whilst trusses A-B have inclined queen posts (Fig 23, Plate 18). The arcade posts of trusses C-E have long, lightly curved braces to the tie beams and straight bracing to the arcade plates. The arcade posts of trusses A-B have sinuously curved braces to the tie beams, whilst the braces to the arcade plates are lightly curved.

All of the arcade posts and braces display chiselled carpenters' marks (Plate 19) as do some of the junctions of the tie beams and queen posts. A particularly interesting mark, a star flanked by an (I) to either side, is located on the west face of the tie beam of truss B (Plate 20).

The timbers of the aisle plates and arcade plates are joined in several locations with scarf joints. In the earlier part of the barn these joints are predominantly edge-halved and face-halved with bladed abutments and bridled scarfs (Plate 21), indicators of medieval and early post-medieval carpentry techniques. The later part of the barn has only edge-halved with bladed abutment scarf joints, which suggests a slightly later date.

The roof, carried on the queen post trusses, comprises long, hand-sawn timbers supported on a single purlin at the queen post collar level. There is no ridge board. Bays 1

and 2 have intermediate collar beams providing additional support to the roof. The thatch encompasses both portions of the barn and the lean-to and, although obviously not original, probably reflects a shape that has remained unchanged since the late 17th century.

The cart doors to bay 3 are central to the entire structure, but, as the earlier barn is a three-bay structure, the doors are not central to the original barn as would be expected. This indicates the cart doors have been relocated, probably in the mid-late 17th-century when bays 1 and 2 were added. Evidence for this can be seen in the hood of the porch (Plate 22) where the rafters end at the arcade plate and the flare of the hood has been formed by inserted timbers with lateral bracing. The braces of the arcade posts to this bay have been sawn off to allow carts easier entrance to the barn. The original cart door opening was in bay 2. Evidence for this can be seen in the north wall of the bay, where all of the timbers are replacements, as is the brick plinth. A doorway was inserted through this wall, probably at the same time as the cart doors were relocated. A doorway exists in the south wall of bay 3, shown only on the exterior elevation (Fig 15) as the interior has been concealed by the render applied to the lower register of the frame. It is not possible to say if this doorway is original or a later insertion, but its position (opposite the relocated cart doors) suggests it is later.

Structure 3: 19th-century granary (Figs 6, 24-26)

External description

Structure 3 is a rectangular timber-framed granary 9.3m long by 7.1m wide, aligned east to west, clad in black-painted horizontal weatherboard, constructed from hardwood timbers (Plate 23, Fig 24). It has a hipped roof of corrugated iron sheeting and is carried upon twenty-five cast iron staddles (Fig 25). There are doorways in the north, south and west elevations, although the one to the south has been blocked. There is a small window in the east elevation and a similar window in the west wall, to the north of that elevation's centrally located doorway.

Internal description

The interior of structure 3 showed the building to be constructed from machine-cut timbers with primary bracing. At the time of the survey the structure was used as a games room and was heavily cluttered (Plate 24).

The interior is divided into four bays with the timber frame comprising a sill beam supporting square principal posts, a wall plate and close studding. The sill beam is obscured by the plank floor, which is formed from 22cm wide boards. The principal posts support the wall plate with the tie beams of the roof trusses carried on the wall plate. The tie beams are straight, rectangular-section timbers with lightly arched braces. The braces are double-pegged to the posts and tie beams (Fig 26). The joints of the tie beams and the wall plate have been strengthened with iron straps. The roof trusses are king post construction, strengthened by a collar beam which clasps the single purlin that carries the rafters (Plate 25). An iron tie rod has been threaded through the tie beams connecting the gable ends.

There are face-halved scarf joints in the centre of each of the wall plates but no evidence of carpentry marks was observed. The gaps between the studs have been infilled with lath and plaster, although this is very decayed in places. The original entrance to the granary was via the door in the west wall, the other two doors being later insertions.

Structure 4: 17th-century aisled barn (Figs 6, 27-32)

At the time of the survey, structure 4 was in a ruinous state, heavily overgrown with thick vegetation, with no roof present and no surviving walls. Although the majority of the arcade posts on the east side were still upright, many were leaning at precarious angles with dangling rafters. Due to these conditions it was deemed too hazardous to enter the structure and the building recording was confined to an external survey. As a consequence, the following description and the accompanying figures draw heavily upon observations made in 2006 by the Essex County Council Field Archaeology Unit (Letch 2010) and the structural inspection carried out by Philip Harvey Associates Ltd in 2009.

External description

Structure 4 is a two-storey rectangular timber-framed barn, 40.25m long by 10.6m wide, aligned north to south, constructed from hardwood timbers (Fig 27). It is in an extremely ruinous state with no roof and hardly any of the exterior walls surviving (Plate 26). The list entry for the barn states the roof was thatched and earlier surveys indicate the exterior walls were rendered with both wattle and daub and concrete/plaster finishes. There are the remains of black-painted horizontal weatherboarding to some of the surviving lower registers, but the majority of the lower registers appear to have been rendered. It is suggested by the earlier surveys that the render on the upper registers was predominantly wattle and daub, but the author cannot verify this. At the north end there are the remains of a single-storey lean-to (Plate 27) which has replaced an earlier extension (noted on the cartographic sources) which probably dates to the 19th century.

The entire structure sits on a brick plinth laid in rough English bond, which has been rebuilt at the south end, where there is a far greater depth of brickwork than is apparent at the north end. Large metal vents have been inserted to the plinth, one to each bay, presumably to improve air flow to the barn (Fig 28). The east side of the plinth has been buttressed with the addition of nine roughly square brick piers and one rectangular block work pier.

The elevations show there were cart door entrances in two locations, at bays 3 and 7 on the west side. There are equivalent openings on the east side, although one has been blocked. Based upon the condition of the surrounding brickwork, these entrances appear to be original. Windows were inserted at several places, including in the upper register of the south wall and in the aisle wall of the east elevation.

Internal description

The interior of the structure is aisled and divided into nine roughly equal bays with concrete floors (Fig 27). The arcade posts rise from sill beams carried on brick plinths that extend perpendicular to the aisle walls, many of which appear to have been rebuilt with concrete blocks. The arcade posts are large section timbers with jowled heads, those observed being flared. Each post has three arched or curved braces, two to the arcade plate and one to the tie beam. The tie beams are large-section timbers, lightly cambered, which, according to the list entry, supported a queen post truss. There is no further evidence for the roof structure, but the similarities to structure 2 suggest the roof would have had a single purlin to either pitch.

Where the framing survives and is not obscured by the render, it indicates that there is primary bracing to the wall frames. The 2006 survey noted that there was edge-halved and bladed scarf jointing in the arcade and aisle plates and that there was an abundance of carpenters' marks. The inability to enter the barn made it difficult to confirm this but carpenters' marks were observed on the aisle sill of bay 3/4 (III, Plate 28) and on a fallen brace from truss C (V).

Structure 5: 17th-century outbuilding (Figs 6, 33-37)

External description

Structure 5 is a small, single-storey timber-framed outbuilding, 4.2m long by 3.5m wide, located at the south-west corner of structure 3, constructed from hardwood timbers (Plate 29, Fig 33). The structure is clad in black-painted horizontal weatherboard, some of which (on the north and east walls) may be original (Plate 30). There is a low 20th-century lean-to on the south side, probably intended as a dog kennel but filled with rubbish at the time of the survey. The 17th-century structure is roofed in thatch with the 20th-century lean-to having a corrugated metal roof extending from beneath the eaves of the earlier building (Fig 35). The outbuilding sits on a low brick plinth, apparently laid in English bond, although much of the plinth is hidden below modern ground level.

The west elevation is dominated by a large doorway with two unglazed window openings above and holds a plank door with strap hinges. This door is a later replacement to the structure but its latch, a simple iron affair (Plate 31), appears to be either original or early in date. An incised mark on the latch (IXI) is almost identical to a carpenter's mark on a tie beam in structure 2 and may indicate an association between the two structures.

Internal description

The interior of the structure was in use as a bin store at the time of the survey and was not easily accessible (Plate 32). However, enough of the interior was visible to see that it has a primary-braced frame with lath and plaster infill. In particular, where the lath and plaster has deteriorated, it was possible to see the thick plank cladding attached to the exterior of the frame (Plate 33). The frame of the west wall has been rebuilt to incorporate the later doorway. The wall plate has been cut and raised and softwood studs inserted either side of the opening. This has altered the pitch of the roof at the west side and the rafters are replacement machine-cut timbers. The remainder of the rafters are original timbers, although the battens for the thatch are later. There are no visible carpenters' marks.

Structure 6: 19th-century wagon lodge (Figs 6, 38-43)

External description

Structure 6 is a rectangular timber-framed and open-sided wagon lodge, 20.3m long by 8.5m wide, constructed from softwood timbers (Fig 38). It has a hipped roof of corrugated plastic sheeting and is aligned roughly north-west to south-east (Plate 34). There is a later lean-to structure along the entire north-east side. The end elevations are clad in black-painted horizontal weatherboard, with the south-east frame carried on a low brick plinth. The north-west wall frame also sits on a low brick plinth but this, along with the lower part of the frame, has been encased in concrete.

Internal description

The interior shows the wall frames to have primary bracing (Plate 35) with the side frames comprising posts supporting a wall plate and tie beams, dividing the structure into seven bays. Three of the posts on the south-west side have concrete buffers to their base, with the remainder set into the ground. The bases of the posts to the north-east side are obscured by a raised concrete platform that forms the floor of the lean-to. Each of the posts is a straight timber and has small arched braces double-pegged to the wall plate and a larger arched brace double-pegged to the post and tie beam (Plate 36). The tie beam forms the base of a queen post roof truss, with the queen posts single-pegged to the tie beam and the principal rafters. Instead of a straining beam the truss has a collar double-pegged to the principal rafters which clasps a single purlin to either pitch. The purlins and the rafters are machine-cut replacement timbers.

Bay 6 has been enclosed by block walls rising full height from the concrete floor to the undersides of trusses E and F, whilst the bay opening to the south has been blocked by a sliding door.

The south-west wall plate has edge-halved scarf joints dividing the wall plate into three roughly equal timbers. The north-west wall plate has the same arrangement although there are two additional scarf joints where a replacement section has been inserted to the wall plate.

There is an abundance of carpenters' marks on the posts and braces of the south-east elevation. The braces to the wall plate have chiselled marks starting with (I) at the north-west corner and continuing in sequence to (XIII) at the south-east corner, although some are too worn to read (Plate 37). The braces of the posts to the tie beams appear to have (I-VI) starting at the south-east corner and continuing sequentially to the north-west corner, although only marks (V) and (VI) are legible. There are marks on the posts and braces of the north-east elevation suggesting the same type of sequential numbering, although far fewer examples are legible. Marks equivalent to the numbers on the tie beam braces can also be found at the joint of the tie beam to the queen posts.

Structure 10: 19th-century wall to 20th-century horse shed (Fig 6)

In the mid 19th century cattle yards were constructed on the north side of structure 1 (Fig 6). These comprised open-fronted timber structures arranged around a yard formed by two brick walls (Plate 38). The open area formed by the brick walls was subsequently roofed over and became covered accommodation for horses in the 20th century. The walls are constructed from red brick laid in Flemish bond and have full height buttresses. The north to south aligned wall has pairs of decorative burnt brick headers arranged in a symmetrical

pattern that could be considered as a stylised 'W' over a 'Y' (Plate 39). These are the first and last letters in William Stacey's name, the tenant listed on the 1843 tithe award, and it is tempting to see the patterning as a monogram recording his tenancy.

Structure 11: 19th-century loose box (Figs 6-10)

External description

Structure 11 is a single-storey rectangular timber-framed shed, 9.8m long by 5.2m wide, located at the south-west corner of structure 1 (Fig 6, Plate 40). It is clad in black-painted horizontal weatherboarding over a softwood frame and has a gabled roof of corrugated iron sheeting. The building sits on a brick plinth laid in English bond with a flint rubble foundation (Plate 41). There is a stable door in the centre of the north-west elevation and a 20th-century lean-to extending the full length of the south-east elevation. The south-west end has a large opening inserted to it, partially blocked by a six-rail gate. Above this there is a boarded-over opening with iron pintels, suggesting the presence of a hatch or small pitching door in the gable.

Internal description

The interior of the structure is divided into three bays, but a later partition has turned the previously open interior into two stalls (Fig 7). This was probably inserted when the gable end was opened up. The timber-framing has been obscured by the application of a concrete render and corrugated iron sheeting has been inserted as a ceiling, with the curved braces to the tie beams being the only visible part of the original frame (Plate 42). The corrugated sheeting may have replaced an earlier ceiling as the blocked door in the gable suggests the presence of a hay loft.

7 Discussion

The buildings at Wickham Hall span four centuries of British farming and reflect the changes that took place over that time. The evolution of the farm buildings are intrinsically linked to Wickham Hall itself. The oldest part of the Hall, with its Tudor chimneys, dates to the 16th century, but improvements and extensions were added over time as the fortunes of the owners allowed and fashion dictated. The farm buildings evolved in the same manner, enlarged, improved and added to as and when it was necessary. In the early 17th century this evolution was instigated by the doubling of the population to over five million by 1660, along with an associated rise in grain prices. This made arable farming an attractive prospect (*Historic Farmsteads, Preliminary Character Statement: East of England Region*, 24). This scenario was played out at Wickham Hall in the 17th century. The aisled barns and the outbuilding all date to this century but have their own chronology within it. Structure 2 comprises a three-bay barn and a two-bay extension. The original barn dates to the early 17th century and was ideally suited to a small farm's needs. It probably functioned as a threshing barn, with the outer bays providing storage space for the unthreshed crop and the centre bay forming the threshing floor, where grain was beaten with flails. A grain crop, whether wheat, oats, barley or rye, is called corn and requires processing to be of use. Firstly the ears of the corn have to be separated from the stalk, a process called threshing and then the grains separated from the chaff, winnowing. A barn is the building where this processing takes place. The most common method of threshing corn, prior to mechanization, was by hand flail, a practice in use from the medieval period to the middle of the 19th century (Brunskill, 38). This process, carried out in the winter months, required space, light, ventilation and a hard surface upon which to beat the corn. The high barn doors provided adequate light even in winter and the threshold leap kept flying grains in and prevented farm chickens from eating the harvest. When the corn was separated from the straw the remaining grains were winnowed by tossing them into the air.

As the population grew, and demand for grain rose, there was obviously an opportunity to expand the arable production at Wickham Hall. Greater production required greater processing and storage and this explains why structure 2 was extended in the mid-late 17th century. It would appear that this boom time for Wickham Hall was to get even better

in the late 17th century. Although there is no direct evidence to support the theory, it is the author's opinion that structure 4, the nine-bay barn, was constructed after structure 2, coinciding with an increase in grain production. Structure 4 has two sets of cart doors, implying two threshing floors and it seems likely that the unthreshed crop would have been stored in the outer bays and then, after threshing, the separated straw deposited into the three central bays. Prior to 1750 it was common practice for grain to be stored in the loft of the farmhouse, but after this date, due to the increase in yields, purpose-built granaries appear in the East of England. The extension to structure 4, seen on the earlier maps, may have been some form of granary. The presence of two barns may also indicate that wheat and barley were threshed separately.

Structure 5 is considered to date to the 17th century, although the cartographic evidence suggests a later date. However, the construction techniques, materials and appearance are all similar to the barns and it is possible that this outbuilding was considered too small to appear on the earlier mapping. The inscribed marks on the door latch are very similar to a carpenter's mark on one of the tie beams of the extension to structure 2 and it is tempting to place these two structures in the same time frame, the mid-late 17th century. The original function of this building is uncertain, but based on the small size of the structure it was probably used to store implements.

Further expansion of the farm took place in the late 18th and early 19th centuries. Fig 1 shows that structures 1 and 3, the north barn and the granary, had been built by 1823. This expansion was a result of an increase in agricultural productivity brought about by the huge population rise from 1750 onwards and the higher grain prices obtained during the Napoleonic Wars. This placed increased pressure on British farmers to produce enough food to feed the country. Reclamation of marginal land was the traditional way of increasing agricultural output, but it was becoming clear to landowners that an alternative approach was needed. The alternative to more farming was better farming (Harvey 1984, 64). This meant a change in existing farming practices, with innovations in technology and crop types allowing greater productivity.

Structure 1 has characteristics that suggest it was originally intended as a threshing barn, which would reflect the regional trend for the growth of arable farming at this time, and indicates that Wickham Hall, with its three barns, was obviously becoming a large farm. The inscribed date of 1832 on one of the tie beams contradicts the cartographic evidence which dates the barn to pre 1823. The most obvious explanation for this is that the barn was rebuilt in 1832, replacing an earlier short-lived structure. An alternative explanation is that the inscription refers to the insertion of the mezzanine, but this is not very convincing, as the mezzanine has characteristics that place it later in the 19th century.

The years between the 1840s to the 1870s are known as the 'High Farming' period and are characterised by increased output brought about by the availability of imported artificial fertilisers, manure and feeds such as oilcake. These replaced on-farm produced feed and manure, allowing more land to be turned over to cash crops. The improvement and expansion of infrastructure provided a wider market for crops. An Act of Parliament in 1849 provided loans for investment in new farm buildings and many farms embarked on programmes of renewal and investment.

Structures, 6, 10 and 11 are buildings that reflect this investment. Constructed 1843-98 (but probably at the earlier end of this date range), these buildings are an indicator of the increased agricultural output at Wickham Hall in the mid 19th century. The seven-bay wagon lodge shows not only a need for a large number of carts and wagons to move the crop around but also an investment in protecting valuable equipment from the elements. The loose box was needed to house the additional draught animals required to pull these extra wagons. However, it is the brick wall associated with structure 10 that is the most interesting feature from this time, being a visible sign of a change in farming practices. The 'High Farming' years came to an end in the late 1870s after several seasons of poor weather and failed harvests and the collapse of grain prices in the face of cheap foreign imports. This brought about a depression in British farming. Luckily for Britain's farmers this was offset against a rising urban demand for milk and many of the eastern region's ailing arable farms diversified into small-scale dairy farming, turning their valueless wheat fields over to pasture and exploiting the cheap foreign grain as feed (Harvey 1984, 165). The brick walls of structure 10 enclosed yards for cattle with sheds to the east providing shelter. Bullocks would have been kept over winter, filling the yard with their manure which

was spread on the fields in the spring. The cattle would have been fed on oilcake or root vegetables and it is this fodder that was prepared in the mezzanine of structure 1.

Structure 1 has an external drive wheel that would have been attached to a steam-powered traction engine. This provided the automotive power that drove the oil cake breaker, the grinding mill and other feed machines located on the first floor of the mezzanine.

The diversification to cattle shows how Wickham Hall was affected by the depression, as all British farms were, but the steam-driven feed machines suggest that Wickham Hall was wealthy enough to cope with the depression and the changes that accompanied it.

Prosperity is a theme that appears to have been continual for Wickham Hall since the 17th century. The size and quality of the two listed barns (structures 2 and 4) suggest Wickham Hall was relatively wealthy in the early post-medieval period and remained so in the 18th and 19th centuries. The continual expansion, the upkeep of old buildings and the embracing of new technology indicate a degree of economic success throughout the farm's history. This is probably linked to the ownership of the farm through the centuries. In the 17th century it was part of private parkland, it then came into the possession of the Earl of Essex and at the very least was run by the same family for 140 years throughout the 19th century and early 20th century. Such continuity of stewardship provided stability, growth and access to funds, enabling the survival and prosperity of Wickham Hall through times that saw other, smaller farms, fail.

The buildings surveyed at Wickham Hall are excellent surviving examples of post-medieval agricultural structures, which have been maintained (with the exception of structure 4) in good condition and are relatively unaltered from their original design. They form a complex that charts the history of high end farming on the Hertfordshire/Essex border, one that is essentially unspoilt by the intrusion of modern farm buildings. Because of the quality of the surviving buildings, the unspoilt nature of the farmyard and the traceable history of the farm, Wickham Hall should rightly be considered an important historical site, not just regionally but also nationally. Such structures are a finite resource, part of a vanishing landscape, the study of which enriches our understanding of the past and the people who once lived and worked in it.

8 Acknowledgements

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Plans are based on surveys carried out by Sworders Agricultural and Philip Harvey Associates Ltd.

The building recording was carried out by Chris Lister.

The project was monitored by Alison Tinniswood on behalf of Hertfordshire County Council.

