

**HOE MILL BARN
WOODHAM WALTER
ESSEX**

HISTORIC BUILDING RECORD



Essex County Council

Field Archaeology Unit

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HOE MILL BARNs
WOODHAM WALTER
ESSEX

HISTORIC BUILDING RECORDING

Client: Jenny Moody Properties

FAU Project No.: 1836

NGR: TL 811 801

OASIS No.: essexcou1-41570

Planning Application: MAL/00564/07

Dates of Fieldwork: 15th-17th October 2007

1.0 INTRODUCTION

A programme of building recording was undertaken by Essex County Council Field Archaeology Unit (ECC FAU) on an early 19th-century planned farm at Hoe Mill Barns, Woodham Walter, prior to conversion for commercial use. The work was commissioned by the owner/developers, Jenny Moody Properties, 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) at County Hall, Chelmsford. The archive will be stored with Maldon Museum. An OASIS online record has been created.

The farm consists of seven single-storey buildings contained within an early 19th-century planned farm. The structures identified in the brief as part of the survey requirements are:

- Stables 1
- Cowhouse 2
- Cowshed 3
- Barn 4
- Chicken shed 5 (modern)
- Chicken coop 6
- Shelter shed 7

Of these, structures 2, 3 and 7 appear to be later additions, replacing earlier buildings on the site. In addition to these are the farmhouse and hackney stable, contemporary with the planned farm, being sold as a separate unit.

2.0 BACKGROUND

2.1 Site location and description (fig.1)

Hoe Mill Barns (TL 811 801), also known as Hoe Mill Farm, lies to the north of Woodham Walter, on a sharp bend off the main Ulting road (fig.1). Approximately 1km to the west of the farm complex stands Hoe Mill, an early 19th-century grade II listed corn mill (LBS 119165 Listed Buildings Online) straddling the River Blackwater.

The farm buildings are a combination of timber-framing and brick, arranged around a central yard, divided into smaller, now overgrown, yards. They have not been used or maintained recently and as a consequence their condition varies from very good to poor, in exceptional cases. However, much of the building fabric is original and contains important historic fixtures and fittings. The farmhouse is located on high ground to the south, with its own stables.

The surrounding countryside is a mixture of grazing and cultivated land; arable on the higher well-draining area to the south and east and pasture on the Blackwater flood plain to the north. The farm itself is terraced into a natural bowl, open to the north.

2.2 Planning background

A planning application for conversion of the farm buildings for commercial use was submitted to Maldon District Council (MDC) in 2007 (MAL/00564/07). Mindful of the impact of conversion on the historic integrity of the farm complex, ECC HEM advised MDC that a full archaeological condition should be attached to planning consent, based on advice given in Planning Policy Guidance Note 16: Archaeology and Planning (DOE 1990).

2.3 Farming from the post-medieval period onwards

Medieval farm buildings tended to adopt an unplanned plan form, scattered around the farm house rather than around a central courtyard. Farms in the south-east of the country were 'mixed', producing cereals and livestock and frequently consisted of a barn, where crops were threshed and stored, granary to store the grain (or the farmhouse) and stable, built with internal hay lofts. Except for horses, animals were kept outside or in temporary shelters, while implements (ploughs, etc) and wagons were stored in sheds or on the threshing floor of

the barn. Arable and livestock farming were mutually dependent on each other, cereals were produced as a cash crop and as animal feed, while animals provided power, manure for the crops and wool, meat and dairy products.

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 field system, while improvements in animal husbandry meant larger animals could be bred and increased winter feed meant that more could be kept for fattening.

Agricultural improvements led to the establishment of larger, more efficient farms. From the 1740s, the courtyard 'planned' or 'model' farm, established by improving landlords, began replacing the earlier scattered farmsteads. Cattle were fed in one or more enclosed yards, usually 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.

Such improvement accelerated between the 1840s and 1870s, the period of Victorian 'High Farming,' based on an increased population and the demand for milk, meat and bread by growing urban centres, aided by the growing railway network for distribution purposes and new farming methods. New planned farms were established on the courtyard principle and others were adapted to incorporate philosophies on efficiency based upon the Victorian factory system. Great debate was had in influential circles on the merits of different husbandry techniques and efficiency/labour saving devices such as mechanised threshing and ploughing machinery to increase productivity.

Between 1864 and 1876 the numbers of cattle kept on farms increased by one third, due to an increase in the demand for dairy and beef products, aided by special feed crops that improved the fertility of the soil (Peters 2003). Thanks to the new feeds, farms could now specialise in cattle. This trend continued toward the end of the 19th-century, due in part to bad harvests leading to an increase in corn prices and agricultural depression.

The expense of the planned model farm in its purest form was a barrier to smaller landowners. So, rather than demolish and build afresh, many farmers remodelled their farms utilising the courtyard system. Larger buildings, inevitably barns, were retained, with new housing for livestock attached around a courtyard layout. This was the prevailing trend in Essex.

Many Essex farmsteads today are composites of post-medieval buildings (barns) integrated into a 19th-century courtyard layout and augmented by 20th-century pre-fabricated structures, usually to one side of the traditional farm core. Inevitably in Essex, Britain's entry into the EEC in the 1970s accelerated the move to more intensive agriculture, amalgamation of estates and a shift away from mixed to arable farming. With larger economies of scale through larger machinery and crop yields, the smaller traditional farm buildings no longer have a role and, with the housing market booming, offer an attractive prospect for conversion.

2.4 Historical background & development

Cartographic and documentary research was undertaken at the Essex Records Office, Chelmsford (ERO), to understand the development of the farm. Secondary sources were also studied. The results are presented below with their accompanying references.

'Hoe Mill Barns Farm' is mentioned in the Land Tax Register for Woodham Walter in 1749, owned by William Royce (Ryan 1989). Late 18th-century mapping (Chapman and Andre's map of Essex, 1777 plate 13) fails to depict the farm but does show a mill, labelled as 'How Mill'. It seems likely the reference is for a farm or storage barns connected to the mill.

In the early 19th-century the Blackwater was canalised and a new mill built further upstream. The Woodham Walter Tithe map of 1844 shows Hoe Mill and Hoe Mill Farm, complete with farmhouse (fig.2). The barn, stables and chicken coop are shown with other unidentified buildings that pre-date the present cowhouse and sheds, but were built on roughly the same ground plan. Evidence for these structures, a building attached to the north side of the barn and an outshot beside the porch, were recorded as wall scars during the survey but are not shown on the map. A small unidentified structure stands to the south of the barn, partly beneath the present chicken shed in the south-east corner of the yard. The Tithe Award (D/CT 411A) shows a fairly large, mainly arable holding of approximately 90 acres, one third of which is grazing land. Plot 108, 'the homestead', is owned by John Faithful Fortescue, a prominent local landowner, and rented to Robert Tweed, tenant farmer, with a tithe of £27 payable to the Rector. There is however no obvious link between the mill and the farm which bears its title, apart from its proximity.

