

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Ystum Colwyn Farm, Meifod, Powys

BUILDING SURVEY



CPAT Report No 646

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July 2004

Report for Mr J Gittins & Co

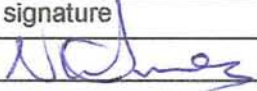

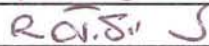
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SUMMARY

- The complex of buildings at Ystum Colwyn Farm are of considerable regional, even national significance, presenting what may be a unique group of agricultural buildings, and demonstrating the importance of the farm from the late medieval period until the 19th century.
- Barn 1 (the cartshed and stables) is largely built of hand-made brick and has a date stone of 1721, but also includes part of an earlier stone and timber-framed building in the rear wing.
- Barn 2 (the brewhouse, dairy and cheesery) also appears to include part of an earlier stone-built structure in one gable wall and part of the rear wall. The building, which bears a date stone of 1719, is of exceptional quality for an agricultural building, with fine hand-made bricks and excellent carpentry detail in the roof and king-post trusses. The building also retains a number of important features such as the oven, boilers and cheese-press base, together with the later addition of a dovecote in the attic of the rear wing.
- The cruck and box-framed barn, Barn 3, is an outstanding survival of putative late medieval carpentry and vernacular architecture. Originally of three bays, the barn was later extended in two phases, each with the addition of two bays, with the final addition of an aisle along the north-west side. There is also a lateral extension, the phasing of which is uncertain. The surviving trusses and framing possess good carpentry detail, including partial sets of assembly marks and two inscriptions, one of which is dated 1770.
- Barn 4 was at one time used as a threshing barn, although it is unlikely to have been originally built for that purpose. The surviving trusses suggest that it would originally have been of timber-frame construction, although the walling has later been replaced with random stone. A polygonal horse engine house was added to the south-eastern side, probably in the early 19th century, to provide power for threshing and other machinery.
- Barn 5 is now used as a shelter shed although it was formerly a mixing barn. An external steam engine would have powered machinery for cutting roots and fodder and the drive shaft still survives with belts attached, although the machinery has long since been removed.

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1 INTRODUCTION

- 1.1 In May 2004 the Contracting Section of the Clwyd-Powys Archaeological Trust was invited by Mr J Richardson, acting on behalf of Mr J Gittins, to prepare a specification and quotation for undertaking a programme of building recording on five barns at Ystum Colwyn Farm, near Meifod. The recording was associated with a planning application for the conversion of the barns into residential housing. The quotation was duly accepted and the survey undertaken during June and July 2004.
- 1.2 The Curatorial Section of the Clwyd-Powys Archaeological Trust in their capacity as archaeological advisors to the local planning authority determined that the building survey was required in order to inform the planning process. Accordingly a brief (No BUI 542 dated 11 May 2004) was prepared by Mr M J Walters, which described the scheme of archaeological works required.
- 1.3 The barn complex consists of a stables, wheel house, barn and horse whim, all of which are listed grade II, together with a brewhouse and dairy and a cruck- and box-frame barn which are not listed.
- 1.4 The present-day farm complex is spread over a considerable area, with numerous outbuildings and modern barns in addition to the five structures which form the subject of the survey. Originally, however, it would appear that the farm developed around a fold yard on the south-east side of the complex, around which Barns 3-5 are located (Fig. 1). Until the early 19th century a minor road ran through the yard and between Barns 4 and 5, heading for a ford across the Vyrnwy. The present house was extensively renovated in 1825, but apparently retains elements of a much earlier timber-framed building now largely hidden within its structure. Barns 1 and 2, constructed in the early 18th century, lie to the north-west of the house, some distance from the main farm complex.

2 HISTORICAL BACKGROUND

- 2.1 The origins of Ystym Colwyn are lost in the mists of time. It was, of course, not only the name given to a gentry house, but also to a township in Meifod which would certainly suggest that the latter was known by that name in the Middle Ages. But whether there was a medieval farm and house here cannot be established on the basis of the documentary evidence alone (although dendrochronology of the barn may perhaps clarify this point). At present the earliest references that are known to us come from the later 16th century.
- 2.2 In the Elizabethan period the house and its estate belonged to the Thomas family, and on the death of the last male owner, Rees Thomas, the estate changed hands to his daughter and heiress, Dorothy, who married Lumley Williams of Cochwillan near Bangor in Caernarvonshire, sometime in the first quarter of the 17th century.
- 2.3 Lumley Williams established the family at Ystymcolwyn, as it was then termed, for six generations, until towards the end of the 18th century it passed again through an heiress – Ann, who married Sir Robert Howell Vaughan of Hengwrt and Nannau. His son took the name Williamses – the Williamses now affecting the inclusion of the ‘e’ in their surnames – as a prefix to Vaughan. It seems improbable that the family ever lived at Ystymcolwyn for any length of time and indeed the Tithe Apportionment for Ystymcolwyn Township in Meifod in 1839 lists the owner as (the third) Sir Robert Williamses Vaughan with Thomas Jones as tenant. It was this Sir Robert who sold the estate to James France France of Bostock Hall in Cheshire in 1849.
- 2.4 None of this throws any light on the buildings of Ystym Colwyn, but we should note that the present farm was the site of the gentry home right up until the 19th century, and it lay astride one of two routes, probably the more minor one, that linked the Welshpool area with Llanfyllin and the villages to the north-east. It was only after James France France purchased Ystym Colwyn that there was a fundamental change. It appears that it was France who built Ystym Colwyn House, 600m or so to the west of the farm, for no building was apparent in that

location on earlier 19th-century maps. In 1921 the whole of the estate changed hands again, the farm being purchased by the family of the present owner.

- 2.5 Only a limited number of documents have come down to us from the last four centuries. These are in the Powys County Archives, having been deposited there by Mr C Hayhurst-France in the 1970s, but the bulk of the material from the Williams' occupancy of Ystym Colwyn must be assumed to be lost in one of the several changes of ownership.

3 BUILDING SURVEY

- 3.1.1 A programme of detailed building recording was undertaken on all of the buildings in question, although the level of recording varied according to the requirements of the curatorial brief. The level of recording was based on the principles outlined by the Royal Commission on the Historical Monuments of England (RCHME 1996), although the final level of detail was agreed with the curator at a meeting on site, prior to the commencement of the survey.
- 3.1.2 A photographic survey was undertaken for all of the buildings in 35mm black and white negative and digital formats, including external elevations, architectural details, roof trusses and internal views. A CD containing a copy of this survey, together with a catalogue of the photographs, has been provided to both the client and the curator.
- 3.1.3 A full written account was produced for all of the buildings, including details of construction, phasing, use and descriptions of individual rooms. In Barns 1, 2 and 3 the drawn survey comprised full ground and first-floor plans, together with external elevations and roof trusses. In Barn 3 the survey was extended to include full elevations of the timber framing and the production of a three-dimensional isometric illustration (Fig. 16). Barns 4 and 5 were subject to a lower level of recording, comprising ground-floor plans only.
- 3.1.4 The drawn survey was largely undertaken using reflectorless laser survey technology (Leica TCRA 1105 plus) in conjunction with Penmap survey software. Additional detail was recorded using conventional hand measurements, together with a hand-held laser tape measure (also known as a Disto). Post-survey processing was undertaken using AutoCAD13 and Mapinfo6 software to produce the final illustrations for the report. A full catalogue of the digital data is provided in Appendix 1.

Barn 1 – Cart shed and stable range (Figs 2-6; Plates 1-2)

- 3.2.1 The building comprises an L-shaped range built as a cart shed and stables with store rooms above, and incorporates part of an earlier stone and timber-framed building at the rear, with later lean-to additions.

Exterior

- 3.2.2 The surviving elements of the earlier structure form part of the north-west range of the building, comprising a stone-built north-western gable, now with a hipped roof, and the north-eastern wall, which is of random stone with timber-framing at first floor level (Plate 2). The framing is exposed on the north-east elevation and extends within a later lean-to extension (room G5) where peg-holes on the end post indicate that the framing originally extended further to the south-west. It is possible that the stone plinth on which the main brick range now stands is also part of the earlier structure.
- 3.2.3 The main range is largely of good quality, hand-made brick with a hipped slate roof. The main, south-eastern elevation (Fig. 4; Plate 1) is symmetrical and has a central double door under a brick arch on the ground floor with a single door flanked by windows to either side. Above the door is an inscribed sandstone moulded and fielded panel reading W / A M / 1721, the initials belonging to Arthur and Meriel Williams. Three of the ground-floor windows are now blocked. The first-floor has only three windows, although the symmetry is maintained by the use of a further three blind windows. There is a three-course plat band above the ground-floor windows which is repeated on the south-west and north-east elevations. Above the first-floor windows is a moulded timber cornice. The south-west elevation has a single, central

window on the first floor flanked by blind windows, with a further three blind windows on the ground floor. To the rear is a later two-storey stone extension, originally with three openings at first floor level, one of which is blocked, while another has been extended to form a door. The north-east gable has an external stair to the central door on the first floor. The rear wall of the range is of random stone construction, although there are brick quoins at the corner with the north-eastern gable. The interpretation of this elevation has been hampered by the addition of the lean-to rear extension, which is in two phases. There are a number of blocked openings at the north-east end of the main rear wall and at the north-west end the wall alignment changes, suggesting that it may be part of the earlier structure.

Ground floor (Fig. 2)

- 3.2.4 The ground floor comprises six rooms in all, the largest of which (G1) is at the south-west corner, incorporating part of the earlier building. There are three large ceiling beams supporting the first-floor joists which also formerly held a lathe and plaster ceiling. The room has been divided into a number of pens by the addition of low, modern, brick walls which have subsequently been floored over to accommodate later machinery associated with the use of the first floor for grain storage. A reused horizontal timber built into the stone north-eastern wall was originally part of a mullioned window. There is an external doorway in the northern corner and a door in the north-east wall into the small lean-to (G5). A further door in the north-west wall leads to a later extension (G6), now open to the roof and converted to feed storage but originally floored with three openings in each side wall at first-floor level and an open-fronted gable end wall on the ground floor, with weather boarding above.
- 3.2.5 The central room (G2) with the double doors is now a workshop but was originally the cart shed. The rear stone wall has a large blocked doorway opposite the main door, suggesting that originally there was a through-passage along the north-east side. A single ceiling beam supports the first-floor joists which formerly held a lathe and plaster ceiling.
- 3.2.6 At the north-east end is a large room (G3), originally a stable and still partitioned as such into two loose-boxes with the additional of a fuel storage tank in one corner. A door in the rear stone wall leads to a small tackle room (G4) in a lean-to which preserves the wooden rail and pegs for hanging tackle.

First floor (Fig. 3)

- 3.2.7 Above G1 is a large room (F1), now partly partitioned for grain storage. There is a single window in the south-west wall and another in the north-west gable end. There is ladder access from G1 in the northern corner and two adjacent grain chutes. The central room (F2) is plain with a single window, a trap door to G2 and a doorway to F1 and F3. Room F3 has the main first-floor entrance via steps and a central door in the north-east gable, two windows in the south-east wall and a small window in the north-west wall, together with an opening into F4, which is a small loft space above G4.

Roof (Fig. 6)

- 3.2.8 Unusually, each of the five roof trusses is of different construction and all but Truss 5 incorporates at least some reused timbers. Truss 1 is of unusual construction with a tie beam and principal rafters with two through, side purlins. The rafters are cross-braced, including some reused timbers. A series of assembly marks includes scratched lines and chisel marks. The tie beam has mortices for four posts, now missing, and all the original timbers bear stave holes and grooves for wattle infill, suggesting that the truss has been reused from an earlier building. Truss 2 is of similar construction, although is less complete and is boarded over on one side preventing close inspection. Truss 3 also has a tie beam and principal rafters with two through, side purlins, although here the bracing is more vertical with smaller timbers supporting the brick infill. Again this would appear to be a reused truss as the tie beam has a mortice for a central post in the position of the present doorway.
- 3.2.9 Truss 4 has a tie beam with a king strut formed of reused timber, principal rafters with single braces and two through side purlins. Truss 5 has a collar with queen posts and through purlins, and evidence of former box-framing in the lower side of the tie beam and surviving wall post. Stave holes and grooves indicate that the framing was originally infilled to form a solid wall. Although this is the most complete truss it is unlikely to be in its original position.

Barn 2 – Brewhouse and dairy range (Figs 7-9; Plates 3-6)

- 3.3.1 The building has two storeys with an attic above, to which a rear wing has been added at the northern corner and a single storey lean-to along the rear wall. Originally built to incorporate a brewery and maltings, it had later uses including a dairy and cheese rooms.