9 References

Note: all CAT reports, except for DBAs, are available online in .pdf format at <http://cat.essex.ac.uk>

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VCH	1914	<i>Victoria County History of Hertfordshire vol IV</i>

10 Abbreviations and glossary

CAT	Colchester Archaeological Trust
context	specific location on an archaeological site, especially one where finds are made
EHER	Essex Historic Environment Record, held by the ECC
feature	an identifiable thing like a pit, a wall, a floor; can contain 'contexts'
HE	Historic Environment
IfA	Institute for Archaeologists
layer	distinct or distinguishable deposit of soil
medieval	period from AD 1066 to Henry VIII
modern	period from the 19th century onwards to the present
moiety	one half of two approximately equal parcels of land
NGR	National Grid Reference
post	in wall frames vertical members which rise the full height of the frame, being either main posts at the bay divisions or intermediate posts within the bay
post-medieval	after Henry VIII to around the late 18th century
purlin	longitudinal roof timbers, intermediate between wall-plate and ridge, carried by roof trusses and giving support to rafters

11 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Circular Road North, Colchester, Essex CO2 7GZ, but it will be permanently deposited with Hertford Museum.

12 Contents of archive

One A4 document wallet containing:

1 Introduction

- 1.1 Copy of HCC HEU design brief
- 1.2 Copy of WSI produced by CAT
- 1.3 Risk assessment

2 Site archive

- 2.1 Digital photographic record.
- 2.2 Digital photographic contact sheet.

- 2.3 Black and white 35mm photographic record
- 2.4 Black and white 35mm photographic contact sheet
- 2.5 Colour 35mm photographic record
- 2.6 Colour 35mm photographic contact sheet
- 2.7 Attendance register
- 2.8 Site photographic record on CD
- 2.9 1 pack colour prints with negatives, 1 pack black and white prints with negatives

3 Research archive

- 3.1 Client report

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Distribution list

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Appendices
Appendix 1
Selected photographs



Plate 1 South-west elevation of structure 1 (19th-century barn) with structure 11 (19th-century lean-to) on the right - view north-east



Plate 2 Iron drive wheel on corner of structure 1 – view north



Plate 3 Interior of barn 1 – view south-east



Plate 4 Interior of barn 1a showing queen post roof trusses – view south-east



Plate 5 Baltic marks on tie beam of truss D – view west



Plate 6 South-east gable of structure 1, showing the earlier half-hipped roof



Plate 7 Structure 1, inscription "G 1832 P" on tie beam of truss C, probably commemorating the date the barn was built and the initials of the builder - view north-west.



Plate 8 Mezzanine occupying bays 1 and 2 - view north-west.



Plate 9 Structure 1, drive belt linkage in bay 1 below the mezzanine. The power was transferred from the wheels via belts passing through voids in the mezzanine floor to machinery on the first floor - view north-west.



Plate 10 Victorian belt-driven grinder by Bamfords on the first floor of the mezzanine. The slots for the transfer belts can be seen in the top of the workbench and the oil cake breaker can be seen on the far left - view west



Plate 11 Second floor of the mezzanine showing grain hoist trap door and ladder to the first floor - view south-east.



Plate 12 Structure 2, 17th-century aisled barn - view south.



Plate 13 The brick plinth to the north elevation of structure 2, showing the change in brickwork where the original cart door entrance has been filled in - view south-west.



Plate 14 North elevation of the lean-to at the end of structure 2, possibly with the original weatherboard and door - view south-east



Plate 15 Interior of structure 2 – view east



Plate 16 Abutting arcade posts to trusses of structure 2 where the early 17th-century barn joins the mid-late 17th-century barn - view west



Plate 17 Structure 2, truss D of the early 17th-century barn with straight queen posts – view west



Plate 18 Structure 2, truss A of the mid-late 17th-century barn with inclined queen posts – view west



Plate 19 Carpenter's mark (III) on south arcade post and tie beam brace of truss B - view south-west



Plate 20 Unusual carpenter's mark on tie beam of truss B – view south-west



Plate 21 Edge-halved scarf joint with bladed abutments on south arcade plate of bay 3 – view south



Plate 22 Re-located porch to structure 2 showing rafters ending at the arcade plate and the sawn-off ends of the brace - view east



Plate 23 Structure 3, 19th-century granary - view south-west



Plate 24 Interior of structure 3, 19th-century granary – view south-west



Plate 25 Structure 3, kingpost roof truss showing strengthening tie bolt and collar – view south-west



Plate 26 Structure 4, 17th-century aisled barn – view north-east



Plate 27 Structure 4, with the 19th-century extension in the foreground – view south-west



Plate 28 Structure 4, carpenter's mark (III) on aisle sill beam to bay 3/4 - view south-east



Plate 29 Structure 5, 17th-century outbuilding with 20th-century attached lean-to and structure 2 on the left – view south-east



Plate 30 Structure 5, north elevation with possibly original weatherboard – view south-east



Plate 31 Detail of iron latch on door of structure 5; possibly original to the building it shares similarities (the incised (IXI)) with a carpenter's mark on a tie beam in structure 2



Plate 32 Interior of structure 5 – view south-east



Plate 33 Primary bracing to the frame of structure 5 with the possibly original thick plank cladding attached to the exterior of the frame – view north-east



Plate 34 Structure 6, 19th-century wagon lodge – view north-east



Plate 35 North-west wall frame of structure 6 – view north-west



Plate 36 Structure 6, detail of bracing to south post of truss B - view east



Plate 37 Detail of carpenter's marks (XIII) on the post and brace of the south-east corner – view north-east



Plate 38 19th-century brick wall to structure 10 – view south-east

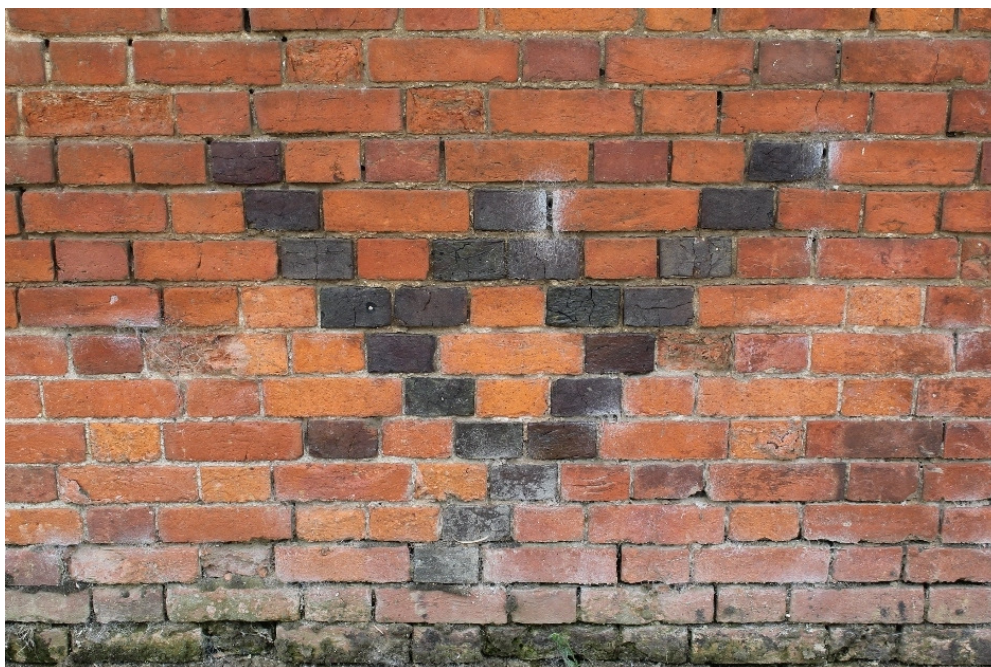


Plate 39 Stylised 'W' and 'Y' on 19th-century brick wall to structure 10



Plate 40 Structure 11, 19th-century loose box – view north-east



Plate 41 Flint rubble foundation to brick plinth of structure 11 – view north-east



Plate 42 Interior of structure 11 showing a curved brace. The framing has been obscured by modern render and the insertion of a corrugated iron sheet ceiling - view north

Appendix 2

Full list of digital photographic record (images on accompanying CD)

- 001.jpg Wickham Hall farmhouse - view north-west.
002.jpg Wickham Hall pond - view south-west.
003.jpg Structure 1, 19th-century barn with structure 11, 19th-century loose box, to the right - view north-east.
004.jpg Structure 11, 19th-century loose box with inserted opening - view north-east.
005.jpg Structure 11, 19th-century loose box with 20th-century lean-to attached and structure 1 in the background - view north-west.
006.jpg Structure 1, 19th-century barn with 20th-century lean-to attached - view south-west.
007.jpg South-west elevation of structure 1, showing replacement sliding doors over original cart door opening - view north-east.
008.jpg Structure 1, external drive wheel on south-west corner of barn - view north.
009.jpg North-east elevation of structure 1, partially obscured by structure 10 the 19th/20th-century horse shed - view south-east.
010.jpg Interior of structure 1 - view north-west.
011.jpg Interior of structure 1 - view south-east.
012.jpg Degraded concrete floor to bay 4 of structure 1.
013.jpg Queen post roof trusses of structure 1 - view south-east.
014.jpg South-east gable of structure 1, showing the original half-hipped roof timbers.
015.jpg Structure 1, Baltic marks on tie beam of truss D - view west.
016.jpg Structure 1, graffiti "SIMON" on tie beam of truss D - view north-west.
017.jpg Structure 1, inscription "G 1832 P" on tie beam of truss C - view north-west.
018.jpg Structure 1, hoist machinery below mezzanine in bay 2 - view north.
019.jpg Structure 1, drive belt linkage in bay 1 below mezzanine - view north-west.
020.jpg Structure 1, trap door for grain hoist in floor of mezzanine.
021.jpg Mezzanine occupying bays 1 and 2 - view north-west.
022.jpg Victorian belt-driven oil cake breaker on first floor of mezzanine - view north-west.
023.jpg Detail of the oil cake breaker, with local supplier's name plate.
024.jpg Victorian belt-driven grinder by Bamfords on first floor of mezzanine - view west.
025.jpg Operating instructions for Bamfords grinder.
026.jpg First floor of the mezzanine with the bench for the belt-driven machinery in the background - view north-west.
027.jpg Second floor of the mezzanine showing pulley for the grain hoist - view west.
028.jpg Second floor of the mezzanine showing grain hoist trap door and ladder to the first floor - view south-east.
029.jpg Structure 2, 17th-century aisled barn - view south-west.
030.jpg Structure 2, 17th-century aisled barn - view south.
031.jpg Cart doors to bay 3 of structure 2, view south.
032.jpg West elevation of structure 2 showing inserted window and structure 5 to the right - view south-east.
033.jpg Rear wall of structure 2 showing partial rendering of the frame - view east.
034.jpg Lean-to at the east end of structure 2 - view south-east.
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036.jpg Detail of the door latch to the lean-to on the east end of structure 2.
037.jpg The brick plinth of the north elevation of structure 2 showing the change in brickwork where the original cart door entrance has been filled in - view south-west.
038.jpg East elevation of the lean-to at the end of structure 2 - view south-west.
039.jpg Brick and flint panel wall to the yard at the east end of structure 2 - view west.
040.jpg Entrance to the yard at the east end of structure 2 - view south-west.
041.jpg Interior of the lean-to at the east end of structure 2, with early weatherboard and render on the exterior of the barn - view south-west.
042.jpg Recess for threshold leap in bay 3 of structure 2 - view south-east.
043.jpg Threshold leap to cart doors, stored to one side of the opening of structure 2 - view east.
044.jpg Interior of structure 2 - view east.

- 045.jpg Interior of structure 2 - view west.
- 046.jpg Roof of structure 2 - view south-east.
- 047.jpg Double truss of structure 2 where the early 17th-century barn meets the mid-late 17th-century barn - view west.
- 048.jpg Structure 2, bay 1 showing the arcade wall plate and the lightly-curved braces - view north.
- 049.jpg The north arcade post of truss A, with tapered jowl and curved braces to arcade plates and tie beam - view north-east.
- 050.jpg The south arcade post of truss A, with ogee jowl - view south-east.
- 051.jpg Bay 1, straight brace from corner post to arcade wall plate - view south-west.
- 052.jpg Prick post with large notch in gable end of bay 1 - view west.
- 053.jpg Detail of tapered jowl to north arcade post of truss A - view east.
- 054.jpg Structure 2, truss A of the mid-late 17th-century barn with inclined queen posts - view west.
- 055.jpg South posts of trusses B and C, with the early 17th-century barn to the left - view south-east.
- 056.jpg Carpenter's mark (II) on south arcade post and tie beam brace of truss A - view west.
- 057.jpg Carpenter's mark (II) on north arcade post and tie beam brace of truss A - view south-west.
- 058.jpg Carpenter's mark (III) on south arcade post and tie beam brace of truss B - view south-west.
- 059.jpg Carpenter's mark (IIII) on north arcade post and tie beam brace of truss B - view north-west.
- 060.jpg Carpenter's mark (II) on south arcade post and tie beam brace of truss C - view south-east.
- 061.jpg Carpenter's mark (II) on north arcade post and tie beam brace of truss C - view north-east.
- 062.jpg Carpenter's marks (I*) on tie beam of truss B and (II) on tie beam at base of queen post - view west.
- 063.jpg Carpenter's marks (I*) on tie beam of truss B and (II) on tie beam at base of queen post - view west.
- 064.jpg Straight bracing to south aisle plate and wall post of bay 3 with modern render obscuring the studs - view south.
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- 066.jpg North arcade plate of bay 3 showing the flared jowl of the post to truss D and the sawn-off ends of the arcade brace, removed when the cart doors were inserted - view north-east.
- 067.jpg Edge-halved scarf joint with bladed abutments on south arcade plate of bay 3 - view south.
- 068.jpg Carpenter's mark (III) on north arcade post of truss D and aisle rail - view south-east.
- 069.jpg Carpenter's mark (III) on brace to south arcade post of truss D - view south.
- 070.jpg Carpenter's marks (IIII) and (V) on south arcade post and braces of truss E - view north-east.
- 071.jpg Carpenter's marks (IIII) and (IIIIII) on north arcade post of truss E - view south.
- 072.jpg Internal elevation of the east wall - view east.
- 073.jpg Edge-halved scarf joint reinforced with iron strap on south arcade plate of bay 5 - view south.
- 074.jpg Face-halved scarf joint on north arcade plate of bay 5 - view north.
- 075.jpg Face-halved scarf joint in north arcade plate of bay 3 - view north.
- 076.jpg The inserted porch on the north side of bay 3 showing the original rafters terminating at the arcade plate with the later porch rafters above.
- 077.jpg Inserted porch to bay 3 with the original rafters terminating at the arcade plate.
- 078.jpg Structure 3, 19th-century granary - view south-west.
- 079.jpg Structure 3, 19th-century granary west elevation - view east.
- 080.jpg Structure 3, inserted doorway in north elevation - view south.
- 081.jpg Structure 3, doorway in west wall - view east.
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- 083.jpg Interior of structure 3 - view south-east.
084.jpg Interior of structure 3 - view south.
085.jpg Interior of structure 3 - view south-west.
086.jpg Interior of structure 3 - view north-east.
087.jpg Curved brace to truss C - view north-east.
088.jpg Structure 3, king post roof truss A - view west.
089.jpg Structure 3, king post roof truss A showing half-hipped roof timbers - view south-west.
090.jpg Window in west wall - view south-west.
091.jpg Window in east wall - view south-east.
092.jpg Structure 4, 17th-century aisled barn - view south-west.
093.jpg Structure 4, 17th-century aisled barn - view south-west.
094.jpg Structure 4, 17th-century aisled barn - view north-east.
095.jpg Structure 4, cart door opening to bay 3 - view east.
096.jpg Structure 4, internal elevation of north wall - view north.
097.jpg 19th-century lean-to at north end of structure 4 - view south-east.
098.jpg Structure 4, 17th-century aisled barn - view south-west.
099.jpg Structure 4, 17th-century aisled barn - view north-west.
100.jpg Structure 4, cart door opening to bay 7 - view west.
101.jpg Structure 4, 17th-century aisled barn east elevation - view north-west.
102.jpg Structure 4, modern graffiti on exterior render of bay 8 - view east.
103.jpg Interior of structure 4 - view south-east.
104.jpg Structure 4, carpenter's mark (VIII) on aisle sill beam of truss C - view south-east.
105.jpg Carpenter's mark (V) on fallen brace, probably from truss C.
106.jpg Structure 5, 17th-century outbuilding - view south-east.
107.jpg Structure 5, 17th-century outbuilding with 20th-century lean-to - view north-east.
108.jpg North elevation of structure 5 possibly with remains of original weatherboarding - view south-east.
109.jpg Replacement door to west elevation of structure 5 - view east.
110.jpg Door to 20th-century lean-to on south side of structure 5 - view east.
111.jpg Detail of door latch to structure 5, possibly original.
112.jpg Interior of structure 5 - view south-east.
113.jpg Rafters of structure 5 with later battens for thatch.
114.jpg Re-built west wall of structure 5 with truncated wall plate - view north-west.
115.jpg Underside of the thatching in structure 5, with the retaining staples visible between the battens.
116.jpg ?Original weatherboard on north and east timber framing - view north-east.
117.jpg Structure 6, 19th-century wagon lodge - view north.
118.jpg Structure 6, 19th-century wagon lodge - view east.
119.jpg Structure 6, east end of 19th-century wagon lodge - view north-west.
120.jpg Structure 6, internal elevation of west end - view north-west.
121.jpg Structure 6, internal elevation of east end - view north-east.
122.jpg Structure 6, detail of south post to truss B - view east.
123.jpg Structure 6, tie beam, collar and purlins of truss B - view north-west.
124.jpg Structure 6, carpenter's mark (VII) at junction of tie beam and queen post on truss A - view west.
125.jpg Structure 6, carpenter's mark (XVIII) on south corner post and brace of east wall - view north-east.
126.jpg Structure 10, 19th-century wall to cattle yards incorporated into 20th-century horse shed - view north-east.
127.jpg Structure 10, 19th-century wall to cattle yards incorporated into 20th-century horse shed - view south-west.
128.jpg Structure 10, detail of burnt brick stylised pattern on 19th-century wall to cattle yards.
129.jpg Structure 10, 19th-century wall to cattle yards incorporated into 20th-century horse shed - view south-east.
130.jpg Louvre in gable of structure 10, part of the 20th-century alterations to the 19th-century cattle yards - view south.
131.jpg Interior of structure 10, with the 19th-century cattle yard wall to the rear - view north.

- 132.jpg Interior of structure 10, with the 19th-century cattle yard wall to the right and the roof of the 20th-century horse shed above - view west.
- 133.jpg Structure 10, TDA style roof truss of the 20th-century horse shed - view north-east.
- 134.jpg Structure 11, flint foundations to the brick plinth of the 19th-century loosebox - view east.
- 135.jpg Structure 11, stable door to the 19th-century loose box - view south-east.
- 136.jpg Structure 11, boarded over hatch in gable of 19th-century loose box - view north-east.
- 137.jpg Interior of structure 11 showing a curved brace. The framing has been obscured by modern render and the insertion of a corrugated iron sheet ceiling - view north.
- 138.jpg Interior of the loose box with a possible tack rail along the rear wall - view north-east.
- 139.jpg Modern dividing wall to the loose box - view south.

Appendix 3

Full list of 35mm black and white photographic record (images on accompanying CD, negatives with archive folder)

b&w 35mm 01.jpg	Structure 4, 17th-century aisled barn - view north-east.
b&w 35mm 02.jpg	Structure 4, internal elevation of north wall - view north.
b&w 35mm 03.jpg	Interior of structure 4 - view south-east.
b&w 35mm 04.jpg	19th-century lean-to at north end of structure 4 - view south-east.
b&w 35mm 05.jpg	Structure 4, 17th-century aisled barn - view south-west.
b&w 35mm 06.jpg	Structure 4, 17th-century aisled barn east elevation - view north-west.
b&w 35mm 07.jpg	Structure 4, surviving arcade post and braces – view west.
b&w 35mm 08.jpg	Structure 2, 17th-century aisled barn - view south-east.
b&w 35mm 09.jpg	Interior of structure 2 - view east.
b&w 35mm 10.jpg	Interior of structure 2 - view west.
b&w 35mm 11.jpg	Interior of structure 2 - view east.
b&w 35mm 12.jpg	Interior of structure 2 - view west.
b&w 35mm 13.jpg	South posts of trusses B and C, with the early 17th-century barn to the left - view south-east.
b&w 35mm 14.jpg	Structure 5, 17th-century outbuilding - view south-east.
b&w 35mm 15.jpg	Structure 5, 17th-century outbuilding with 20th-century lean-to - view north-east.
b&w 35mm 16.jpg	Interior of structure 5 - view south-east.
b&w 35mm 17.jpg	Original weatherboard on north and east timber framing - view north-east.
b&w 35mm 18.jpg	Underside of the thatching in structure 5, with the retaining staples visible between the battens.
b&w 35mm 19.jpg	Structure 3, 19th-century granary west elevation - view east.
b&w 35mm 20.jpg	Structure 3, 19th-century granary - view south-west.
b&w 35mm 21.jpg	Cast iron saddle on brick pier - view east.
b&w 35mm 22.jpg	Interior of structure 3 - view south-west.
b&w 35mm 23.jpg	Window in west wall - view north-west.
b&w 35mm 24.jpg	Structure 1, 19th-century barn with structure 11, 19th-century loose box, to the right - view north-east.
b&w 35mm 25.jpg	Structure 10, 19th-century wall to cattle yards incorporated into 20th-century horse shed - view south-west.
b&w 35mm 26.jpg	Structure 1, mezzanine occupying bays 1 and 2 - view north-west.
b&w 35mm 27.jpg	Structure 1, drive belt linkage in bay 1 below mezzanine - view north-west.
b&w 35mm 28.jpg	Victorian belt-driven oil cake breaker on first floor of mezzanine - view north-west.
b&w 35mm 29.jpg	Queen post roof trusses of structure 1 - view south-east.
b&w 35mm 30.jpg	Structure 1, trap door for grain hoist in floor of mezzanine.
b&w 35mm 31.jpg	Structure 1, external drive wheel on south-west corner of barn - view north.
b&w 35mm 32.jpg	Structure 11, 19th-century loose box with inserted opening - view north-east.
b&w 35mm 33.jpg	Structure 6, 19th-century wagon lodge - view north.
b&w 35mm 34.jpg	Structure 6, 19th-century wagon lodge - view east.
b&w 35mm 35.jpg	Wickham Hall farmhouse - view north-west.
b&w 35mm 36.jpg	Wickham Hall farmhouse - west.
b&w 35mm 37.jpg	Wickham Hall farmyard - view south.

