

**BARN AND OUTBUILDINGS ADJACENT TO THE TOWER ARMS
SOUTH WEALD
ESSEX**

**HISTORIC BUILDING RECORDING AND ARCHAEOLOGICAL
MONITORING**



Essex County Council

Field Archaeology Unit

June 2007

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As part of our desire to provide a quality service, we would welcome any comments you may have on the content or the presentation of this report.

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**BARN AND OUTBUILDINGS ADJACENT TO THE TOWER ARMS
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HISTORIC BUILDING RECORDING AND ARCHAEOLOGICAL MONITORING

Client: Mr & Mrs Girdlestone

FAU Project No.: 1523

Site Code: SOWTA 06

OASIS ref.: essexcou1-27448

Planning Application: BRW/0013/06

NGR: TQ 5714 9380

Date of Fieldwork: July 2006 & May 2007

1.0 INTRODUCTION

A programme of building recording and groundworks monitoring was undertaken by Essex County Council Field Archaeology Unit (ECC FAU) during conversion work to a barn and outbuildings at adjacent to the Tower Arms public house. The work was commissioned by the owners and developers, Mr & Mrs J. Girdlestone, and carried out in accordance with a brief issued by the Historic Environment Management team of Essex County Council (ECC HEM), who also monitored the work.

Copies of the report will be supplied to ECC HEM and the Essex Historic Environment Record (EHER, former SMR) at County Hall, Chelmsford. The archive will be deposited at Epping Museum.

2.0 BACKGROUND

2.1 Site location and description (fig.1)

The barn and outbuildings associated with the Tower Arms stand to the north-east of the T-junction of Weald Road and Wigley Bush Lane, in the heart of South Weald. Immediately to

the north-west, across the road, stands St. Peter's Church, with the former Weald Park estate, now Weald Country Park, beyond.

Several combined timber-framed structures form a multi-phase historic farm group that is curtilage listed with the pub (LBS 373591). They consist of:

- 18th-century Barn
- late 19th century Cart Shed
- 16th-century Animal Byre

A picket fence now divides the farm structures from the pub, which is also the former farmhouse.

Topographically, the farmyard is built on a slope down from the church. The surrounding area is undulating and predominantly woods and parkland. To the east and south of the site is pasture owned by Jewel's Farm, which formerly used the gravel track on the east side of the barn as their main access.

Natural geology of the immediate area consists of clay and sand/gravel recorded at 76.37m OD, approximately 80mm below present ground level.

2.2 Planning background

In January 2006 a planning application (BRW/0013/06) was submitted to Brentwood District Council for conversion of the three buildings to residential usage. Mindful of the possible effects on the historic integrity of the structures, ECC HEM attached a full archaeological condition to the planning permission, based on advice given in Planning Policy Guidance Note 16: Archaeology and Planning (DOE 1990).

2.3 Farming in the post-medieval period (1500-1901)

Medieval farm buildings tended to adopt an unplanned plan form, scattered around the farm house. No complete farmsteads survive from before 1600 (the early post-medieval period) and only a few from the late 18th-century (English Heritage 1997), although many pre-1750 buildings survive, especially in southern England (Barnwell 1998). Medieval farms in the south-east of the country were 'mixed', producing cereals and livestock and consisted of a barn, where crops were threshed and stored, granary to store the grain (although the farmhouse may be used instead) and stable, built with internal hay lofts. Except for the horses, animals were kept outside or in temporary shelters. Implements (ploughs, etc) and wagons were stored in sheds, or on the threshing floor of the barn. The relationship between crops and livestock was close. Cereals were produced as a cash crop and as animal feed

with enough to keep by for a few animals over the winter. In return, the animals provided transport, wool, meat or dairy products and manure for the crops.

In the late 17th century, improvements in crop rotation, with the introduction of improved grasses and winter feed crops, heralded the end of the medieval three year crop cycle. Also, increased winter feed meant that more cattle could be kept for fattening and improvements in animal husbandry meant larger animals could be reared.

From the 1740s the earlier scattered farmsteads began to be replaced by 'improving' landlords for the 'planned' or 'model' farm based on the courtyard plan. Typically, cattle were fed in one or more enclosed yards, with an entrance to the south and a barn to north for shelter. In the yards, manure was trod into threshed straw and the mixture added to the fields, increasing crop and straw yields.

Agricultural improvement reached its peak during 1840 and 1870: the 'golden age of farming'. Grain prices were at their peak, fueling an acceleration in farm building. By the 1860s, open-sided cattle sheds were a feature of most farms (Barnwell 1998). This era, also known as 'high farming' after contemporary agrarian philosophies, developed the courtyard system to its full potential, influenced by new developments and prevailing Victorian views on efficiency and organisation borrowed from the factory system. In the printed form, great debate was had on the benefits of different designs and husbandry techniques. The focus on mixed farm agriculture accentuated the traditional partnership of food and straw production for livestock in exchange for manure for the fields. Farm buildings were arranged efficiently around the yard to follow the natural flow of materials. Typically, the yard was enclosed by open-fronted shelter sheds, plus stores for feed and bedding, on three sides and open to the warmer, southern side but this theme was adapted and enlarged to suite the means and surroundings of the landowner.

Smaller farmers, influenced by high farming ideas found it too expensive to build a model farm in its purest form. So, rather than demolish and build afresh, many landowners remodelled their farms by retaining some of the older buildings, usually larger buildings like barns, while constructing new housing for livestock in such a way as to form planned courtyard layouts.

3.0 OBJECTIVES

3.1 Historic building survey

The purpose of the historic building survey was, as outlined in the brief (Clarke 2006), to investigate and record the farm buildings to RCHME level 3 standard prior to conversion. The record was required to consider the plan form of the site, materials and method of construction, building chronology, development and phasing, function and internal layout and survival of early fixtures and fittings relating to original or change of usage. The record also aimed to understand the context of the farm within broad trends in agriculture and the local/regional significance/rarity of the buildings.

3.2 Archaeological monitoring

According to the brief, the site lies on the perceived edge of the medieval settlement at South Weald. From the built evidence, the plot clearly has origins dating to the early post-medieval period or earlier as a farmstead. With this in mind, groundworks in and around the structures were monitored for the presence of below-ground remains that relate to the previous land use of the site. The monitored areas are shown in fig.1 and the results are presented in section 7.0.

4.0 DESCRIPTION OF WORKS

The historic details of the standing buildings were recorded using drawings supplied by the client. Each element is labelled on a block plan of the site (fig.1). External and internal architectural descriptions were made and wherever possible the function of each building was assessed, along with its relationships to others in its agrarian context.

A series of photographs (digital, colour medium format and black & white prints) were taken to record the buildings internally and externally. Specific shots were taken of areas of important architectural detail, fixtures and fittings. Space in some areas, namely the narrow gap between the buildings and pub fence and inside in areas of scaffolding, was limited and some photographs may reflect this. A representative selection is reproduced at the back of the report as plates 1-25. The remainder can be found in the archive.

Groundworks were monitored in each of the three buildings during ground reduction works into the natural clay and gravels. Standard FAU methodologies were used to record the areas of reduction in written, drawn and photographic form.

Cartographic and documentary sources (section 5) were consulted at the Essex Records Office (ERO), Chelmsford.

5.0 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND (figs 2-4)

Cartographic and documentary sources were studied to understand the origins and development of the farm and, if possible, date the existing buildings with greater accuracy. Parts of the farmstead appear on maps from the 18th-century onwards.

South Weald refers to the 'south wood' (Reaney 1969) and is mentioned in the Domesday Book of 1086, when the village comprised two manors totalling 2½ hides (EHER 19297).

The parish church is situated across the road from the site on the periphery of the medieval and post-medieval settlement (EHER 19626 & 19297). However, there are no known archaeological sites investigated in the vicinity.

The Tower family owned the estate of Weald Park, which included the hall and surrounding area/village north of the church. The house was demolished and the estate broken up in 1946. Their ominous motto 'love and dread' is shown on the heraldic pub sign, as is their emblem, the spread (black) eagle. In fact in the 17th-century there was a pub called the Black Spread Eagle next to the church (VCH vol.8 1983). It is shown on Chapman and Andre's map of 1777 (fig.2).

The barn is believed to be contemporary with the Tower Arms pub, which was built in 1704 (Listed Buildings Online), initially as a residence/farmhouse known as 'Jewels'. The byre, which appears to be earlier in date, and built on a slightly different orientation, was probably adapted at this time for use alongside the barn as part of the farmstead complex. Early maps are unreliable. A building in the rough location of the barn (with porch) is shown on Chapman and Andre's map of 1777, close to the road (fig.2), though the house, which is larger and more prominent, is not.

An estate map of 1788 (D/DTW P3) fails to clarify any detail and is not reproduced in the report, but is included in the archive.

The South Weald tithe map of 1838 (D/CT 388A, fig. 3) shows the holdings of each landowner in the parish. Although still not clear, there are buildings shown, but none appear

to directly relate to those recorded. The Tower Arms, known to have been built by this time, is not included, so the map must be inaccurate. The area to the south of the church is owned by the 'impropriate rector', but there is no tithe award available to deduce further details of ownership and function.

The buildings are first shown clearly on the first edition OS map of 1872 (fig.4), which shows the farmyard at its most developed. It depicts the barn and byre on the east side of an irregular-shaped yard, with another, since demolished structure along the road on the north side. The farmhouse is located on the western side of the yard. Two other darker-shaded structures to the east and south-east may be associated, but little may be said about them (fig.4). Outbuildings have been added to the barn, by this time, confusing its plan form. The byre has a shed to the south, since removed, that probably had 19th-century origins. It is likely that carriages were parked in the range on the north side of the yard. The pump house still stands in the car park, where the horses could be watered.

According to the Essex pubs website, the Tower Arms was established as a public house in 1878 after the Spread Eagle across the road had closed (essexpub.net). However, the 1872 map shows this happened earlier, as the Spread Eagle pub, by the church, has been replaced by a group of three cottages. These are on the right side of the road to be part of Tower estate, and were probably built for workers. The 1871 census mentions James Manning as Inn Keeper and Farmer. He had a wife, two daughters, and five house and farm servants (essexpub.net).

The cart shed is shown on the second edition OS map of 1896 (fig. 5), apparently replacing the roadside building in function, constructed between 1872 and 1896.