Exterior (Fig. 9)

- 3.3.2 The main, south-east elevation is in good quality hand-made brick on a stone plinth, with dressed sandstone quoins at either end, and bears a date stone inscribed W / A + M / 1719, the initials again belonging to Arthur and Meriel Williams. It was originally constructed with eight window openings at first-floor level above a three-course plat band, with matching openings below of three doors and five windows. The two surviving doors have new arched heads and two wide modern openings have been inserted, removing the third door and part of two windows, which have been infilled. The roof is slate with a coped south-west gable on ogee-moulded kneelers. The brick chimney stack at the south-west end was originally around two metres higher than at present.
- 3.3.3 The north-east gable is in random stone with one window on the ground floor and one in the attic. There is little trace of a joint for the rear extension, although an internal change in wall thickness suggests that this is a later addition. The south-west gable is in random stone to the ground floor lintels with brick above and two windows at ground and first floor level. The masonry rises higher at the western corner, the whole suggesting that an earlier building has been incorporated into the structure.
- 3.3.4 The rear extension gable has two windows at first and ground floor levels, one of which is blocked, while the south-west side is only partly in stone, with what appears to be a later brick infilling incorporating a small first-floor window. The rear lean-to has a door at the south-west end which also marks a change in construction, with larger, better quality masonry extending to the gable end and smaller stonework along the majority of the elevation, suggesting that this section is a later addition. There are five windows, one of which is now blocked.

Ground floor (Fig. 7)

- 3.3.5 The room at the south-western end of the building (G1) has a large brick chimney with a timber lintel for an open fireplace, now infilled by the addition of a central oven with brick-built boilers to either side, behind which are small window openings (Plate 5). The floor is tiled and a chamfered ceiling beam supports the first-floor joists which formerly held a lathe and plaster ceiling. A wooden stair in the southern corner originally led to the first floor and attic, although the upper section is now missing. Two very substantial, dressed sandstone blocks lie against the north-east wall, resting on a sandstone plinth with two cut-outs, forming the base for a cheese press. Three malting kiln floor tiles are now built into the window sill. The rear wall is stone with doors to G5 and G6.
- 3.3.6 The room presumably originally functioned as the brewery, using barley grown on the farm to produce beer for the farm labourers. The malting season was traditionally from September to April and involved soaking the barley in water for up to two days before spread it thinly on a large floor, where it was left to germinate. After eight to ten days the germination was arrested and the barley dried in a kiln. The dry malt was then bagged for use or sale (Brunskill 1999, 100-101).
- 3.3.7 A secondary use would have been in the production of cheese, with the fire being used to heat the milk before curdling. The cheese would have been placed in the press for two days before being taken to a turning room and then the cheese room to mature. Later on, the bread oven was added, with the two boilers probably having been last used for washing clothes.
- 3.3.8 Room G5 has a boarded ceiling and timber-framed partition against G6. The external doorway leads into a yard area which may have originally contained the milking parlour. The rear lean-to also includes two further rooms (G6 and G7), both with tiled floors and slate-slab benches suggesting that this was built as a dairy range on the cooler side of the building. At the north-eastern end of G7, a partly blocked door opens onto a curious passage leading to the rear extension, room G8.
- 3.3.9 In the centre of the building is a room of uncertain function (G2), now a vehicle shed and store, which has lost its ceiling through the collapse of the modern, concrete first floor. The

room has a tiled floor and was also presumably associated with the dairy. The rear stone wall has a large blocked opening.

- 3.3.10 Rooms G3 and G4 are likely to have originally been a single room, although now partitioned by 19th-century timber panelling. G3 has a stone-flagged floor which may extend into G4, although this is not apparent due to the excess of items presently stored within. G4 was last used as a workshop and store, but it must originally have had a rather different function. The room is open to the roof with an octagonal frame supporting a first floor gallery around the walls. It is possible that this was originally the location of the drying floor for malting barley, and a timber frame in the apex of the roof suggests the former presence of a louvered vent. The surviving evidence is, however, inconclusive.
- 3.3.11 The rear wing has a single ground-floor room (G8) with a central beam supporting the first-floor joists. Access was via the narrow corridor from G7 and a rear door in G4. The southern corner of the room has had the ceiling removed, possibly to allow items to be hoisted onto the first floor for storage.

First floor (Fig. 7)

- 3.3.12 The main range is divided into three rooms at first-floor level. The stairs from G1 lead into the end room (F1) which has a lateral beam supporting the ceiling joists. A door in the rear wall leads into a small loft room (F4) in the lean-to, while a second door opens inwards to lead through into F2. The outside of the door has 'No 2 Cheese Room' painted on it, indicating that this room and that beyond (F2; presumably No 1 Cheese Room), were used to store the maturing cheese. Both rooms have shuttered windows which would have facilitated good ventilation. The floor in F2 is missing above G2, although it survives above G3. The room has four transverse beams supporting the ceiling joists. A partition separates F2 from F3, although it appears to be a later insertion and lies across a wide, blocked doorway in the rear wall. There is no evidence to suggest any first-floor partition at this end of the building, such that F2 and F3 may have been one long, open room.
- 3.3.13 The rear extension is accessed via the gallery in F3 and two doors in the rear wall. The room (F5) has been partitioned around the removed ground-floor ceiling and within the room there is some interesting graffiti including a reference to 'Repaired 1840'. Further graffiti on the gable-end wall repeats the date, adding also 1907 as a date for further repairs. Other graffiti includes various calculations, some initials and some sketches, as well as a largely illegible section with a date of 1730. The room has a central beam supporting the ceiling joists. A door in the south-west wall leads into a final room in the lean-to (F6), the floor of which is unsafe, preventing access.

Attic and roof (Fig. 8)

- 3.3.14 The attic of the main range is divided into three equal bays at the north-east end and a larger bay at the south-west end, into which stairs originally provided access. There is evidence at this end to suggest that the roof is used by bats as a summer roost. The north-eastern bay is open from the ground to the roof. The carpentry within the roof space is of very high quality for an agricultural building. Each of the three trusses is of king-post construction with rising braces to the principal rafters and further braces from the tie beam. The principal rafters have 'knees', so that they enter the tie beam at right angles. The roof has two through, side purlins, the upper of which has pegged tenons on the rafters.
- 3.3.15 The attic of the rear wing has been purpose-built with a dovecote in either gable. The south-east gable is entirely in hand-made brick, while the north-west gable is stone externally with a brick interior. Both gables have a series of horizontal perching ledges with rows of openings leading to nesting boxes within the centre of the wall (Plate 6). A single timber between the upper purlins suggests the former presence of a small, framed turret, or glover, through which the birds would have gained access.

Barn 3 – Cruck- and box-framed barn (Figs 10-16; Plates 7-10)

- 3.4.1 Originally a three-bay, cruck-framed structure, the barn appears to have been extended southwards in two phases, each comprising two box-framed bays (Fig. 10). The barn is an excellent example of late-medieval carpentry and many original features survive from each of the barn's main phases of construction. At present the barn maintains a good slate roof with the north-east side of the barn being brick at ground floor level, with weather boarding

above, while the south-west side is box-framed with later brick infill. The north-western gable is now stone, while the south-eastern is weather boarded box-framing. An aisle has been added along part of the west side, which also has a lateral extension adjoining Bay 2.

- 3.4.2 The end bay of the cruck-framed barn, Bay 1, has now lost the gable-end cruck, which has been replaced by a random stone wall, built on top of the original sleeper wall, which also extends along the west side of the bay, the east side being open-fronted. The surviving cruck (Truss 1) is well-preserved, and although the tie beam is missing the collar remains. The wall plates are supported on cleats, jointed onto the outer edge of the cruck blades. The bay is now used as a loose box with a feeding trough in Bay 2 and inserted hay loft.
- 3.4.3 Bay 2 is now an access passage with a feeding trough on either side and an added hay loft. The south-eastern trough uses the original sill beam of the cruck frame (Truss 2) which, like Truss 1, also has the collar but no surviving tie beam (Plate 9). Again, cleats were used to support the wall plates. The box-framed sides survive in part, being best preserved on the south-western side, which includes the original doorway, now infilled below the shaped door-head (Fig. 11). The framing, which is now largely infilled with brick, is in three levels, of which the upper two display stave holes for the original wattle and daub panels. The lower level was boarded, as indicated by the vertical slots in the posts and crucks.
- 3.4.4 The south-eastern bay of the cruck-framed barn (Bay 3) now forms a passage to a later barn and fold yard at the rear. The cruck (Truss 3; Plate 9) is well-preserved, although the cruck heads are missing. The tie beam and collar survive, along with the framing for wattle and daub infill. The lower part of the framing is missing, although mortices and stave holes in the tie beam indicate that this was originally entirely infilled, forming the solid gable-end wall of the barn. Unlike Trusses 1 and 2, Truss 3 does not have cleats, but instead the wall plates were supported directly on the cruck blades.
- 3.4.5 Bays 4 and 5 form a later extension in a single phase of box-frame construction. Curiously, at either end the framing ends at wall posts rather than being joined directly into Trusses 3 and 5. Bay 4 now has a door and access passage, with feeding troughs on either side. The south-eastern trough uses the original partition (Fig. 13) which is well-constructed with a central chamfered post with chamfered rails on either side, each with close-set stave holes in the upper edge. Below the rails the partition is boarded, while the upper rails, which would have supported the staves, are missing. The tie beam is also chamfered and supports the joists for the first-floor hay loft. The roughly-cut wall posts, which still retain some bark, rise at either end to support the wall plate, but have no truss frame above. The box-framing is best preserved on the west side, where good incised carpenter's marks survive. Truss 4 rests on the box-frame at either end, but without wall posts below. The frame also has good, carpenter's marks on the southern side and an inscription on the northern side:
- EM
RW 1770
TI
- 3.4.6 Bay 5 is now used as a loose box with feeding trough on either side, accessed from doors in Bays 4 and 6. A chamfered beam supports the first-floor hay loft. Truss 5 has virtually complete framing with the truss itself supported on jowled wall posts (Fig. 13; Plate 10). Stave holes in the lower side of the rails and principal rafters indicate that this was originally entirely infilled with wattle and daub panels to form a solid, external wall. The south-eastern side of the frame is weathered, while the other side has a good set of incised carpenter's marks together with an inscription on the tie beam consisting of the initials IW, presumably the same person whose initials appear on a carved doorhead, now in the lateral extension (see para 3.4.10).
- 3.4.7 Bays 6 and 7 appear to have been added in a single phase with box-framing surviving in the upper section of the side walls, with solid brick walling below. Both bays are now used as a single loose box, with a feeding trough on the north-west side and an access door and passage against Truss 5. A modern doorway has been roughly cut through the eastern brick side wall, also removing the wall post supporting the eastern end of Truss 6. The south-western end of the truss has a doorway below, leading into the aisle, which has removed the lower part of the wall post. The truss has been modified with the collar and braces now missing, having been replaced by smaller braces and a collar at a higher level (Fig. 14). The

tie beam survives with braces below, and mortices for framing which no longer survives. All of the original timbers display stave holes for wattle and daub infill.

- 3.4.8 Truss 7 is well-preserved, including the sill beam which rest on a stone sleeper wall (Fig. 14). The truss is in the same style as Truss 5 with jowled wall posts and box-frame panels which were originally infilled with wattle and daub, but are now externally weather-boarded.
- 3.4.9 A long, narrow aisle has been added to the western side of Bays 4-7, presumably being either contemporary with, or later than the addition of Bays 6 and 7. The outer walls are in random stone rubble with a blocked door at the south-eastern end and four windows on the side wall. The north-western end is now missing. Where the floor is visible, it appears to be at least partly cobbled. Within the aisle the box-framing for the main barn is clearly visible, particularly in Bays 4 and 5 which have good incised carpenter's marks. Here, the framing was originally infilled with boards at the lower level, but with no indication of any infilling above, possibly suggesting that this was weather boarded.
- 3.4.10 The main barn has a later transverse barn extension on the south-west side of Bay 2, which appears to have originally been a three-bay timber-framed structure (Fig. 15). Only Truss 8 now has surviving wall posts and here the ground-floor partition has been replaced in stone, as have the south and west walls of the barn, the north wall being replaced in brick. The eastern bay (Bay 8) adjoins the cruck-framed barn and has a concrete floor with brick-floored passage from a door in the north wall. Above the door is a carved doorhead bearing the initials I W and M W with a date of either 1640 or 1670 (Plate 8). It is possible that rather than I W, the initials may belong to John Williams (1627-1706). The doorhead clearly belongs to another building and may have come from the farm house. A large chamfered beam supports the first floor, the eastern half of which is now missing, but was originally supported on a horizontal timber attached to the outer side of the main barn. Truss 8 has a good set of chiselled carpenter's marks and the tie beam has been partly cut away to form a doorway. On the ground floor, Bays 9 and 10 form a single unit with opposing doors in the side walls of Bay 10 and ventilation slits in the south and west walls, the latter now blocked. The original cobbled floor has been replaced with concrete. There is an opening in the north-east corner of the first floor for ladder access from below. Truss 9 is in the same style as Truss 8 with similar carpenter's marks. The tie beam has been entirely cut through for a doorway. Truss 10 appears to be a much later replacement and the western gable end is entirely stone, with no roof truss.
- 3.4.11 A detailed programme of dendrochronological sampling has been undertaken by Michael Worthington, of the Oxford Dendrochronology Laboratory as an integral part of the recording programme, incorporating samples from the main phases of the barn, with specific attention to the crucks. The results will not be available until October 2004, but the analysis is expected to provide date ranges for the construction of all of the main phases of barn construction, including the lateral extension.