Appendix 4

Full list of 35mm colour photographic record (images on accompanying CD, negatives with archive folder)

COL 35mm 01.jpg	Structure 1, 19th-century barn with structure 11, 19th-century loose box, to the right - view north-east.
COL 35mm 02.jpg	Structure 10, 19th-century wall to cattle yards incorporated into 20th-century horse shed - view south-west.
COL 35mm 03.jpg	Structure 10, detail of burnt brick stylised pattern on 19th-century wall to cattle yards.
COL 35mm 04.jpg	Structure 1, inserted door to 19th-century horse shed – view north-east.
COL 35mm 05.jpg	Interior of structure 1 - view north-west.
COL 35mm 06.jpg	Victorian belt-driven oil cake breaker on first floor of mezzanine - view north-west.
COL 35mm 07.jpg	Victorian belt-driven grinder by Bamfords on first floor of mezzanine - view north-west.
COL 35mm 08.jpg	Queen post roof trusses of structure 1 - view south-east.
COL 35mm 09.jpg	Structure 3, 19th-century granary - view south-west.
COL 35mm 10.jpg	Structure 4, 17th-century aisled barn - view south-west.
COL 35mm 11.jpg	Interior of structure 3 - view north-east.
COL 35mm 12.jpg	Cast iron staddle on brick pier - view east.
COL 35mm 13.jpg	Structure 4, cart door opening to bay 3 - view east.
COL 35mm 14.jpg	Interior of structure 4 - view south-east.
COL 35mm 15.jpg	Structure 4, 17th-century aisled barn - view south-west.
COL 35mm 16.jpg	Structure 4, 17th-century aisled barn - view north-east.
COL 35mm 17.jpg	Structure 2, 17th-century aisled barn - view south-west.
COL 35mm 18.jpg	Entrance to the yard at the east end of structure 2 - view south-west.
COL 35mm 19.jpg	Interior of the lean-to at the east end of structure 2, with early weatherboard and render on the exterior of the barn - view south-west.
COL 35mm 20.jpg	Interior of structure 2 - view east.
COL 35mm 21.jpg	South posts of trusses B and C, with the early 17th-century barn to the left - view south-east.
COL 35mm 22.jpg	Interior of structure 2 - view east.
COL 35mm 23.jpg	The inserted porch on the north side of bay 3 showing the original rafters terminating at the arcade plate with the later porch rafters above.
COL 35mm 24.jpg	Roof of structure 2 - view south-east.
COL 35mm 25.jpg	West elevation of structure 2 showing inserted window and structure 5 to the right - view south-east.
COL 35mm 26.jpg	Structure 5, 17th-century outbuilding - view south-east.
COL 35mm 27.jpg	Structure 5, 17th-century outbuilding with 20th-century lean-to - view north-east.
COL 35mm 28.jpg	Detail of door latch to structure 5, possibly original.
COL 35mm 29.jpg	Rafters of structure 5 with later battens for thatch.
COL 35mm 30.jpg	Original weatherboard on north and east timber framing - view north-east.
COL 35mm 31.jpg	Structure 6, 19th-century wagon lodge - view east.
COL 35mm 32.jpg	Structure 6, internal elevation of west end - view north-west.
COL 35mm 33.jpg	Structure 6, carpenter's mark (XVIII) on south corner post and brace of east wall - view north-east.
COL 35mm 34.jpg	Structure 6, 19th-century wagon lodge - view north.
COL 35mm 35.jpg	Wickham Hall Cottage, formerly a dovecote – view north-west.
COL 35mm 36.jpg	Wickham Hall farmhouse - view north-west.

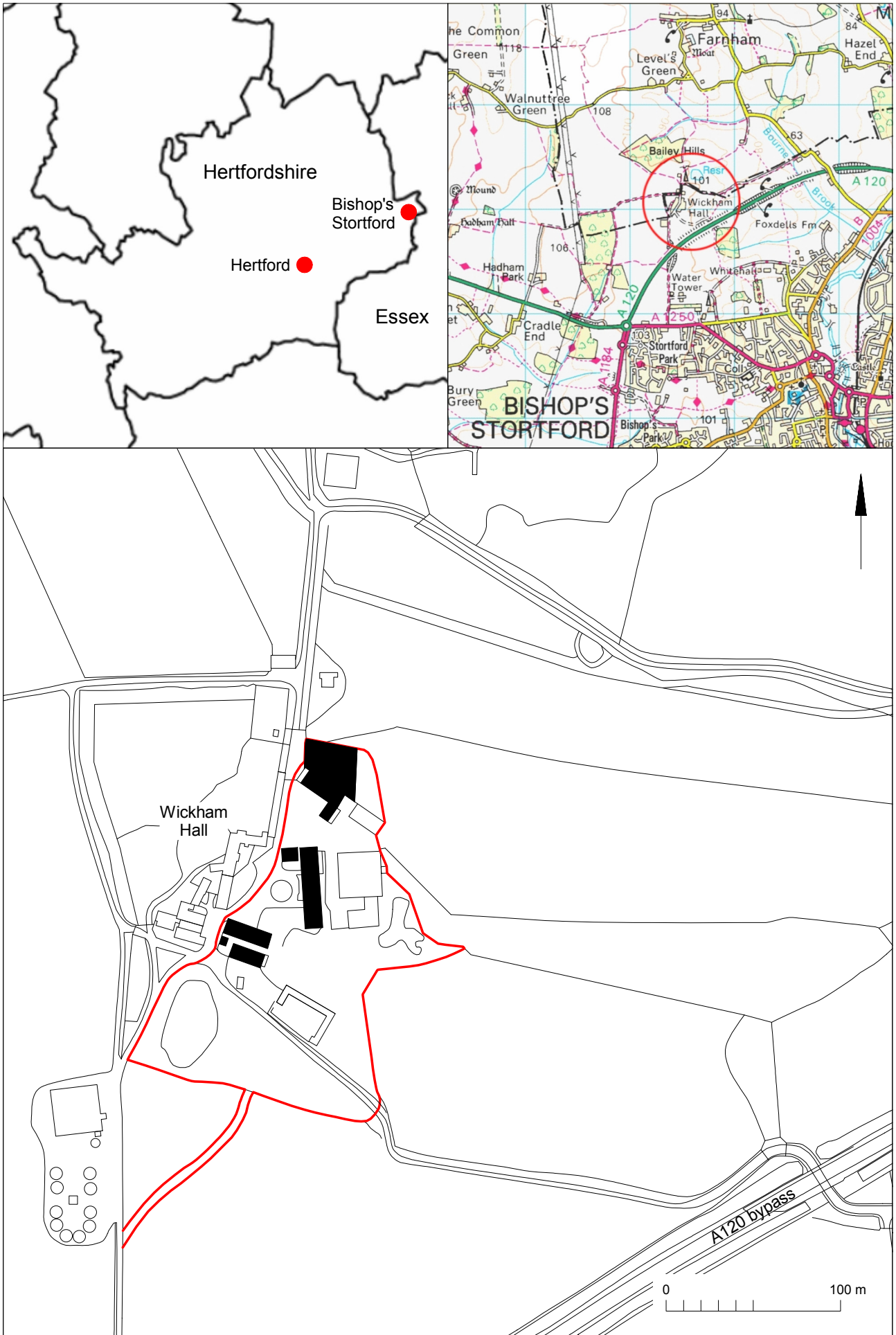
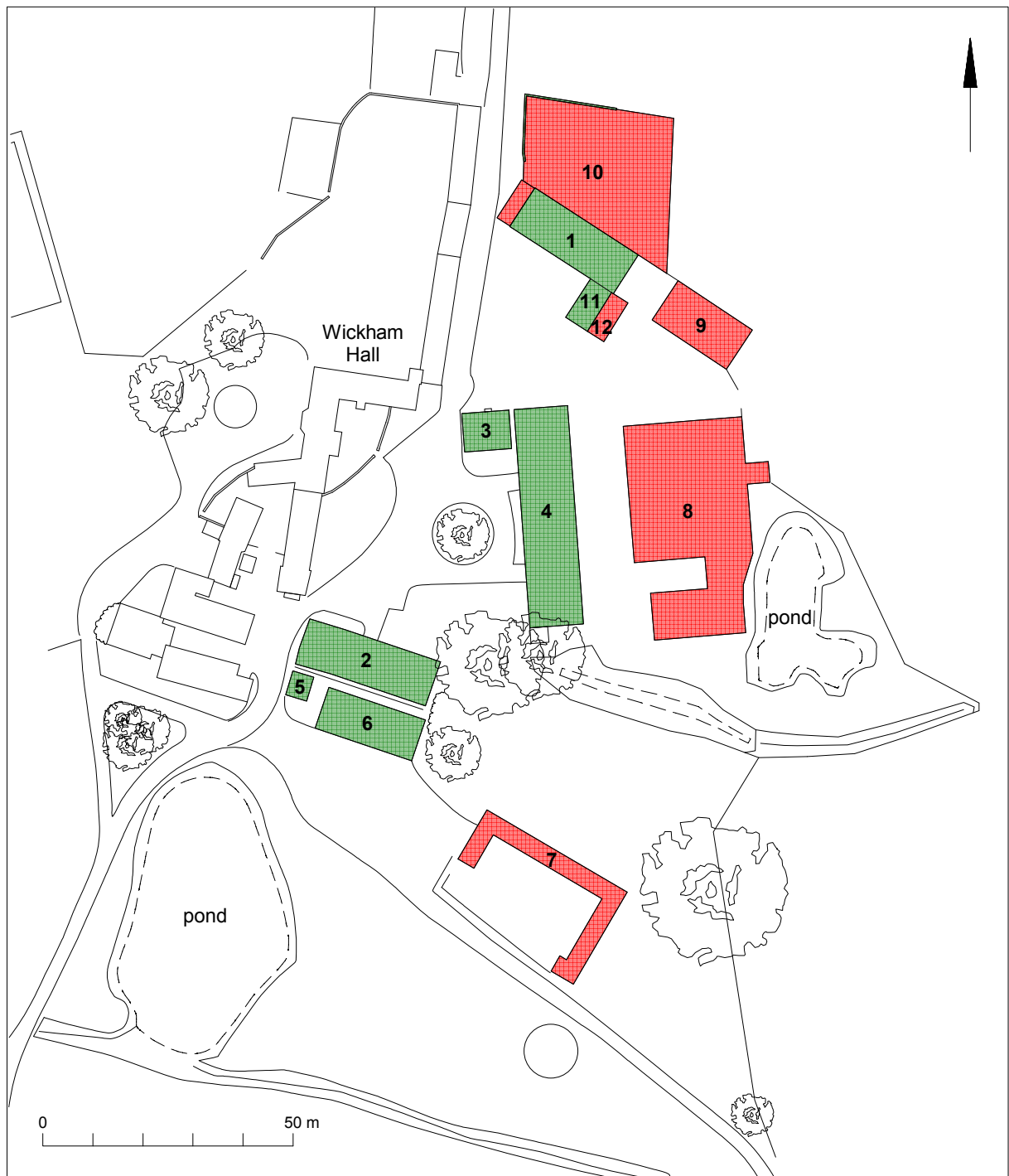


Fig 5 Site location with the survey buildings shaded black.



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Fig 6 Block plan of Wickham Hall.

- Surveyed buildings
- Modern buildings to be demolished

- | | |
|----------------------------|---------------------------------|
| 1 19th-century barn | 7 1998 stable block |
| 2 17th-century aisled barn | 8 20th-century Dutch barns |
| 3 19th-century granary | 9 20th-century machine shed |
| 4 17th-century aisled barn | 10 19th/20th-century horse shed |
| 5 17th-century outbuilding | 11 19th-century loose box |
| 6 19th-century wagon lodge | 12 20th-century lean-to |

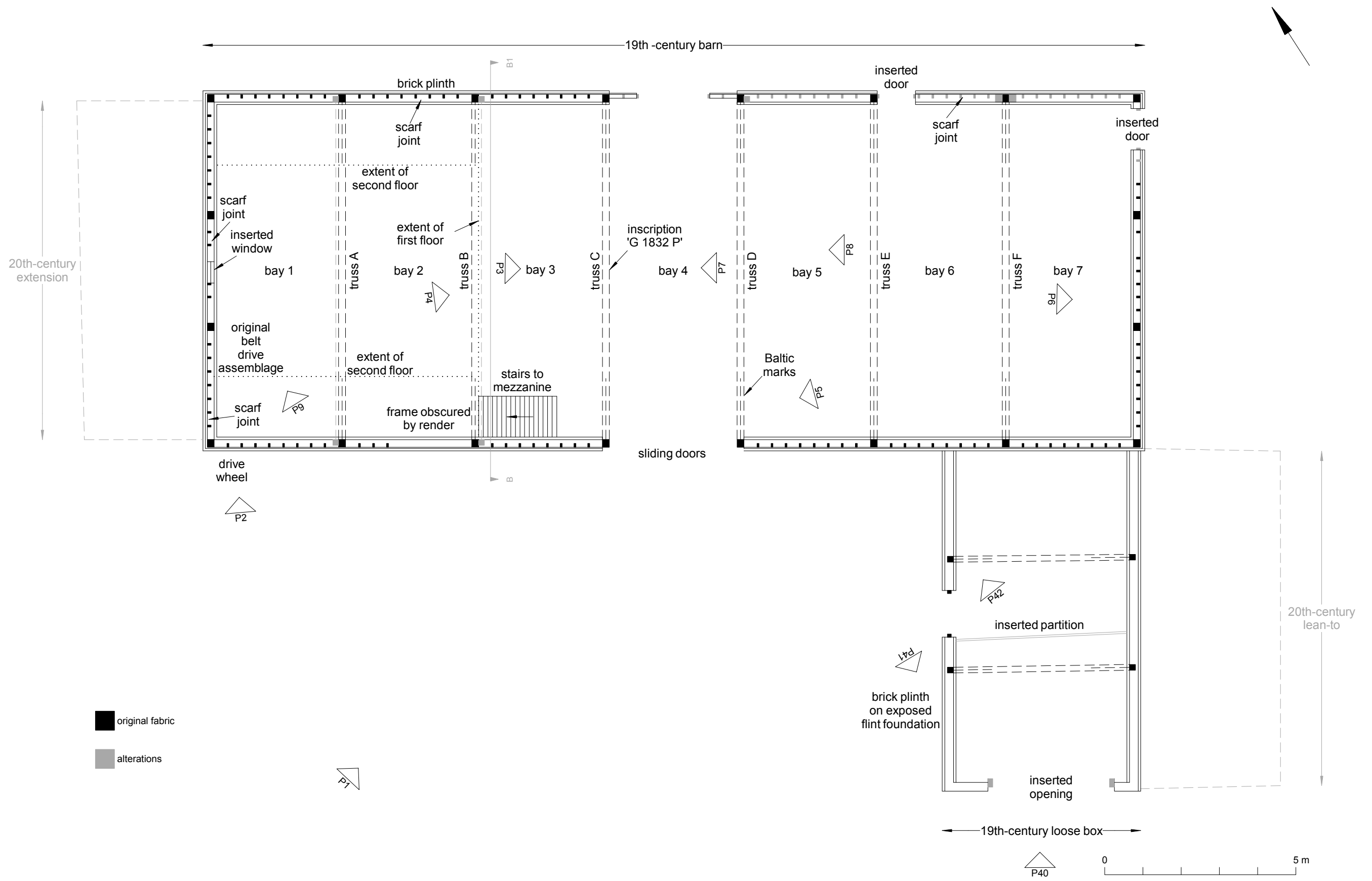


Fig 7 Floor plan of structure 1 (19th-century barn) and structure 11 (19th-century loose box) showing the location and orientation of photographs included in this report.

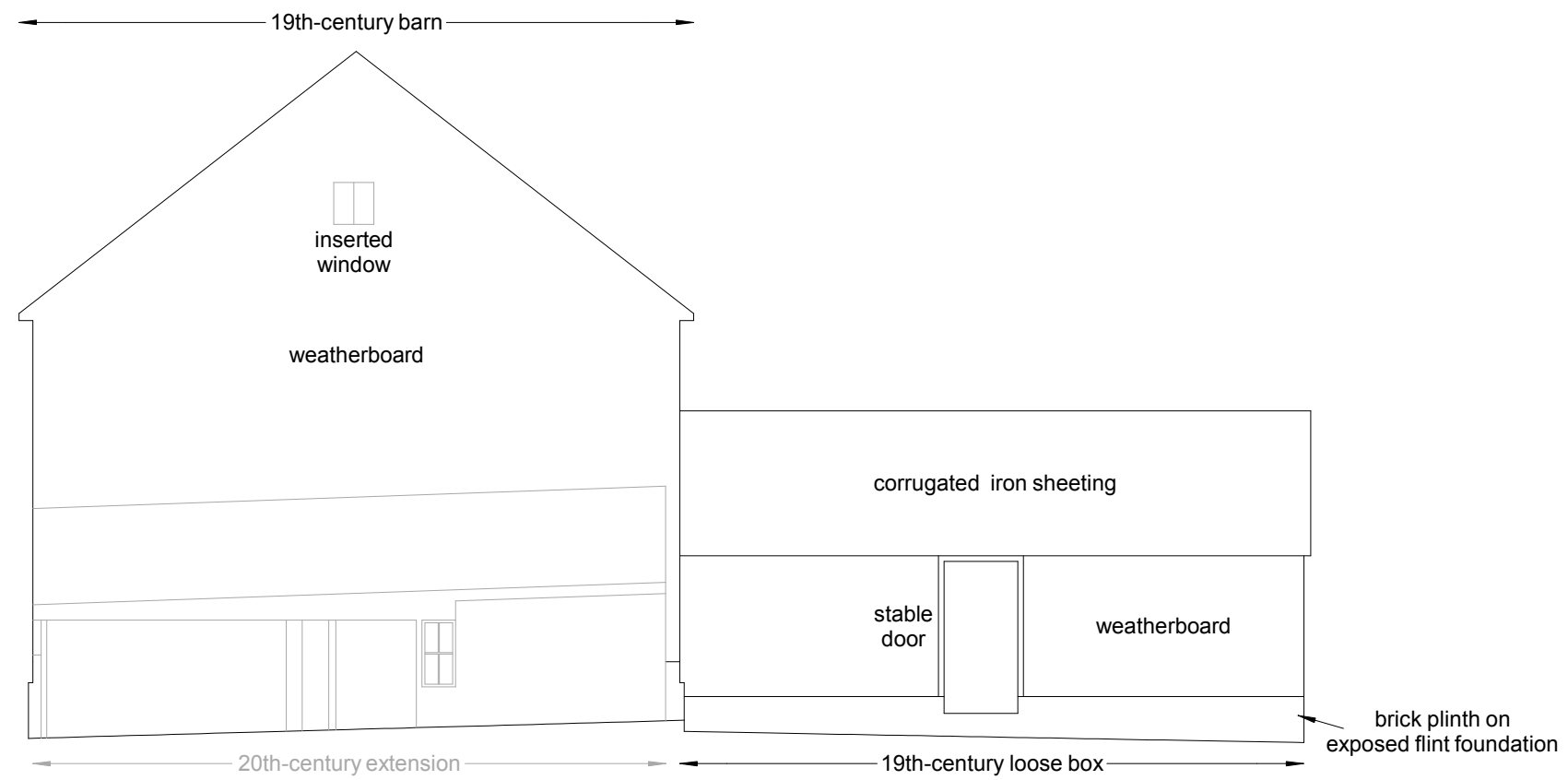


Fig 8 North-west elevation of structure 1(19th-century barn) and structure 11 (19th-century loose box), with alterations shown grey.