During the course of the 19th-century it appears the farm expanded further into the dairy and beef sector and a cowhouse and two sheds were built to replace the existing structures, although it is possible that the shelter shed was simply re-fitted as its plan form remains unchanged. The use of machine-sawn timber is prominent in these structures, suggesting a

date in the later part of the 19th-century. Indeed, the first edition OS map of 1873 (sheet 53, not shown) appears to show the later farm phase, but only as a dark block where buildings 2-4 stand. In contrast, the second edition OS map of 1897 (fig.3) shows the same block divided roughly across the middle and partly open-sided, which is a better representation of the current layout. By the late 19th-century the small building south of the barn has disappeared.

It is unclear exactly when farming finished, but the buildings appear to have been redundant for some time. All, including the barn, were last used to keep cattle and horses, judging from internal remains. Indeed, the farm is very close to good pasture and cattle still graze land on the opposite side of the lane.

3.0 OBJECTIVES

The purpose of the historic building survey was, as outlined in the brief (ECC HEM 2007), to provide a RCHME level 3 standard record of the buildings prior to conversion and assess the significance of the farm as a whole.

In addition, the record was required to address the following: plan form of the site, materials and method of construction, building chronology and phasing, function and internal layout, fixtures and fittings, additions and modifications and the context of the farm within its contemporary landscape. The study of the development and impact of the agricultural revolution and Victorian High Farming is regarded as an important area for further research by the Regional Research Agenda (Brown & Glazebrook 2000, 42 & 45)

4.0 DESCRIPTION OF WORKS

The standing buildings were recorded using drawings (floor plans, and elevations) supplied by the client. A block plan was produced to show the location of the structures within the survey and each structure given a reference number (fig.1).

External and internal architectural descriptions were made and the function of each building was assessed, along with its relationships to others as part of the working farm. The farm has survived virtually intact, without any form of modern development apart from a chicken shed, which was recorded at a lower level.

A series of photographs (digital and 35mm black & white print) were taken to record the buildings internally and externally. Specific shots were taken of any areas of important architectural detail, fixtures or fittings. A representative selection of photographs is reproduced at the back of the report as plates 1-28. The remainder can be found in the archive.

Documentary and cartographic research was undertaken at the Essex Records Office (section 2.4) to investigate the origins and development of the farm.

5.0 HISTORIC BUILDING DESCRIPTIONS

Much of the Victorian farm layout survives, including the yards, with the chicken shed being the only modern addition. Two build phases can be identified: those using hand-sawn and salvaged timbers and the other using machine-sawn timbers. Condition varies, but is generally very good except for areas such as those where tiles have been removed from the stable roof, causing the frame to rot. The complex was badly overgrown with nettles and brambles, but the area around the buildings was cleared by the client during the survey.

The different components of the farm complex are described individually under their functional headings. Descriptions start at the north end and continue in a clockwise fashion around the yard. Despite the farmhouse and hackney stable being outside the conversion short descriptions are given at the end to form a complete record.

5.1 General description

The farmyard (plates 1 & 2) has an entrance in the north-west corner (fig.2). The ground is high on all but the north side, with the buildings and yard walls terraced into a natural 'bowl'. Otherwise, the standing buildings form three sides of an enclosed square yard with a flint cobble retaining wall standing on the southern side, again terraced into the slope. Wooden stockade fencing divides the central area into yards, which are overgrown, obscuring any surviving surfaces. Remains of original yard fences and 10-foot wide 4-bar gates extend into the two sheds either side of the yard.

In terms of construction, all the buildings have timber-frames, tarred weather-boarded exteriors and brick plinths, with the exception of the shelter shed, which is brick-built. The roofs are generally tiled. Some fixtures and fittings remain, both internally and externally, the most notable external features being the air vents and doors. The doors, unless otherwise

stated, are all of the ledged braced and battened type, on pintel hinges, common to farms of the post-medieval period. The farmhouse, which is contemporary, has its own hackney stable and driveway off Hoe Mill Road, with only foot access to the yards.

5.2 Stables 1

A six bay linear stable range lies behind the road frontage, to the east of the main gate, facing onto the yards (fig.1). The north side is partly aisled with a small porch set roughly central (plate 3). The roof has been re-laid and felted in the modern period and pegtiles have been removed from the north side, leading to damp penetrating the interior. As a result, blue plastic sheeting has been laid over the exposed areas to try and keep the building watertight. The internal floor surfaces consist of cobbles or bricks.

Working horses were kept in three open stalls and perhaps ponies in the northern aisle. The exterior has long ventilation panels under the eaves and hatches indicative of animal usage. Troughs, hay feeders and saddle racks are fitted throughout the interior and appear to be original fittings.

5.2.1 External description

The structure stands on a 0.5m-high plinth consisting of c.8¾" creased red bricks (equivalent to 220 x 100 x 60mm), bonded in a lime mortar. Such bricks are common in an 18th or early 19th-century context (Ryan 1996). Tar and vegetation make the bond hard to identify, hindered by repairs to the plinth in larger 9" bricks with sharp arises and 'WHB' stamped frogs, a feature only found on bricks after c.1875 (Ryan 1996).

The main walls are timber-framed and primary braced, clad in 6" weather boarding. Only the main elements are pegged, i.e. posts and braces. Pitching hatches are set high up on the end gable walls, to west and east, and the porch, to toss in bedding straw and hay for the horses (plate 3). Along the long walls are vents under the eaves for each of the three main stalls inside (fig.4). They have narrow, hinged, boarded covers that could be raised to close-off the vents (plates 4 & 5) and are secured by hooked iron catches. Where there are no vents, there are small hatches instead (fig.4). Both features would have let air and light into the interior. Long spear-headed fixtures extend out from the wall plates at regular intervals, formerly to hold guttering linking to a surviving drain hopper and down pipe on the south-east corner of the building (plate 6).

Half-heck ledged, braced and battened stable doors are located on the south elevation, facing onto the yards, one for each of the three stalls. They are held on round and spear-

headed wrought iron pintel hinges, common on all openings (vents and hatches), with looped barley-twist latches (plates 5 & 6). The only access point onto the road is a low (0.5m) door in the north-east corner of the aisle (fig.4), probably an easy way of bringing in food or bedding.

5.2.2 Internal description

The interior is laid out over six bays, between 2 and 3.5m-wide, with an aisle and porch on the north side, facing the road (fig.4). The main part is divided into three stalls (labelled A-C in the report), with a chaff box/bedding store between stalls B and C. Stalls are equipped with 1.8m-high hay racks and tall feeding troughs. The main walls and stall sides are covered in a combination of original 5" historic elm boards and modern chipboard to a height of 1.5m, to protect the horses. There is a plentiful amount of straw, dirt, tiles and other detritus remaining on the floors and in the racks.