Barn 4 – Threshing barn and horse engine (Fig. 17; Plates 11-13)

- 3.5.1 A stone-built, slate-roofed barn of four bays with several phases of construction. The two north-eastern bays have an upper and lower arrangement of ventilation slits, with a solid end wall and an open south-western end to Bay 3. The gable-end truss and Truss 2 form a matching pair with a tie beam supporting queen posts and a collar and two through, side purlins (Plate 13). Wall posts survive below Truss 2, partly embedded in the stone wall, with board slots at the lowest level. This latter detail, together with the presence of mortices in the tie beams and stave holes for wattle infill in the roof trusses, suggests that originally both trusses were part of another building. Trusses 3 and 4 are also a pair either side of bay 3, which is entirely open, suggesting a former threshing floor. The trusses have long, angled braces from the tie beam to the principal rafters, which again support two side purlins. The wall posts for Truss 4 include mortices for box-framing and board slots, indicating that they were formerly part of a box-framed barn. Bay 4 was formerly entirely open-fronted, although now partly enclosed by a brick wall. A stone-built shelter shed adjoins the south-west end of the barn, with a further, now collapsed stone building between that and Barn 3.
- 3.5.2 Attached to the south-east side of the barn is a polygonal horse-engine house, likely to be early 19th-century in date (Plates 11-12). The building has six sides, with five stone piers. The roof and all but one of the external sides are now of corrugated iron. A long transverse tie

beam rests on two of the piers with angle braces supporting the rafters in a simple frame. There is now no evidence for the mechanism by which horses were harnessed to turn a horizontal wheel which, through bevelled gearing, transferred power to a horizontal drive shaft running into the main barn to drive threshing and other machinery.

- 3.5.3 At the north-east end of the barn the roof has been extended over a driftway to Barn 5, by the addition of a stone pier at the corner and an angled roof truss.

Barn 5 (Fig. 18; Plates 14-16)

- 3.6.1 The L-shaped barn is of random stone with a slate roof and has five bays, two in the south-eastern section and three in the longer north-western section. At the north-west end, Bay 1 comprises a shelter shed on the ground floor with an open front, a doorway through a stone partition to Bay 2 and a hay loft above. Bay 2 has ventilation slits at ground floor level, while Bay 3 has opposing doors, the south-western of which is now partly blocked to form a window. The two roof trusses are both king posts with angled braces supporting the principal rafters (Plate 14). At the north-western end of Bay 2, against the stone partition, a driveshaft has been inserted through openings in both side walls to drive fodder-cutting machinery powered by an external steam engine (Plate 16). This section of the barn would therefore have functioned as a mixing room for cattle fodder.
- 3.6.2 The end wall of Bay 4 has been removed to open the building onto the driftway, while the side wall of this and Bay 5 has ventilation slits. There is a blocked doorway in the corner of Bay 5 and a single, upper window in the gable end. Both roof trusses are of collar and queen-post type.

4 CONCLUSIONS

- 4.1 The complex of buildings at Ystum Colwyn Farm are of considerable regional, even national significance, a fact already demonstrated by the listing of four of the buildings as Grade II. That the cruck and box-framed barn (Barn 3) is not listed is an anomaly, the building being certainly the oldest, and arguably the most significant building within the group.
- 4.2 The survey provides significant new detail regarding the construction and phasing of each of the buildings. It is now evident that although the brick-built structures, Barns 1 and 2, are largely of early 18th-century construction, both incorporate elements of earlier buildings. Barn 1 (the cartshed and stables) has a date stone of 1721 but includes part of a stone and timber-framed building in the rear wing. The roof trusses are also of interest as they have largely been assembled from reused timber and do not possess a common construction technique. Barn 2 (the brewhouse, dairy and cheesery) also appears to include part of an earlier stone-built structure in one gable and part of the rear wall. The building, which bears a date stone of 1719, is of exceptional quality for an agricultural building, with fine hand-made bricks and excellent carpentry detail in the roof and king-post trusses. The building also retains a number of important features such as the oven, boilers and cheese-press base, together with the later addition of a dovecote in the attic of the rear wing.
- 4.3 The cruck and box-framed barn, Barn 3, is an outstanding survival of putative late medieval carpentry and vernacular architecture. The three surviving crucks are unusually large for an agricultural building and even more surprising is the survival of the original doorway in the framing on the north-west side. The barn was later extended in two phases, each with the addition of two bays, with the final addition of an aisle along the north-west side. There is also a lateral extension, the phasing of which is uncertain. The surviving trusses and framing possess good carpentry detail, including partial sets of assembly marks and two inscriptions, one of which is dated 1770. It is expected that the programme of dendrochronological sampling, the results of which will be available in October 2004, will provide secure dating for each of the main phases of construction.
- 4.4 The remaining two barns, although of lesser significance, are still of importance, particularly when considered as part of the group of farm buildings. Barn 4 was at one time used as a threshing barn, although it is unlikely to have been originally built for that purpose. The surviving trusses suggest that it would originally have been of timber-frame construction,

although the walling has later been replaced with random stone. A polygonal horse engine house was added to the south-eastern side, probably in the early 19th century, to provide power for threshing and other machinery. Unfortunately, none of the internal detail survives. Barn 5 is now used as a shelter shed although it was formerly a mixing barn. An external steam engine would have powered machinery for cutting roots and fodder and the drive shaft still survives with belts attached, although the machinery has long since been removed.

- 4.5 The collection of buildings at Ystum Colwyn Farm presents what may be a unique group of agricultural buildings, demonstrating the importance of the farm from the late medieval period until the 19th century. Although at present all of the buildings in question are in a reasonably good state of repair, and crucially are soundly roofed, their long-term survival is likely to depend on an alternative use being found for each of the buildings. While Barns 3, 4 and 5 are currently used for livestock, most of Barns 1 and 2 are now little more than storage structures, or in the case of the rear of Barn 2, have become entirely disused.
- 4.6 Whatever the future plans for the buildings it is hoped that the original architectural details can be largely preserved and that the external appearance of Barns 1 and 2 in particular is not adversely affected.

5 ACKNOWLEDGEMENTS

- 5.1 I would like to thank the following for their assistance during the project: Wendy Owen, CPAT, for assisting with the survey; Bob Silvester, CPAT, for undertaking the desktop study; Richard Suggett, Royal Commission on the Ancient and Historical Monuments in Wales, and Judith Alfrey, Cadw: Welsh Historic Monuments, for their comments and interpretation; Michael Worthington, Oxford Dendrochronology Laboratory, for undertaking the dendrochronological dating; the staff of the National Library of Wales, Aberystwyth, the staff of the National Monuments Record, Aberystwyth; and Messrs John and David Gittins for their assistance and information.

6 REFERENCES

Published sources

Brunskill, R W, 1999. *Traditional Farm Buildings of Britain and their conservation*, third edition. London: Victor Gollancz.

RCHME, 1996. *Recording Historic Buildings: a descriptive specification*. Royal Commission on the Historical Monuments of Englkd.

Cartographic sources

1829/30 Ordnance Survey surveyor's draft map (no 328)

Tithe Survey for Ystymcolwyn Township in Meifod, 1840 and Apportionment 1839.

Manuscript sources

1849 Purchase agreement of Ystymcolwyn estate by James France France from Sir Robert Williams Vaughan (M/D/YST/2/30)

Printed sources

1878 Pedigree of the Williams family of Ystymcolwyn, *Montgomery Collections* 11 (1878), 387-8

1921 Sales Particulars of the Ystym-Colwyn Estate (M/D?CL/2/7).

APPENDIX 1**SITE ARCHIVE****Photographic survey**

129 Digital images, CPAT film 1692

3 black and white negative films, CPAT nos 1688-1690

Photographic catalogue

Digital building survey

Penmap survey files

Ystym1	Barn 1
Ystym2	Barn 2
Ystym3	Barn 3
Ystym4	Barn 4

AutoCAD13 drawings

Ystym1	Barn 1 survey
Ystym2	Barn 2 survey
Ystym3	Barn 3 survey
Barn1	Barn 1 completed survey
Barn2	Barn 2 completed survey
Barn3	Barn 3 completed survey
Barn4	Barns 4 and 5 completed survey
B1NE	Barn 1NE elevation
B1NW	Barn 1 NW elevation
B1plan1	Barn 1 groundfloor
B1plan2	Barn 1 first floor
B1trusses	Barn 1 roof trusses
B1SE	Barn 1 SE and NW elevations
B1SW	Barn 1 SW and NE elevations
B2plan	Barn 2 ground and first floor
B2attic	Barn 2 attic and truss 1
B2elevs	Barn 2 elevations
B3plan	Barn 3 ground plan
B3NE	Barn 3 NE elevation
B3NW	Barn 3 NW elevation
B3SW	Barn 3 SW elevation
B3part	Barn 3 partition
B3T1 to B3T9	Barn 3 trusses
3dview1	Barn 3 isometric view
Farmplan	Plan of farmyard

APPENDIX 2
Pedigree of the owners of Ystymcolwyn from 1598- 1849
(from *Montgomery Collections* 11 (1878), 387-)

Henry Williams of Cochwillan married in 1598

son

Lumley Williams of Ystymcolwyn (d.1638) married Dorothy, daughter and heiress of Rees Thomas of Ystymcolwyn.

sons

John Williams (1627-1706) no known issue

and

Lumley Williams who was living at Kyffin in 1703 and presumably inherited Ystymcolwyn.

son (of Lumley Williams above)

Lumley Williams of Ystymcolwyn (will dated 1716)

daughter

Meriel (1684-1725) married Arthur William(e)s of Meillionydd, her kinsman in 1703 (AW1681-1723).

second son

Edward William(e)s of Ystymcolwyn(1708-1765)

daughter

Ann, the only child, (?-1791 or in 1803 according to Powys archives) married Sir Robert Howell Vaughan of Hengwrt and Nannau (?-1792 or 1803 according to Powys archives)

son

Sir Robert Williames Vaughan of Nannau and Ystymcolwyn (1768-1843)

son

Sir Robert Williames Vaughan of Nannau and Ystymcolwyn (1803-1859) and sold Ystymcolwyn to James France France in 1849

APPENDIX 3

SPECIFICATION

1 Introduction

- 1.1 The proposed development involves the conversion of the barns complex at Ystym Colwyn Farm, Meifod, into residential housing. The barn complex consists of a stables, wheel house, barn and horse whim, all of which are listed grade II, together with a brewhouse and dairy and a cruck- and box-frame barn, which are not listed.
- 1.2 The Curatorial Section of the Clwyd-Powys Archaeological Trust in their capacity as archaeological advisors to the local planning authority, have determined that a building survey is required in advance of the development being undertaken. Accordingly a brief (No BUI 542 dated 11 May 2004) has been prepared by MJ Walters, which describes the scheme of archaeological works required.

2 Objectives

- 2.1 The objectives of the survey are:
 - 2.1.1 to reveal by means of a combination of desk-based assessment and building survey, the nature, condition, significance and, where possible, the chronology of the archaeology within the area of the proposed development in so far as these aims are possible;
 - 2.1.2 to record and describe all key elements of the structure and any internal and external fittings;
 - 2.1.3 to prepare a report detailing the results of the survey.

3 Methods

- 3.1 Stage one of the evaluation will involve the examination of all the readily available primary and secondary documentary, cartographic, pictorial, photographic and oral sources. Repositories consulted will include the following: County SMR, CPAT, Welshpool; the National Monuments Record, RCAHMW, Aberystwyth; the National Library of Wales, Aberystwyth; and Powys County Archives, Llandrindod Wells.
- 3.2 Stage two will take the form of a building survey to varying levels of detail following RCHME 1996 *Recording Historic Buildings: a descriptive specification*, as follows:
 - RCAHM Level 2 Survey:
 - Wheelhouse and barn (Barns 4 & 5 conversions)
 - RCAHM Level 3 Survey:
 - Stable building (barn 1 conversion)
 - Brewhouse and dairy (barn 2 conversion)
 - RCAHM Level 4 Survey:
 - Cruck and box-frame barn (barn 3 conversion)
- 3.3 The detailed building survey will be undertaken using as a primary means of recording a reflectorless EDM in conjunction with Penmap survey software. Where visual access is limited additional detail may be recorded using a hand-held laser tape (Disto). Survey data will be manipulated using AutoCAD13 to produce the required plans and elevations. The survey will be undertaken subject to access and health and safety considerations.