The property known as Jewels Farm was built in the 20th-century to the south-east. Up until the 1970s, the farm kept livestock (goats, turkeys, etc) in the barn and byre, which explains some of the fixtures. Latterly the barn floor was gravelled and used by the pub for petanque (farmer at Jewels Farm pers. comm.). With the extension of the car park, the long disused outbuilding to the south-east was demolished in 1996 and the ground beyond tidied up (farmer at Jewels Farm pers. comm.). Since the barns were sold, the buildings have been left empty. The barn is currently used to store building materials for the conversion, while the other two buildings have been left largely as they were, except for scaffold added inside the byre to support the dilapidated structure.

6.0 BUILDING DESCRIPTIONS

6.1 General description (fig. 1)

The buildings are arranged in a close group to one side of an irregular plot. A wooden fence forms a recent division of the former farmyard, now the Tower Arms car park to the west. Land to the east comprises a former gravelled access route to Jewel's Farm and land to be incorporated as garden with the converted buildings. The barn stands at the north end of the group, with its porch facing west and the Tower Arms. A later outbuilding, infilling between the north end and the porch, is in a dilapidated condition. A basic cart shed is built between the barn and byre. A lean-to structure has been built onto the byre. None are listed, although all are curtilage listed with the pub.

The structures are in variable condition. The byre has been on the ECC Buildings at Risk Register since 2003. Its condition is described as very bad, which is a fair assessment. The barn has been better maintained, probably through its more direct association with the pub, and the cart shed between remains in good condition too. All structures are post and truss construction, with timber-framing and weatherboard cladding on 19th-century brick plinths. The oldest, the barn and byre, are pegged (to varying degrees) and have later repairs to their frames.

6.2 Barn

The barn has been dated to the 18th to early 19th-century and is probably contemporary in build with the Tower Arms. It is typical of many medium-sized Essex barns, with a tarred clapboarded exterior and gabled ends (pitched at 40°), with a plain tiled roof, parts of which have been disturbed by roosting pigeons. Its general dimensions are 5.9 by 11.6m, which roughly translates to 6½ by 12¾ yards. The interior is divided into three 4m-wide bays, with projecting midstrey to the west, facing the Tower Arms. It is raised on a tarred brick plinth, characteristically built from red brick in English bond c.22 x 7 x 11cm each, bonded in a lime-rich mortar. The plinth rises against the natural north-south slope, ending quite high at 0.7m. The barn is in generally good condition except for the re-built roof that, thanks to the pigeons, is being opened up all the time, with falling tiles a real concern. The framing is clean and sound, although there have been problems in the past with the structure, as everything above the eaves has been rebuilt and the inner frame strengthened. The lower register on the west side of the southern bay, has buckled outwards (fig.6), rolling the sill beam, and is currently propped up with scaffolding.

Cart doors are positioned centrally on the long east and west elevations. Those on the west side (plates 1 & 2), facing the Tower Arms, were originally the 'great doors', built much higher, to admit carts laden with the harvest. However, these have been clearly cut down to the same height as their counterparts opposite that were used as exit for the empty carts. Original pintel hinges stand unused in the jambs above the doors and there are rebates for original door ledges. Another point of interest on this side is an inserted dove-cote. Presumably the doors were lowered to accommodate this feature. Meshed round entry holes indicate its presence externally. Inside it is crudely built from recycled wooden panelling and floorboards laid between the tie beam and porch front (plate 6, far left). A low door is mounted centrally, on the east side, facing the barn and the walls panelled with reused butterfly-hinged panelling that may have been stripped-out from the pub (plate 7).

Each of the short ends has a blocked pitching hatch at first floor level, since covered with cladding (plates 3 & 4) but visible internally (fig.7, plates 5 & 6).

The lean-to on the north-west side against the porch is almost completely obliterated now (plate 2). It seems to have been a shed, open to the north, and built between 1838/9 and 1872, possibly contemporary with alterations carried out to the barn. The line of the lean-to roof may be seen by the slanted clapboard against the barn porch. This area was re-clad when the lean-to was built. It is built from machine-sawn softwood raised on a brick plinth of mixed reds and London stocks, all frogged and later in date than the main barn plinth.

Inside (plates 5 & 6), the wall framing comprises of soft wood studs and elm main framing elements binded together with primary bracing (fig.7). Only the main frame is pegged, although main studs either side of the bracing and the bracing itself, are invariably pegged to their bay posts and horizontal timbers. The studs, which are hand-sawn, are commonly 7 x 10cm-wide and c.55cm apart, more widely-spaced than normal and adding to the flexibility of the structure. Mid-rails divide the studwork on two levels. Generally the studs are tenoned both ends, although in some cases they are nailed too. None show signs of reuse, but those in the gables are rebuilt with the roof and have shorter gaps in between by virtue of extra studs nailed in. Generally they are in line, but on the gable ends they are slightly joggled.

None of the bay posts (c.18 x 18cm) are jowled, indicating a post-medieval construction date. Two hefty oak posts are bolted to the posts by the east door to support the tie beams here. Both are reused. One, on the north side of the door, is a chamfered bay post with empty brace mortice while the other is a scroll-stopped chamfered bridging joist from a structure of some quality (plate 8). Wall plates are up to 1½ bays long and connected by short single-

pegged bridle scarf joints with squinted abutments over the cart doors (plate 9). Both are obscured by planks attached to the face of the plates as a strengthening measure. Their locations are indicated on fig.6. Long scarf joints are a feature of good medieval carpentry but the short ones range in date from the medieval (Hewett 1980) to the 18th-century at least and there are many such examples in Essex barns. In many ways the angle of face cut appears similar to those in the byre which has an earlier and far different method of assembly.

Inside, there has been much altering and strengthening of the frame to give additional support to the structure. Sagging wall plates have been bolstered by adding fresh ones over the top with the new roof and the three bays have been further divided into five, by inserting secondary trusses. The gables and roof, including the porch, have been rebuilt in the late-19th or 20th-century using machine-sawn timber. Replaced elements mimic the original form. Struts, wind braces, collars and purlins to the queen post strut roof are all replacements. Only the tie beams are original. These are strapped to the wall plates like the later ones. Queen post struts are nailed to the purlins and overlap crudely on the outside (fig.8).

The porch (plate 6, left) appears to be contemporary with the barn, although there are variations. Studwork here has similar scantling to the main build, but a higher proportion of warpage, burring and bark. Their spacing is equivalent to the later gable studs, which are c.30-35cm apart. Parts of the lower register are lined with clapboard to a height of 1m to prevent harm to carts or livestock. A rendered plinth on the north gable wall obscures the lower part of the framing. The presence of a tethering rail corroborates the keeping of livestock here in the more recent period.

The floor retains a crushed mortar surface laid on hard flint cobbles similar to those found in the natural subsoil. Asphalt has been added to the floor in the porch.

6.3 Cart Shed

A single irregular building was built between the barn and byre in the late 19th-century to accommodate wagons and horses. Its odd plan form owes much to the different alignments that the earlier structures enjoy through belonging to distinct construction phases. The structure is timber-framed and primary-braced and open to the west (plate 10). It is stood on a rammed hard mortar/cobble floor, much like the barn. Inside, many timbers are hand-cut rather than machine-sawn, despite the recent age. In fact, it may be that the primary bracing is a later addition along with the roof, or it may simply be better quality timber. The west side is three bays long (plate 11). Wide wagon doors and a single stable door separates this from

the eastern part that is fully enclosed and of two bays (plate 12). There are no divisions within but there is a carved wooden bridle hook on a rail on the south wall (plate 12, centre, under truss) to suggest this was also the stable.

The roof is double pile and pitched at 35° and tiled, except for the Perspex-sheeted valley in the centre. Again, there is a queen post strut roof assembly (fig.9) in machine-sawn softwood with iron brackets connecting tie beams to wall plate, suggesting this was constructed at the same time as improvements to the barn were carried out.

6.4 Animal Byre

The oldest and most distinctive of the group is also the most deteriorated and quite rightly is included on the buildings at risk register, where it is described as '16th-century with 19th-century additions, latter linked to 18th/early 19th-century threshing barn' (ECC 2003). This is a small oblong timber-framed two-storied structure that has been much adapted. Its dimensions are 5.25 x 8.4m. Like the rest, this is clapboarded with a plain gabled tile roof pitched more steeply at 50°, probably to take thatch originally. Again, the brick plinth is the same as the barn and presumably added at the same time. Large sections of framing are exposed on the east side where boarding has disappeared through lack of maintenance (plate 14). The walls have not been tarred for a long time on this side. The west side facing the pub and gable end is in better condition (plate 13). Wall framing in other areas is hidden by boarding applied to the interior and exterior. An attempt was made to piece together the frame from the evidence viewed during the initial visits and added to the existing frame survey (fig.10). A partially open-fronted lean-to with later framing (pre-1872 and of similar primary bracing to the barn?) has largely disappeared. It had a long linear fixture, possibly the frame to a feeding trough or machinery (plate 15). The brick plinth on the closed side was built as piers, perhaps for ventilation. The southern end is in danger of collapse and has been propped-up with scaffolding that reaches inside to support the entire first floor as well. Netting hangs along the east side to contain falling timbers, mainly from the lean-to.

From the 19th-century maps, the byre formerly had a smaller structure built onto its south end, that was removed in the 20th-century. An external mid post and wall plate, both machine-sawn, remain on the south end to show the building as a late 19th-century addition rather than contemporary with the byre (plate 13).

Inside there is a tack room to the north and byre to the south, divided by a partition wall on the ground floor (fig.6). The tackroom is a later refurbishment feature to the byre, perhaps

contemporary with the cart shed. Above is a first floor level, open to the rafters, but only the floor above the byre is contemporary, or roughly contemporary, with the main build.

Entry to the tackroom is solely from the west (pub) side through a ledged and battened door. Beside it is a pair of six-pane ovolo moulded casement windows of likely 19th or early 20th-century date (plate 16). Entry into the byre side is either side of the south-east corner. Both doors are missing, but it is plain the south door is a later insertion (fig. 6). A third connects between byre and lean-to which, judging from its waney timberwork, is contemporary with the barn (18th-century). Otherwise, apart from some dishevelled clapboard, the elevations are fairly bland. It is difficult to deduce how light got inside this part of the building. There are no windows except on the east side, where there is an opening and ledge in the studwork (fig.10). This was found beneath the later boarding during the survey and is likely to be contemporary with the first phase of the structure, but was not seen inside because of the internal boarding (plate 20).