Main framing comprises crude c.14cm bay posts supporting waney c.20cm tie beams on bolted knee braces, characteristic of vernacular early 19th-century farm architecture. Stud infill to the primary braced frame is quite chunky at c.9 x 12cm with c.30cm gaps in between. Generally the studs appear to be tenoned to the sill beams and simply nailed, or nailed and lapped behind the wall plates, a characteristic post-medieval vernacular construction technique where plates with more rounded profiles are used. The clasped purlin roof has wind bracing either end and is nailed rather than pegged. A few Baltic timber marks are evident, as in most of the buildings within the complex, especially the barn. Stalls A and B have 20th-century concrete floors.

The presence of saddle racks and relatively high troughs and hay feeders show this building was designed for horses rather than cattle. No partitions were recorded in the stalls and it seems likely the horses were kept tethered to the troughs, with between 2 and 3 in each stall.

Stall A (plate 7) is the largest of the three. The trough and hay feeder stand on the west side, in front of the pitching hatch. On the north side is a blocked doorway into the west side of the aisle, where the ponies were probably kept. To the east of this is an original door into the porch (fig.4). The open framing above the panelling on this side would have been useful in circulating air, but only features in this stall. The porch frame is not jointed to the rafters of the main build, but in a small building like this it is not uncommon.

Stall B (plate 8) is the shorter central stall. It too has a feeder and trough on the west wall and a doorway into the eastern aisled area. A second doorway to the east leads into the

chaff/bedding store (plate 8). Both this and the opposing wall are weather-boarded. Two further saddle racks are placed on the east wall. Several items of tack (Zeuner 2004) have been left on the floor beside the trough and in the hay feeder. The first is a saddle from a shaft harness (plate 9) and the second is a badly decayed halter (that fitted around the horse's neck) stuffed with straw amidst various harness straps and chains (plate 10).

The central store has a built-in chaff or hay box on the north side and some straw and sacks remain inside. Saddle racks are placed opposite, above a wall-mounted wooden grooming kit box (plate 11). A railed barrier divides the store from stall C. The wall framing includes a reused midrail on the north wall.

Stall C (plate 12) has a relatively low trough and hay rack on the north side. Both have suffered from damp coming through the stripped roof, at the aisle join. Two iron tethering rings are attached to the trough face and three saddle racks are located on the walls (fig.4). By the outside stable door is an area of exposed cobbled flooring that would have been common to the other stalls before being replaced with concrete.

The western aisle (plate 13) is separated from the porch by an open-studded wall frame, with enough space for a door. Presumably this was once boarded like the other walls. The interior is damp and the timberwork rotting and falling away, making it unsafe to enter. The floor comprises bricks laid on-edge, with 1" gaps between them for drainage. Rotted 9" sarking boards litter the floor towards the west end, which have fallen away from the rafters. A low hay rack is located at the west end, standing half the height of those in the stalls at only 0.9m, and seemingly fed by a corroded iron chute (plate 13). Part of the north wall appears to have been rebuilt and the aisle roof felted at a later date.

The north wall of the porch has also been substantially rebuilt in the modern period and braced with scaffold boards, as are the sides. A hatch is located in the centre of the wall (plate 14). Some of the timbers retain limewash, but most is gone and the earth floor is littered with detritus. A probable wooden feed bin is located within the porch, but is not a historic feature.

The eastern aisle incorporates a low hatch-type door in the north-east corner (fig.4). As with the north wall, the eastern wall has also been braced in the modern period.

5.3 Cowhouse 2 and cowshed 3

Cowhouse 2 (plate 15) is part of the east range (fig.5), along with cowshed 3, barn 4 and modern chicken shed 5. It is built onto the northern end of barn 4 and appears to have been constructed along with the cowshed as a single build. The machine-sawn timber frame and distinctive trusses indicate the cowhouse and shed were constructed at a later date than the main farm group, probably in the latter part of the 19th-century. What is interesting is that they both replace earlier structures. The cowhouse stands on the site of a building of unknown function attached to the north side of the barn, while the cowshed encompasses a small outshot attached to west side of the barn, against the porch. Their plan form cannot be distinguished on the historic maps, but the former rooflines are visible against the tarred northern walls of the barn and porch.

The cowhouse utilises an earlier wall plinth and has a primary-braced frame. The walls are clad in weather-board and topped by a pantile roof, gabled to the north and pitched at a shallow 35°. Two pitching hatches are located either side of the gable (plate 15), but their function is unclear, perhaps an indication of a pre-assembled, more standardised form of shed being used. The one remaining door, on the west side, is fitted with flat T-hinges, the same as those seen in more modern buildings. Below the eastern hatch is a doorway into the yard. The north side is open-fronted and formerly provided with gates, of which one of the large timber posts remains (fig.5). The plinth wall is constructed in the same style as the barn but has been built up to it rather than stitched-in. It stands 0.75m-high and is built from large c.9 inch soft red bricks, with crease marks again indicative of late 18th or early 19th-century origin. As with the barn, the bricks are laid in Flemish bond with a lime mortar.

Inside, the structure consists of machine-sawn primary-braced softwood frame, rather than the quirky hand-sawn timbers observed in the stables and other buildings. Only the posts are pegged. There are 3½ bays, divided by king post strut trusses kept in vertical tension by bolted iron rods (plate 17).

The cowshed has an open west side supported on earth-fast 6 inch-wide wooden posts, encased in modern concrete bases. The interior (plate 18) is linear in plan form and divided into five c.2.5m-wide bays by the wide trusses extending from the cowhouse and an extra short truss attached to the frame of the barn (fig.5). The two north bays are separated by a wooden fence that continues into the yard, to divide the two smaller yards facing the shed (fig.1). Both sides have hayracks, though the northern rack is set higher, with the southern one possibly set low for calves. The remains of the trough at this end are set quite low, again suggesting that it was set for cattle (plate 18). Only the rear part of the trough remains in

bays 3-5. The outline of a former lean-to can clearly be seen against the porch of the barn at this end. Doubtless it is contemporary with it as the door frame has been cut to suit the pitch of the outshot roof (plate 18).

5.4 Barn 4

This is the most prominent element of the farm, positioned on the east side and facing west onto the yard (fig.1). It has a rectangular plan, with a porch extending westwards from the centre and a raised structure, likely to be a small granary, located on the south side of the porch (plate 16). The overall condition is good, though some of the boarding has failed. The midstrey contains a stone threshing floor, while the earth floors either side are littered with straw, either from bedding or bales.

The barn is raised on a 0.7m-high 9-inch brick plinth that continues to the north, below the cowhouse, as part of an earlier building. Similarly, the weather-boarded exterior continues into the cowhouse at the back, showing the cladding has been replaced at least once since its construction. The roof is gabled to north and south at 45°, as is the porch. Corrugated asbestos sheeting now forms the main roofing material but previously plain tiles were used, some of which remain on the porch and granary (plate 16).