- 3.4 Appropriate timbers in the cruck and box-framed barn (barn 3) will be sampled for dendrochronological dating by Oxford Dendrochronology Laboratory.
- 3.5 Following the on-site work an illustrated and bound report will be prepared according to the principles laid out in the Curatorial Brief. This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Building Survey; Conclusions and Recommendations and References, together with appropriate appendices on archives and finds. A draft report will be sent to the Curator and Client prior to the production of the final report.
- 3.6 The site archive will be prepared to specifications laid out in Appendix 3 in the Management of Archaeological Projects (English Heritage, 1991).

4 Resources and Programming

- 4.1 The survey will be undertaken by a small team of skilled archaeologists under the direct supervision of Bob Silvester, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists.
- 4.2 All report preparation will be completed by or with the assistance of the same field archaeologist who conducted the evaluation.
- 4.3 It is anticipated that the survey will take 10 days in all and that the subsequent report would be prepared immediately thereafter, dependent on the client's instructions and the arrangement of a suitable timetable. The date of commencement, at the time of writing, has yet to be agreed with the client, and will be dependent on the state of the site and negotiated access. CPAT would be in a position to undertake the survey during July 2004. The archaeological curator will be informed of the detailed timetable and staffing levels when agreement has been reached with the client.
- 4.4 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.
- 4.5 CPAT is covered by appropriate Public and Employer's Liability insurance.