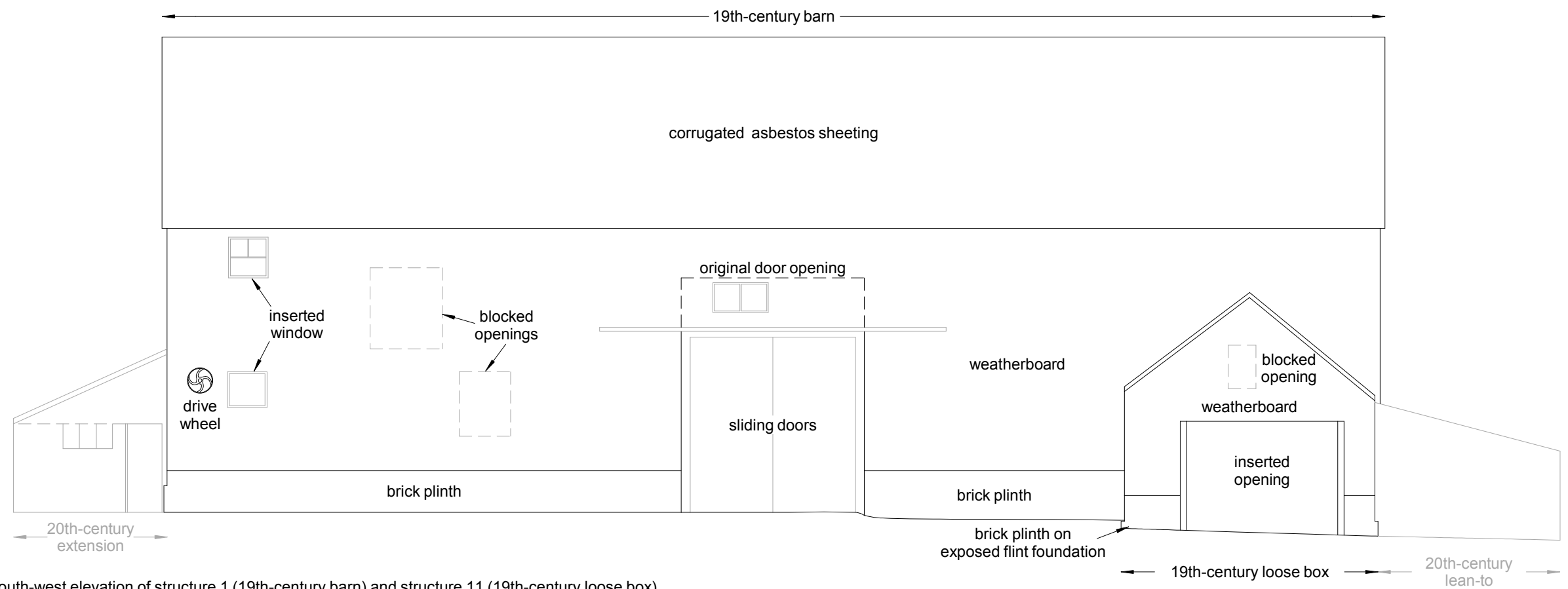


Fig 9 South-west elevation of structure 1 (19th-century barn) and structure 11 (19th-century loose box), with alterations shown grey.



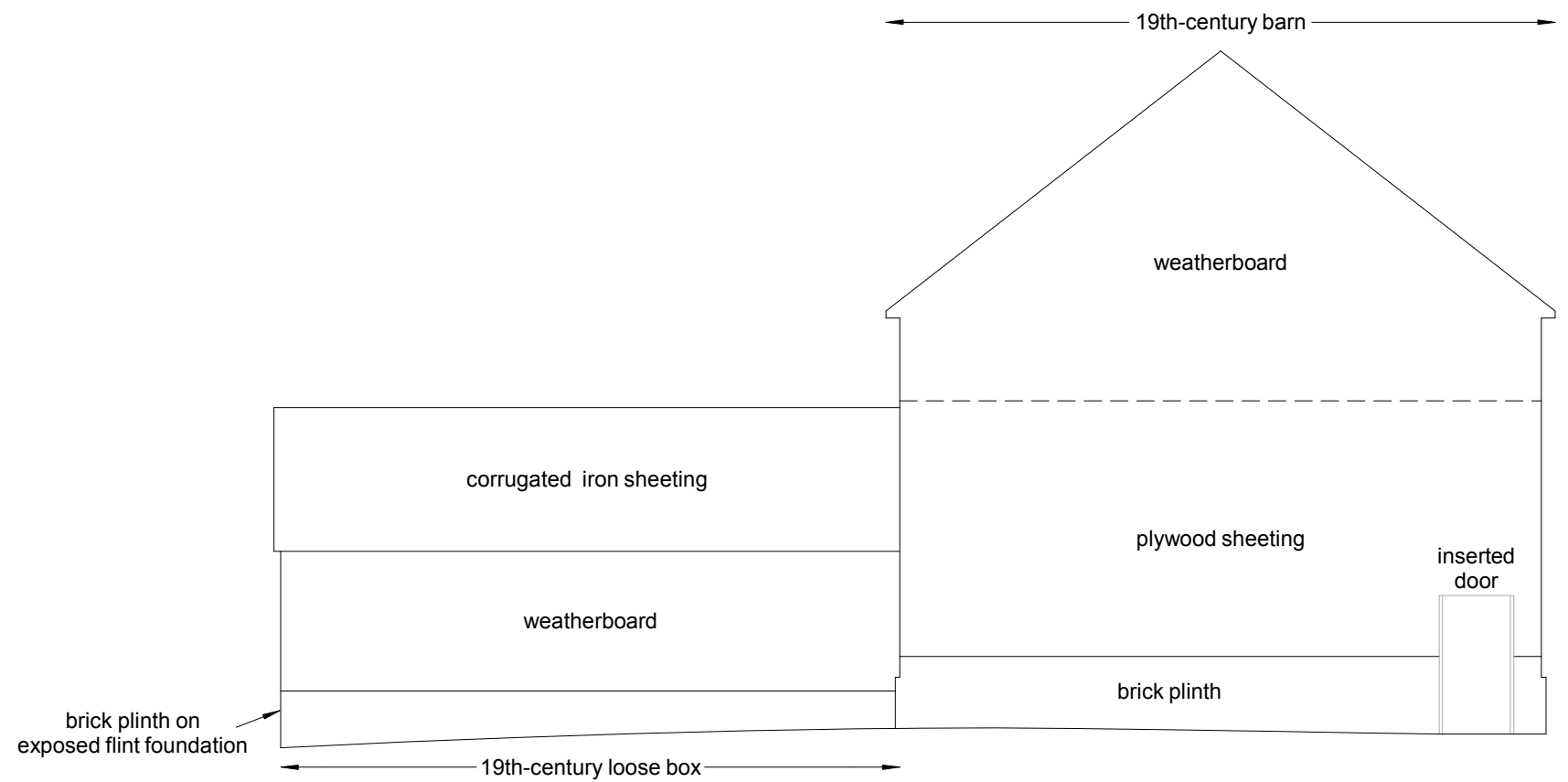


Fig 10 South-east elevation of structure 1 (19th-century barn) and structure 11 (19th-century loose box), with alterations shown grey.

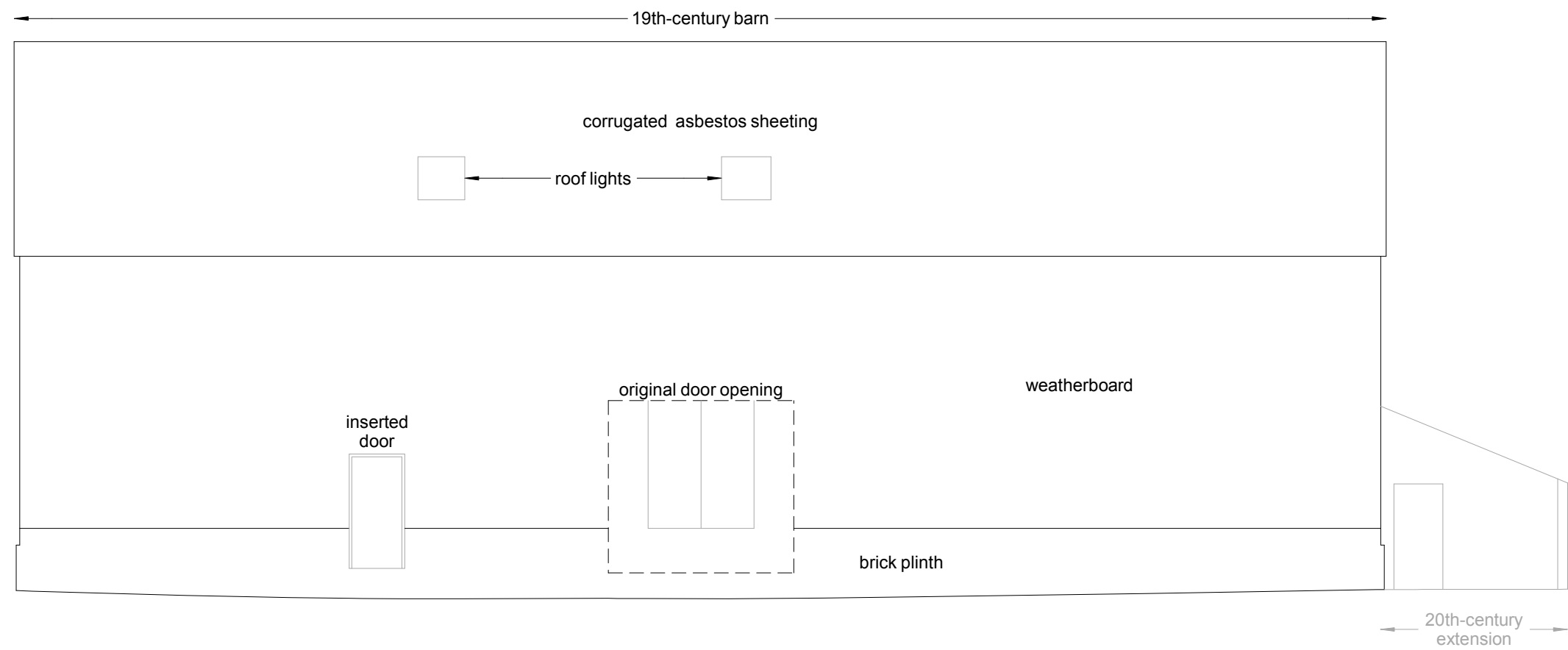


Fig 11 North-east elevation of structure 1 (19th-century barn), with alterations shown grey.



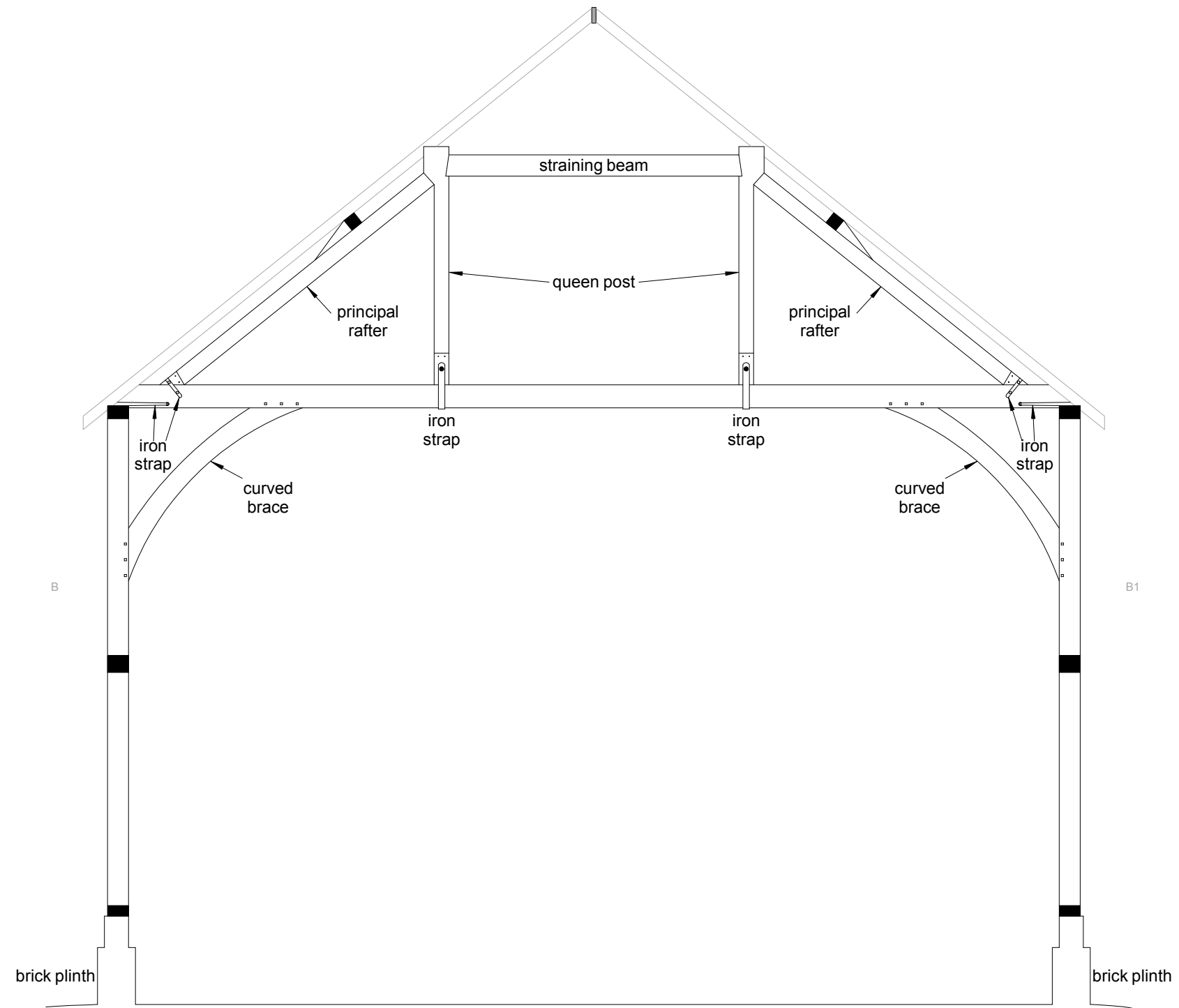


Fig 12 Structure 1 (19th-century barn): cross-section of truss B, with alterations shown grey.



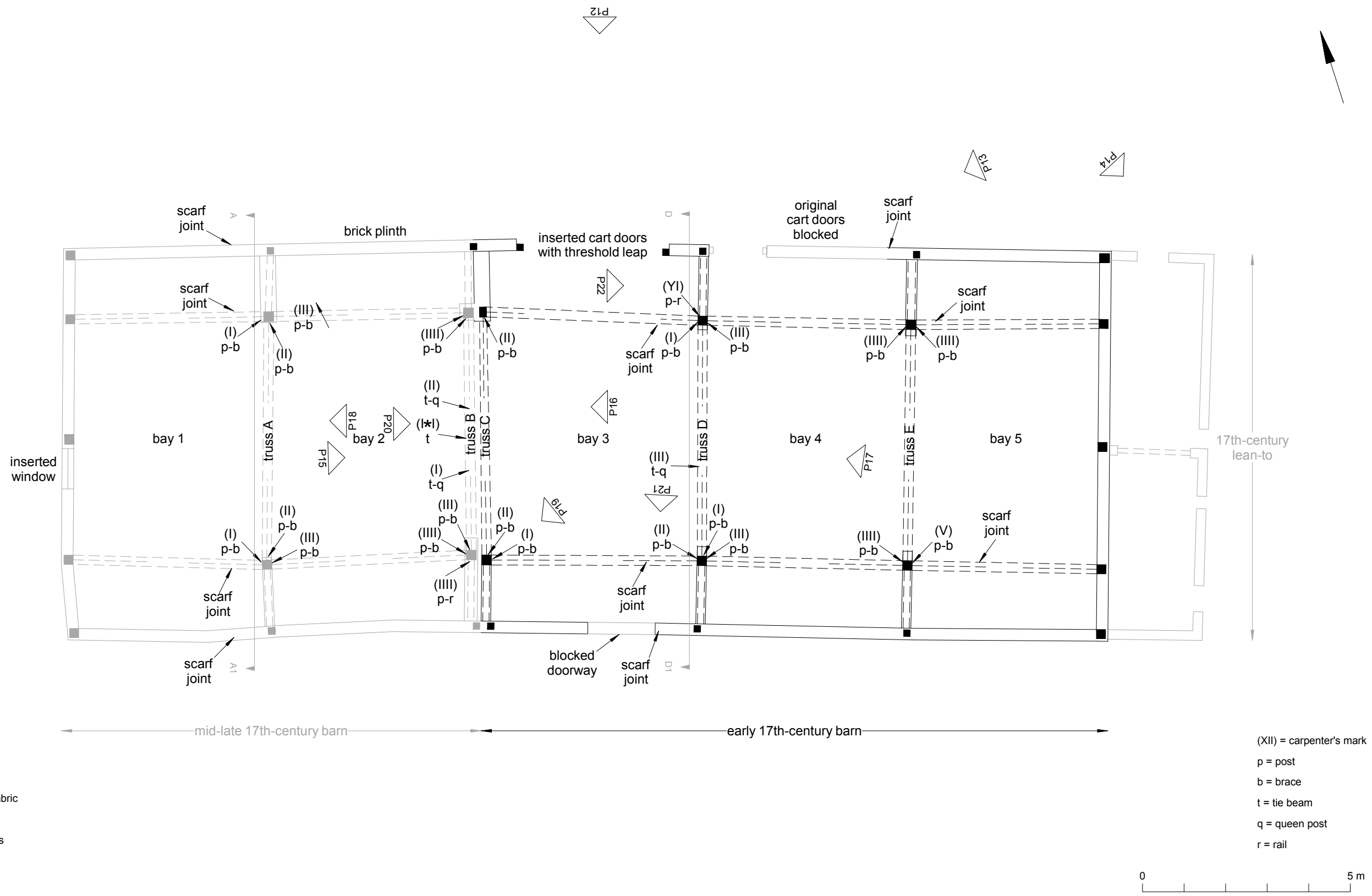


Fig 13 Floor plan of structure 2 (17th-century aisled barn), showing the location and orientation of photographs included in this report.

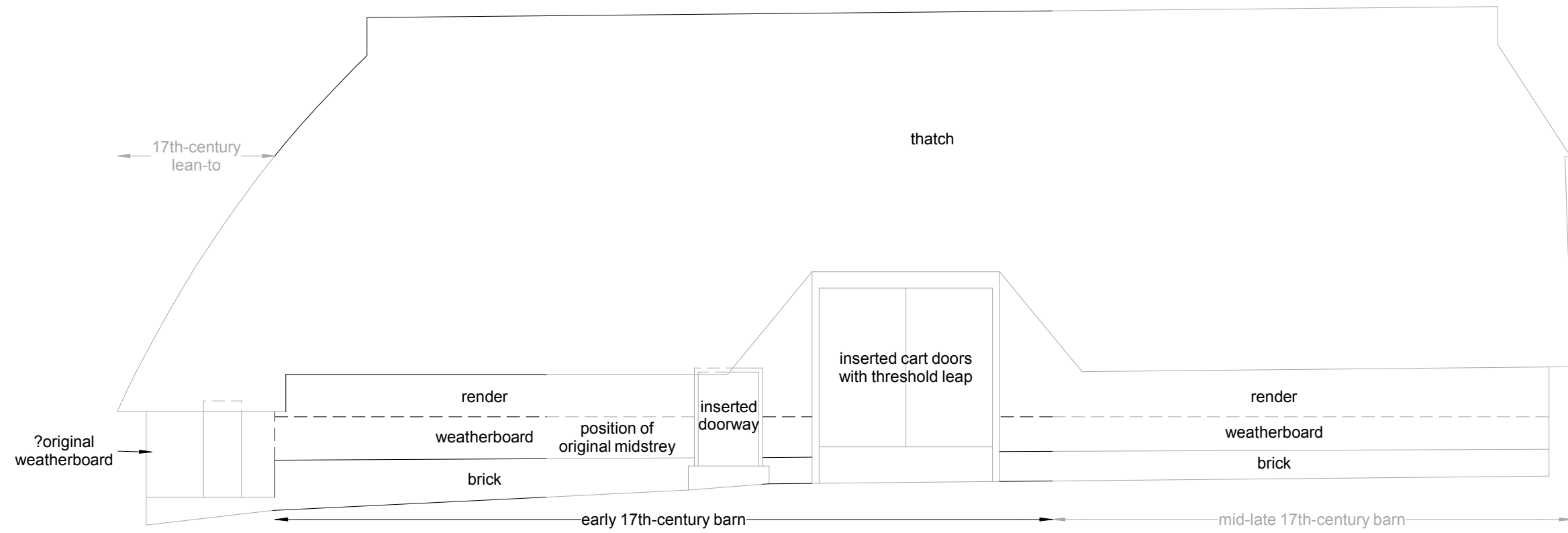


Fig 14 North elevation of structure 2 (17th-century aisled barn), with alterations shown grey.