Tall four-leafed ledged braced and battened cart doors face onto yard from the porch (plate 16), carried on round-ended strap hinges and secured internally by a wooden rail (plate 19). Below are the remains of the timber threshold leap (3 of 5 boards) which would have contained the grain and deterred livestock from entering during threshing. The leap is placed on a thick stone kerb forming the end of the stone threshing floor inside. Granary 4a, next to the porch, was probably built at the same time. It is raised on 0.7m-high brick piers to deter vermin and circulate air beneath the floor and has a central wall hatch for further ventilation.

The two end elevations are partly hidden by later structures, cowhouse 2 and chicken run 5. There are no obvious features of note apart from an owl hole and pitching hatch in the north gable, above the midrail. On ground floor level, there is an old door into the outshot rebuilt as cowshed 3 (plate 18). It has a wooden latch and cat hole towards its base. Two further, slightly larger hatches are located on the east elevation (plate 20), at the same level, either side of the cart doors, with a later opening crudely cut in the centre. The cart doors on this side are set low for the harvest carts to exit the barn after unloading, as the natural bank to the east would limit the manoeuvrability of fully-laden carts entering from this side.

The main interior is constructed from primary-braced hand-sawn timbers throughout (plates 21 & 22). Many, particularly the main framing, appear to be constructed from slightly waney elm. Some of the main framing displays Baltic timber marks. Baltic pine was being imported into Britain throughout the 19th-century for use in light industrial and farm buildings (Letch 2000). Long sections of timber are used for the wall plates and sills, apparently without the need for scarf joints. The main framing, posts, ties and midrails are pegged and measure c.16cm square. None of the studs (c.8 x 13cm-wide) are pegged, all being tenoned and nailed, and generally quite waney in shape. Many of the other timbers are reused, which is a common feature of farm buildings of this age. Most of the framing survives as original except for an area of machine-sawn rebuild in the south-east corner (fig.5), which probably dates to the late 19th- or 20th-century.

As with the stables, the roof framing is in nailed collar purlin, with bolted knee braces on the east side only, and strapped tie beams. In many older barns these are later additions, perhaps originating from when the roofing material was changed from thatch to a heavier, more durable material like tile or slate. In this case, with quite a weak frame, these are likely to be original.

An unusual internal feature of the barn is a stone threshing floor that occupies the midstrey (fig.5, plates 21 & 22). It is built of large (c.50 x 100cm) sandstone slabs, either side of which the floors are unmade.

Granary 4a (plate 16) is an original feature connected to the south wall of the porch. It appears to have been purposely built as a granary and is raised from the ground on brick piers, which would not only dissuade vermin from entering but circulate air underneath, keeping the grain dry. A small hatch at the front would have been used for ventilation during the hot summer months. Inside, the area measures 3 x 4m and is divided in the middle by a clad partition into two storage areas, or grain bins (plate 23). The floor is made from heavy 9 inch boards supported on thick joists made from reused timbers. The exterior of the barn where it forms the rear wall of the granary is not tarred, which provides another indication that the barn and granary are contemporary. The two outer walls of the granary are built from primary-braced timbers, as with the barn. The walls were originally plastered, as is often the case with granaries, in order to provide cleaner surfaces and better protection from vermin. Some plasterwork remains above eaves level (plate 23) and elsewhere as stray laths. However, the plaster was removed and replaced with brick noggin sometime in the late 19th-century. This is datable by the use of frogged bricks that contain a maker's mark, in this case 'D. Good', presumably a local manufacturer. This assumption is supported by census returns

from 1891 and 1901 that cite a Daniel William Good as brickmaker in Hatfield Peveral. The bricks are arranged on edge to bring them flush with the wall framing. The rafters are held by a single purlin borne by a strengthened beam to which the partition post is attached.

5.5 Chicken shed 5

Clearly a 20th-century construction, this has little to do with the historic side of the farm, but is included in the survey. It is a large timber and corrugated iron-sheeted shed, open on all sides and occupying a partly vacant plot on the south side of the barn (plate 16 & cover plate). Chicken feeders and other fittings litter the interior which is enclosed by chicken wire, with an entry to the south (overgrown). A point of interest on the west side is the old yard fence, which extends southwards from the barn to the flint cobbled boundary wall (fig.1 & cover plate).

5.6 Chicken coop 6

This small rather understated structure is likely to date from the foundation of the farm in the early 19th-century and contains some interesting features. It is built within the southern boundary wall, close to the corner with shelter shed 7, which represents the western range of the farm complex (fig.1). It is raised on a high brick plinth (to resist the pressure of high ground behind), with a timber primary-braced frame and weatherboard cladding. Laid on a rectangular plan form, orientated west to east, the roof is pitched at 45° and tiled at the front (north side) with slates to the back.

The main north elevation (plate 24), facing the yard, has few features apart from the entrance into the coop, which is set 1m off the ground to deter foxes and would have allowed the chickens access to the south yard for exercise. The original ramp that led down to the yard is no longer present. The two gable elevations each have wooden ventilation slats close to the apex (plate 24) and the west side has a ledged battened and braced door with barley-twist latch. Its position meant that eggs could be collected (from the farmhouse) without entering the yard. On the west side is a modern chicken-wire run (fig.6) entered from a vertical wall hatch. The south-elevation, facing the slope up to the farmhouse, contains a small mesh window (fig.6).

The interior (plate 25) has a brick floor covered with straw and wood chippings as chicken litter. Bricks have been mortared between the wall-framing, for security and insulation. Most posts are pegged to the wall plates but otherwise nailed and tenoned. All timbers are stained and the plinth lime-washed to help limit the spread of infection. Many of the timbers are

reused, being in a variety of sizes, but most studs, braces and rafters are consistent at c.10cm-wide.

Nesting boxes, each holding up to six birds, are attached up to window level on the south wall (fig.6), but would have originally lined all the walls. The boxes stand in a row on a shelf that extends outwards to become a long perch (plate 25). Each box is c.45cm-wide with a scooped front and slanted plank roof, displaying Baltic timber marks. A rough calculation of the space available for nesting boxes suggests the coop would provide accommodation for around 30 birds.

The roof structure is plain, consisting of nailed collars and rafters in turn nailed to a central ridge board. The north side is felted, showing the tiles have been re-laid, or else replaced from slate, which covers the south side of the roof.

5.7 Shelter shed 7

The shelter shed (plates 26 & 27) has a typical linear plan form and is open-sided to the east. The west wall is built into the hillside and delimits the western extent of the farm complex. It is brick-built and contains mostly machine-sawn timbers in the roof, suggesting the original shed was probably refitted when the new cowhouse and shed were constructed.

The shed is divided into ten 3m-wide bays indicated at the front by 15cm-wide earth-fast posts embedded in concrete and supporting short sections of timber bolted to the wall plate, as with the cowshed. In contrast to the other farm structures, this is brick-built, in Flemish-bonded 9-inch red bricks, as the rear wall acts as a retaining wall against the bank behind. Indeed, the lower part of the wall appears to have suffered from the weight of the soil behind it and has been rebuilt in modern concrete blocks (fig.6, plate 27).