N.W. Jones
Senior Project Archaeologist
21 May 2004

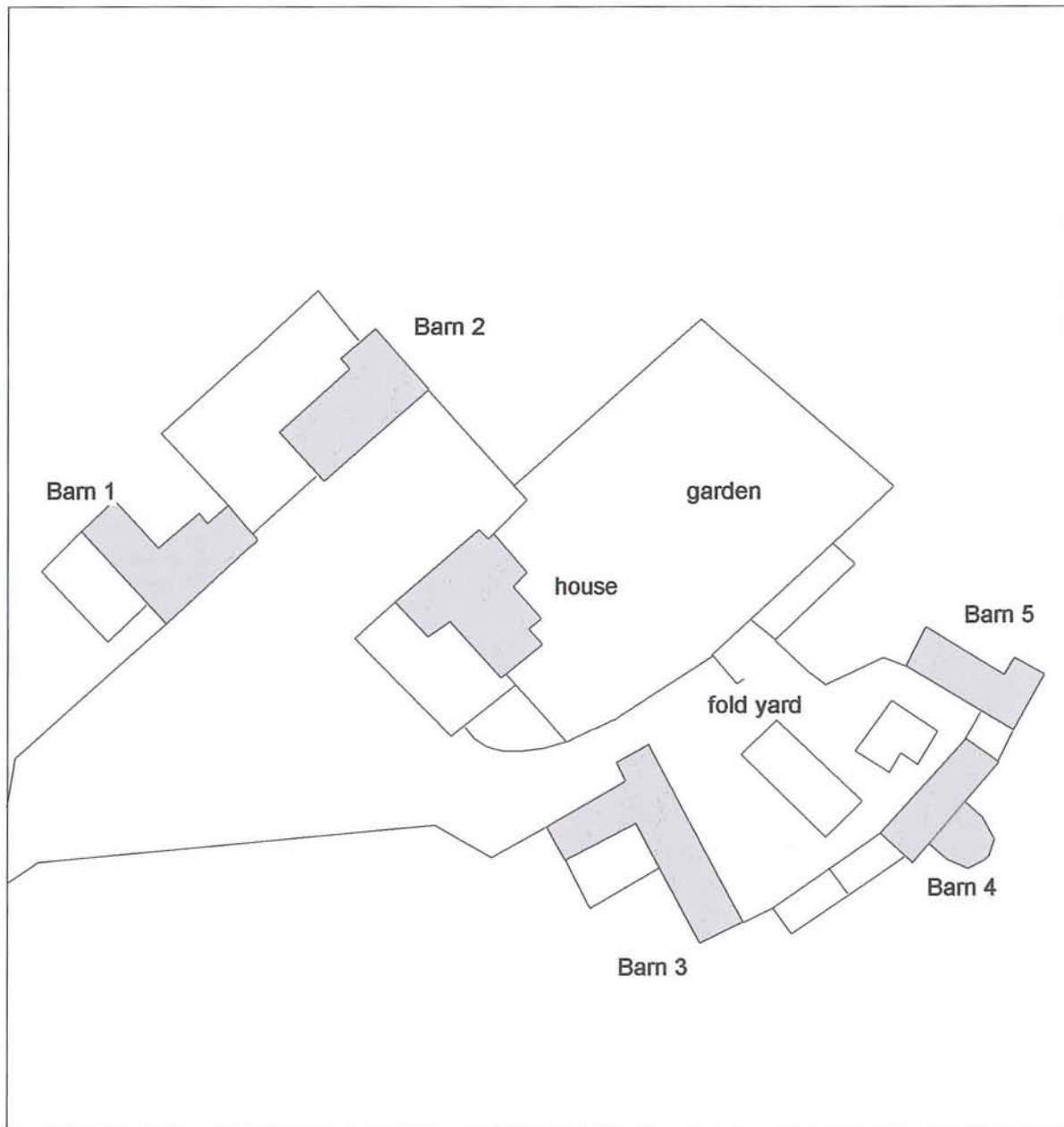


Fig. 1 Ystum Colwyn Farm, scale 1:1000

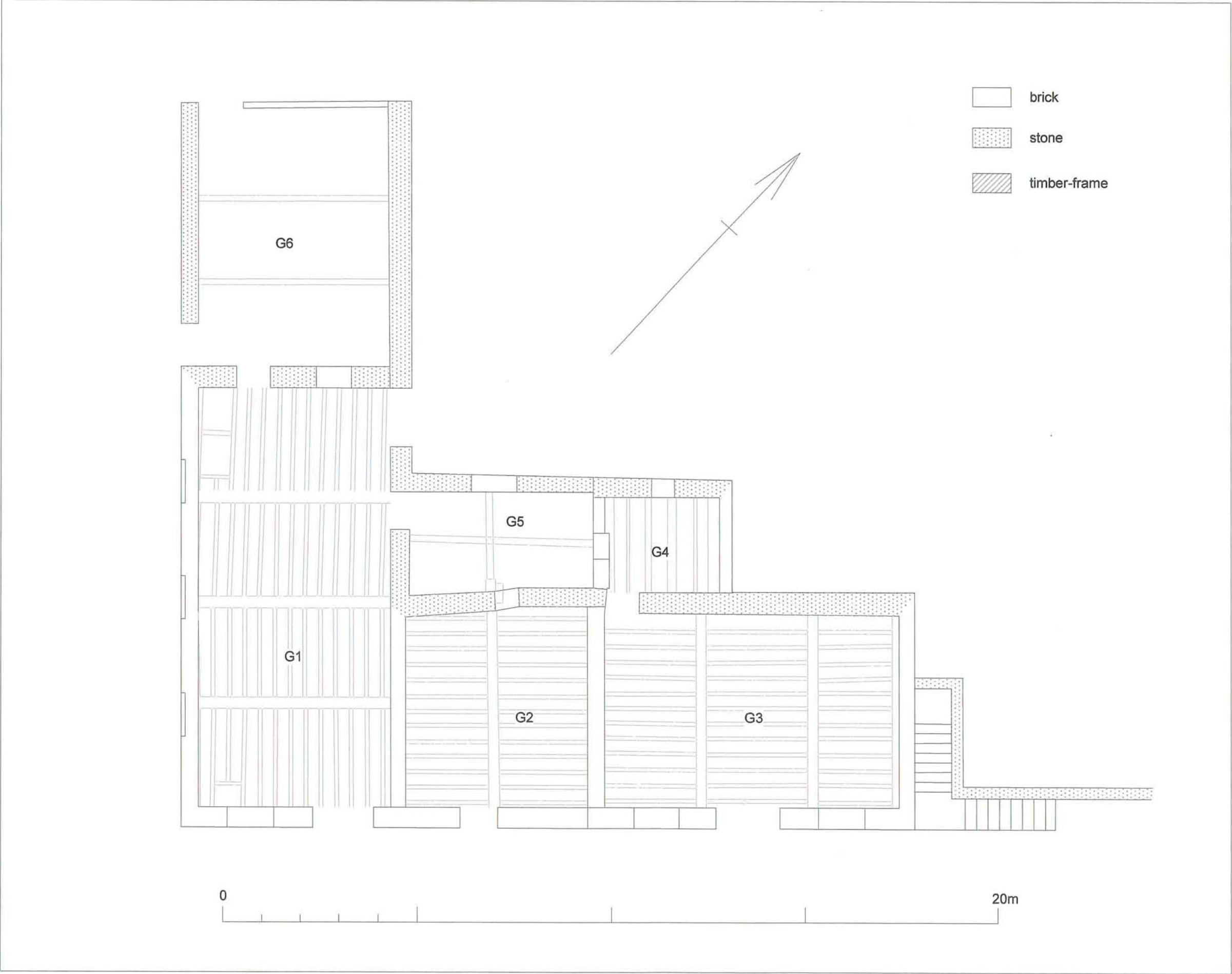


Fig. 2 Barn 1 Ground Floor plan, scale 1:100

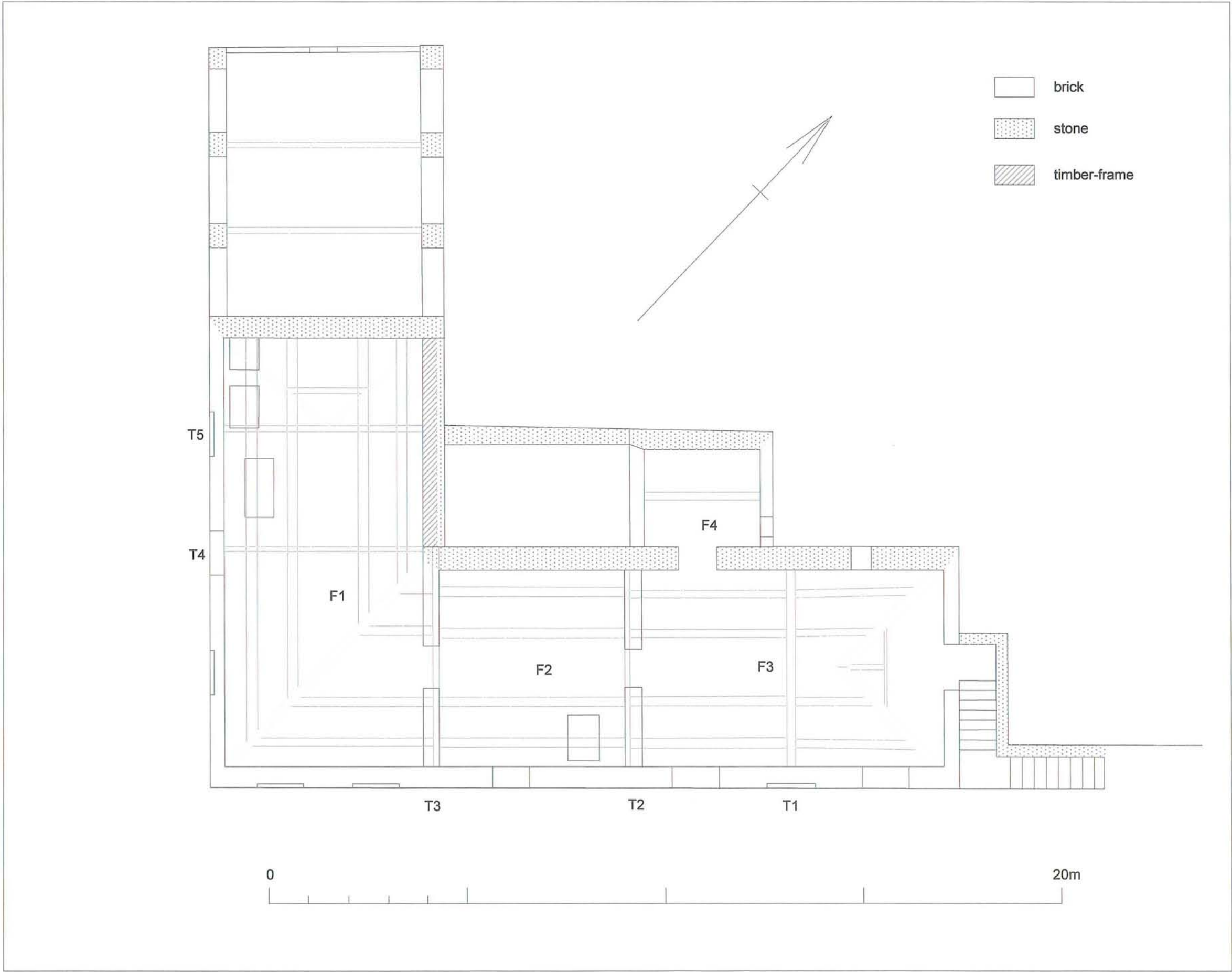


Fig. 3 Barn 1 First Floor plan, scale 1:100



Fig. 4 Barn 1 south-east and north-west elevations, scale 1:100



Fig. 5 Barn 1 north-east and south-west elevations, scale 1:100

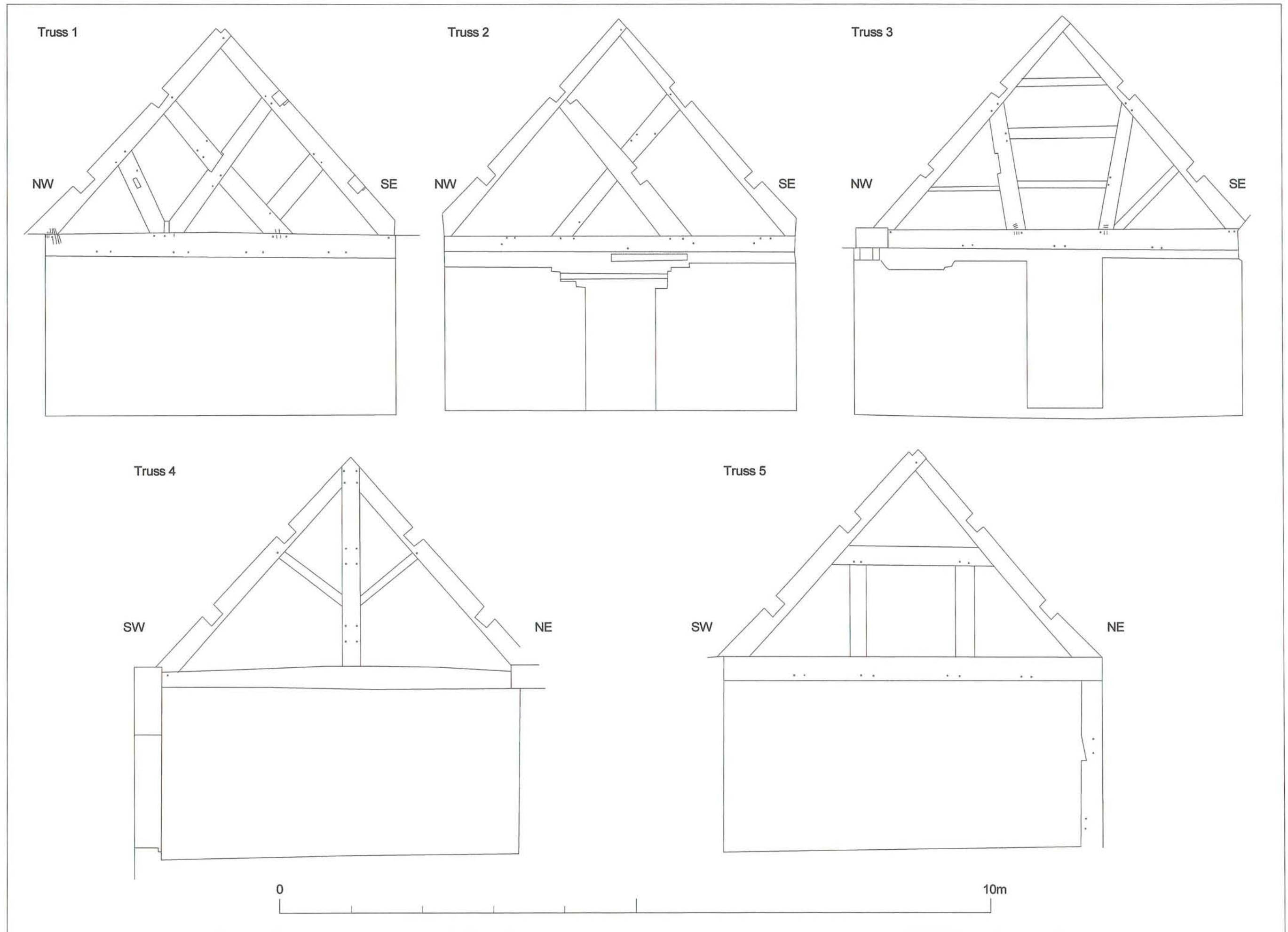


Fig. 6 Barn 1 roof trusses, scale 1:50

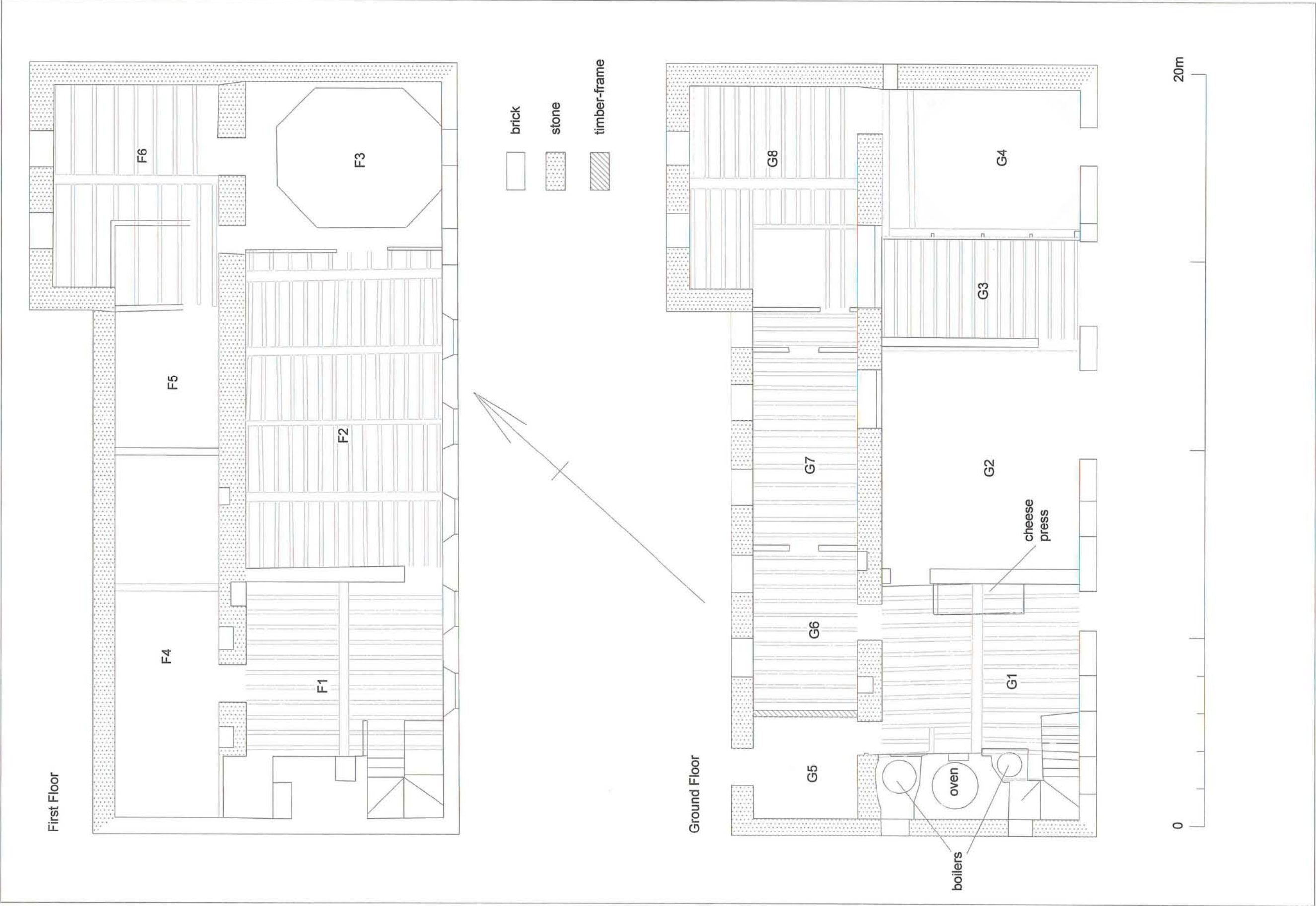


Fig. 7 Barn 2 ground and first floor plans, scale 1:100