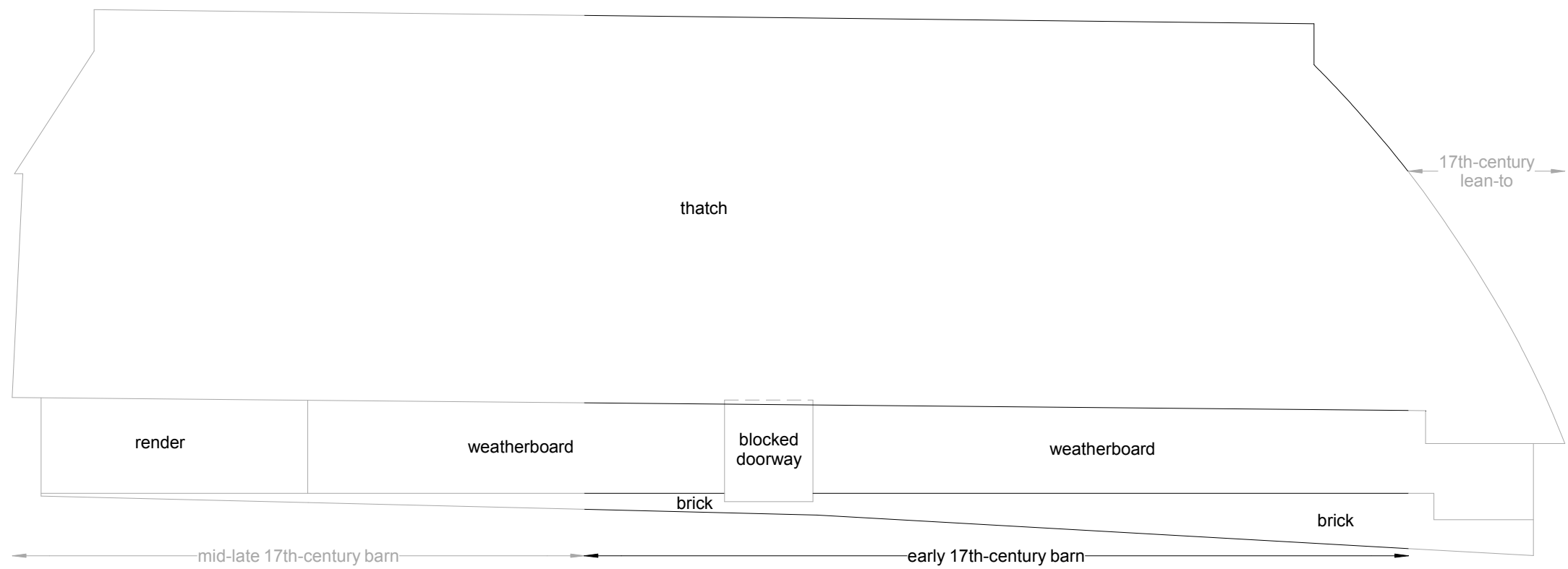


Fig 15 South elevation of structure 2 (17th-century aisled barn), with alterations shown grey.



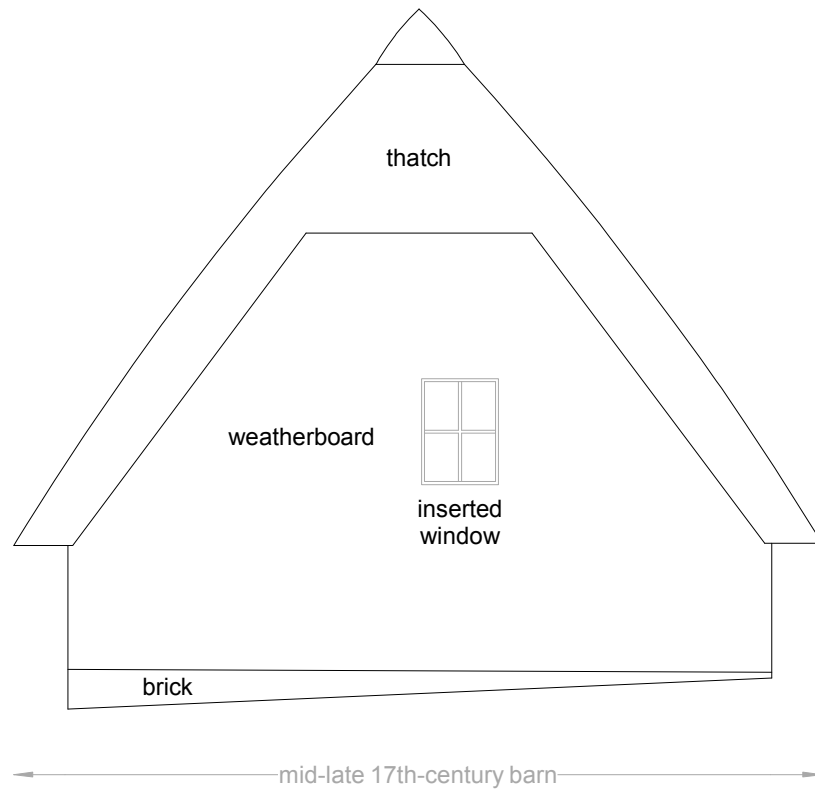


Fig 16 West elevation of structure 2 (17th-century aisled barn), with alterations shown grey.

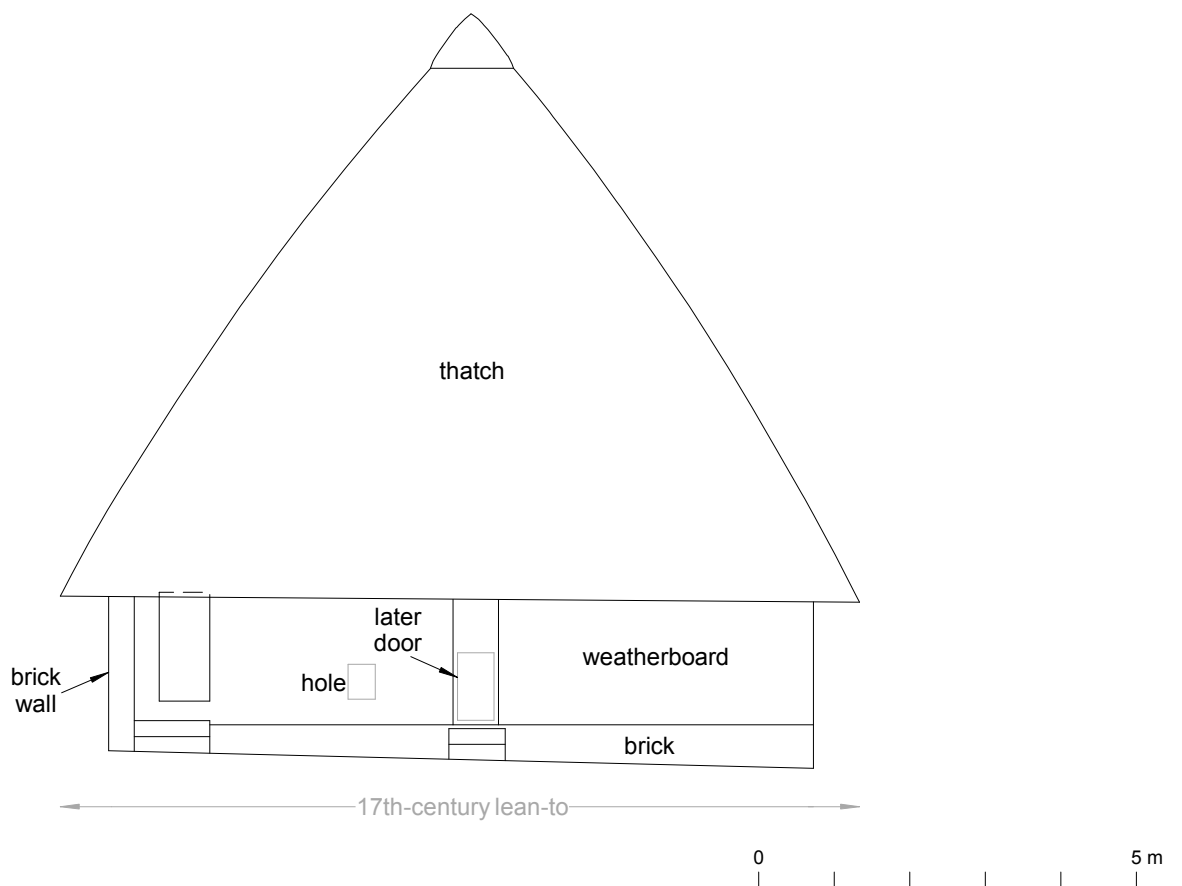


Fig 17 East elevation of structure 2 (17th-century aisled barn), with alterations shown grey.

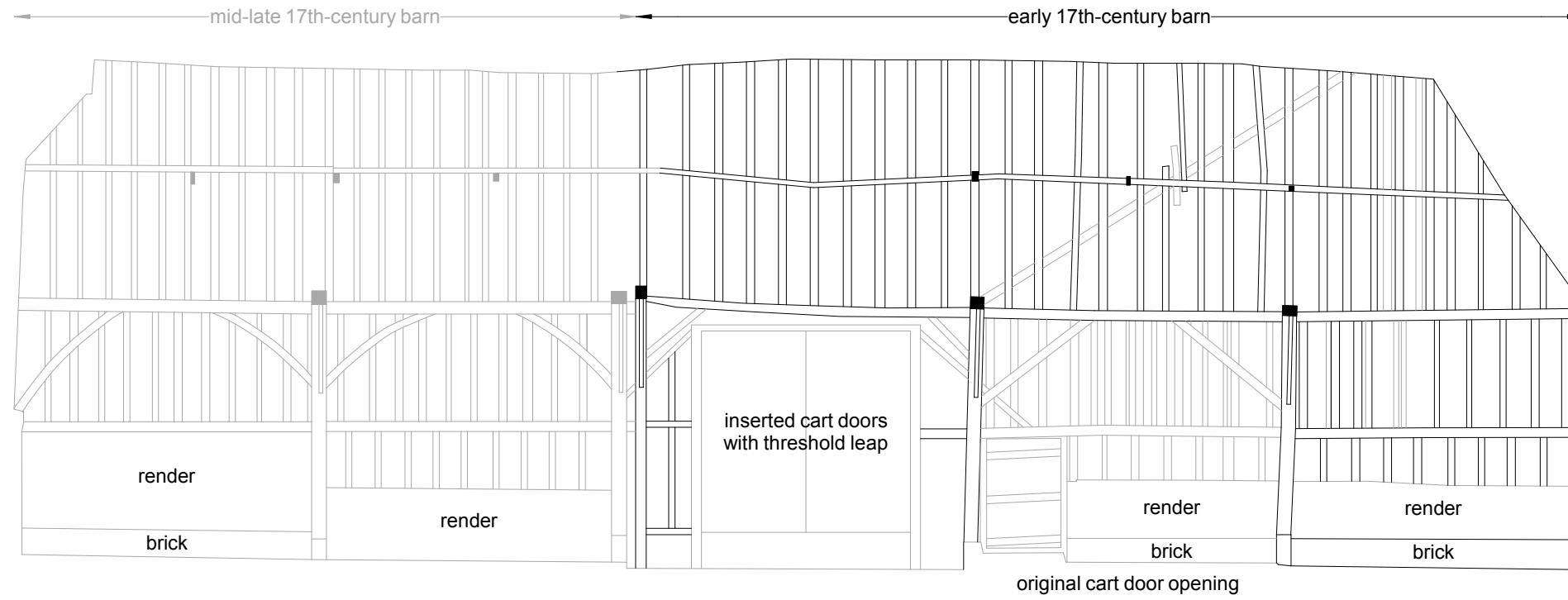


Fig 18 Structure 2 (17th-century aisled barn): timber-framing of north wall, with alterations shown grey.

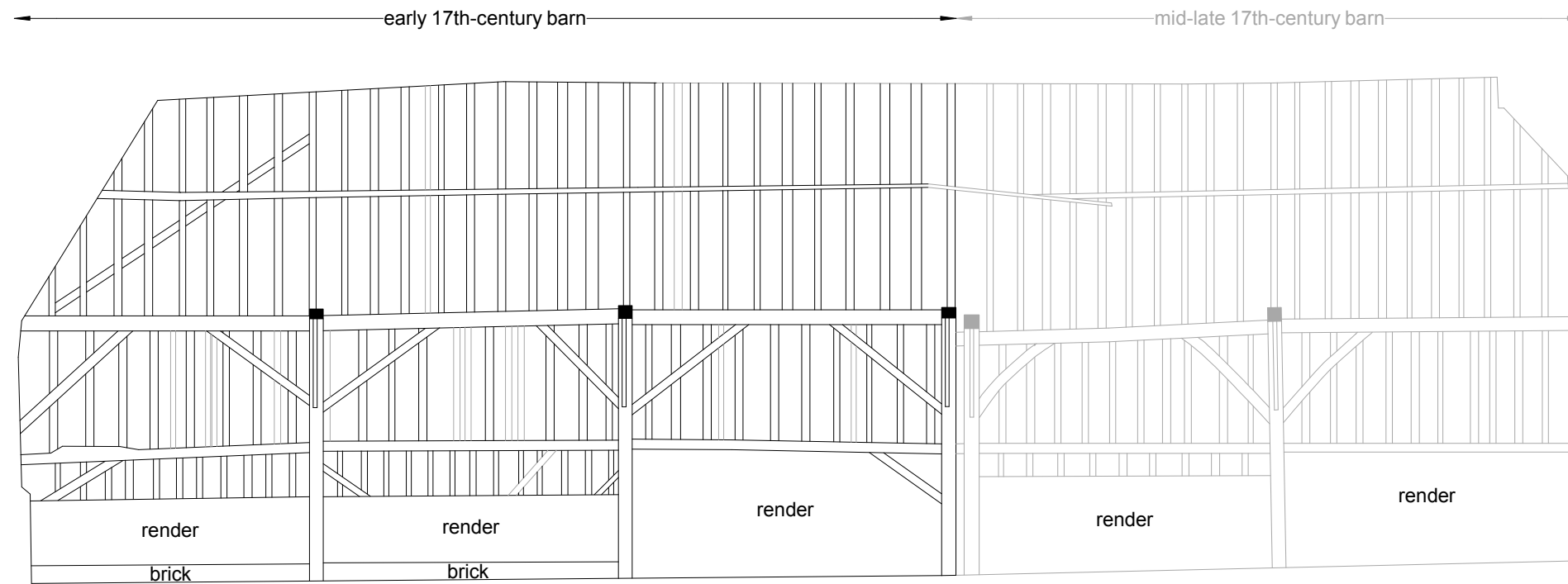


Fig 19 Structure 2 (17th-century aisled barn): timber-framing of south wall, with alterations shown grey.



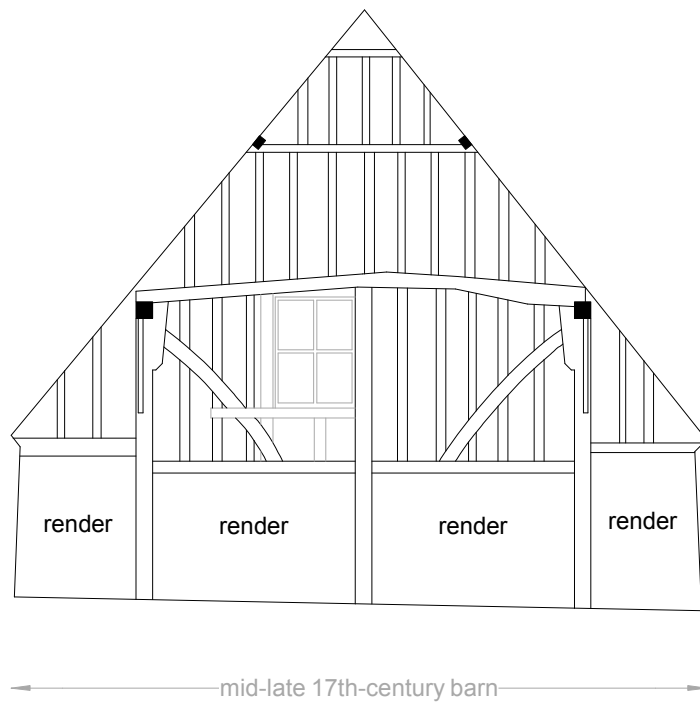


Fig 20 Structure 2 (17th-century aisled barn): timber-framing of west wall, with alterations shown grey.

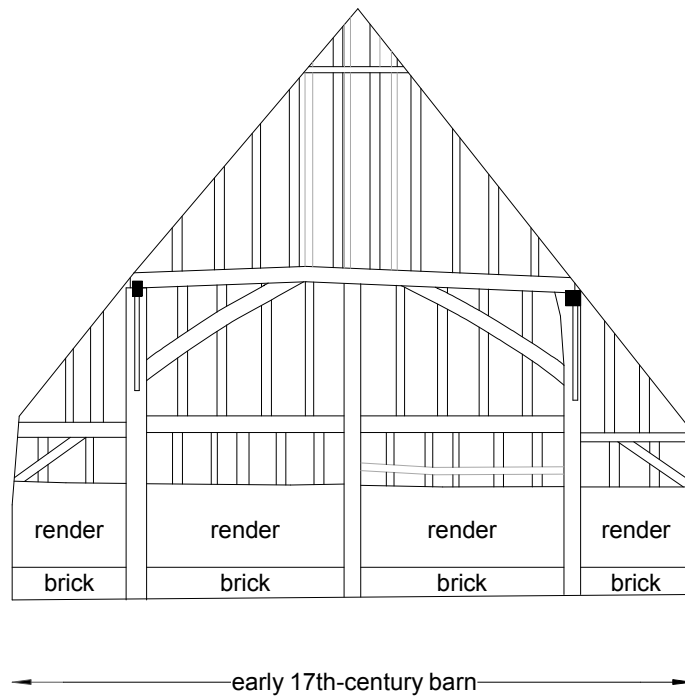


Fig 21 Structure 2 (17th-century aisled barn): timber-framing of east wall, with alterations shown grey.

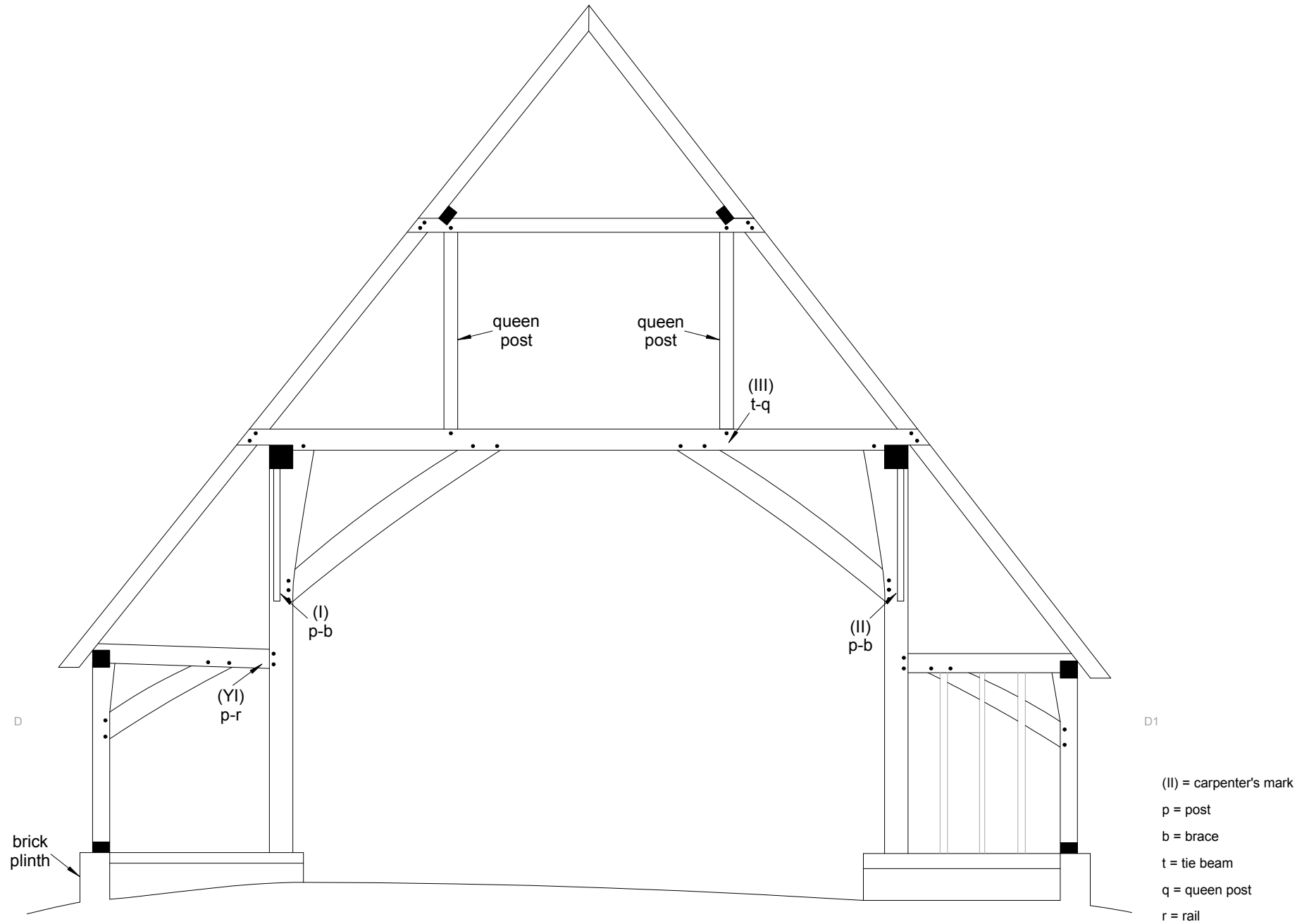


Fig 22 Structure 2 (17th-century barn): cross-section of early 17th-century barn truss D, with alterations shown grey.