The tackroom is the larger of the two bays (9 x 10m) encased in limewashed horizontal clapboard and moulded cornice (plates 17 & 18). A partial cement render covers the east side. A worn herringbone floor, comprised of floor bricks with 4 x 16cm dimensions, fills the area to the west of a shallow brick-lined gully that leads to a now-blocked drain by the north wall (fig. 6, plate 17), an indication this was used as a stable before it became the tackroom. On the other side, the floor is more random, with floor bricks, half bricks, stone fragments and 4" granite setts arranged in no particular pattern (plate 17). The north side holds what may be a modern low wooden trough frame, more likely for goats than horses. The ceiling joists are straight machine-sawn timbers, showing a later insertion. Nail holes in the joists show where a lath and plaster ceiling was removed, presenting, along with the moulded cornice partly-surviving on the north wall (plate 18, left), a more decorative area.

The other side functioned as a loose box. It is separated by a stud wall on the line of the bay interface/truss, making it 1.5m shorter than the tackroom.

The building was constructed 1½ storeys high using jowled and gunstock headed bay posts, mid rail and close studding from widely-spaced (c.65cm) hefty studs (10 x 18 to 16 x 18cm-wide). Wide curving braces (c.40cm) connect mid rail to wall plate on the long ends. With such a wide spacing between studs, the studs and braces are not attached, apart from where thinner studs were added when the structure was boarded over (plate 25). The jowled heads, curved braces and hefty studs are all indicators of a 16th-century or earlier date. Bracing is pegged singularly, but, like the barn, only those studs either side of the braces are pegged,

the rest are simply tenoned and held in place by compression. Scarf joints also bear a resemblance to the barn, having the same (mainly) single pegged bridle scarf joints with squinted abutments, on the west wall plate and east purlin, intrinsic to the design (plate 22, fig.6). The entire building was originally clad in wide daub panels and there is plenty of large drill holes to take vertical rods that held the wattles in place. The lower register has no bracing, only close studding.

It is clear from the position of empty pegholes on the lower register that stud positions tied up to those remaining in the upper register.

Replacement studs on both levels and elevations are characterised by a narrower scantling (c.10cm-wide) and closer proximity to one another (c.40cm, though varying). They are lapped and nailed onto the outer face of the midrail rather than tenoned like the others and are likely to belong to an early phase of repair.

The lower register is built from the same close-studded stout timbers as the other main walls. At the south gable and the partition wall, the area between the mid-rail and wall plate (i.e. the upper register) is primary braced, an original feature at odds with the curved bracing on the two long walls (fig.10). This may indicate a transition stage between the two styles of bracing. In other words, up to the wall plate at least, this is a complete frame. This cannot be said for the south gable, which has been completely rebuilt in thin, machine-sawn primary bracing of late 19th or 20th-century style. As far as was seen, the positions of the earlier studs have been replicated (fig. 10). The original gable is likely to be studded in the same way as the north gable (plate 23).

Internally the ground floor of the byre shows clear evidence of its former use. Identical bricks are used to create a hard-wearing floor, arranged in approximate lines north to south, end to end and rather worn through use (plate 19). Lower areas of walling are boarded to prevent damage and there is a gated holding pen in the north-east corner, screened-off by a studwork screen contemporary with the partition build, but not intact. Above there is a gap in the ceiling for ladder access to a hay loft above. Hay could be dropped by two drop zones to the animals below on opposite sides to supply animals in separate pens (fig.6). The first floor is lain on ?nailed wooden clamps, and is likely to be an original feature. A roughly-chamfered 20cm² heavy bridging joist (plate 19) spans the room from north to south onto which floor joists are pegged and jointed with bare-faced soffit tenon with housed shoulder jointing. Most of the joists are fairly waney and some have bark on and would probably be plastered over if this were a house of the same date. The floorboards are sturdy 9" oak.

There is only one roof truss (section C-C1) to divide the bays and it is now broken through the weight of the roof. Unusually it is in queen post construction (fig. 10, plate 22), especially as many of the rafters in the north bay at least have collar rebates and peg holes cut for a crown post roof (plate 23). Most have been turned at some stage and are not in their original positions. Some are sagging and spacers have been added between rafter and purlin or rafter and battens, which are all fairly new (i.e. the roof has been rebuilt at a later stage). All the rafters are pegged and tenoned at the ridge, though some have rotted and are held by an inserted ridge piece.

7.0 ARCHAEOLOGICAL MONITORING (fig.1)

7.1 Monitoring results

The floors in the barn, cart shed and byre were reduced by 0.4m into natural deposits, a crumbly silty clay with outshots of gravel and flint cobbles. Further excavation continued on the line of service runs another 0.3m into the natural. No features or deposits of archaeological interest were found, although one tavern mug sherd was collected from the spoil inside the barn, which is described below.

7.2 General finds by Joyce Compton

A sherd of English stoneware was found unstratified. This has been examined by Helen Walker who assigns an 18th century date and reports that the sherd probably derives from a tavern mug. Details may be found in Appendix 1.

8.0 DISCUSSION AND PHASING

The suggested phasing is based on observations made during the building recording survey and from cartographic evidence.

Phase 1: 16th-century: This phase is represented by the animal byre presumably associated with a farm or small holding, the full form of which is unknown. It is a particularly stocky, rather stout and crude structure, necessary to withstand the rough movements of the oxen or cattle inside. The framing, which is exposed mainly at the southern end, has heavy close studding and originally had wattle and daub infill panels. Along with a thatched roof, which is very likely, this would have made an attractive building to a farmyard. Inside a brick herringbone floor was laid on one side of the partition. A combined likely 16th-century date is

given by various features. Jowled bay posts suggest a pre-1650 date. The quality and robustness of the timber, the heavy curved bracing (unusually detached from the studwork), crude as it is, but acceptable in a farm setting, is often pegged but not, always, which is another sign of post-medieval, specifically 16th-century carpentry in association with timbers with a large scantling. The few scarf joints recorded are of a type that overlaps the medieval and post-medieval periods but which are relatively rare. The same joinery also appears in the barn, which is clearly later in date. The roof rafters have rebates to hold collars to a crown post roof, although there is no mortice for a crown post in the existing roof truss, so perhaps they were reused from an earlier building. It is difficult to say. A combination of curved bracing and primary-bracing, which was introduced in the 16th-century, is another guide to age, suggesting a build date within the transitional period between the two styles.

Phase 2: 18th-century: The Tower Arms or Jewels as it was first known, was built in 1704 (listed buildings online). As a farmhouse, it is a particularly grand Queen Anne style structure, which, according to the list description, was well fitted-out in contemporary panelling and other décor. The house was large enough to hold a big family plus servants, who probably lived within the roofspace on the second floor. The gardens to the south were extensive. It is assumed the barn was built at the same time. The primary-braced waney frame is indicative of farm structures of the 18th and early 19th-century, although barns dating to the early 18th-century appear to be rare. At the same time it is possible the original crown post roof in the animal byre was replaced by a clasped purlin roof and central queen post truss. Also, the ground floor partition was added and repairs carried out to the frame using unpegged lapped and nailed timbers. A narrow animal shelter was built onto the east side of the byre. Altogether, this was the first major farmstead phase, with the buildings respecting a courtyard-style plan form.

Phase 3: 19th-century: A period of slow evolution rather than full-scale improvement ensued based on the existing form. Around the middle of the century (1838-72), the pumphouse and roadside stables were built either side of the yard, possibly at the same time as the pub moved from across the road to the farmhouse. Extensive structural works were carried out on the barn to stabilise the weak frame. Additional tie beams were added between the existing ones all strapped to the wall posts. The roof and end gables were rebuilt, perhaps on a lower pitch to take tile. An outbuilding was added on the north side of the barn (by 1872). Some work was carried out on the byre too, in rebuilding the south gable and refurbishing the roof further. The pitch remained the same but the southern gable was rebuilt and a shed added. The internal dovecote was probably built by this time. With the construction of the double pile cart shed/stables (between 1872 and 1896) the roadside

stables were demolished and the north part of the byre became the tackroom. To this effect, the floor above was inserted to carry a plastered ceiling and moulded cornice.

Phase 4: 20th-century: The buildings were used to keep turkeys, goats, etc as part of a small holding up until the 1970s. Afterwards the barn floor was gravelled-over to play petanque. Redundant and disused, the byre and the lean-tos became dilapidated.

9.0 CONCLUSION

The three structures recorded at Tower Arms form a varied and interesting study group even though they are only the remnants of a more extensive farmyard complex. Clearly the most important building is the animal byre and this is also the most complex. Its original form is compelling but there have been many changes over the years to make the observer query whether the frame shows original build and adaption/repair or if some timbers are simply replaced. It is difficult to date precisely, but a date of no earlier than the 16th-century seems reasonable. There are no such problems dating the cart shed and barn, though it is possible the barn is slightly later than the farmhouse/Tower Arms pub. All feature post-medieval forms of carpentry employed from the 16th- to late 19th-centuries.

By 1872, during the Age of Improvement, the courtyard plan form had been adopted, albeit in a fairly ad hoc way. With dual income coming from the farm and public house, the priorities for expansion were perhaps less than for other Essex farms at this time. The yard remained open to the pub, surrounded by buildings for carts and stabling as well as buildings for traditional farm yard activities such as livestock rearing and grain processing/storage. The byre, as an earlier structure, was retained like on many other Essex farms, but through practicality rather than to reduce the financial impact of improvement. Judging from the extensive pasture to the east of the farm today, the emphasis was on grazing (cattle, dairy and probably sheep) rather than intensive arable agriculture. Some of the unidentified structures around this area, i.e. to the east and south-east, may have been used to house these animals away from the pub.

Research has shown that the Tower Arms, as a public house, has been in existence for longer than first believed. A date of 1878 is given by the Essex pubs website, but the maps clearly show its origins to have been earlier, pre-1872.