Inside, there is an earth floor and trough on the rear wall. A central partition continues beyond the shed as the main north-south yard division (fig.6, plate 27). The four bays to the north of this are further fenced-off into two, two-bay compartments, whose apparent lack of feeding apparatus suggests a different function, perhaps as cart sheds. The end bay is railed-off at the side and front (fig.6) to form a smaller enclosure. Here, the presence of a partial trough frame suggests this functioned as a loose box, away from the main herd at the southern end.

Parts of the roof are sagging at the front where the wall plate has failed due to the weight of the roof and weak connecting joints, which are lapped rather than properly scarfed together.

The pantiles currently cladding the 45° roof are later additions that probably replaced much lighter pegtiles.

5.8 Farmhouse and hackney stable

The farmhouse stands in its own plot on the high ground to the south, overlooking the farm complex (plates 1 & 2). Immediately to the east stands the hackney stables, used to keep the farmer's carriage and horses. Both are outside the redevelopment area and therefore beyond the scope of the survey, but are described here briefly to complete the record.

The farmhouse is fairly typical of its type and time; square plan villa-style with white rendered brick walls, sash windows and low-pitched slate roof (plate 28). Its stables are timber-framed with a grey pantile roof (plate 28) and include stalls for horses containing more up-market cast iron hay feeders, and a roughly central carriage shed.

6.0 DISCUSSION AND PHASING

Unfortunately, the origins of Hoe Mill Farm remain unknown. It is possible it was established as a tenant farm, as part of John Faithful Fortescue's estate, against a backdrop of early 19th-century enclosure and advances in agriculture improvement, although there appear to be no specific records of its establishment. The layout utilises a planned form around a single square yard, enclosed on all sides, with a barn, granary, stables, chicken coop and two other buildings, including a small possible cattle shed that no longer stands. Cart entry into the yard was in the north-west corner from the lane and by foot from the farmhouse. The buildings are predominantly timber-framed and weather-boarded with plain tile roofs, their historic fabric and form virtually unaltered.

The barn was used for threshing and storing grain and fodder crops, with high cart doors facing the yard to bring in the laden harvest carts. A shed, possibly for cattle, stood on the north side of the porch and a granary for storing the threshed grain to the south. The granary is easily identifiable by its raised floor, on brick piers, plastered interior and grain bins. The barn contains a high proportion of reused timbers, a typical feature of 18th and 19th-century barns, often sourced from buildings standing on the site or nearby. In this case, the farm appears to have been built on a virgin site, so the provenance of the timbers is unknown. There is also an unusually high amount of Baltic timber, which became widespread in farm and industrial structures during the 19th-century, but is relatively rare in the early part of the century. An interesting feature is the stone threshing floor. As these are usually built from

brick or timber, a stone floor would have been an expensive addition reflecting the wealth and aspirations of the owner.

The stables would have held horses and ponies, tethered up in open stalls where they were fed and groomed or left loose in the yard in front, where they could be harnessed to carts or ploughs close to the main gate. Working horses were often turned out into the yard at night, as it was said to reduce disease (Peters 2003). Inside, the stalls could be used as loose boxes for sick horses or foaling pens for young foals whose mothers were on the fields. Accompanying troughs and feeders survive, with original floor surfaces and interesting items of historic horse tack. The layout of the stables is quite complex and unusual; with its aisled porch it more closely fits the form of a small barn.

It is not clear whether the long shelter shed was originally built for cattle or if it was adapted later. Given its outline on the early maps, it would appear typical of this building form, where cattle could be fed and watered and allowed to exercise in the yard, thus generating manure for the fields. Indeed, before the advent of large-scale dairy farming cows were frequently kept on arable farms for this very reason.

Chickens were common on farms, yet their presence is not easily identified, as small often temporary structures such as coops rarely survive. Chickens would use the yard during the day and be secured in the coop at night. Nesting boxes are a rare internal survival and these probably have their origins in the early 19th-century, contemporary with the building itself.

Two main farm phases can be identified from the built evidence, led by contemporary improvements in agriculture and increased demand for commodities from the home market. Towards the end of the 19th-century, when demand for dairy and beef products was growing, the Hoe Mill herd was enlarged. New buildings replaced old, built from machine-sawn timber and pantiled roofs. The single yard was sub-divided into smaller yards (for beef and dairy herds) serving cowhouse 2 and cowshed 3. Shelter shed 7 was re-roofed and perhaps internal cart bays incorporated, after original cart facilities were lost when the original building on the north side of the barn was replaced by cowshed 2, which seems a likely enough function for a building located close to the fields. These later structures have pantile-clad roofs that suggest a contemporary group of buildings. In the new layout, the south yard served cattle and provided main access to the barn, while the yards on the north side could be used for either cattle or horses. The yard on the east side was primarily created for cattle using cowshed 3. Perhaps, judging by its smaller size, it was built for calves or bullocks.

When not in the yards or sheds, good quality grazing land was available on the river floodplain north of the complex, which is still used.

7.0 CONCLUSION

Hoe Mill Barns comprises an interesting group of 19th-century farm buildings built on a planned courtyard layout. Its origins are obscure and such planned farms, set up on 'virgin' sites, are rare in Essex, where most farms of the period were rebuilt on earlier sites, incorporating the more useful, earlier structures (inevitably barns), into a Victorian courtyard layout.

The early buildings are part of the vernacular Essex farming tradition whose style and fabric would suit an early Victorian date, at the beginning of the High Farming era. At this time new farms were being set up and many others undergoing their first wave of agricultural 'improvement'. A second wave of improvement occurred around the 1870s or 1880s, at the end of the Golden Age of Farming and start of the agricultural depression, when many other farms like Hoe Mill increased livestock investment after the slump in corn prices. These changes conform to regional trends of East Anglian farming and are regarded as an important area for research by the Regional Research Agenda (Brown & Glazebrook 2000).