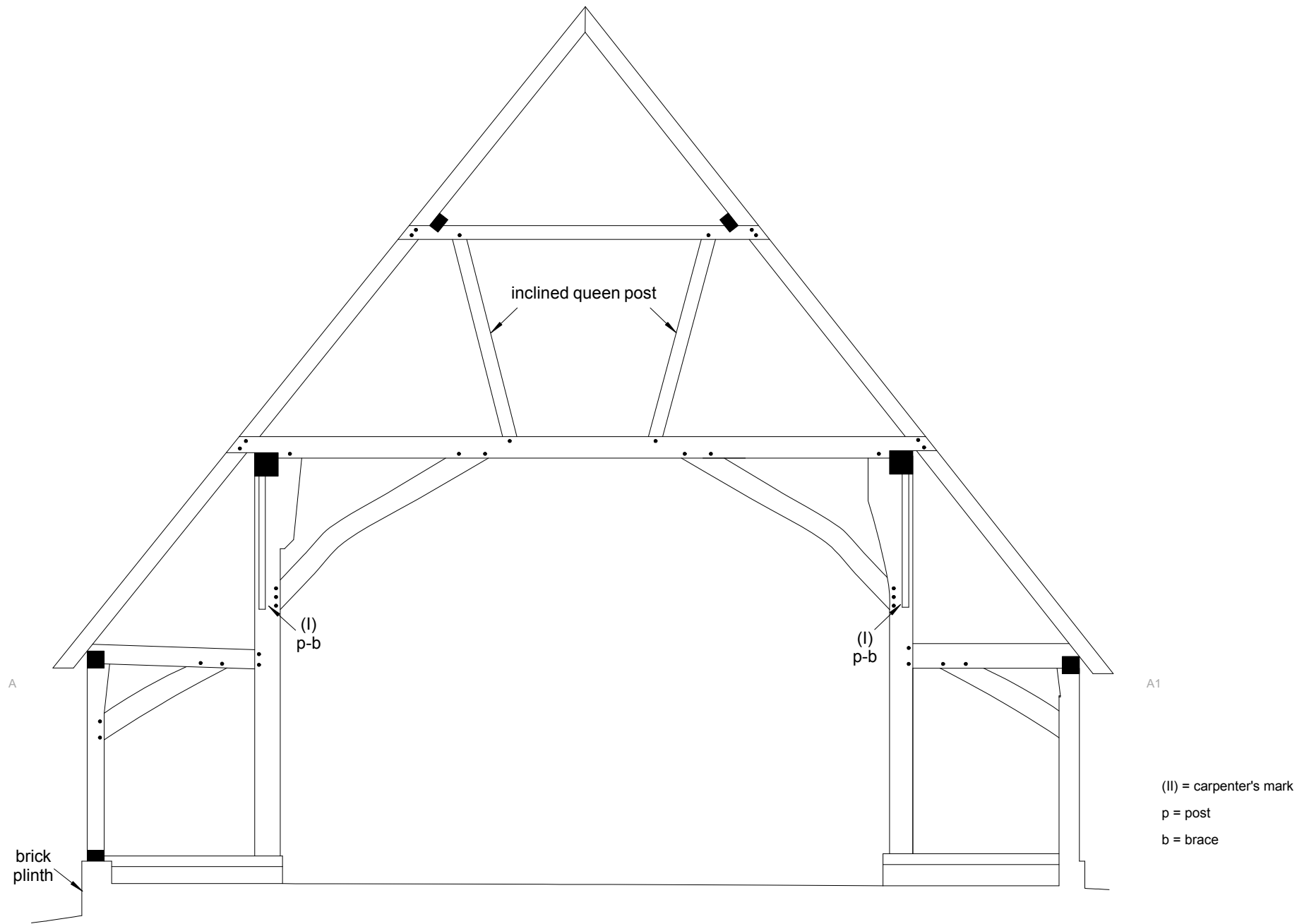


Fig 23 Structure 2 (17th-century aisled barn): cross-section of mid-late 17th-century barn truss A.



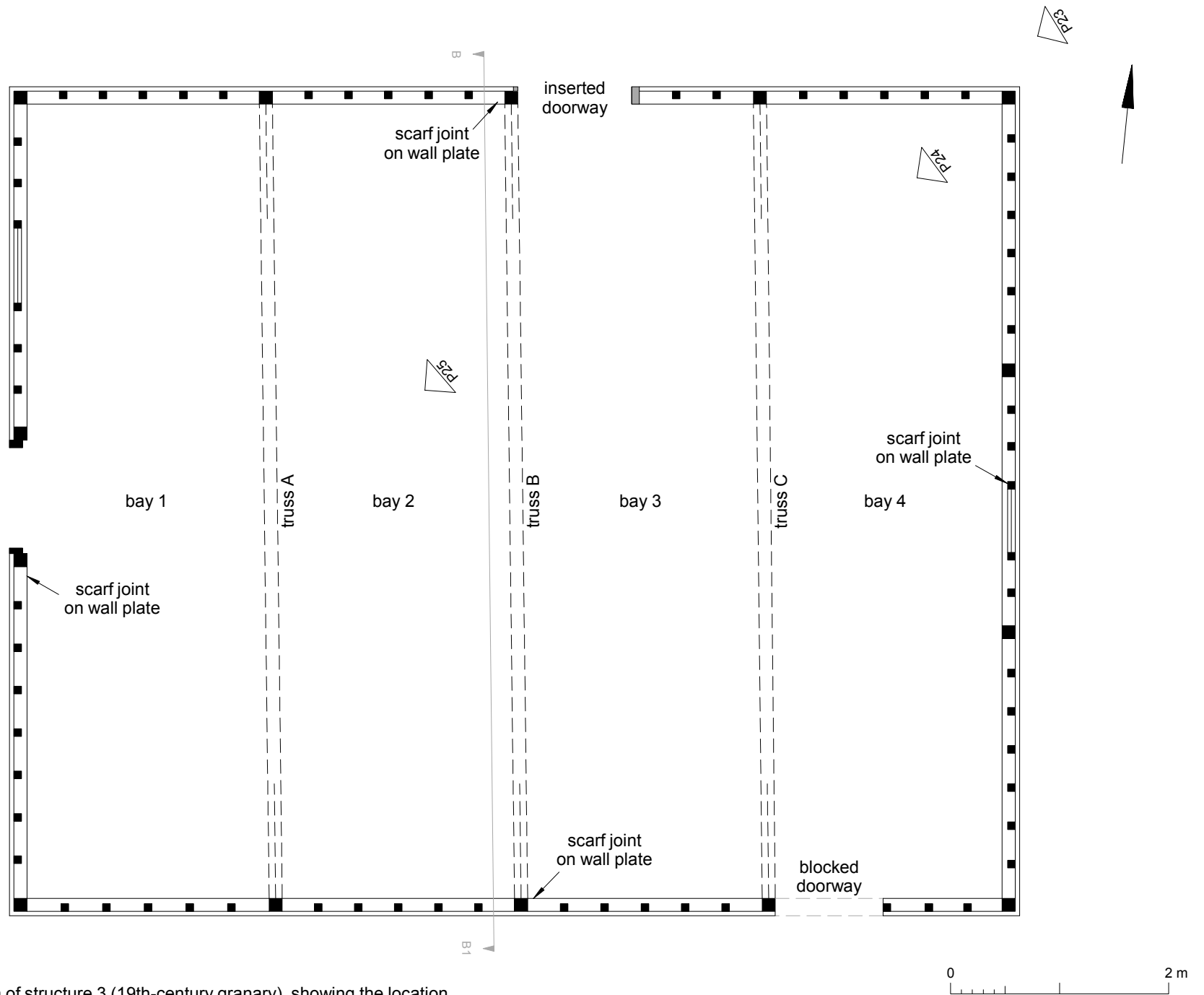


Fig 24 Floor plan of structure 3 (19th-century granary), showing the location and orientation of photographs included in this report.

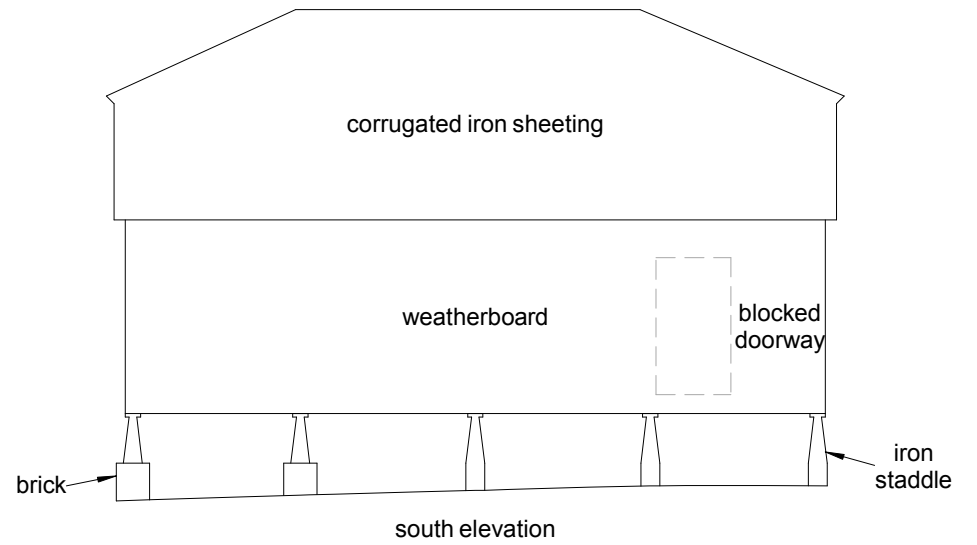
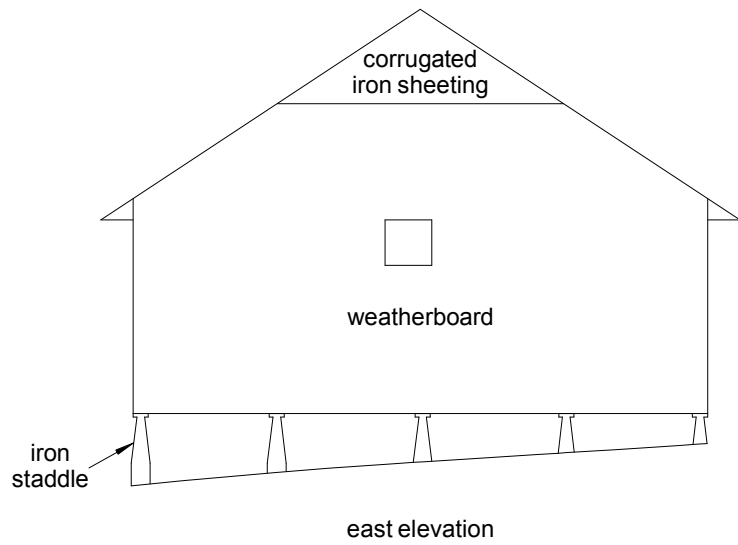
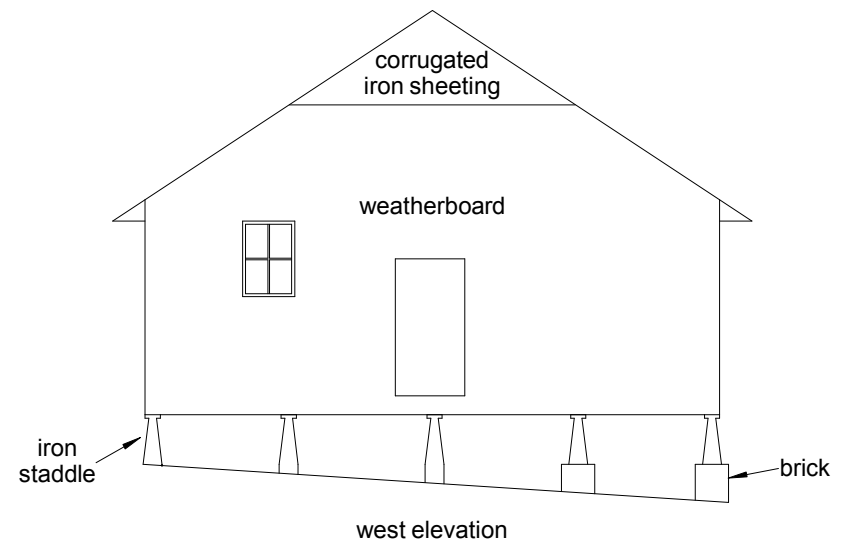
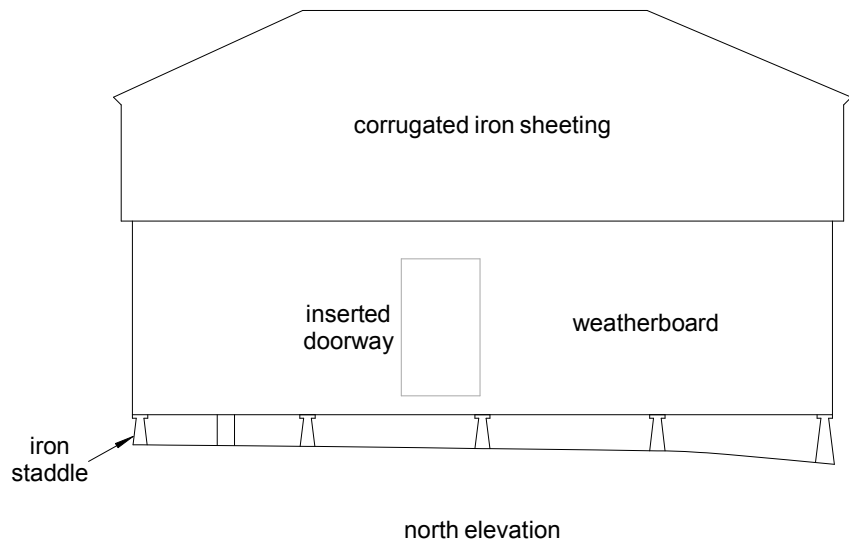


Fig 25 Elevations of structure 3 (19th-century granary), with alterations shown grey.

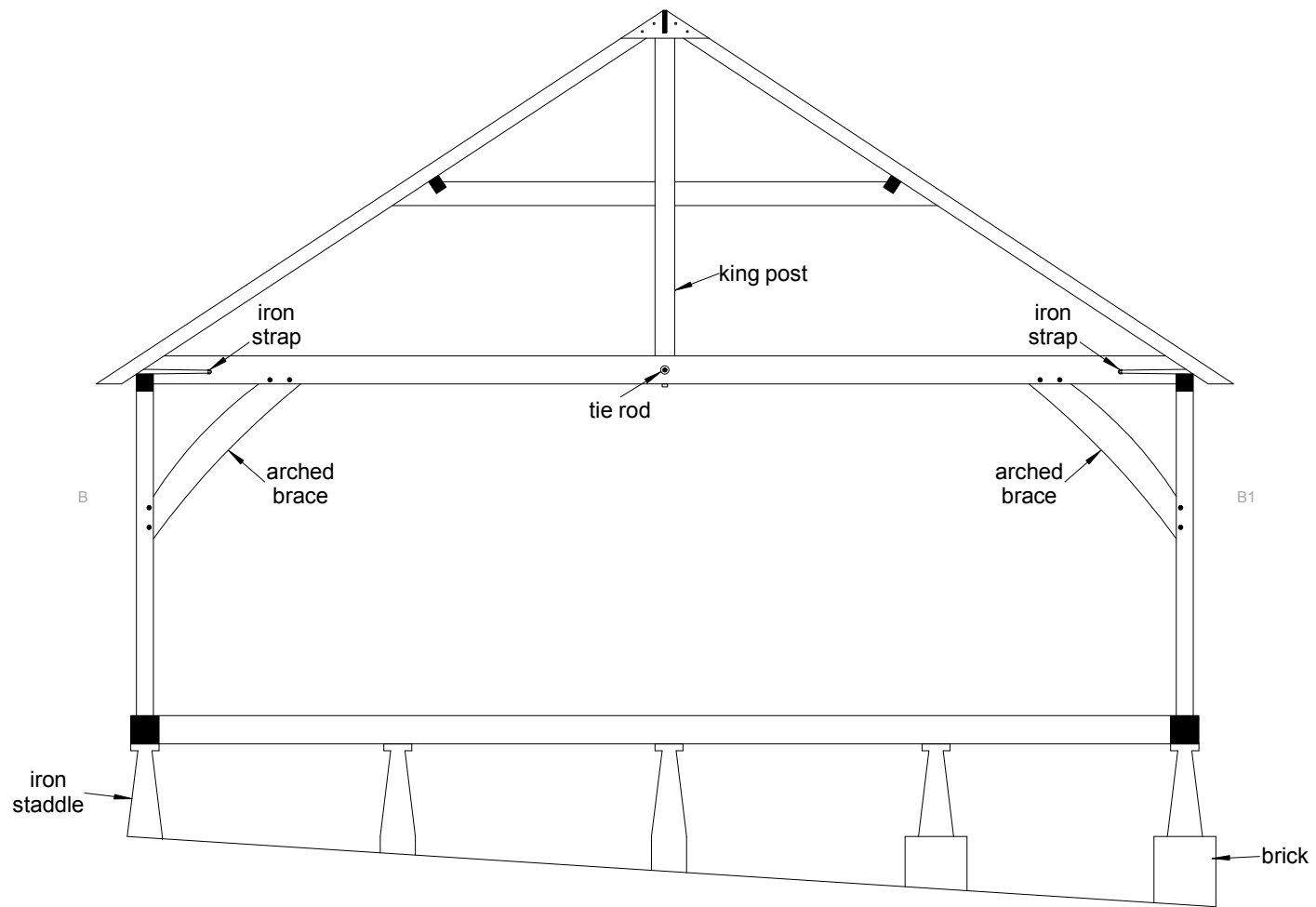
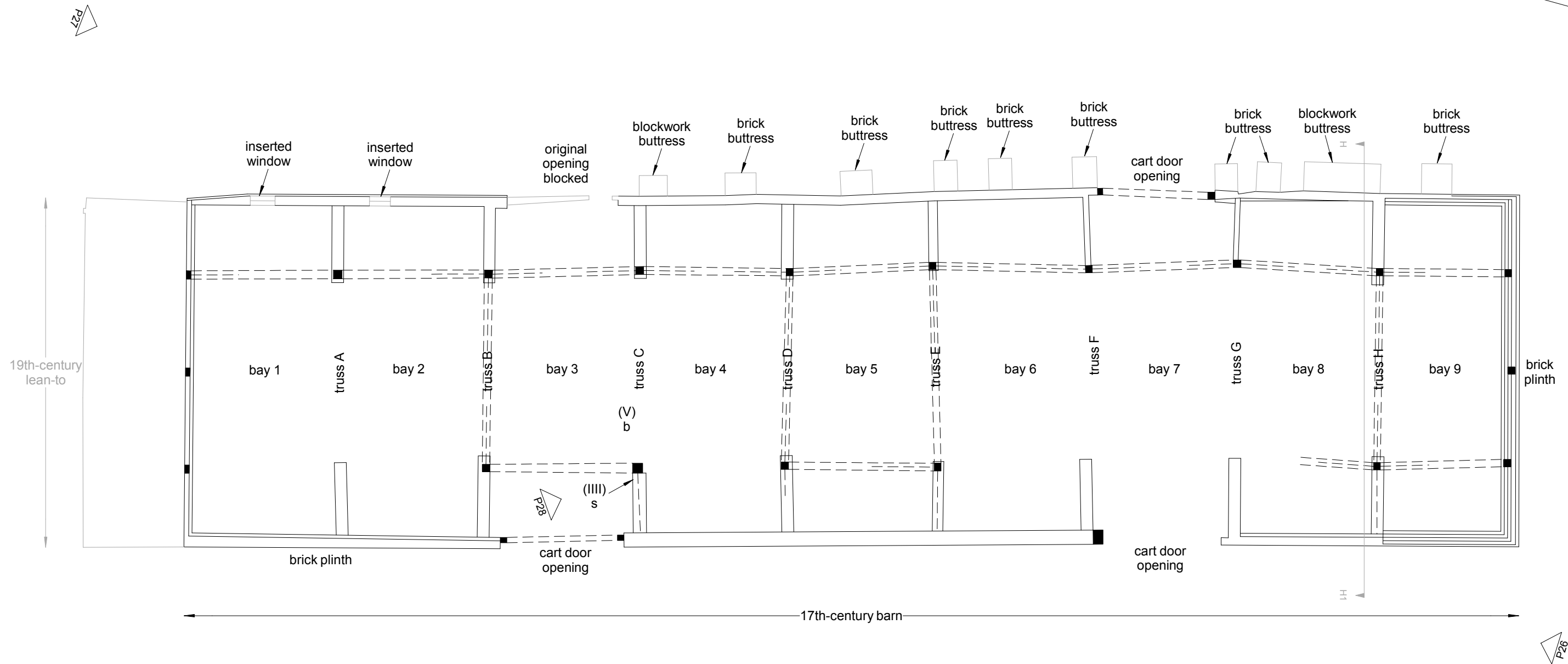


Fig 26 Structure 3 (19th-century granary): cross-section of truss B.