The results of the archaeological monitoring of groundworks proved negative and have not shed light on the origins and development either of the farmstead or of South Weald in

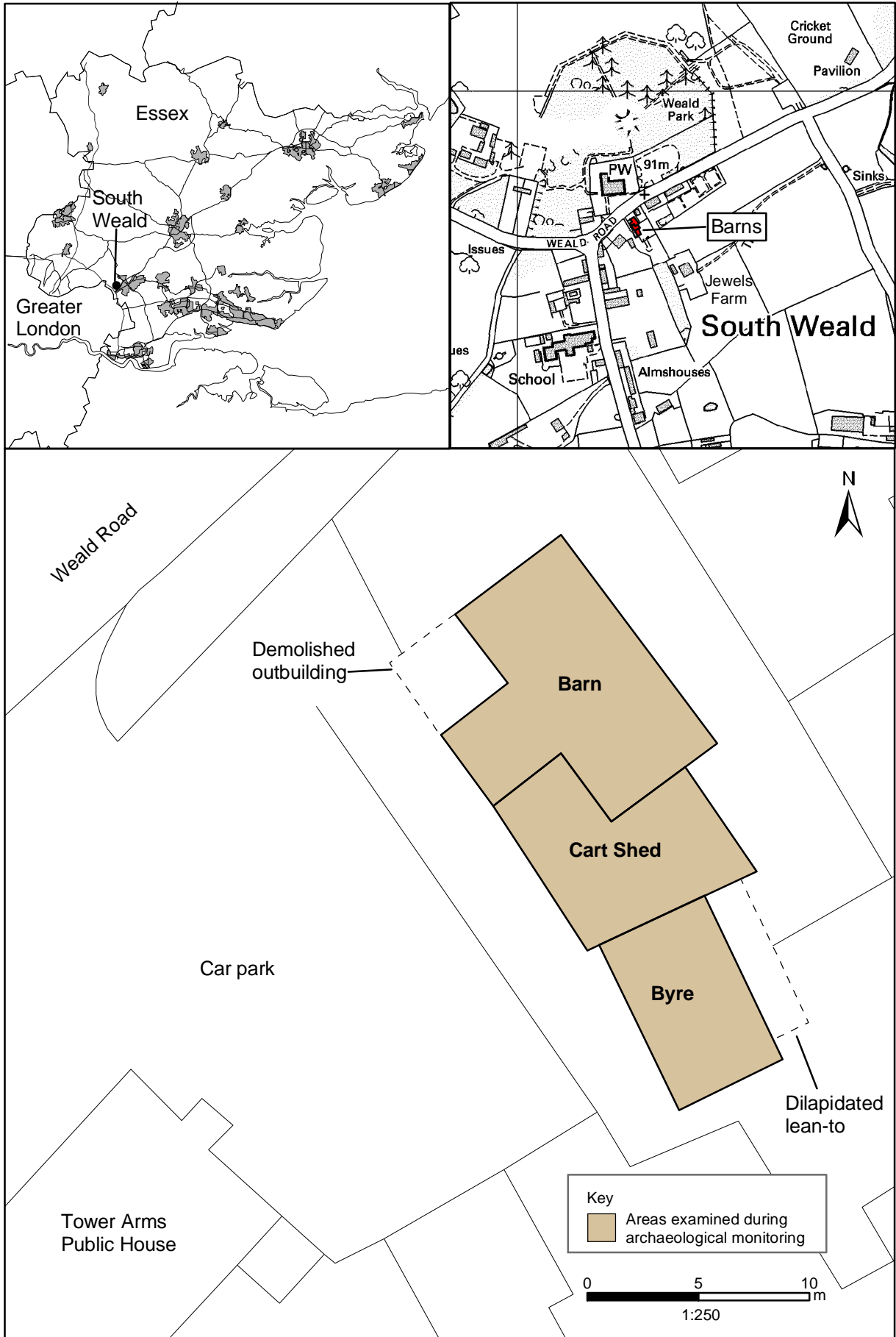
general. However, there may still be buried remains associated with the earliest phase of occupation elsewhere in the vicinity. Clearly, the presence of the byre attests to the existence of some form of 16th-century farmstead predating the building of the Tower Arms. The sole find, a pot sherd from an 18th-century tavern mug, does however provide a link between the barn and the pub.

ACKNOWLEDGEMENTS

Thanks are due to the owners, Mr and Mrs Girdlestone, for their interest and co-operation and to the architects, Inkpen Downie, for supplying drawings for adaption within the report. Thanks also to staff at the Essex Records Office for their assistance. Fieldwork, recording and photography were undertaken by the author with the help of Adrian Turner of ECC FAU. Additional monitoring works were carried out by Andy Robertson. Illustrations were prepared by the author and digitised by Andrew Lewsey. The site was monitored by Vanessa Clarke of ECC HEM on behalf of the LPA.

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Fig.1. Site location and block plan

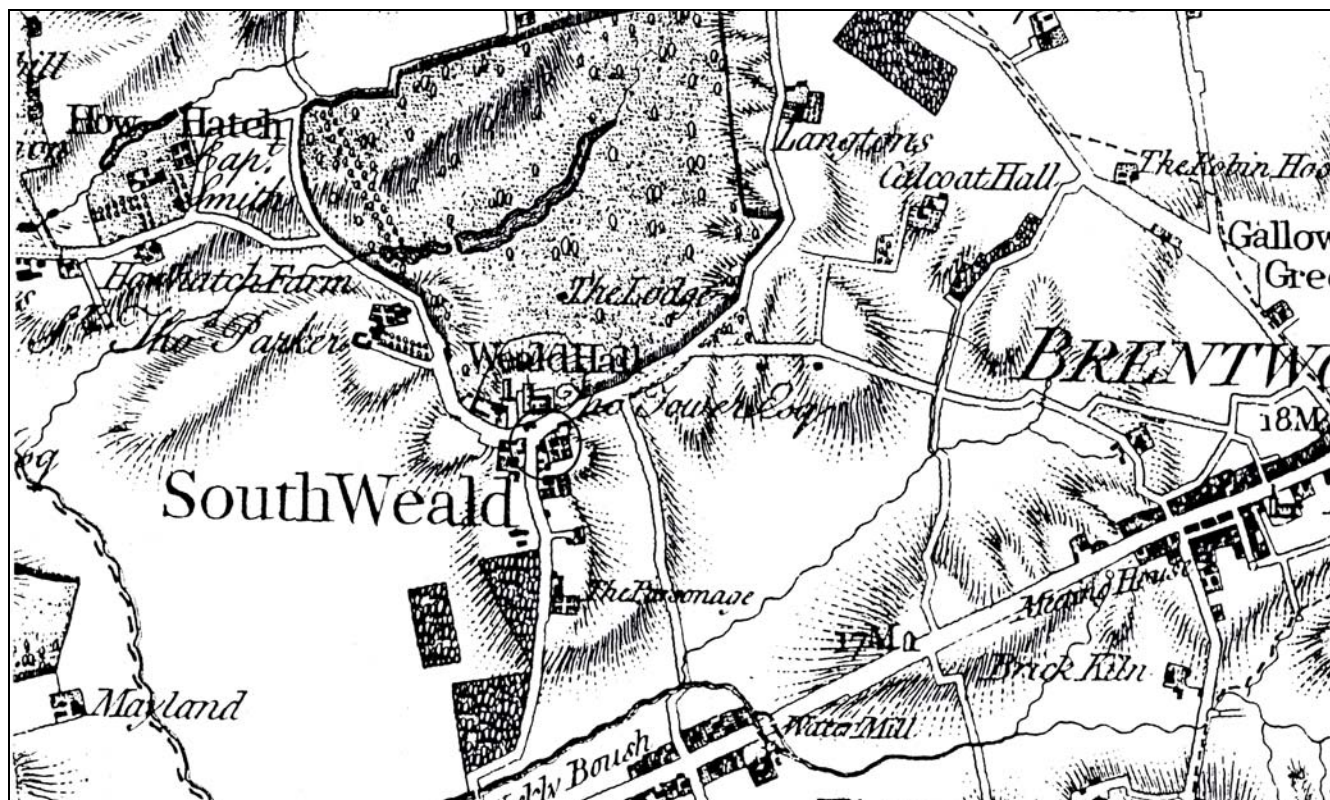


Fig. 2 Chapman and Andre, 1777 (plate 17)

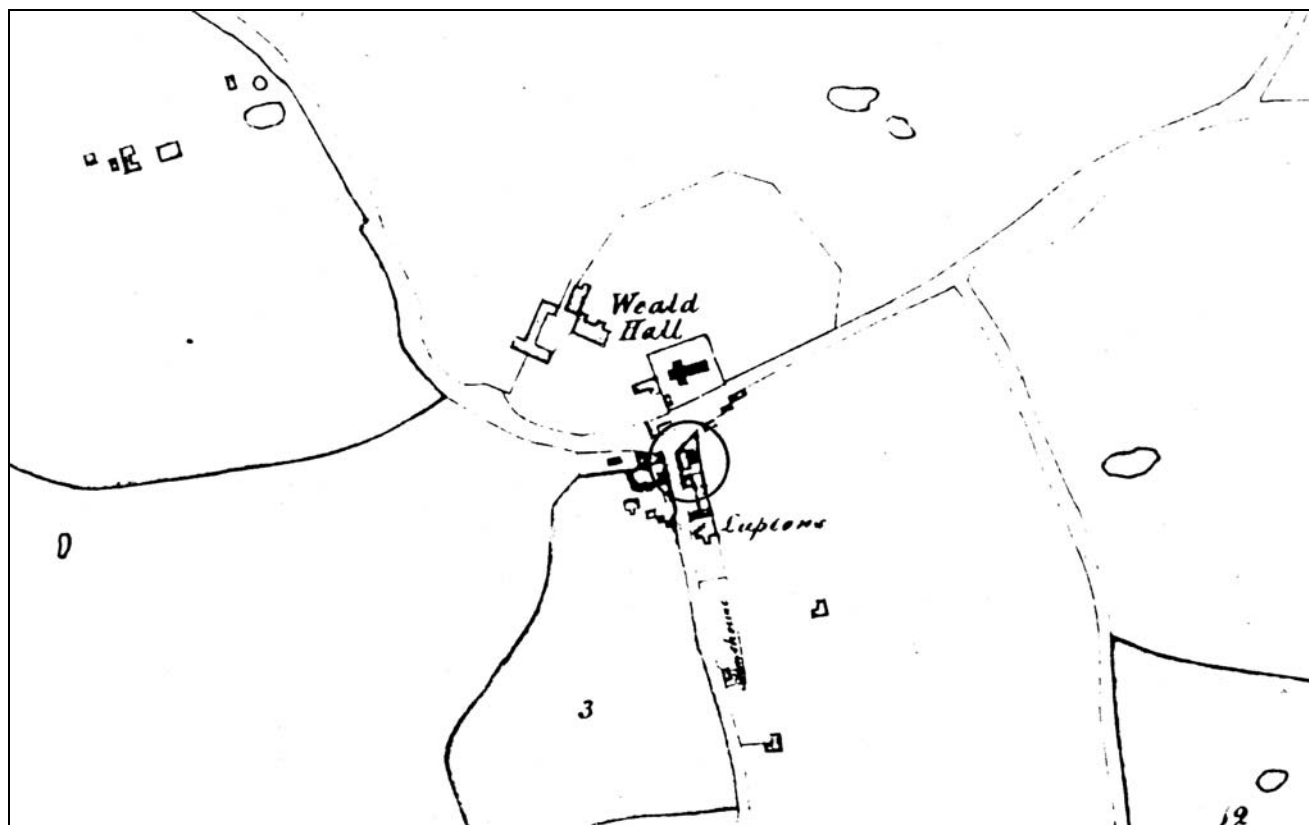


Fig. 3 South Weald tithe map, 1838 (D/CT 368A)