Fig. 8 Barn 2 Attic and Truss 1

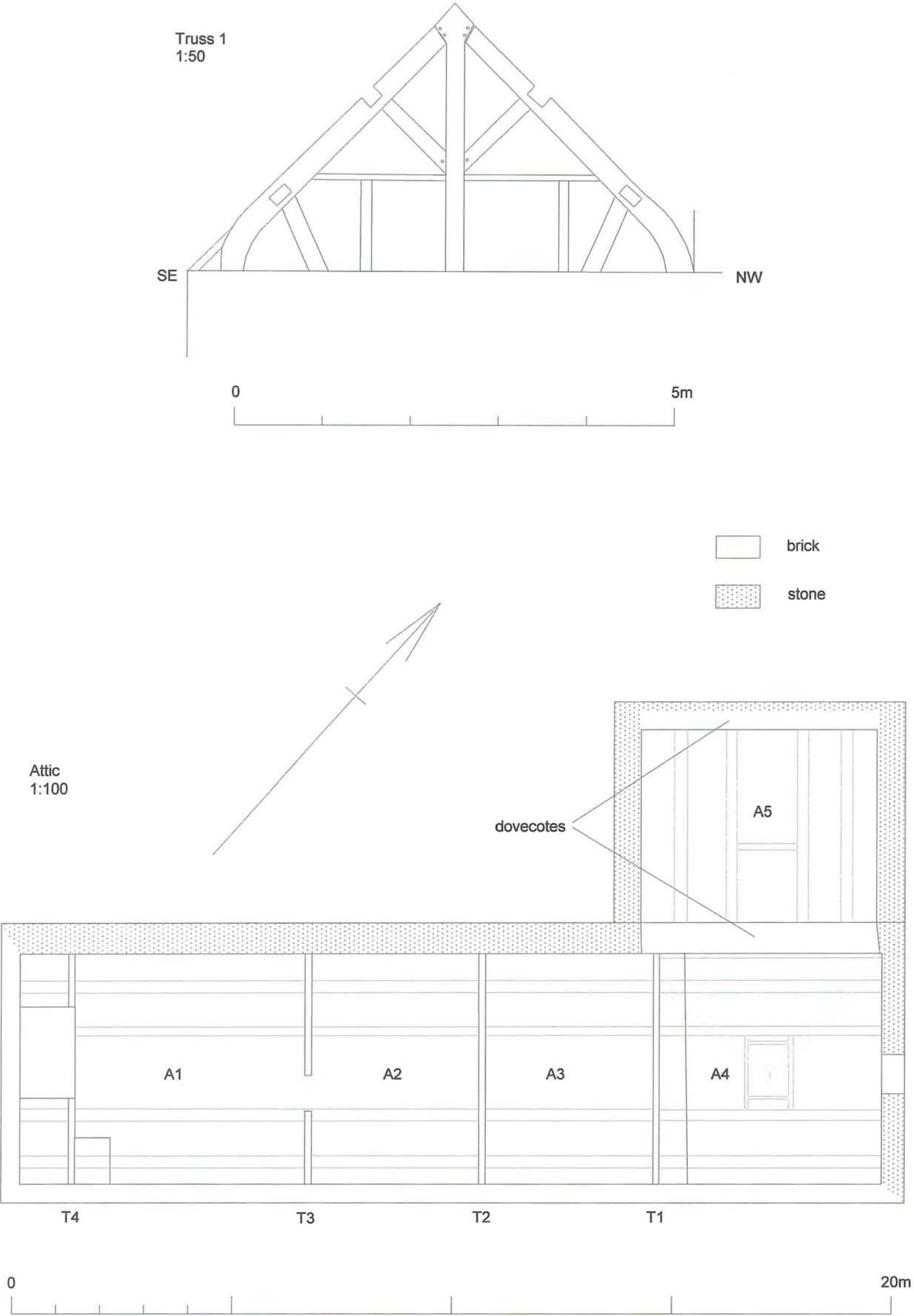




Fig. 9 Barn 2 elevations, scale 1:100

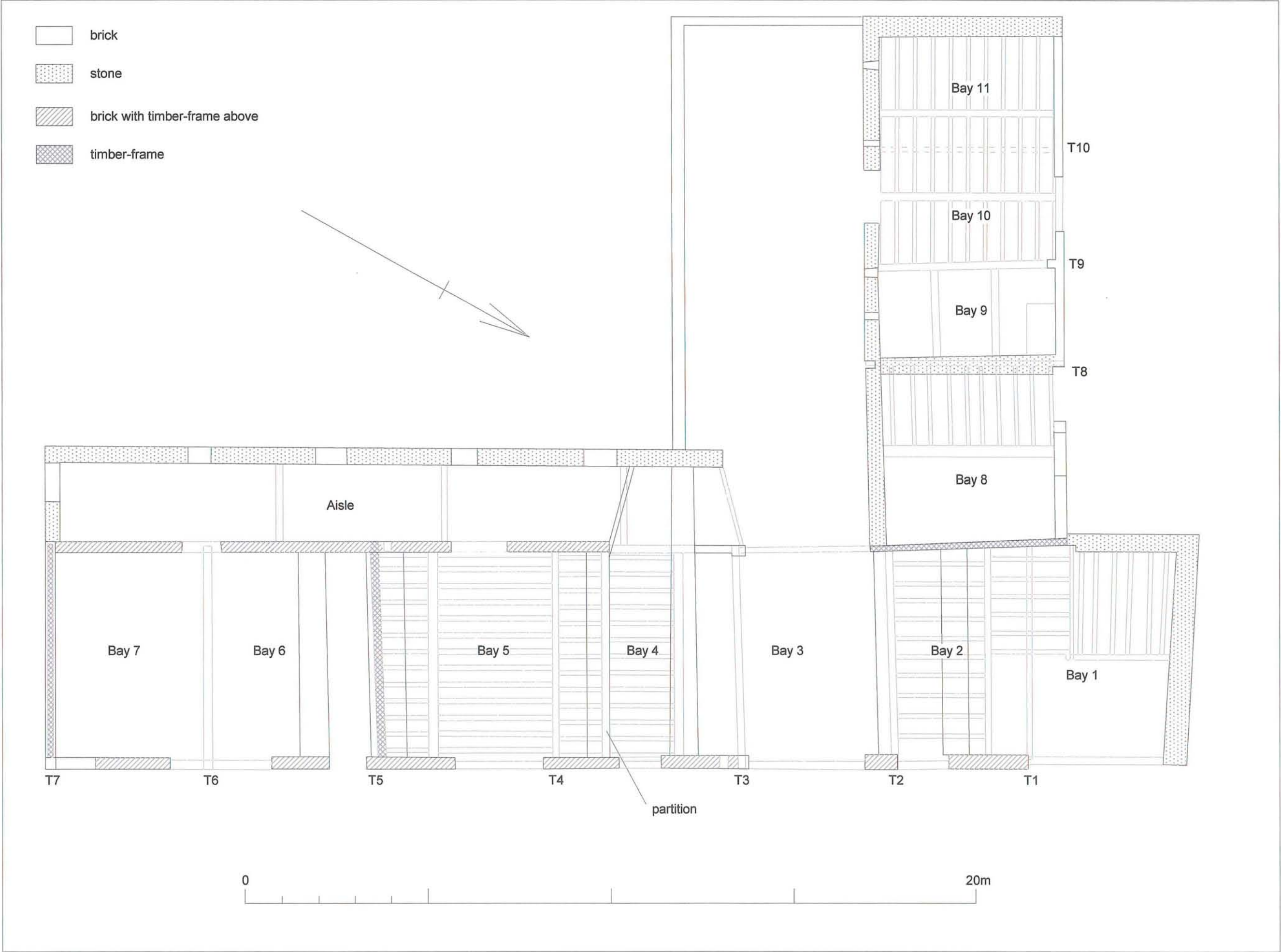


Fig. 10 Barn 3 Ground Floor plan, scale 1:100

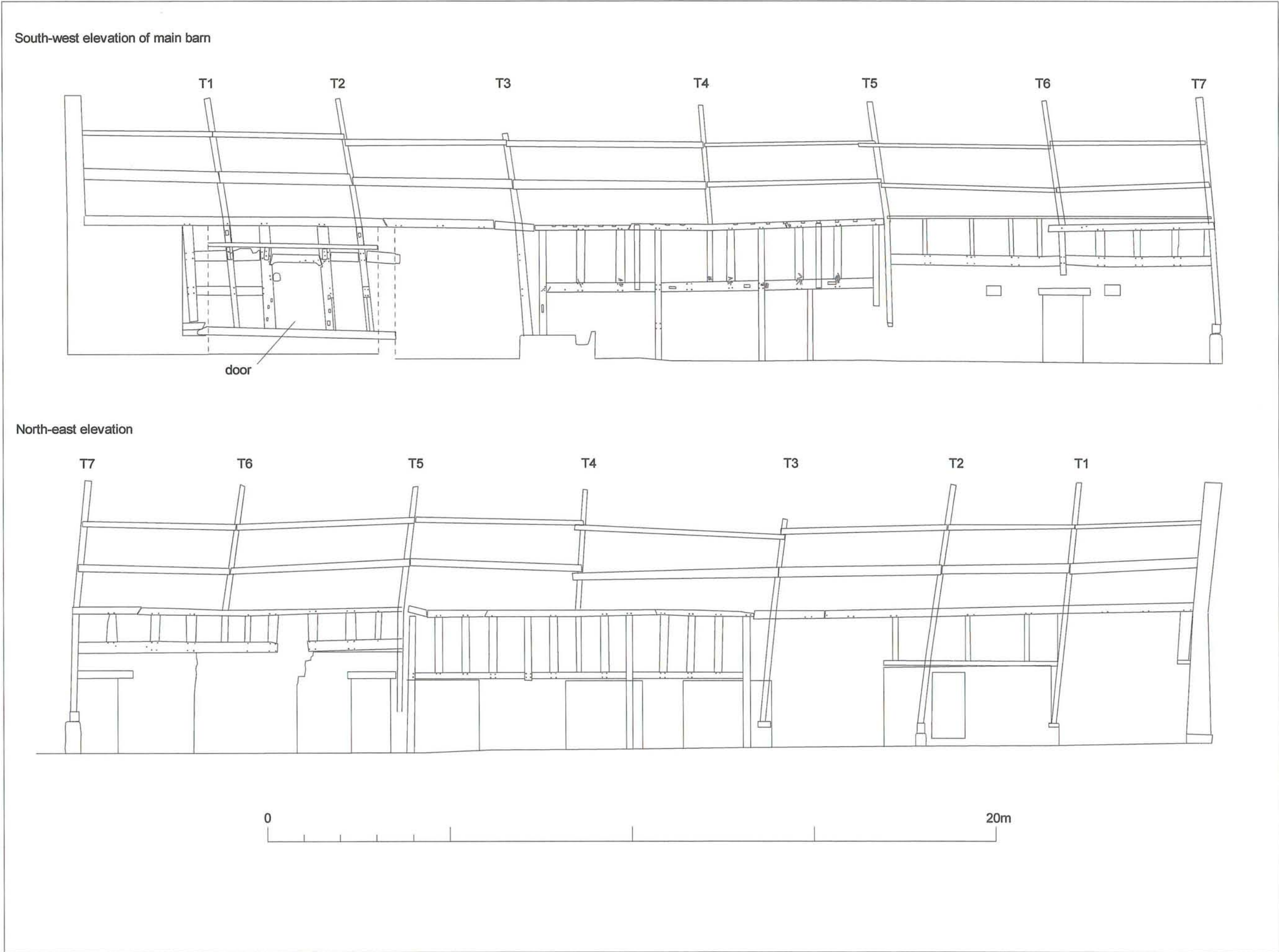


Fig. 11 Barn 3 elevation, scale 1:100

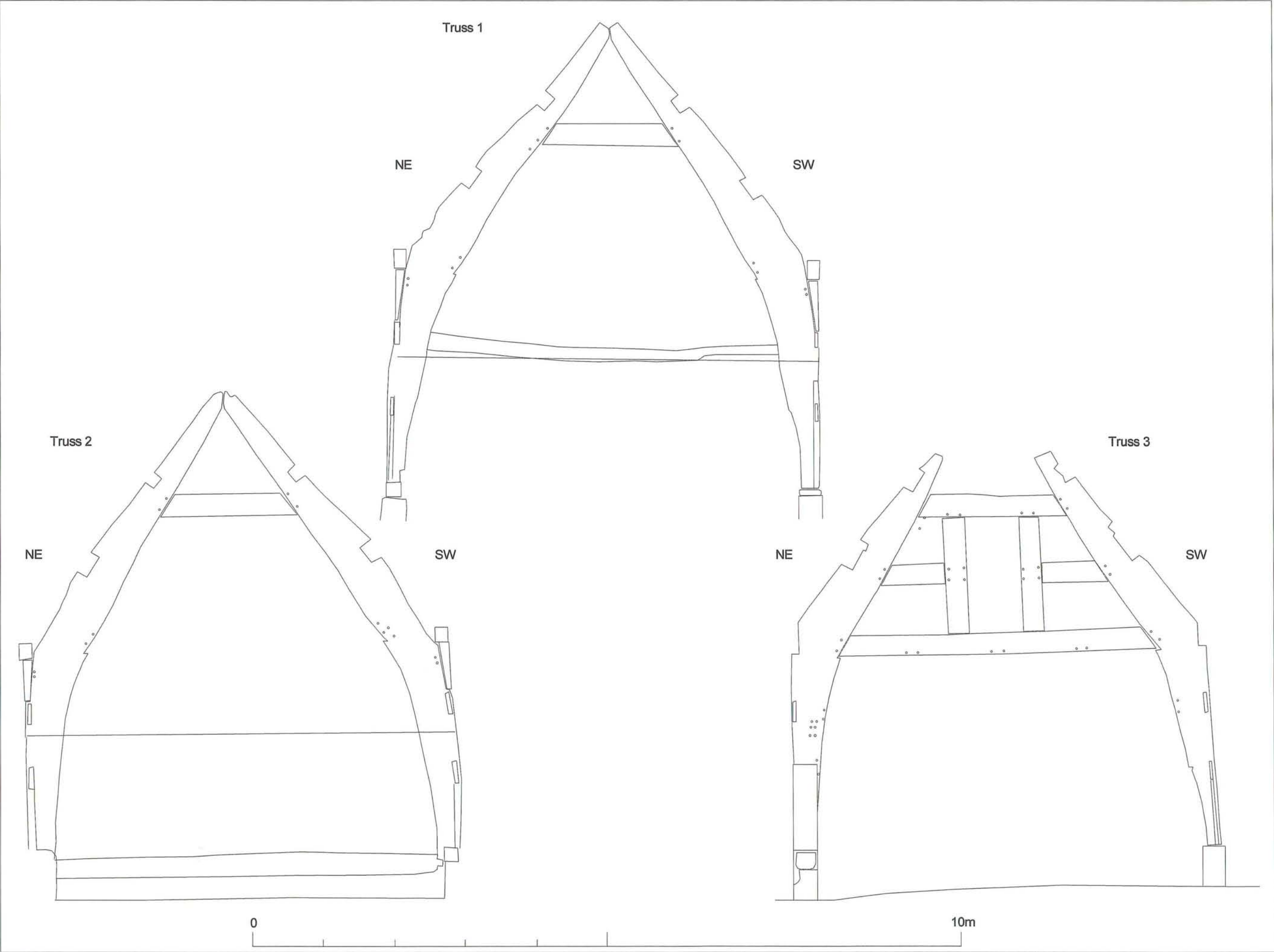


Fig. 12 Barn 3 crucks, Trusses 1-3, scale 1:50

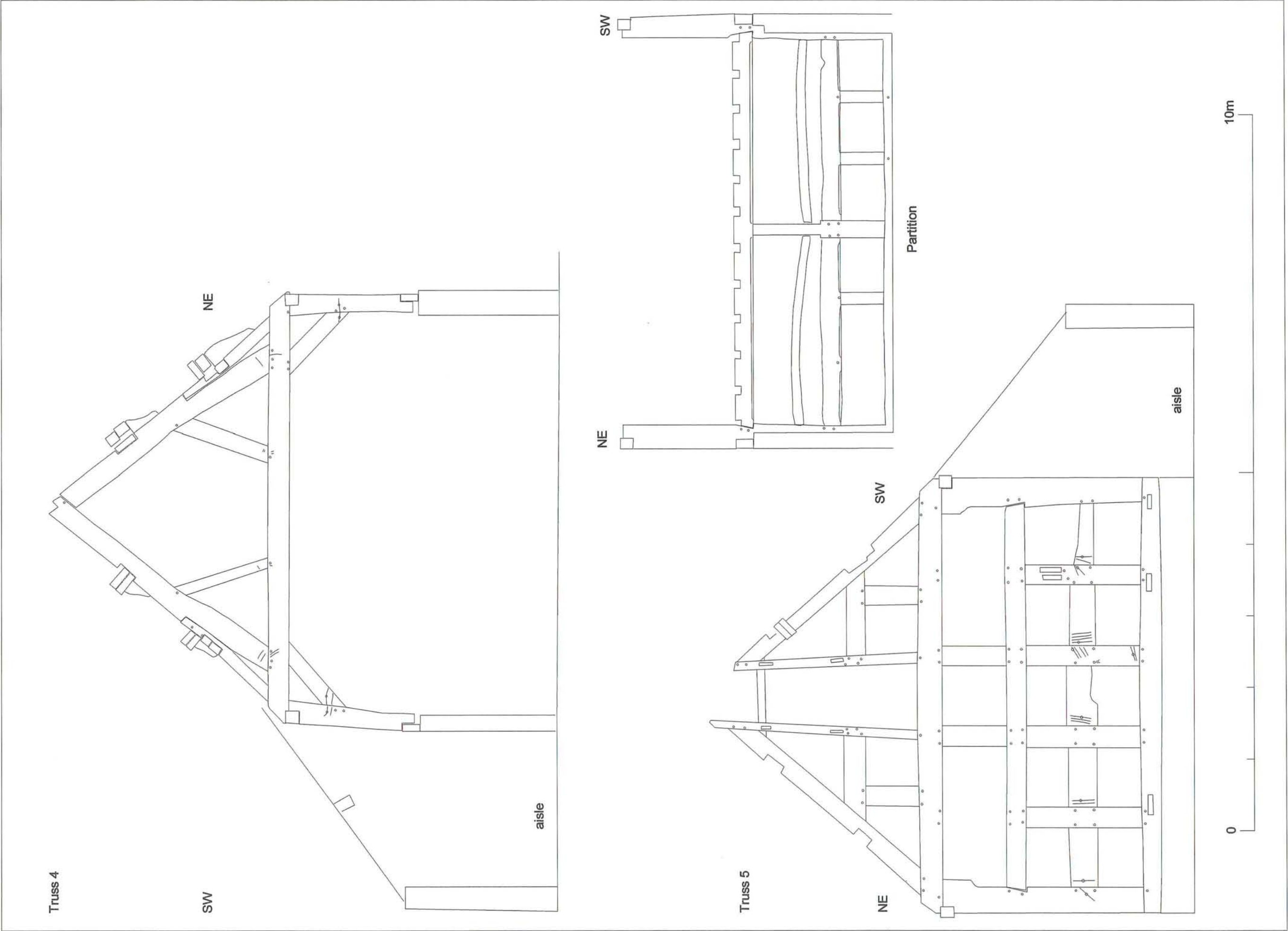


Fig. 13 Barn 3 Trusses 4, 5 and partition, scale 1:100

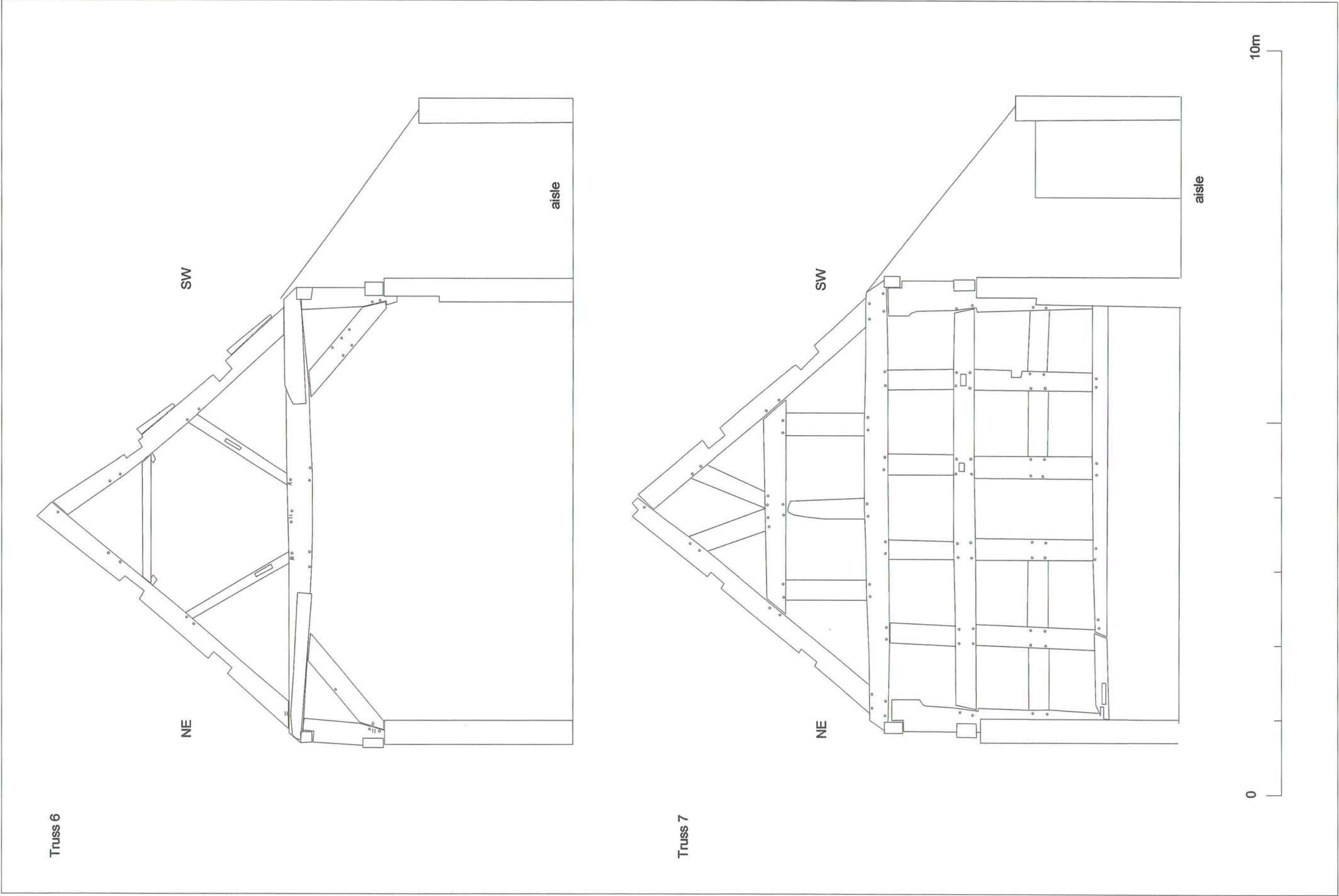


Fig. 14 Barn 3 Trusses 6 and 7, scale 1:100

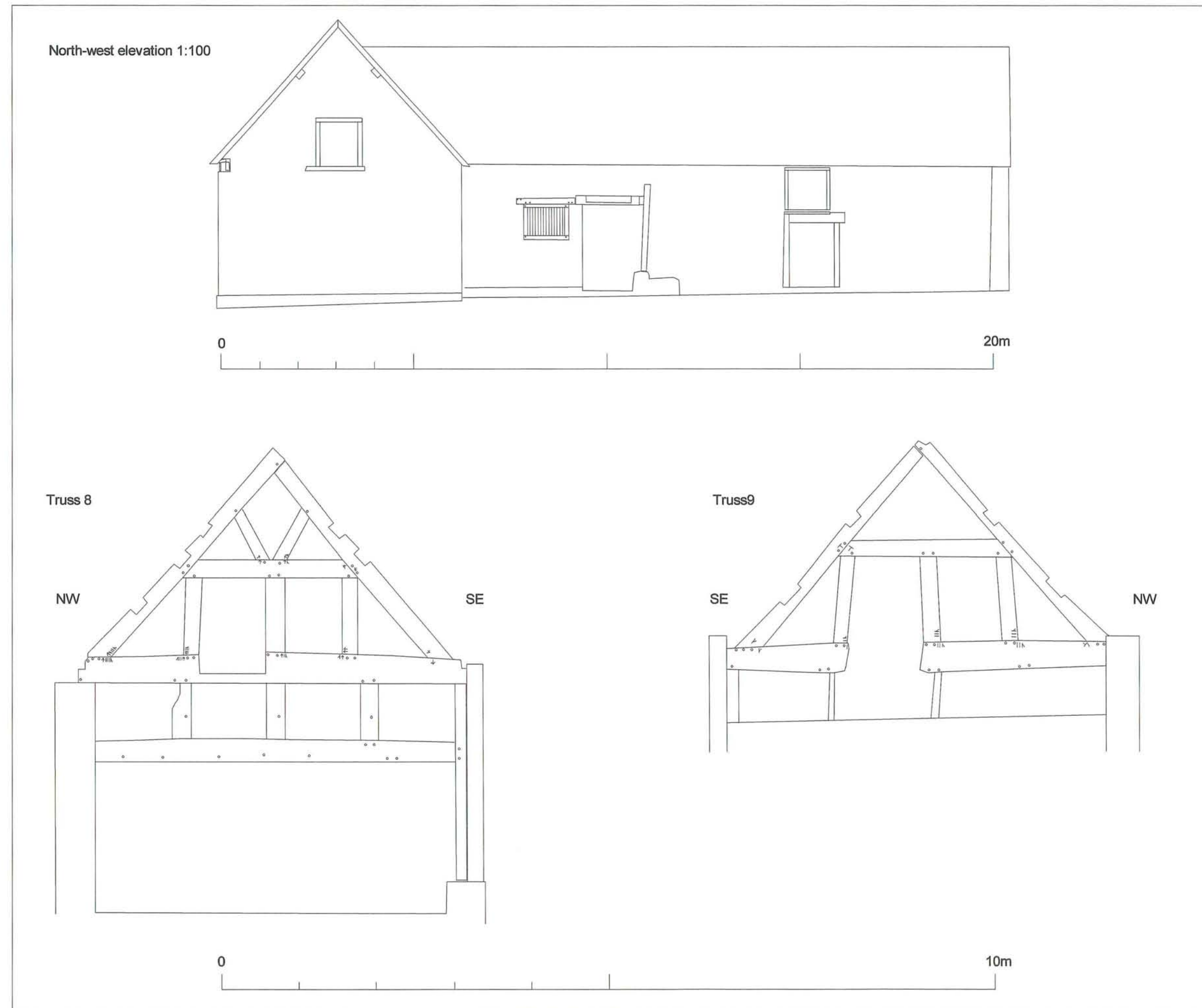