(V) = carpenter's mark
 s = sill beam
 b = brace

Fig 27 Floor plan of structure 4 (17th-century aisled barn), showing the location and orientation of photographs included in this report.



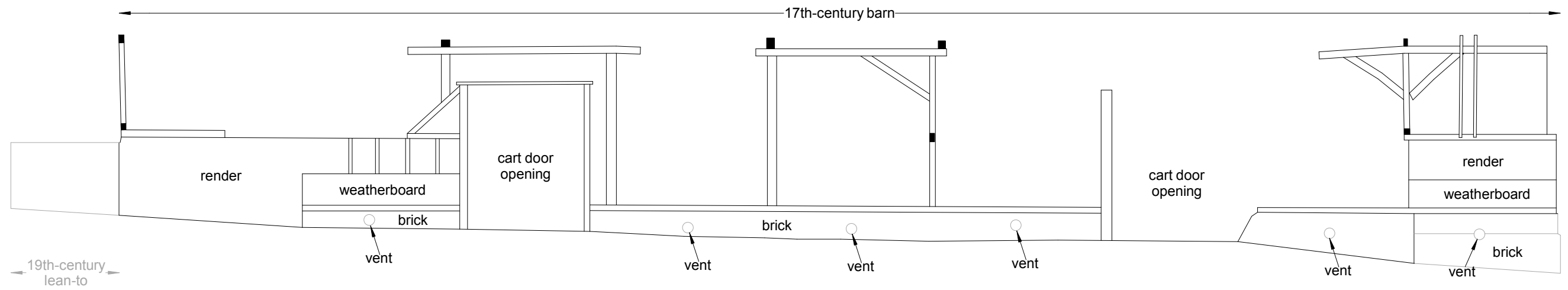


Fig 28 West elevation of structure 4 (17th-century aisled barn), with alterations shown grey.

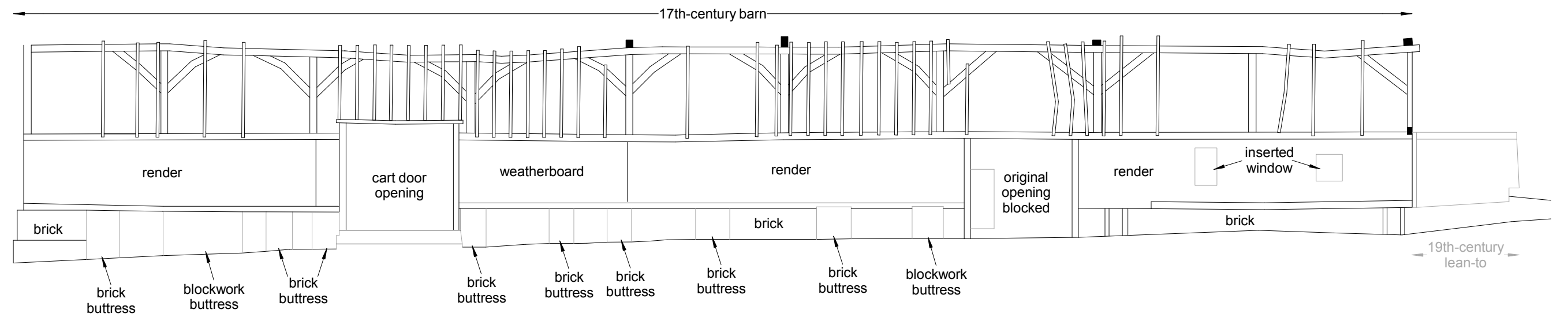


Fig 29 East elevation of structure 4 (17th-century aisled barn), with alterations shown grey.



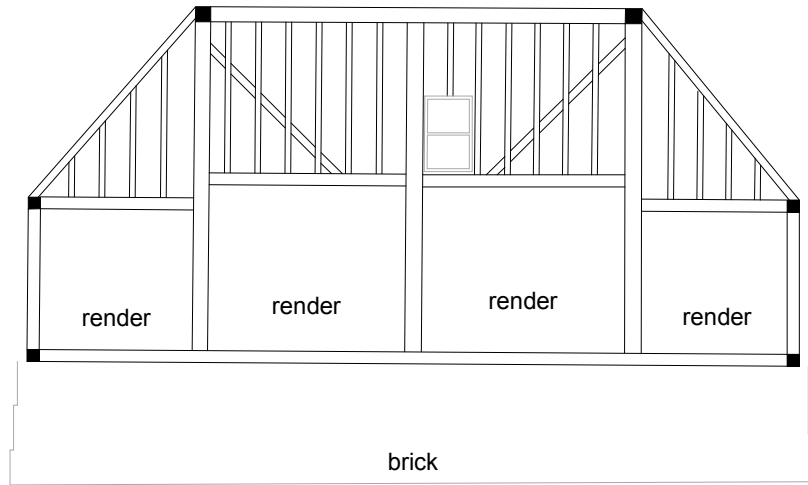


Fig 30 South elevation of structure 4 (17th-century aisled barn), with alterations shown grey.

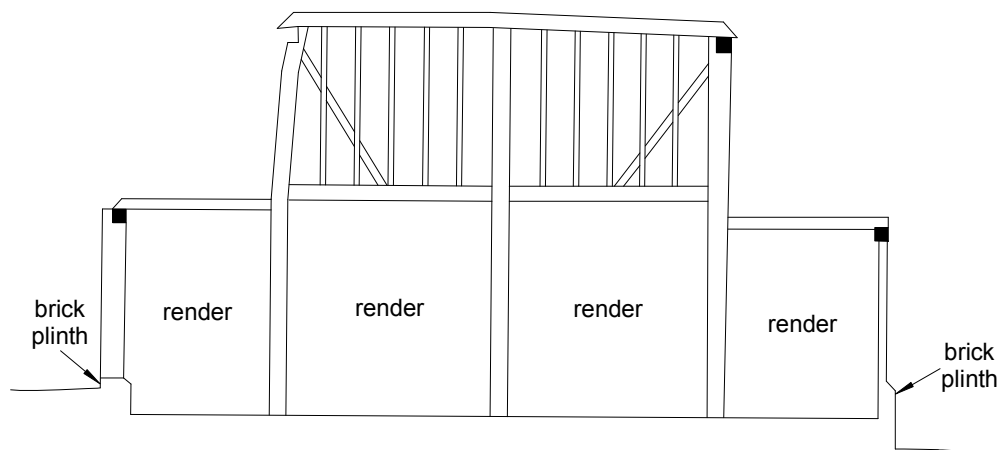


Fig 31 Internal elevation of north wall of structure 4 (17th-century aisled barn).

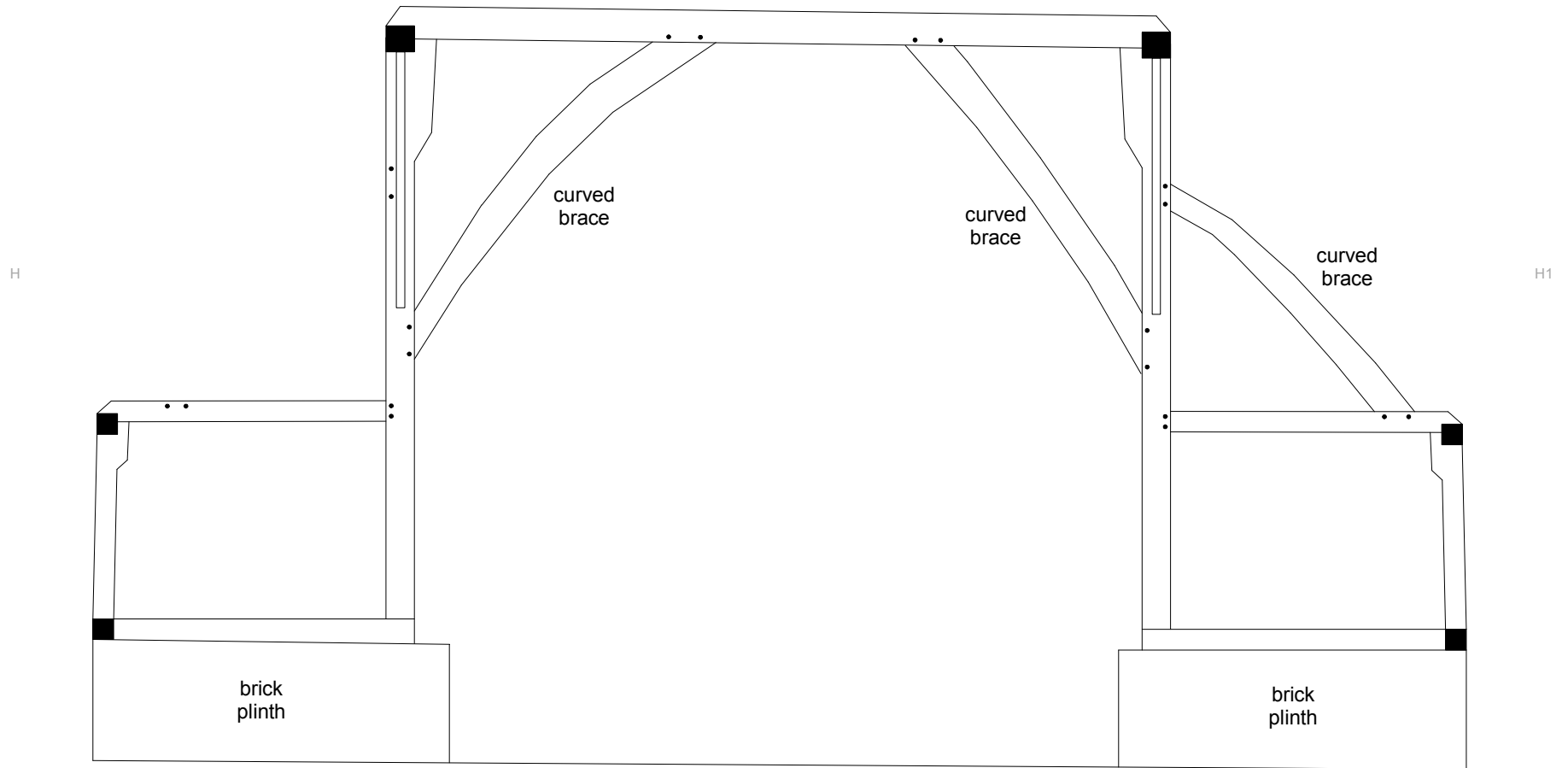


Fig 32 Structure 4 (17th-century aisled barn): cross-section of truss H.



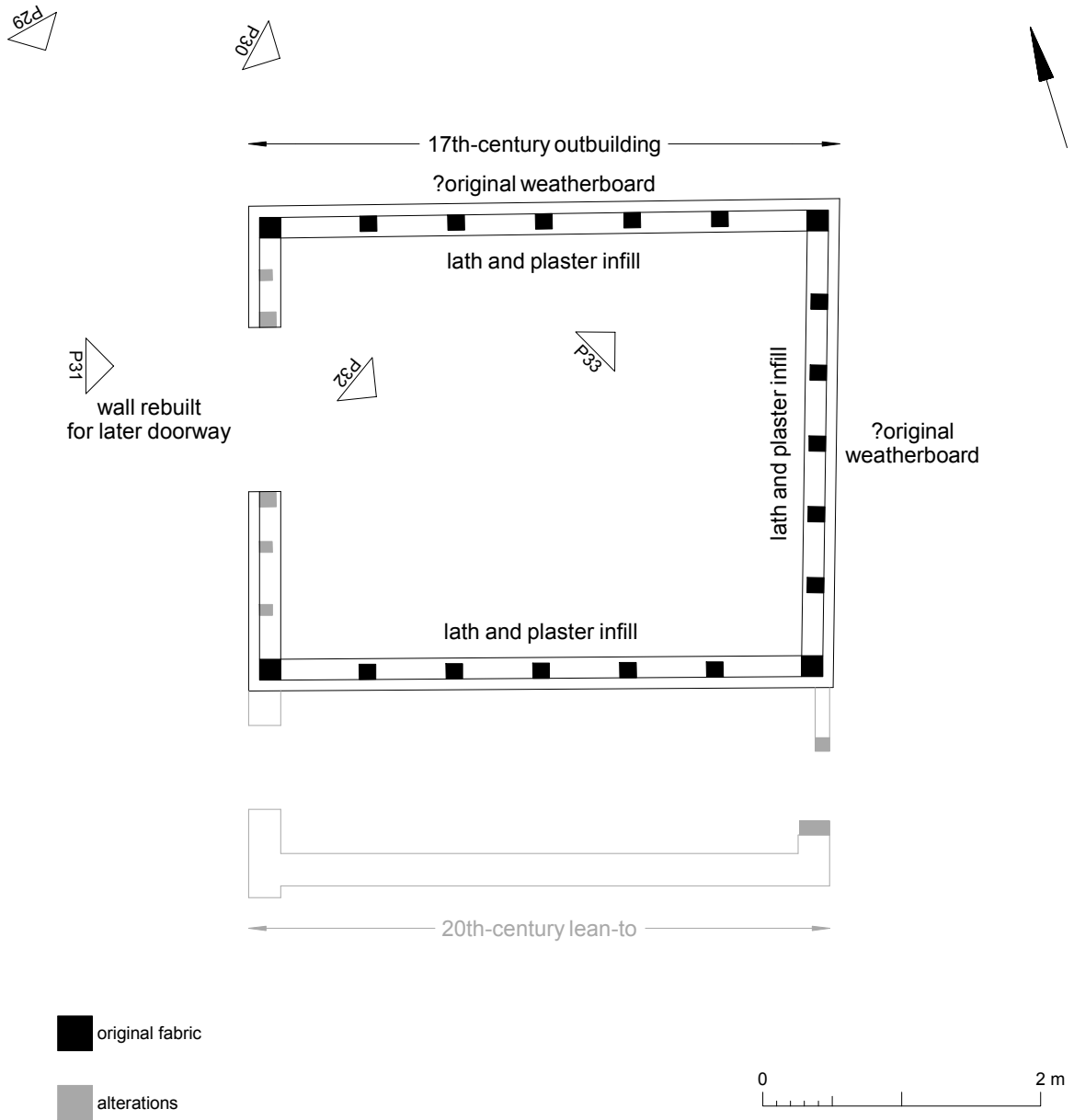


Fig 33 Floor plan of structure 5 (17th-century outbuilding), showing the location and orientation of photographs included in this report.

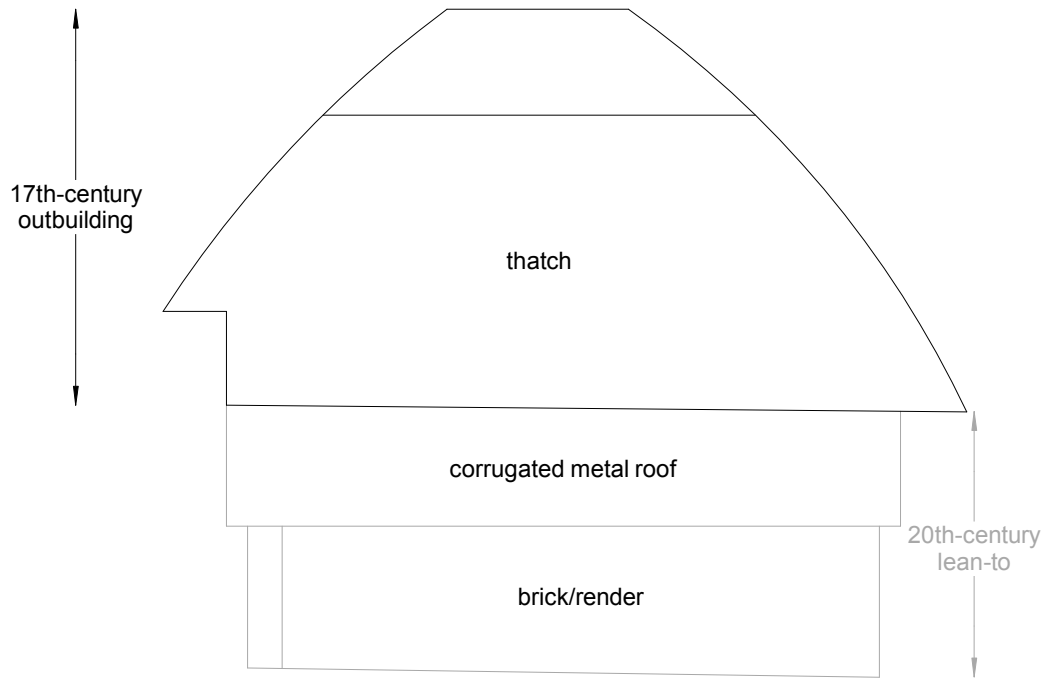


Fig 34 South elevation of structure 5 (17th-century outbuilding), with alterations shown grey.

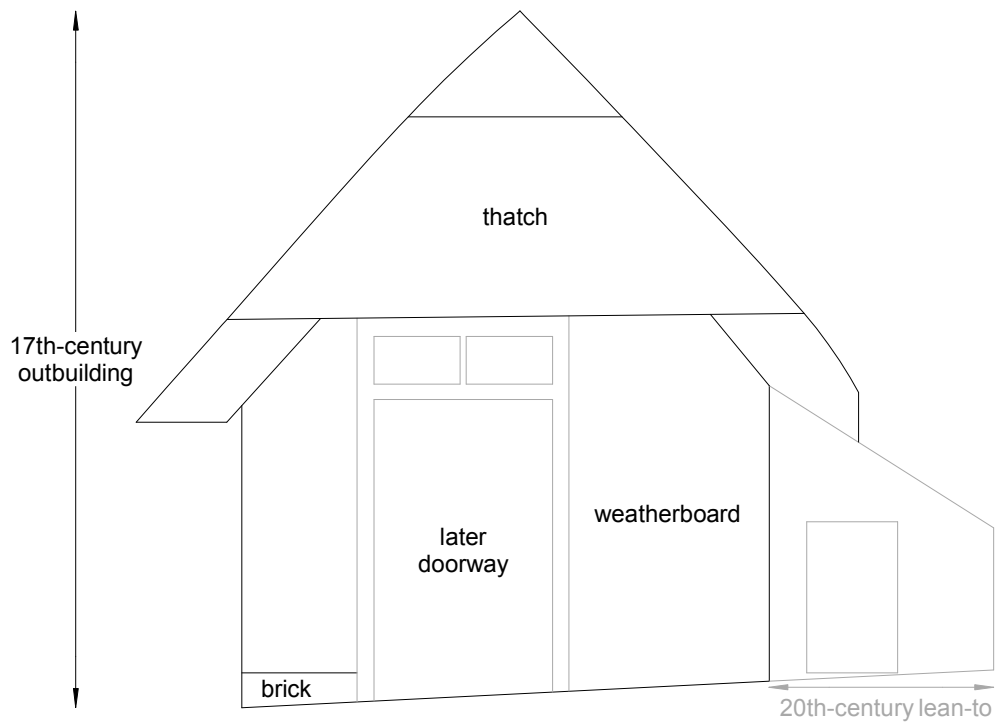
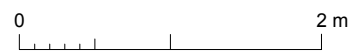


Fig 35 West elevation of structure 5 (17th-century outbuilding), with alterations shown grey.