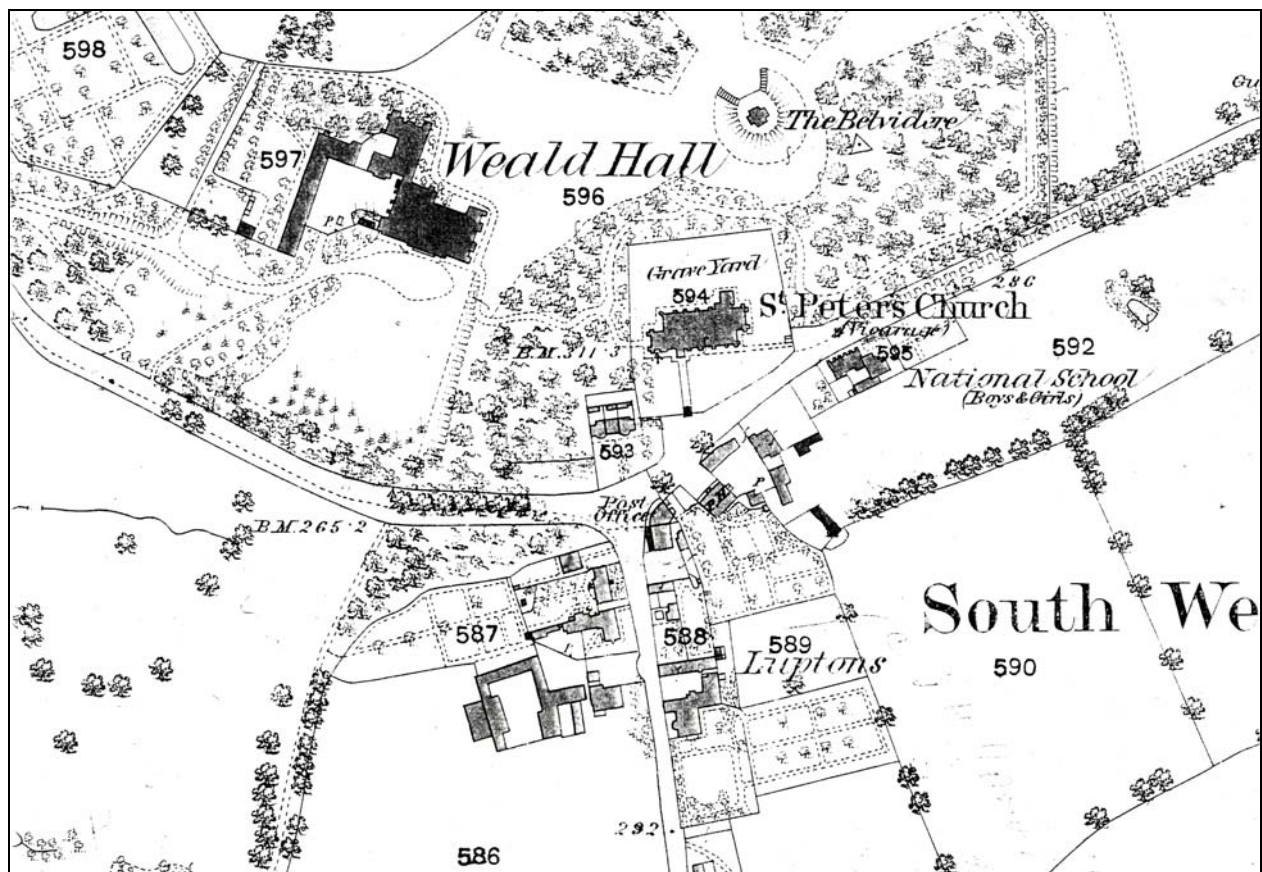


Fig. 4 First edition 6" OS map, 1872 (sheet 67.2)

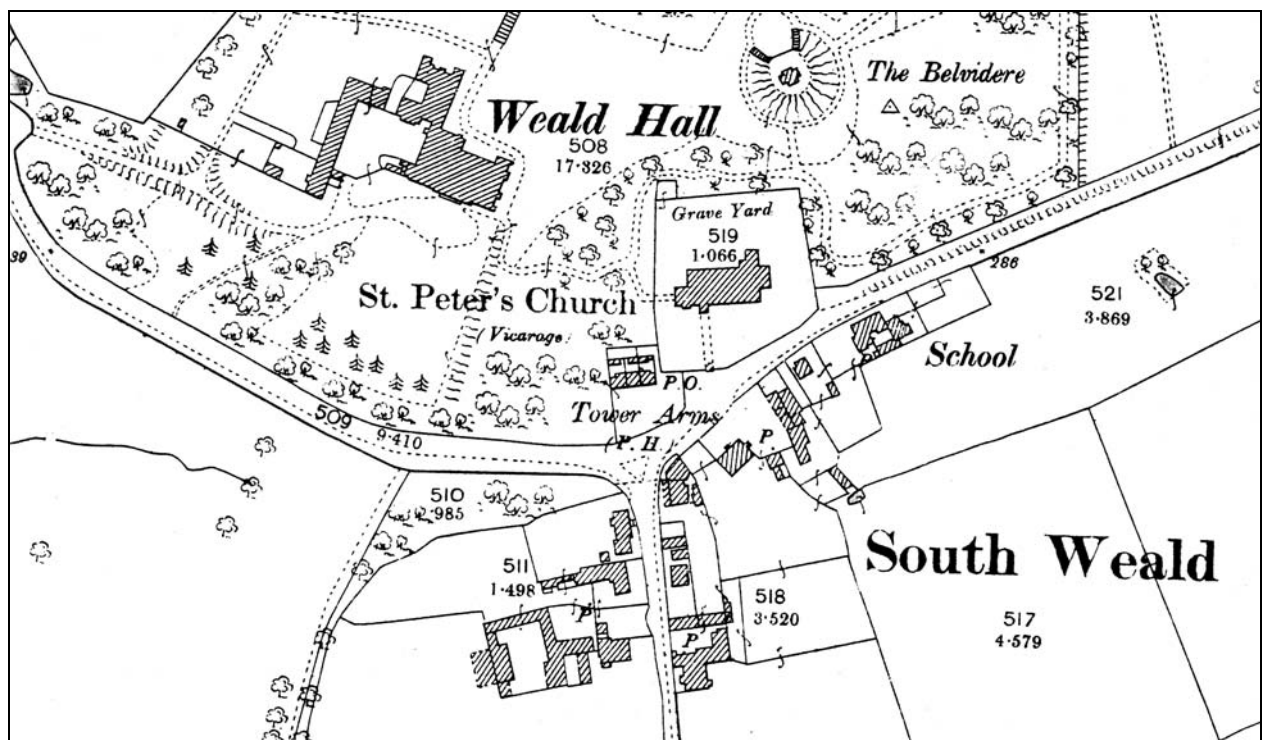


Fig. 5 Second edition 6" OS map, 1896 (sheet 67.2)