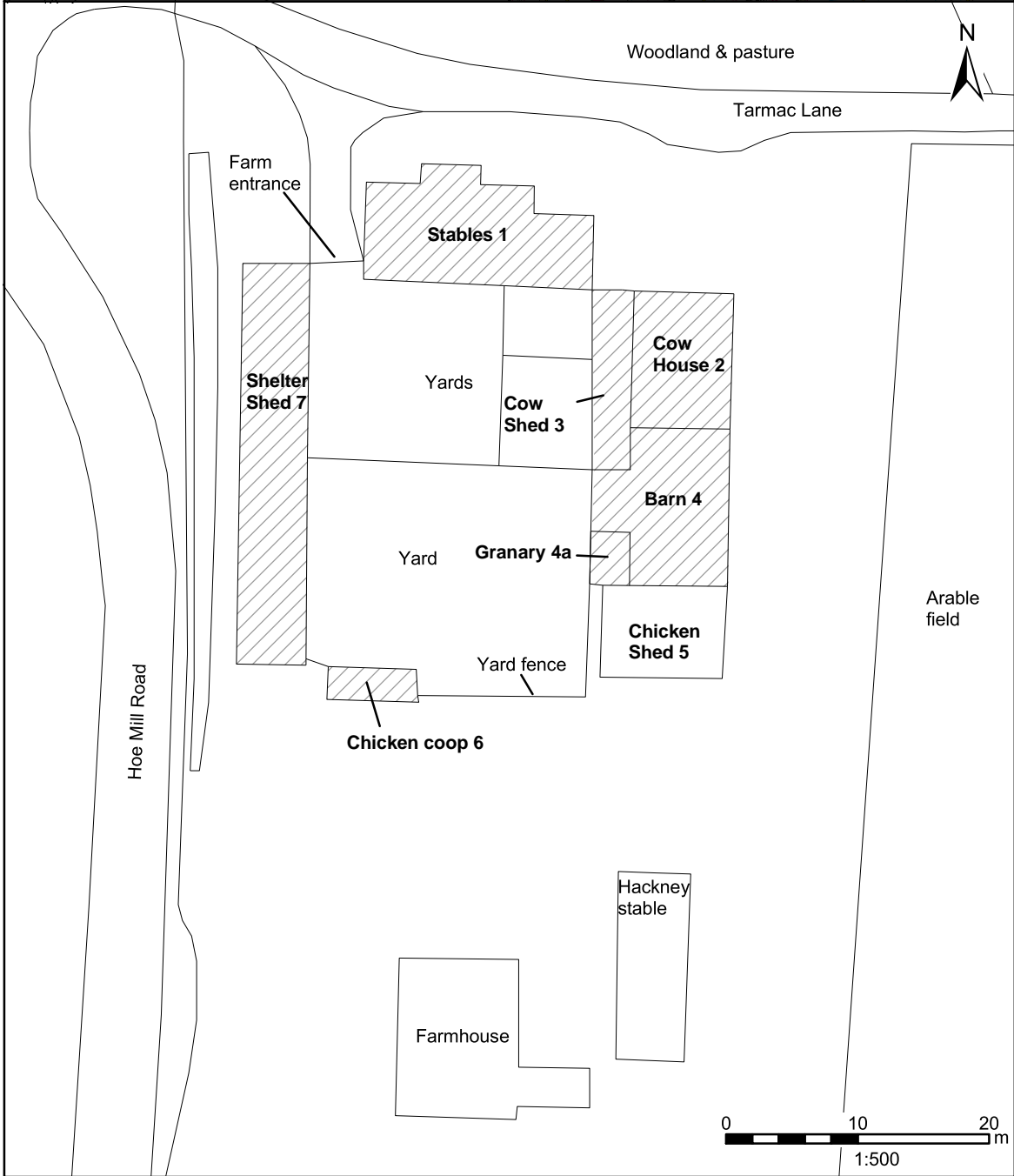
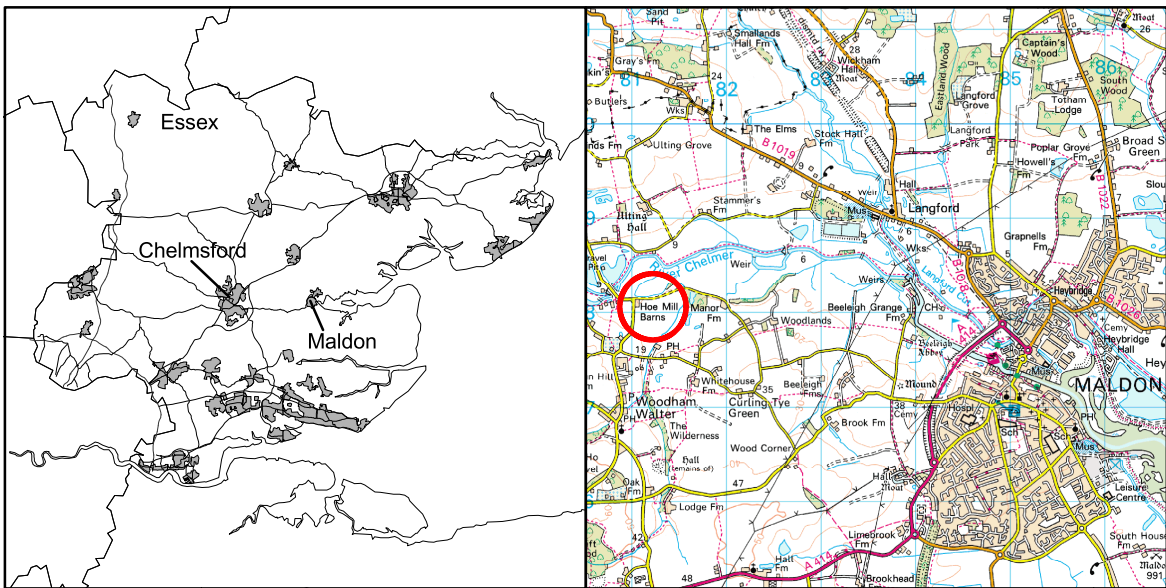
The importance of the farm lies in the group value of a planned complex that has hardly changed since the Victorian era. Unlike many Essex farms, no permanent modern structures or features have been added to spoil its appearance or character; a rare survival. Even the layout of the yards remains unchanged. The survival of fixtures and fittings such as early floors, hay feeders, troughs and horse tack is significant, showing just how little things had changed here since the days of horse power. Historic character, fabric and features are often lost as farms develop over time, especially during the intensive development of agriculture in the modern period.

ACKNOWLEDGEMENTS

The client, Jenny Moody Properties, is thanked for commissioning the works and supplying drawings. The assistance of staff at the Essex Records Office is also acknowledged. Fieldwork, recording and photography were undertaken by the author. Illustrations were prepared by the author and produced by Andrew Lewsey. The site was monitored by Pat Connell of ECC HEM on behalf of the LPA.