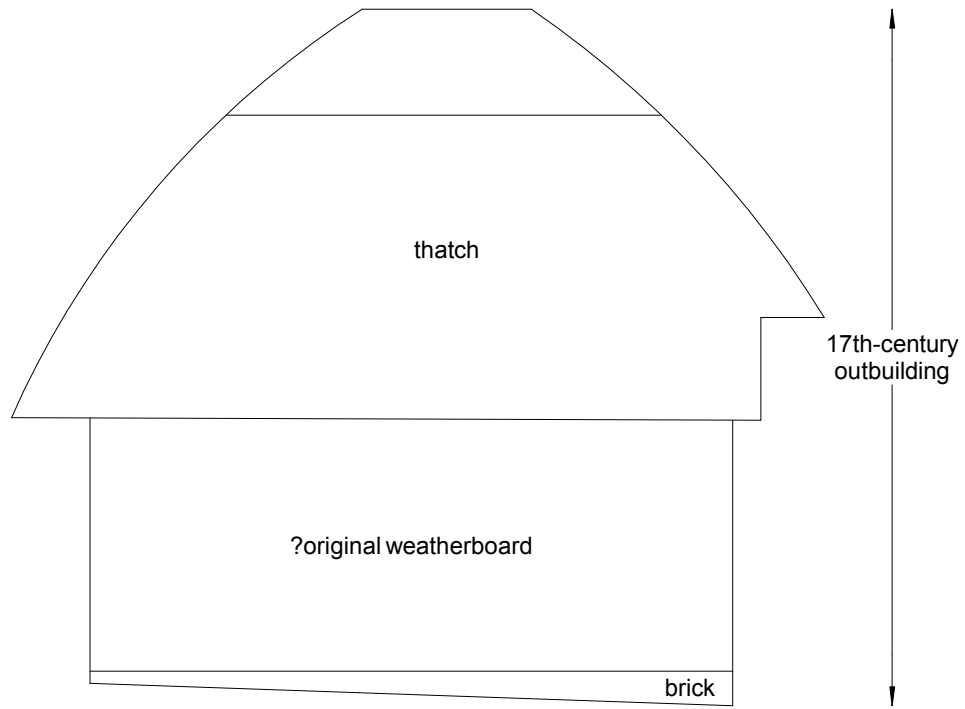


Fig 36 North elevation of structure 5 (17th-century outbuilding).

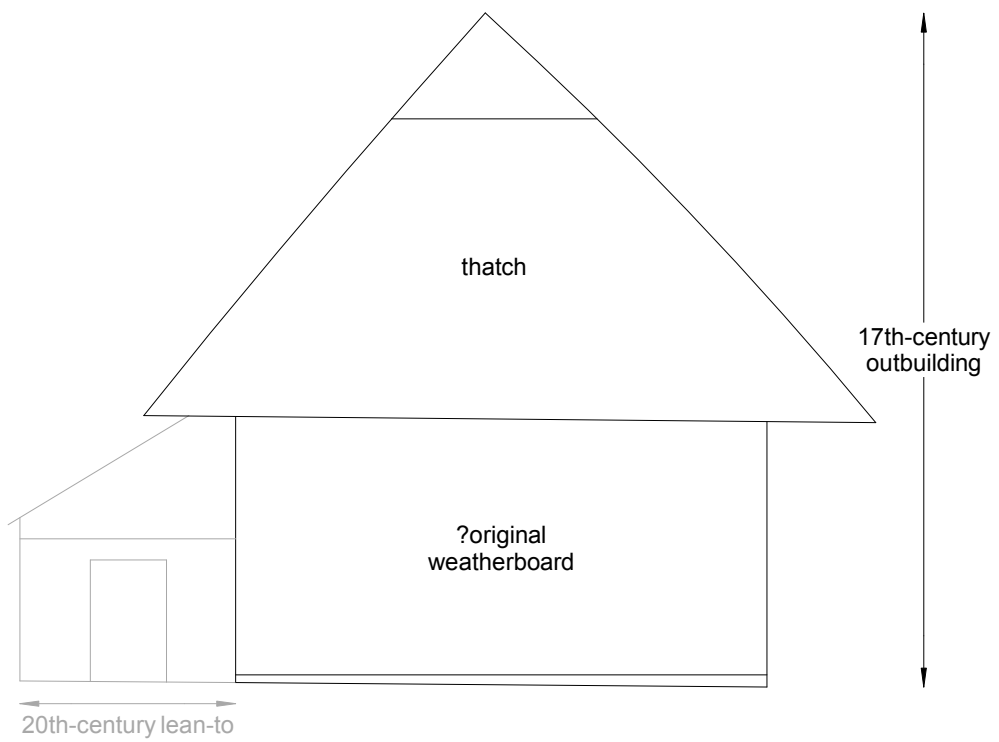


Fig 37 East elevation of structure 5 (17th-century outbuilding), with alterations shown grey.



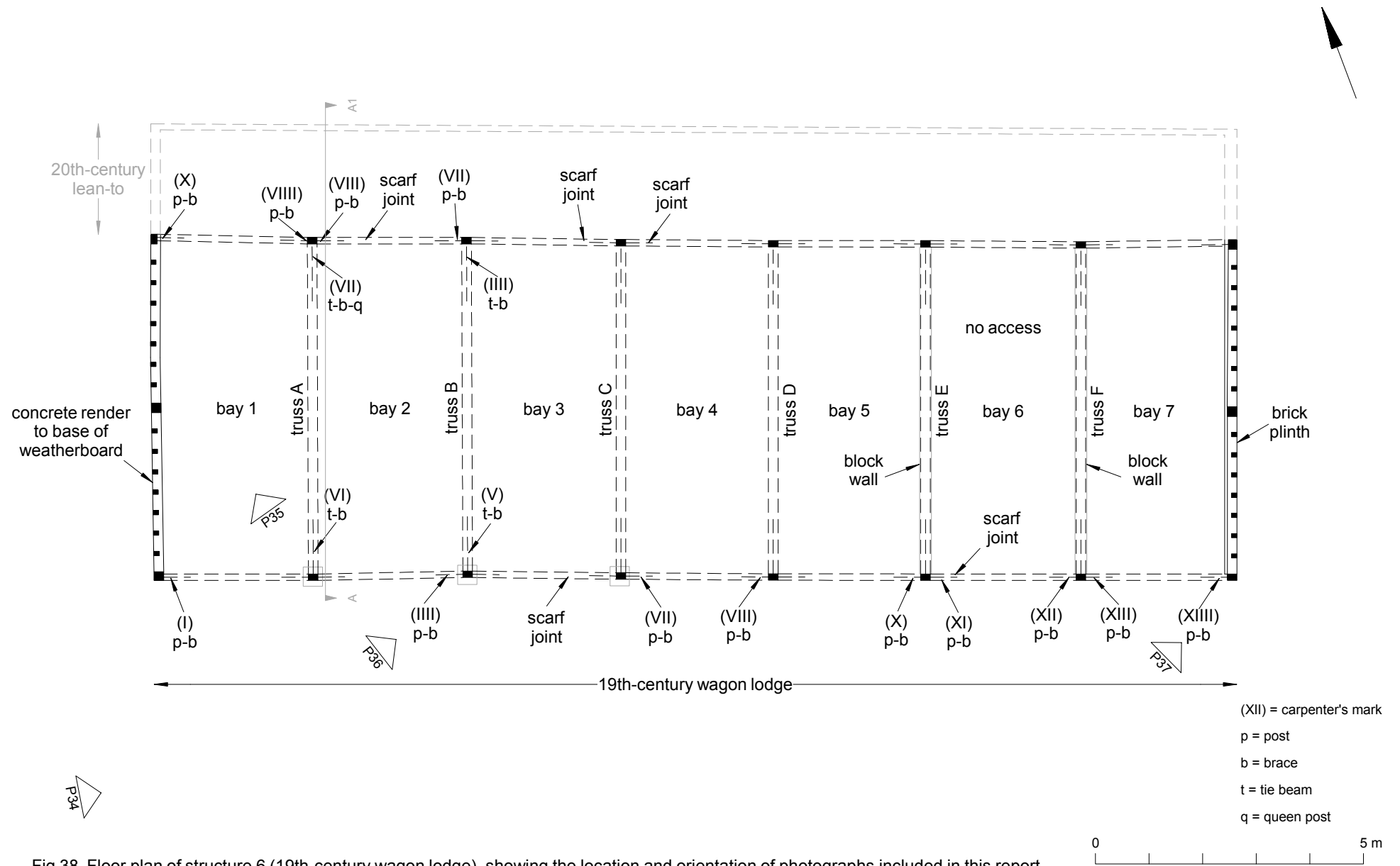


Fig 38 Floor plan of structure 6 (19th-century wagon lodge), showing the location and orientation of photographs included in this report.

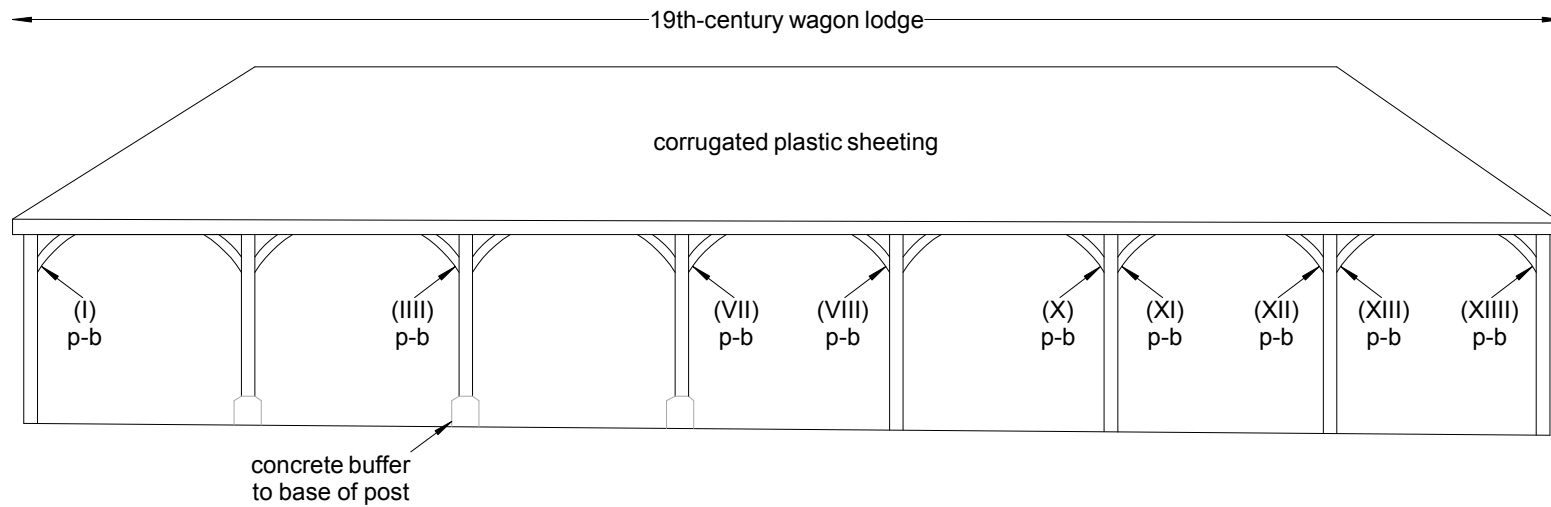


Fig 39 South-west elevation of structure 6 (19th-century wagon lodge), with alterations shown grey.

(VII) = carpenter's mark
 p = post
 b = brace

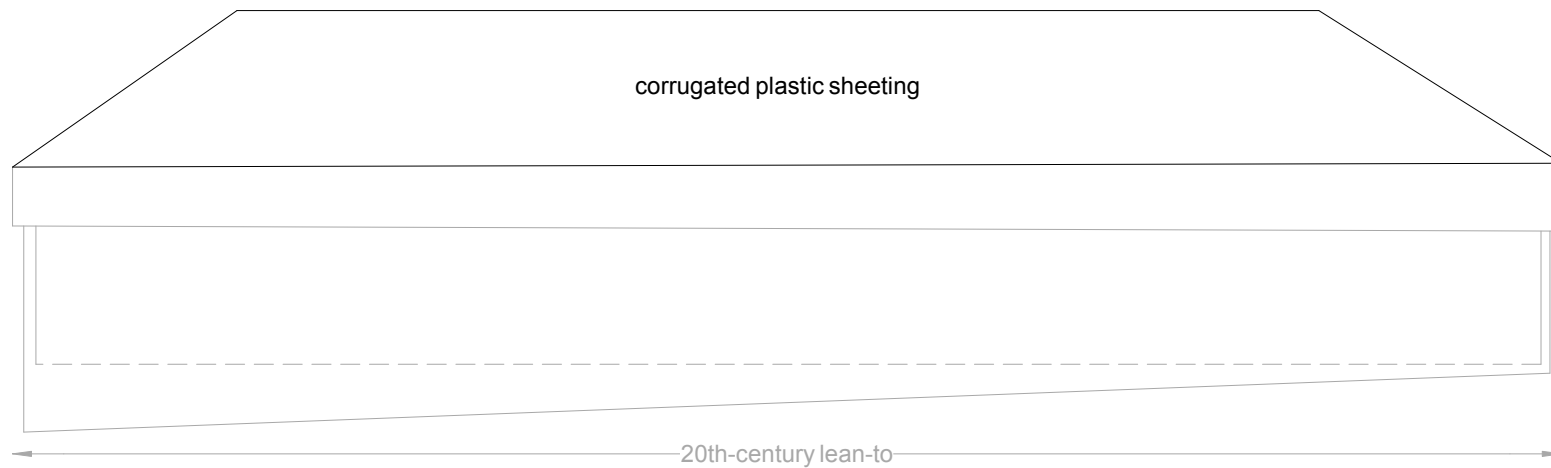


Fig 40 North-east elevation of structure 6 (19th-century wagon lodge), with alterations shown grey.



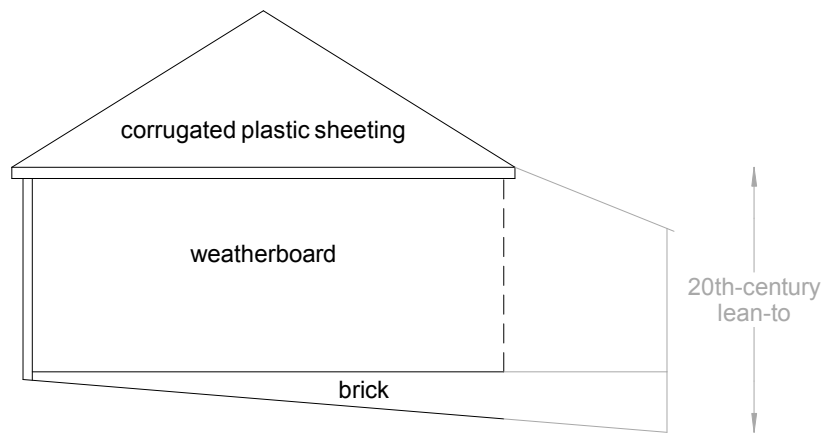


Fig 41 South-east elevation of structure 6 (19th-century wagon lodge), with alterations shown grey.

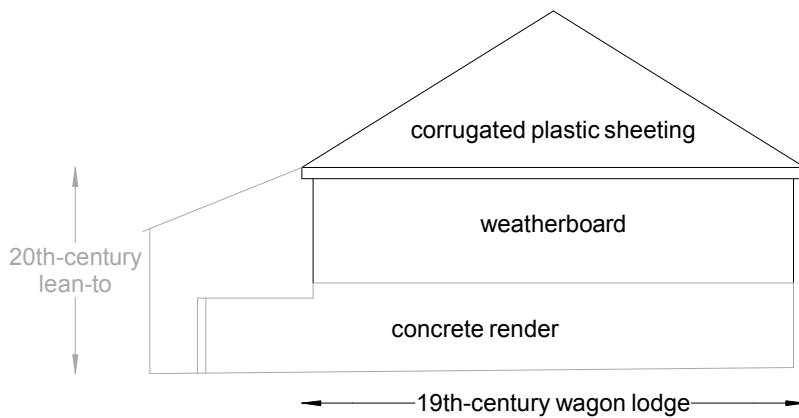


Fig 42 North-west elevation of structure 6 (19th-century wagon lodge), with alterations shown grey.



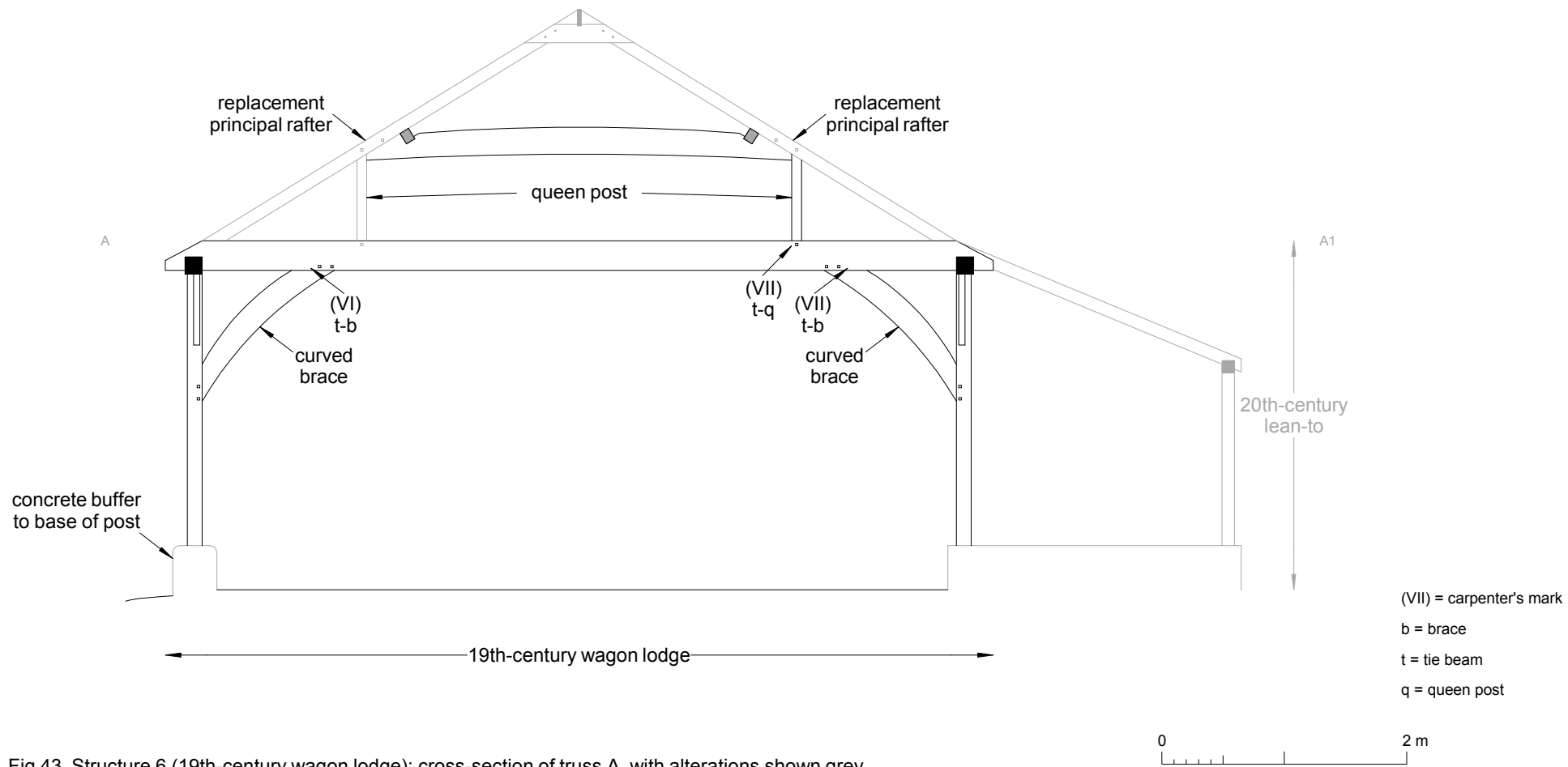


Fig 43 Structure 6 (19th-century wagon lodge): cross-section of truss A, with alterations shown grey.