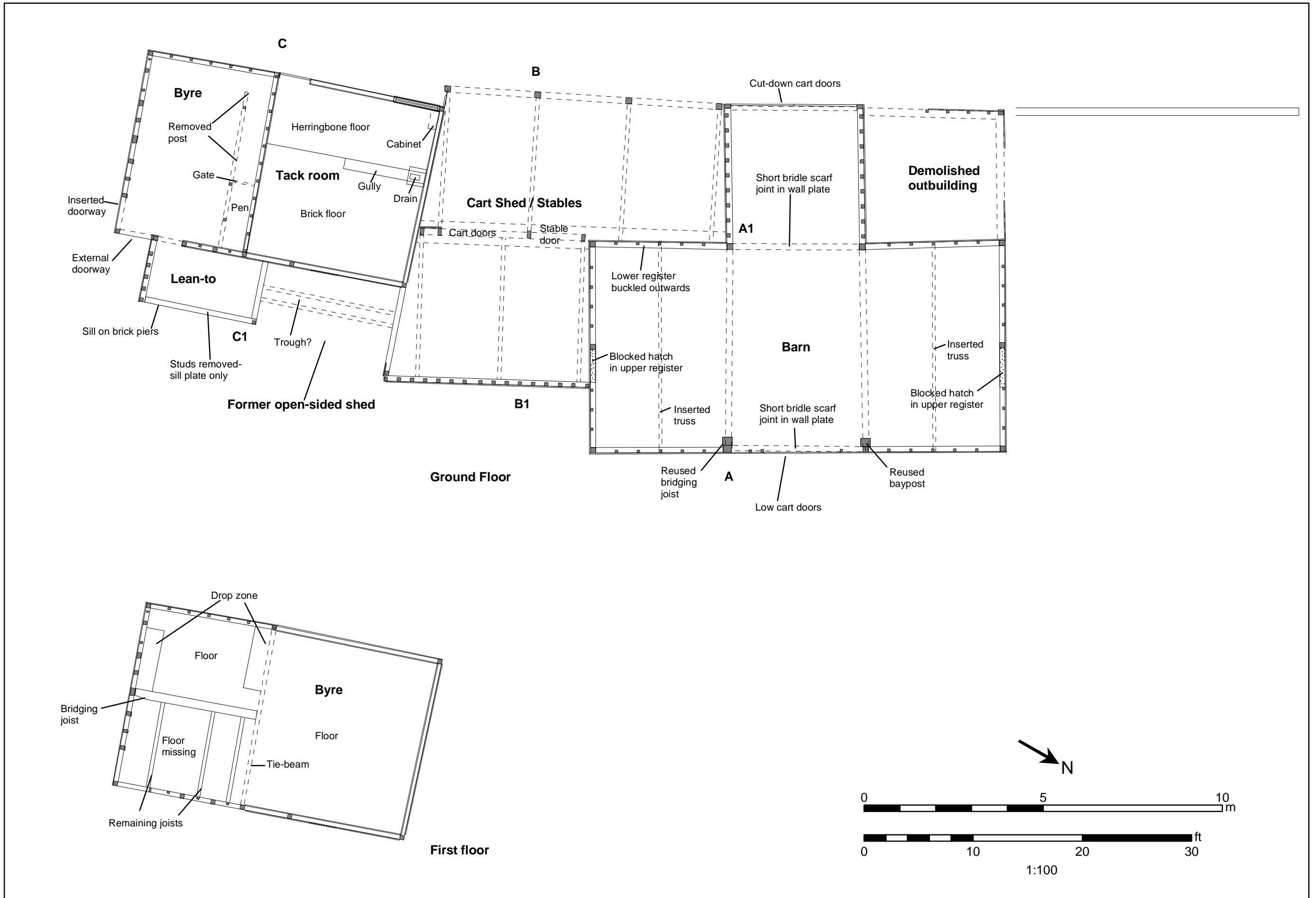
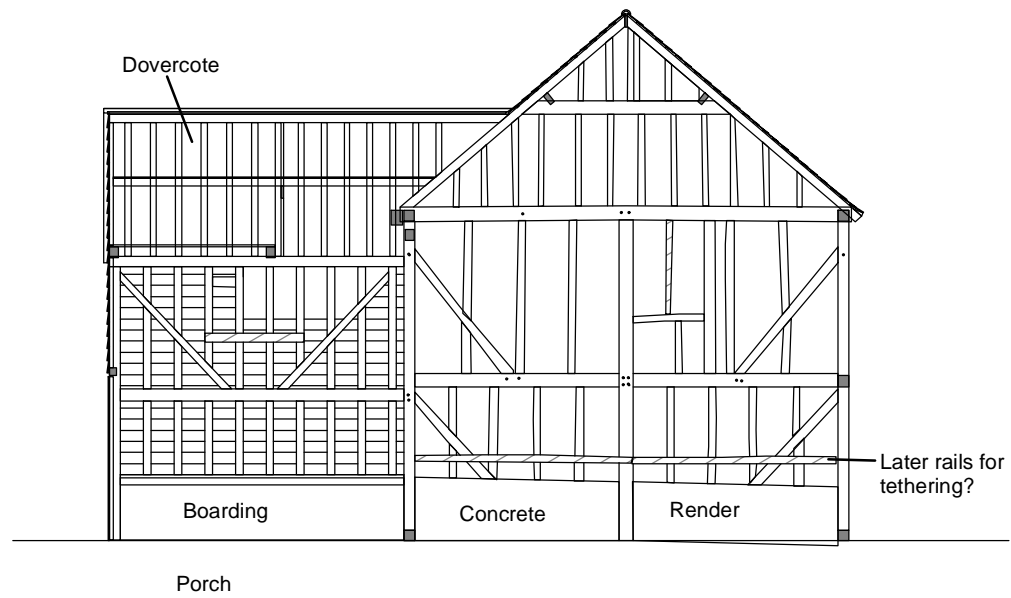
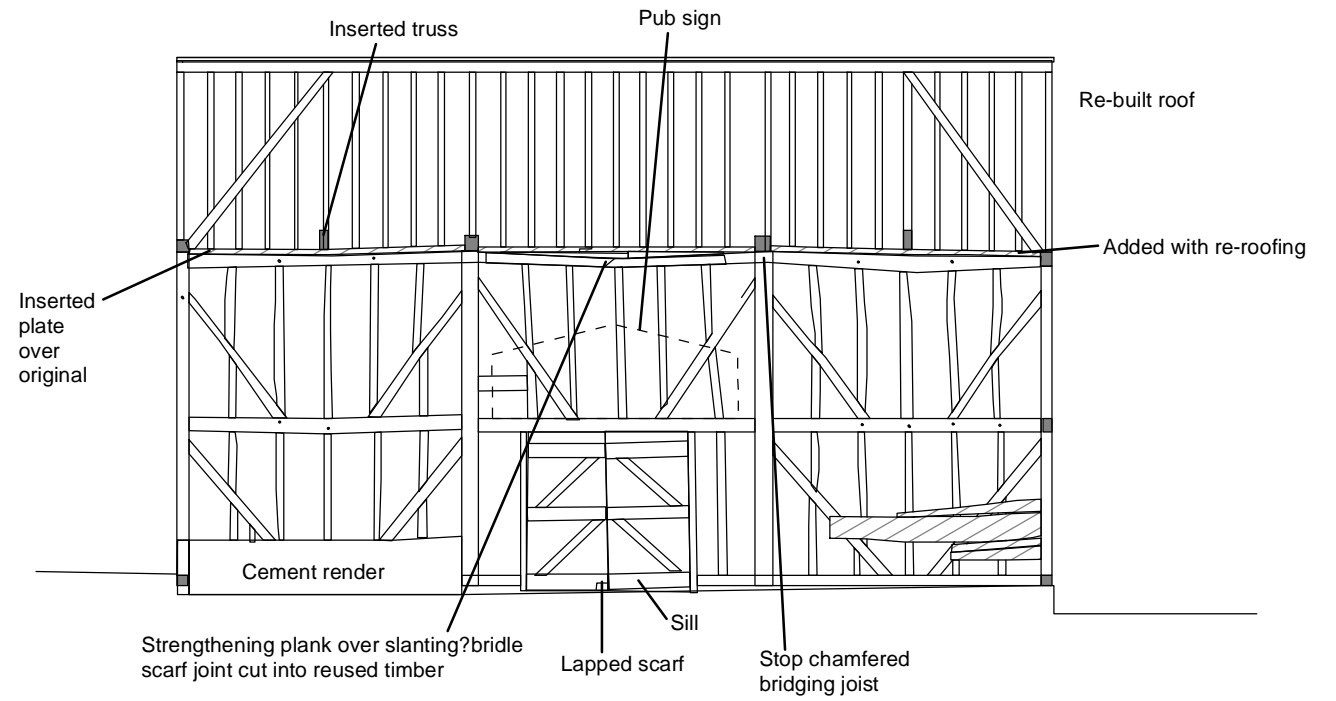