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Fig.1. Site location

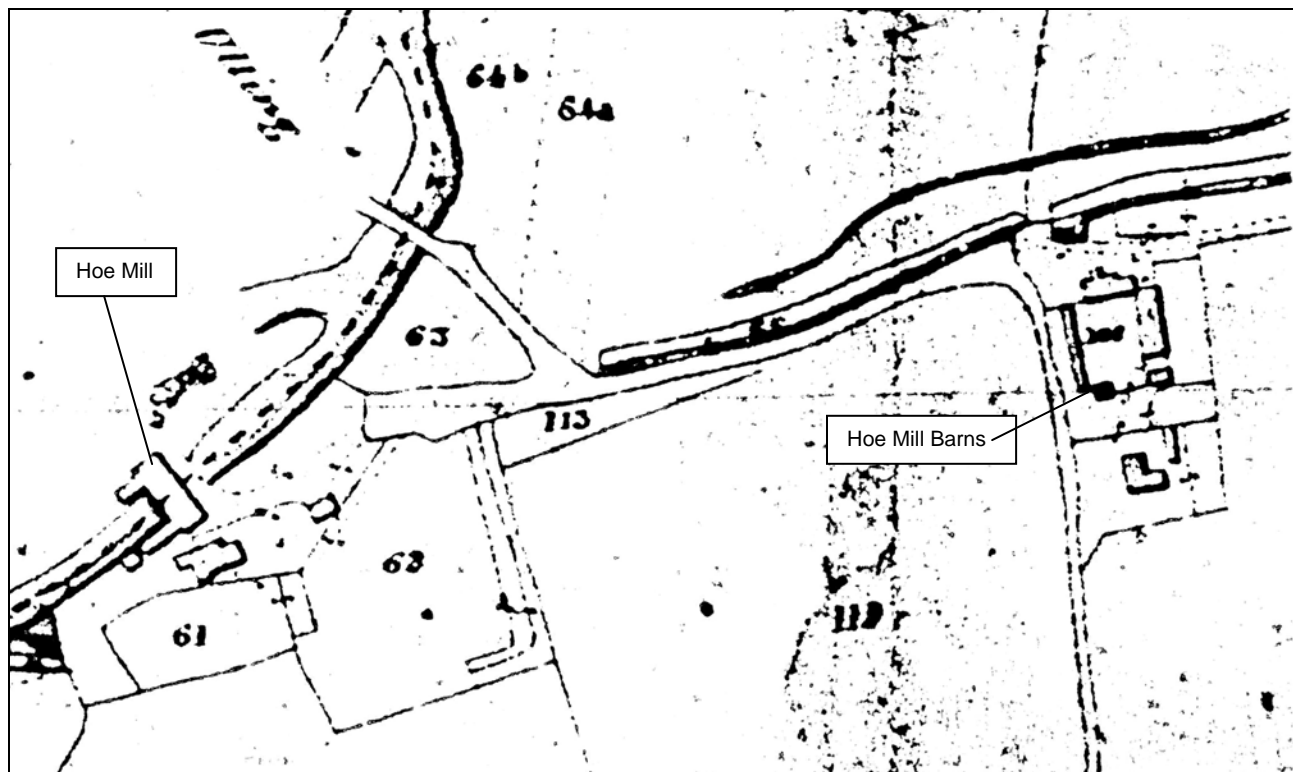


Fig. 2 Woodham Walter tithe map, 1844 (D/CT 411B)

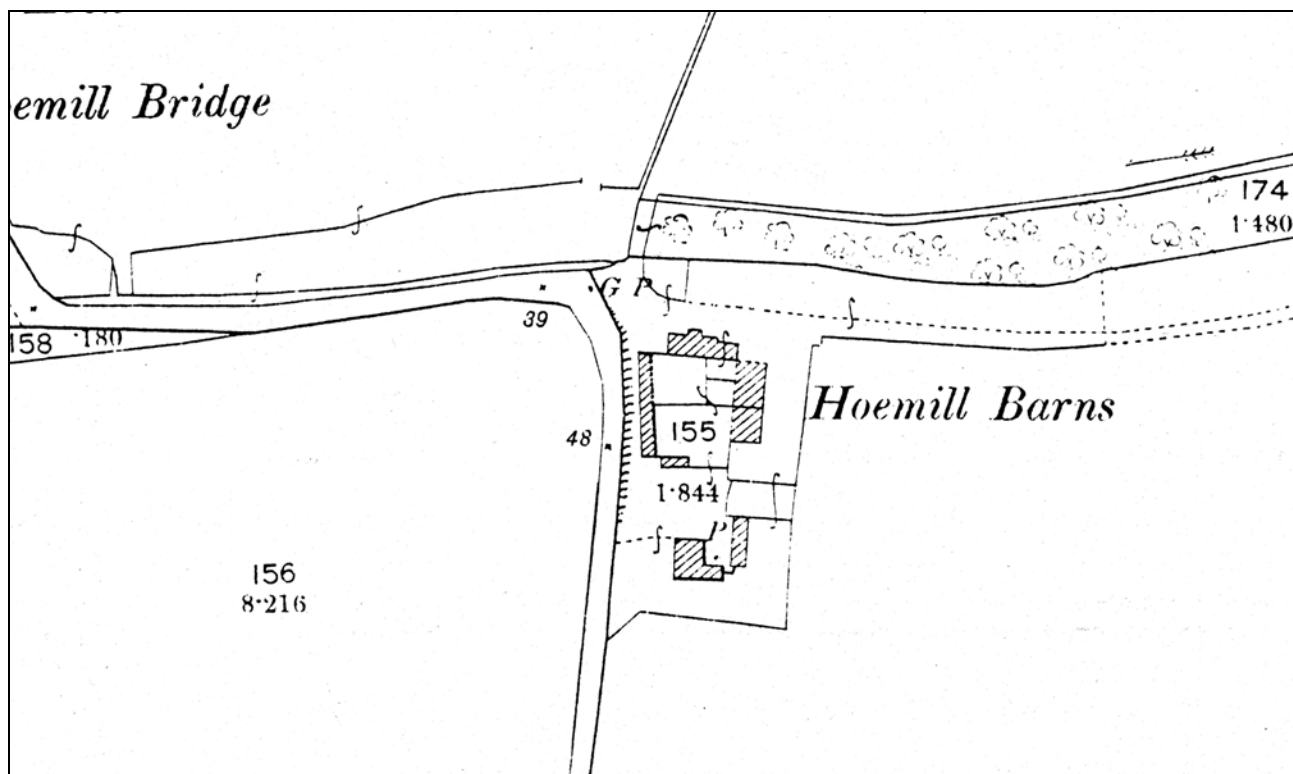


Fig. 3 Second edition 25" OS map, 1897 (sheet 53.4)