Fig. 15 Barn 3 North-west elevation and Trusses 8 and 9

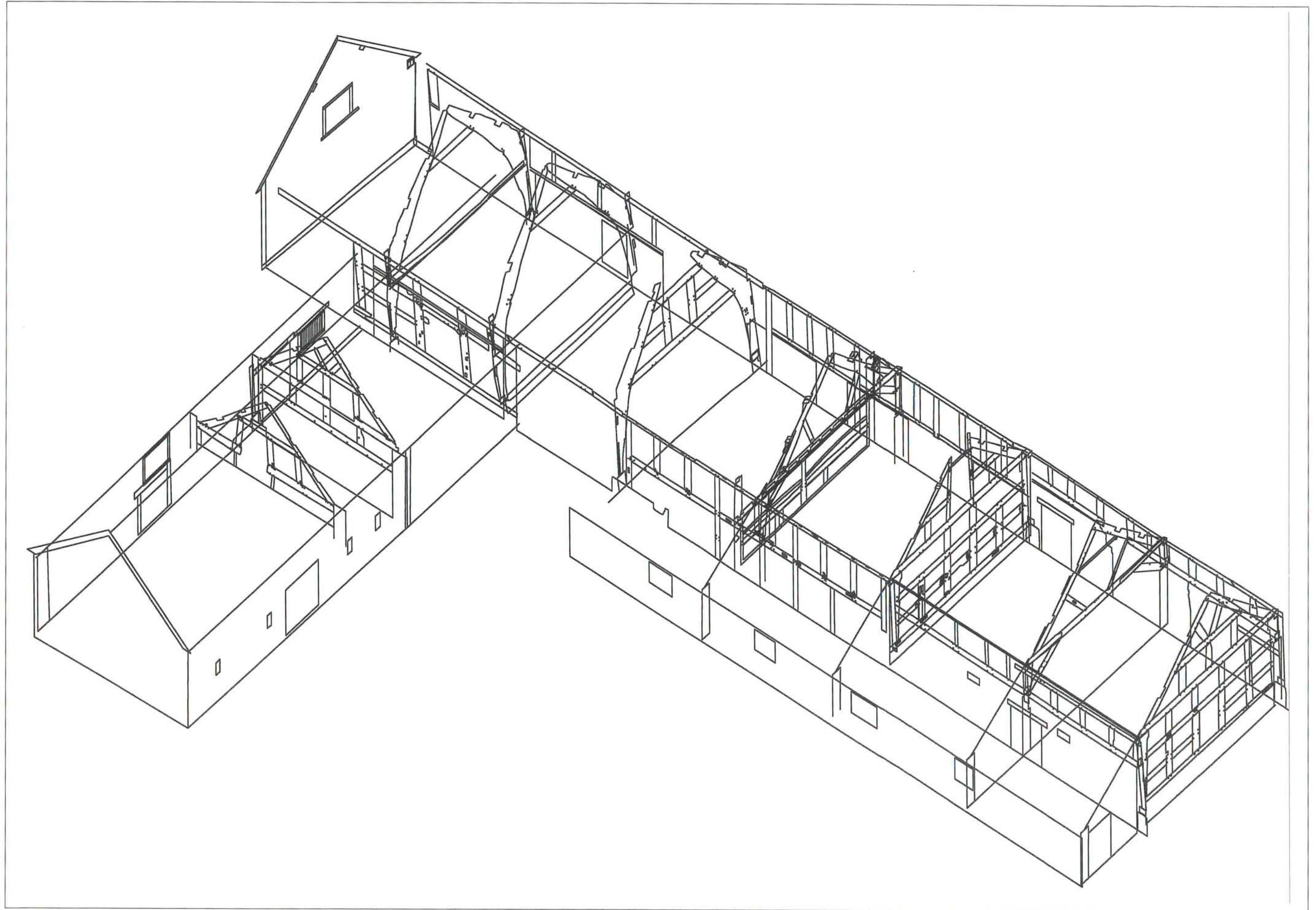


Fig. 16 Barn 3 isometric, scale 1:100

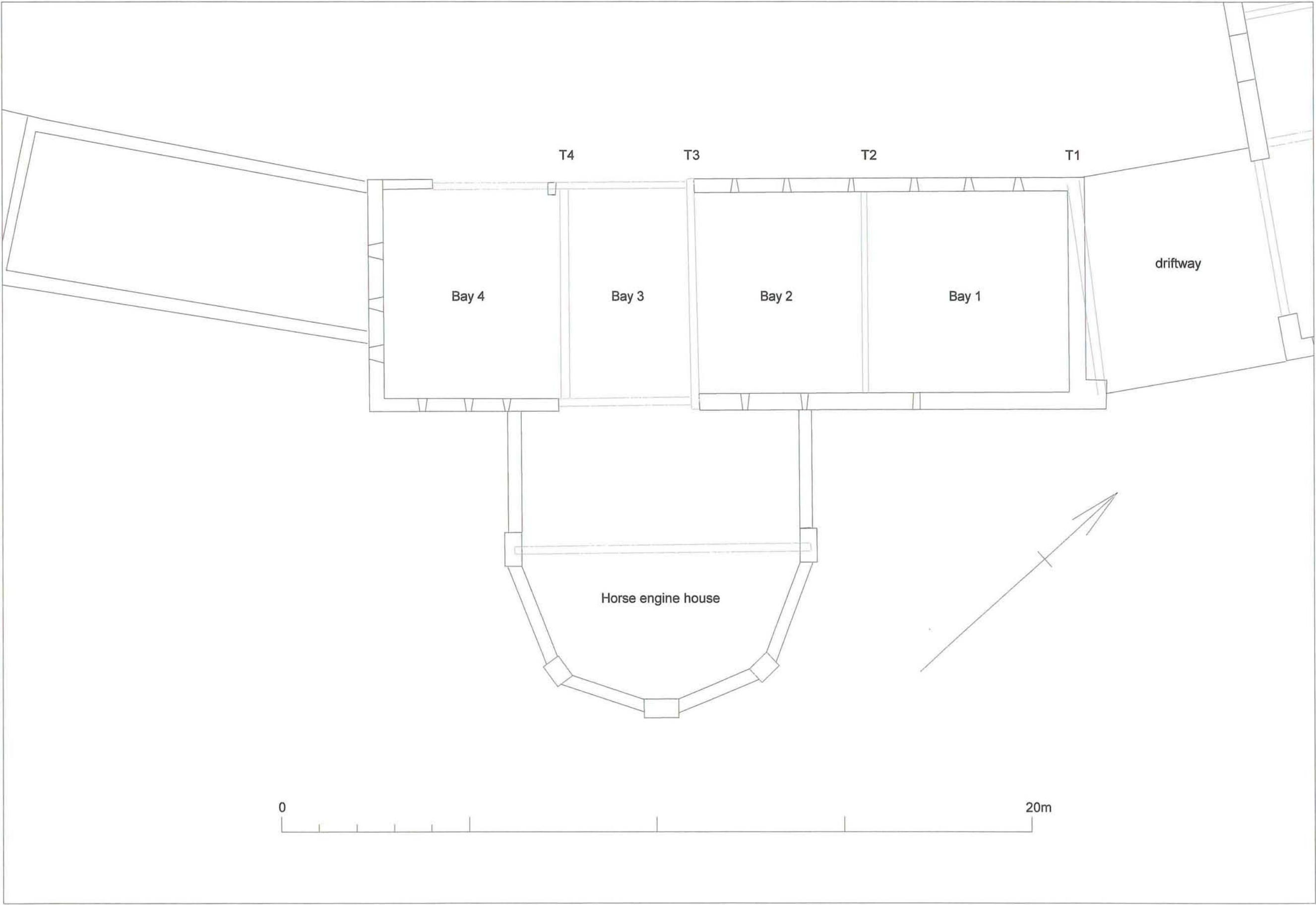


Fig. 17 Barn 4 Ground Floor plan, scale 1:100

Fig. 18 Barn 5 Ground Floor plan, scale 1:100



Plate 1 Barn 1 from SE. Photo CPAT 1682.47



Plate 2 Barn 1 rear wing showing timber framing. Photo CPAT 1682.44



Plate 3 Barn 2 from S. Photo CPAT 1682.16



Plate 4 Barn 2 from NW. Photo CPAT 1682.22



Plate 5 Barn 2 room G1, oven and boilers. Photo CPAT 1682.27

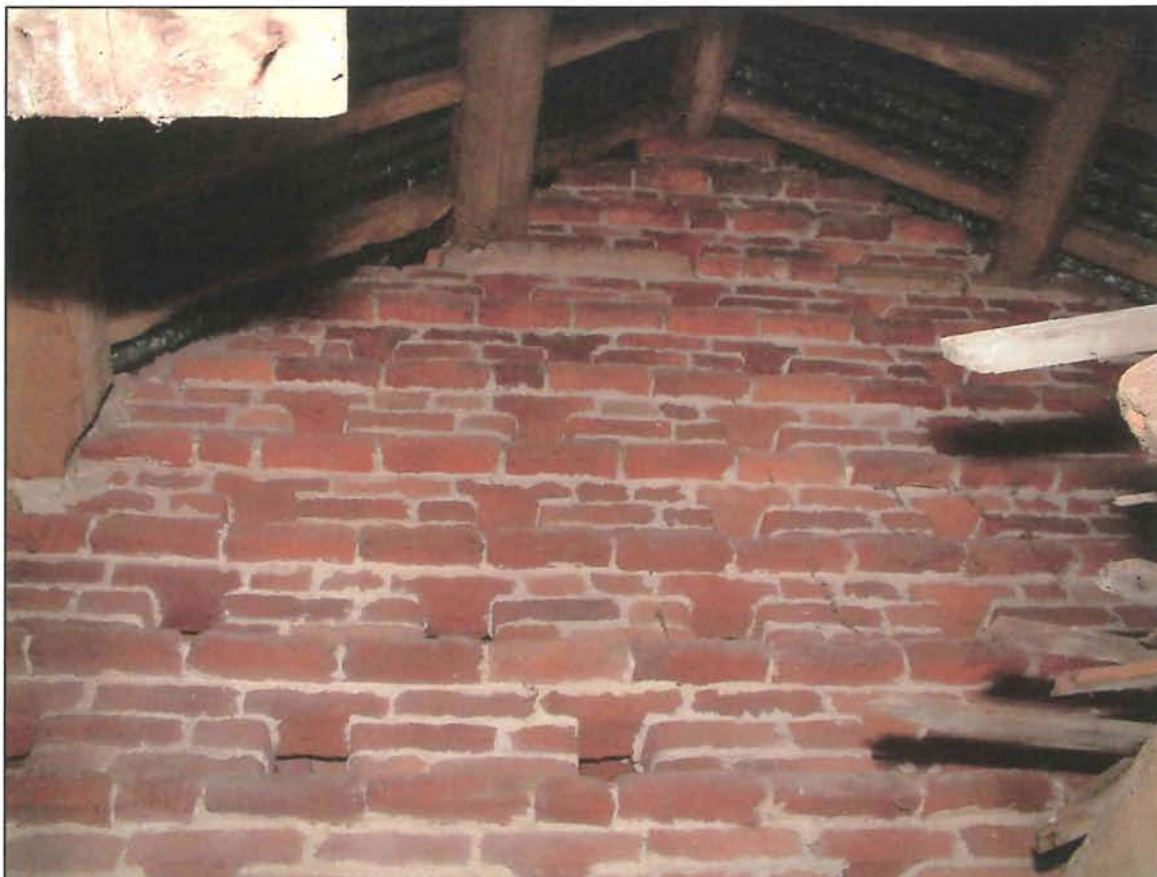