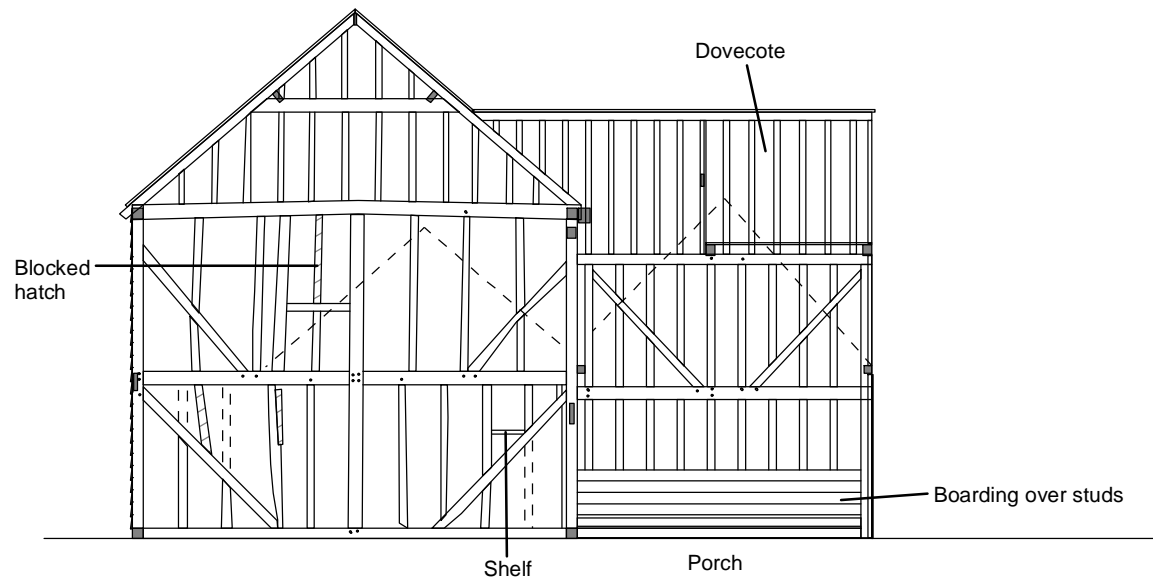
Fig.6. Ground and first floor plans



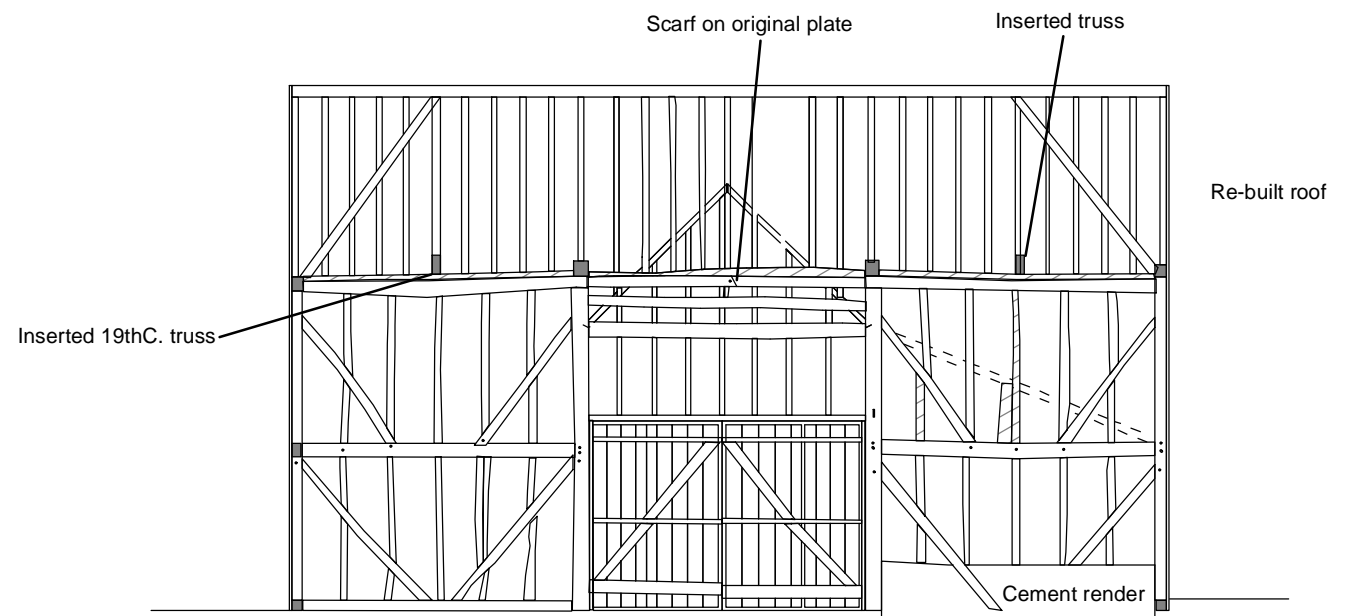
NW elevation



NE elevation



SE elevation



SW elevation

 Modern addition

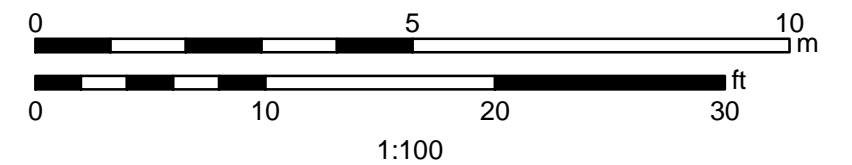


Fig.7. Internal frame survey of barn

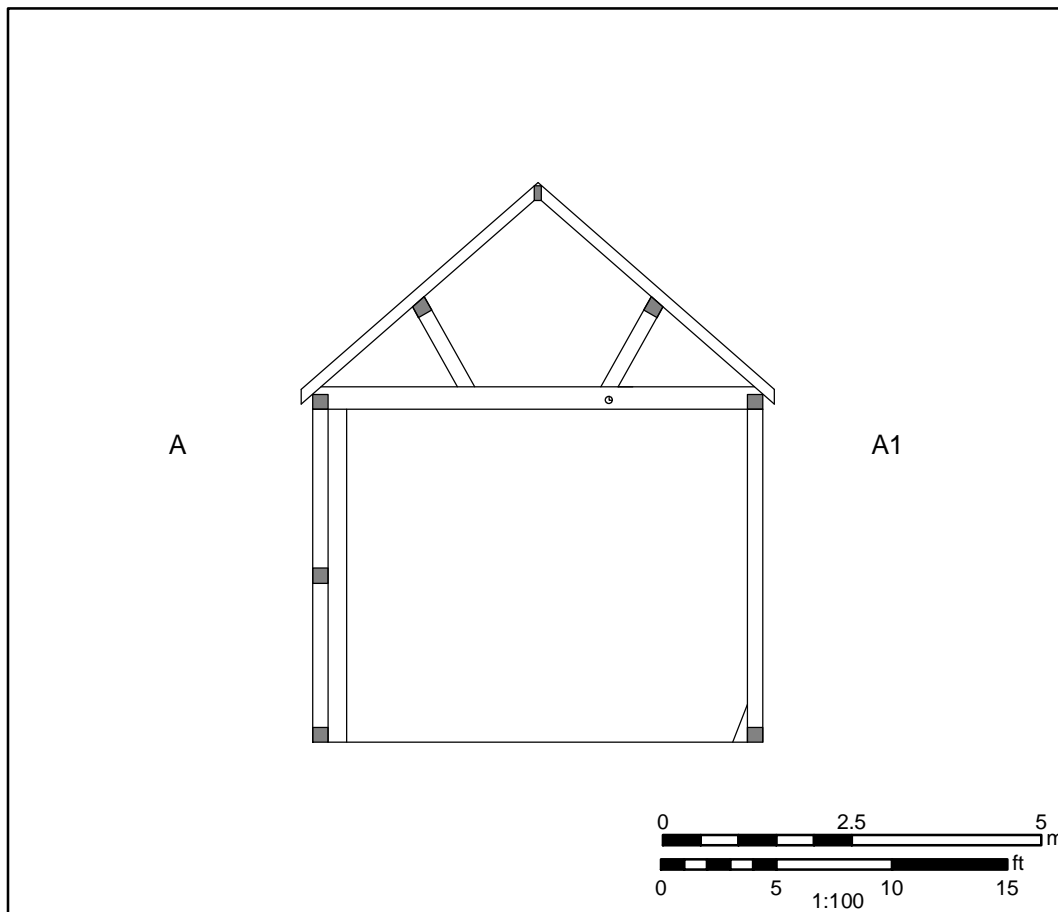


Fig.8. Section A - A1 through barn

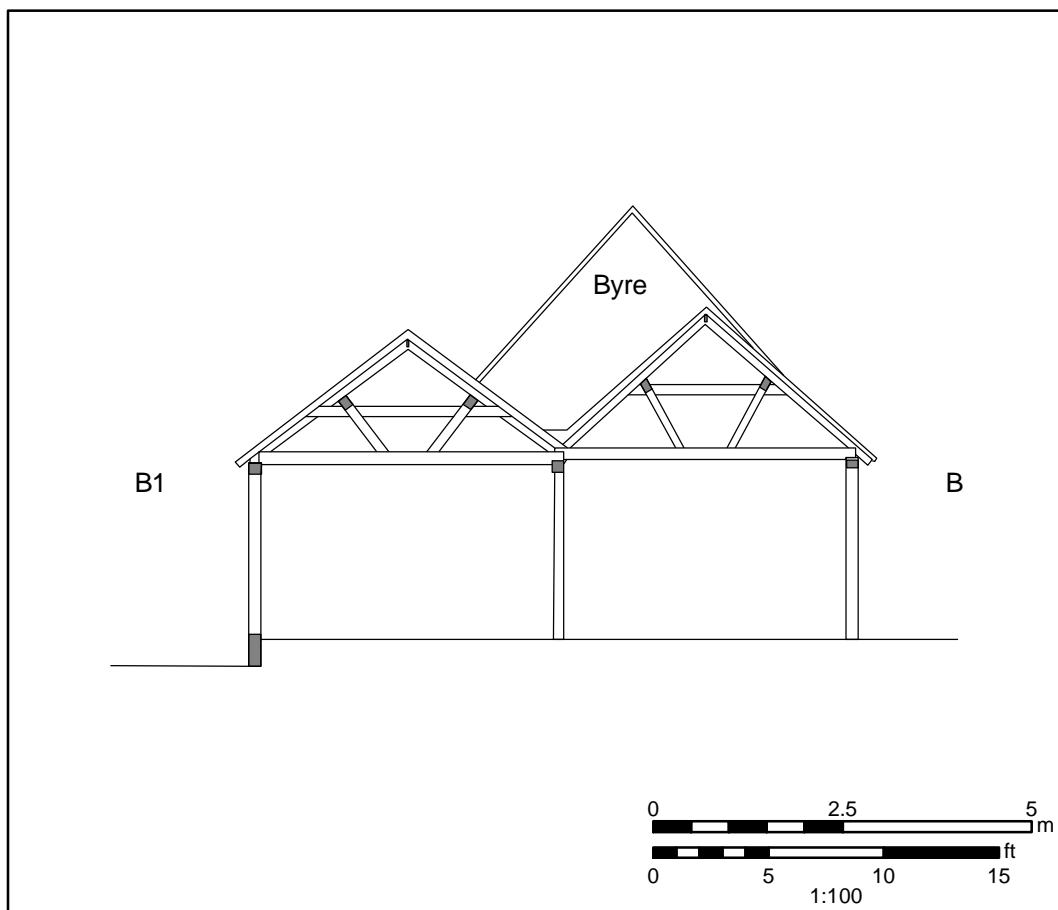
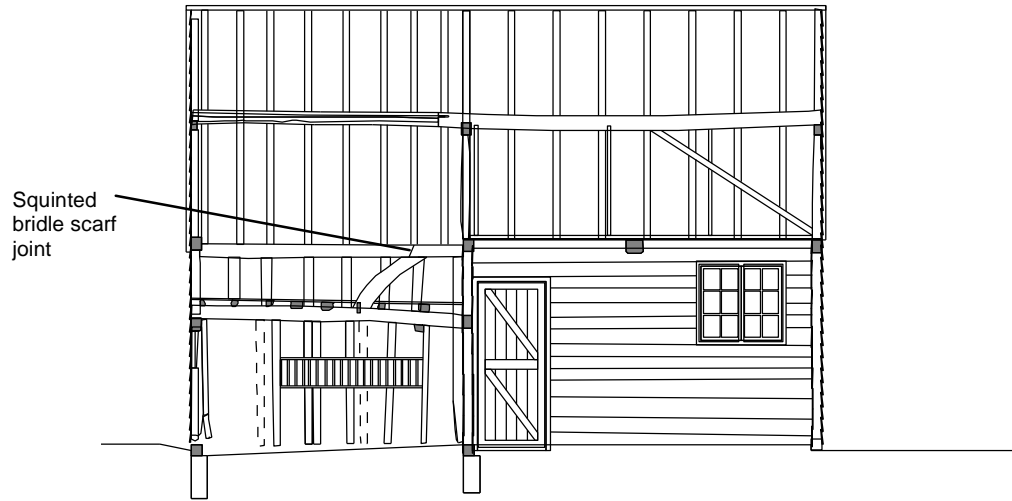
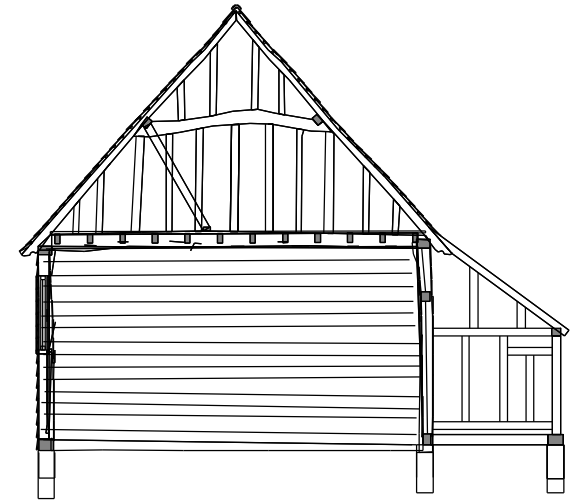


Fig.9. Section B - B1 through cart shed / stables

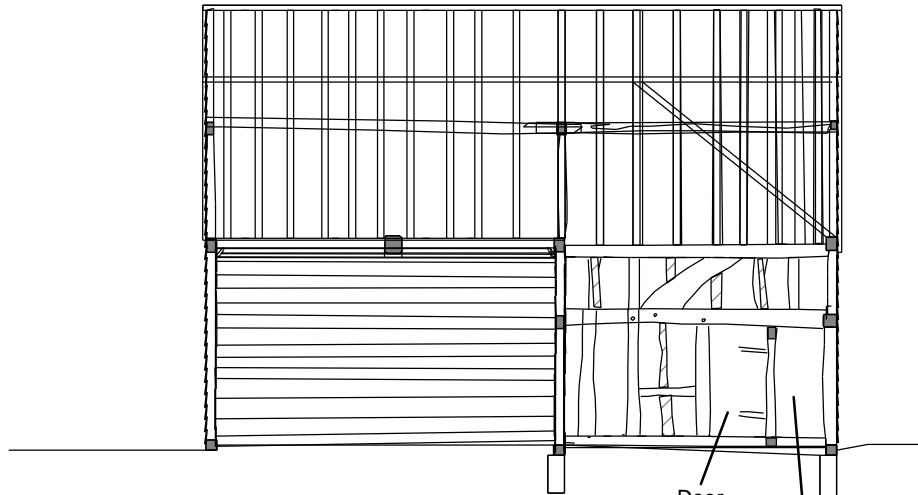


Squinted
bridle scarf
joint

West elevation



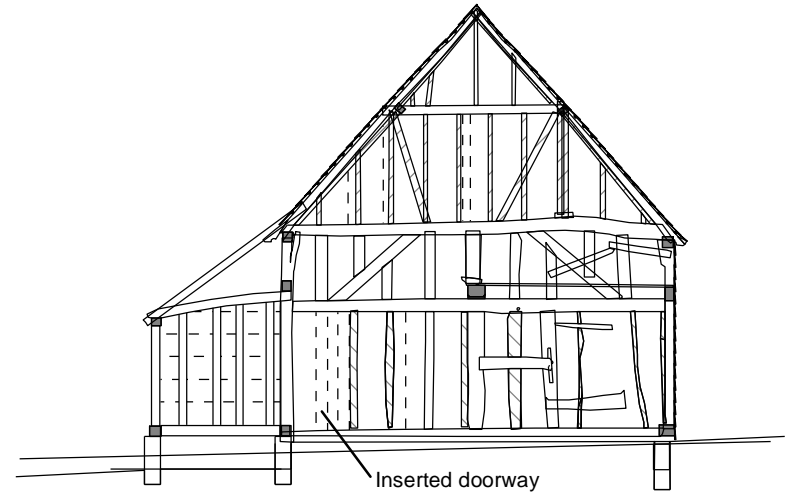
North elevation



East elevation

Door

Opening



South elevation

Inserted doorway

Modern addition

Post-medieval addition

0 2.5 5 m

0 5 10 15 ft

1:100

Fig.10. Internal frame survey of byre

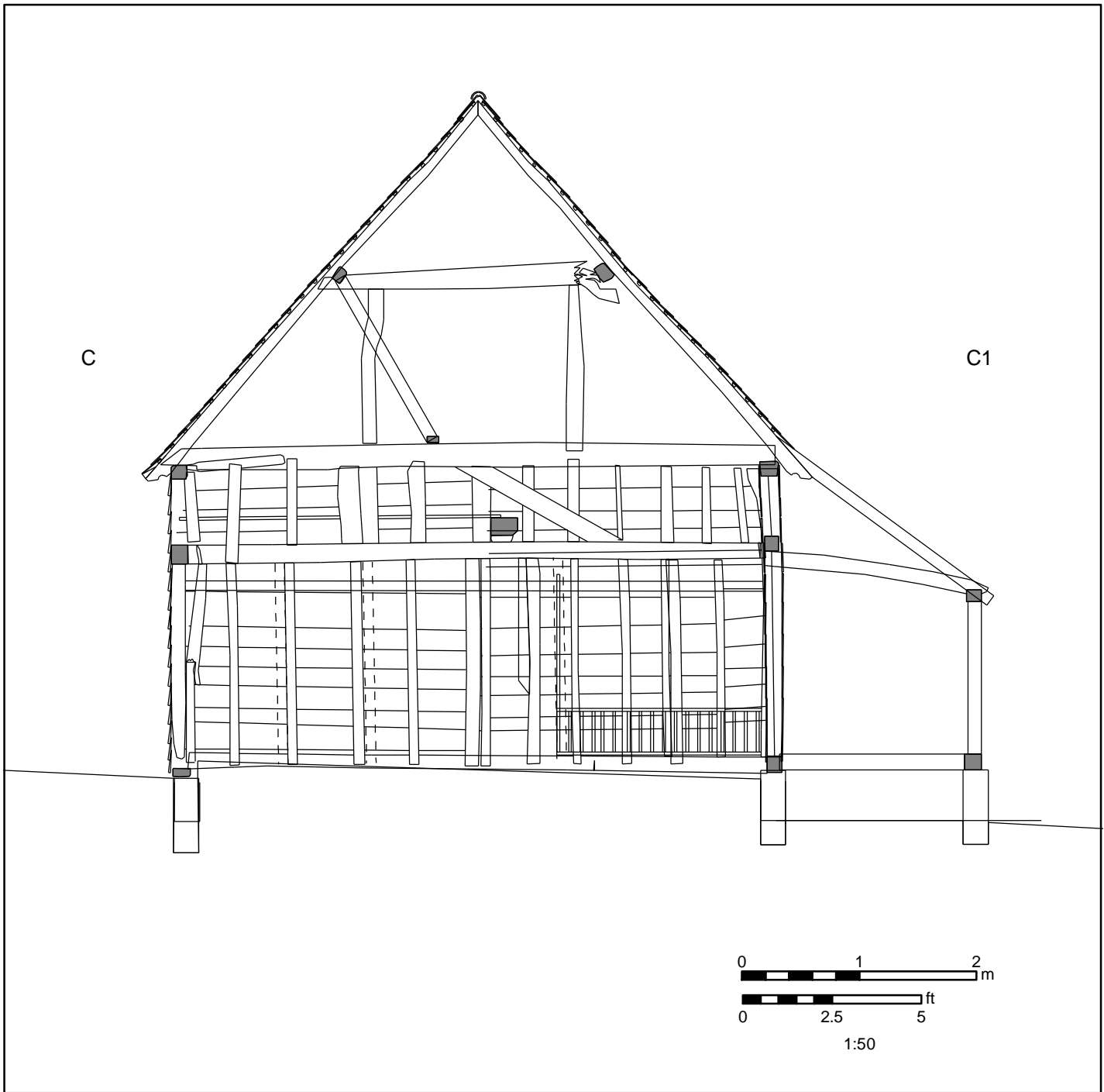


Fig.11. Section C - C1 through byre



Plate 1 Barn and outbuildings viewed from Tower Arms (west)



Plate 2 Barn viewed from north-west



Plate 3 Barn viewed from north with Tower Arms in background



Plate 4 Barn and cart shed viewed from east



Plate 5 Interior of barn viewed to south-east



Plate 6 Interior of barn viewed toward porch (north-west)



Plate 7 Dovecote inside porch



Plate 8 Reused bridging joist to support tie beam by west door



Plate 9 Partly-observed bridge scarf joint with squinted abutments



Plate 10 Front of cart shed viewed from north-west with byre to rear



Plate 11 Inside front part of cart shed



Plate 12 Inside rear part of cart shed, including stabling



Plate 13 Byre and other buildings viewed from south



Plate 14 Dilapidated rear of byre viewed from east



Plate 15 Remnants of attached shed to byre, viewed from north



Plate 16 Tackroom interior viewed from north-east



Plate 17 Herringbone floor in tackroom, viewed from north-east



Plate 18 Tackroom interior viewed from south-west



Plate 19 Ground floor of byre, west wall and partition



Plate 20 Ground floor of byre, showing pen in north-east corner



Plate 21 Original studwork in south wall of byre



Plate 22 View through queen post truss across first floor of byre to rebuilt south gable



Plate 23 Propped purlin and original north wall of byre



Plate 24 Purlin with bridle scarf with squinted abutments in roof of byre



Plate 25 Heavy bracing member on east wall of byre

Appendix 1: Finds data

Context	Feature	Count	Weight	Description	Date
u/s	-	1	10g	Pottery; body sherd, English stoneware	18th C

Appendix 2: Contents of Archive

Site name: Barn & Outbuildings adjacent to the Tower Arms, South Weald, Essex

Project no. 1523

Index to the Archive

Document wallet containing:

1. Introduction

- 1.1 HEM design brief
- 1.2 FAU written scheme of investigation
- 1.3 Client/archive report
- 1.4 CD rom containing copy of report, pdf-formatted

2. Site Archive

- 2.1 Photographic record (digital images & prints, colour 120mm & monochrome 35mm prints) & registers
- 2.2 Site notes, annotated survey drawings & plan of herringbone floor
- 2.3 Full set of architect's drawings

Appendix 3: EHER Summary Sheet

Site Name/Address: Barn & Outbuildings adjacent to the Tower Arms, South Weald, Essex	
Parish: South Weald	District: Brentwood
NGR: TQ 5714 9380	Site Code: N/A
Type of Work: Building recording & Archaeological Monitoring	Site Director/Team: Andrew Letch ECC FAU
Dates of Work: July 2006 & May 2007	Size of Area Investigated: N/A
Curating Museum: Epping	Funding Source: Mr & Mrs Girdlestone
Further Work Anticipated? None	Related EHER Nos.: None.
Final Report: Summary in EAH	
Periods Represented: Post-medieval (16th to 19th-century)	
<p>SUMMARY OF FIELDWORK RESULTS:</p> <p>The outbuildings recorded once formed the eastern side of a farmyard to the Tower Arms public house. They comprise a 16th-century animal byre, an 18th-century barn and a late 19th-century cart shed & stables plus some small dilapidated lean-tos. The pub itself is listed and was built in 1704 in the Queen Anne style, presumably as the farmhouse, when it was known as 'Jewels'. The barn may date to this time. When the farm was established the earlier byre was incorporated into the new layout. The cart shed and stables was added after the house became the Tower Arms sometime before, but close to, 1872. According to old mapping, a stable block was added at the same time that occupied the north side of the yard, against the road. Census returns from 1871 show the landlord had dual role as innkeeper and farmer.</p> <p>The most interesting building is the byre, which has characteristics dating it to the 16th-century: jowled posts, stout, occasionally pegged studs, a rebuilt crown post roof and a mixture of curved and primary bracing. Having been left to rot for some time, this is the one building in urgent need of repair. The frame is presently held up by scaffolding. It was built as one with hayloft over until a partition was added. After this, one end probably housed cattle or oxen and the other horses. Subsequently the stable area became the tackroom to the late 19th-century cart shed.</p> <p>The barn is typical of its date, with three deep bays and a central porch, built in lightweight primary-braced waney elm. It was strengthened with extra tie beams and roof rebuilt when tiles were added in the 19th-century. The barn contains a large pub sign and a 19th-century dovecote within the porch. The cart shed and stables are of little architectural interest with no distinct functional areas, but fill the gap between the two older structures.</p> <p>All in all the group represents the gradual development from a small farmstead to wealthy farm and then combined farm and public house during the Age of Improvement. Content with earning a living from the two trades, there was perhaps less need for the intensive improvement witnessed at many other small Essex farms during this period.</p>	
Previous Summaries/Reports: None	
Author of Summary: A. Letch	Date of Summary: 25th June 2007