Plate 6 Barn 2 dovecote. Photo CPAT 1682.07



Plate 7 Barn 3 from NW. Photo CPAT 1682.49



Plate 8 Barn 3 carved doorhead. Photo CPAT 1682.50



Plate 9 Barn 3 crucks, Trusses 2 and 3. Photo CPAT 1682.84

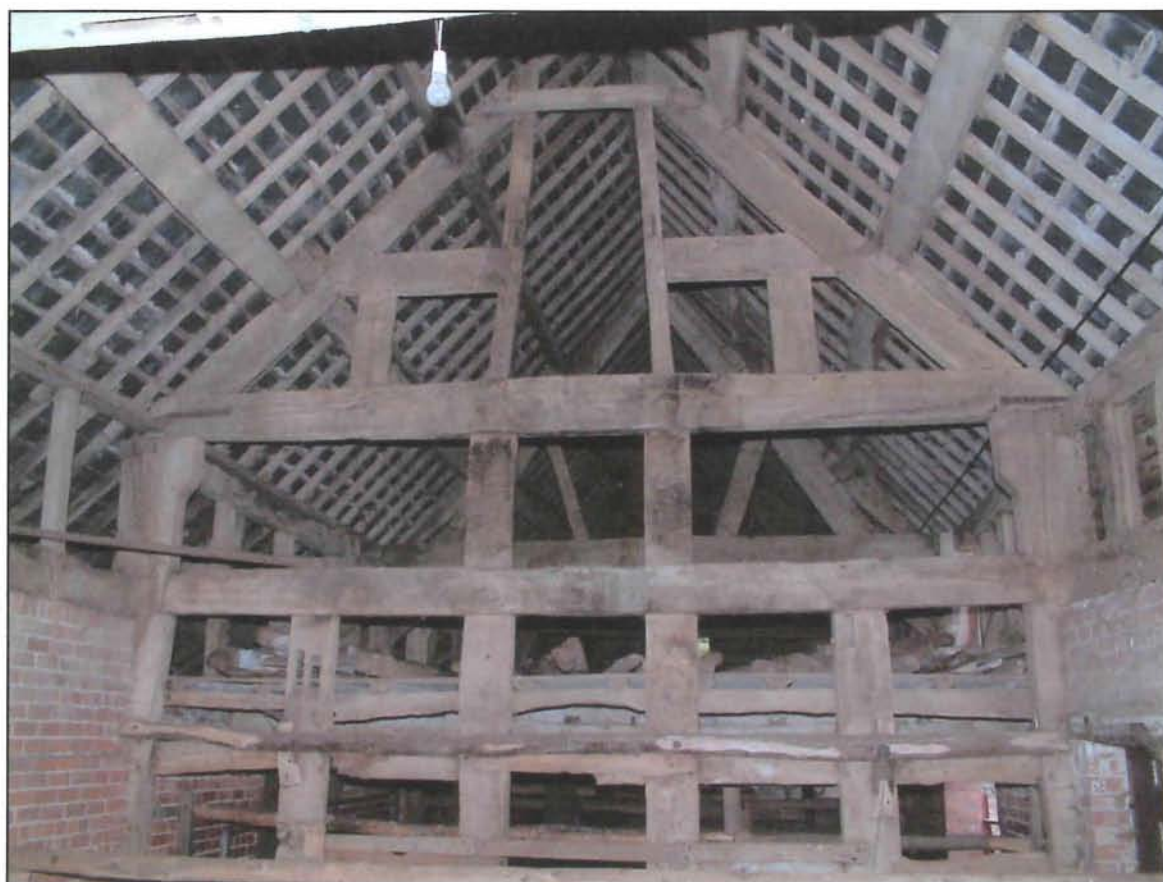


Plate 10 Barn 3 Truss 5. Photo CPAT 1682.103



Plate 11 Barn 4 Horse engine house exterior. Photo CPAT 1682.60



Plate 12 Barn 4 Horse engine house interior. Photo CPAT 1682.62



Plate 13 Barn 4 Trusses 1 and 2. Photo CPAT 1682.63



Plate 14 Barn 5 Bays 2 and 3. Photo CPAT 1682.65



Plate 15 Barn 5 from W. Photo CPAT 1682.57



Plate 16 Barn 5 driveshaft. Photo CPAT 1682.69