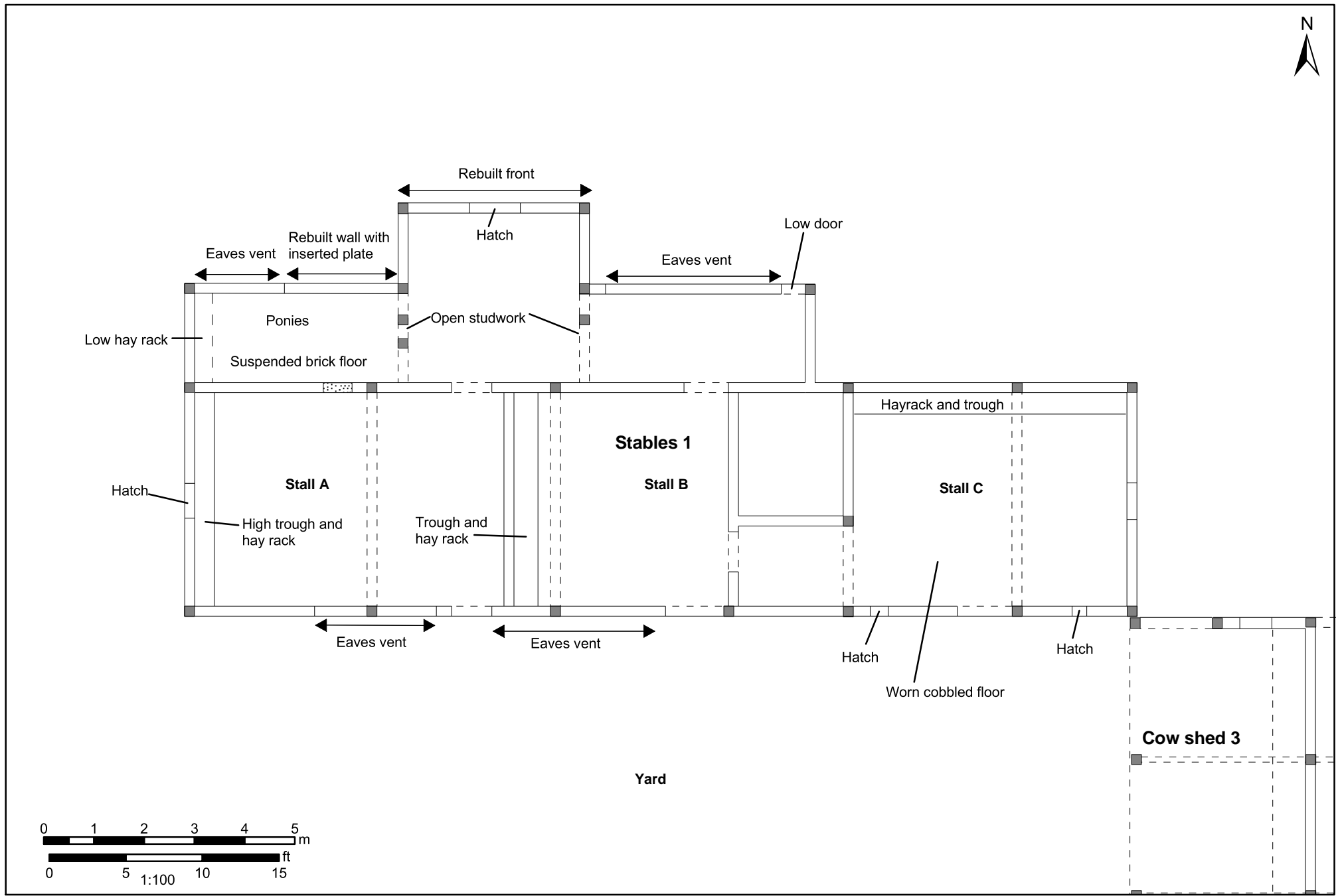


Fig.4. Plan of North Range

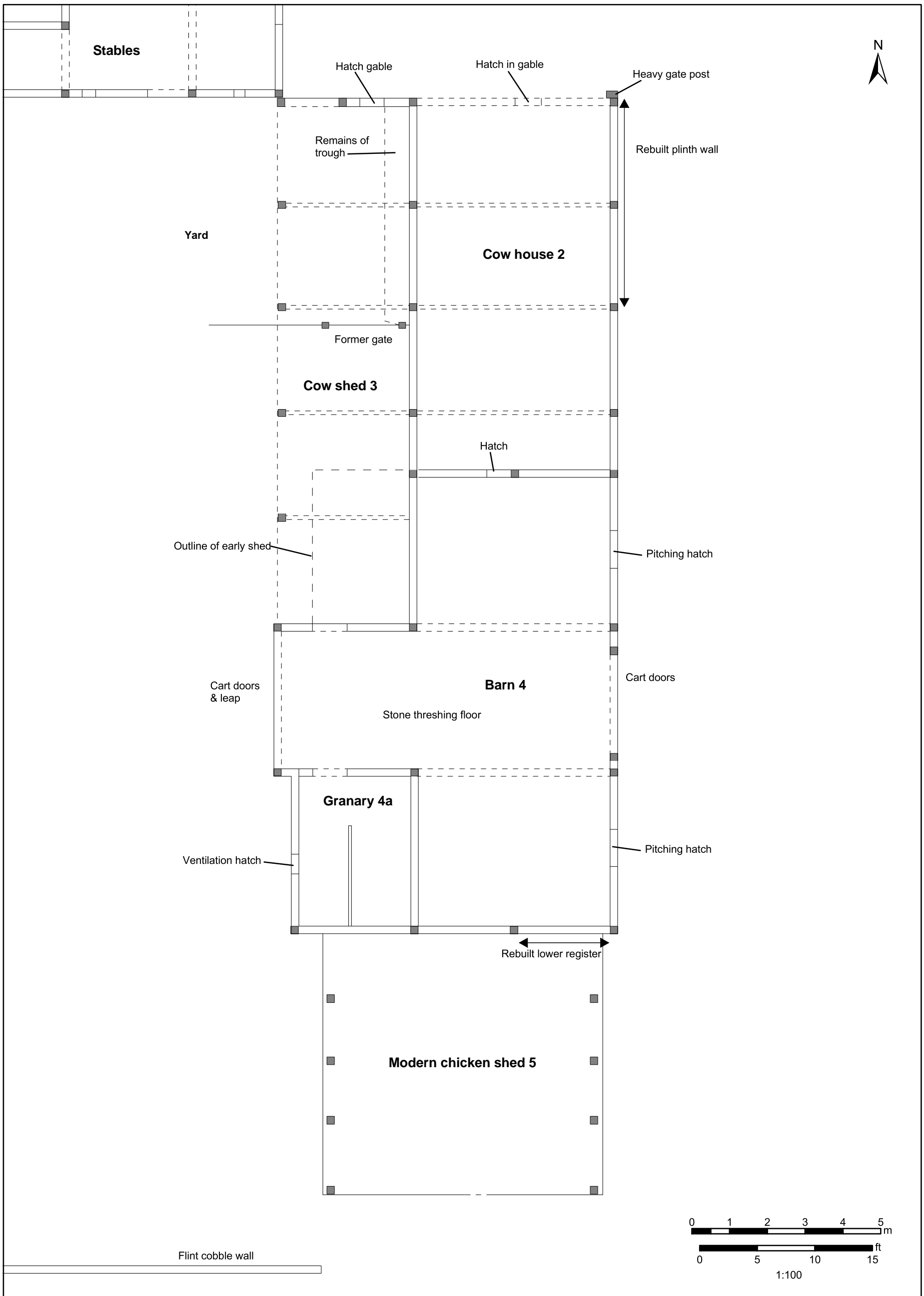


Fig.5. Plan of East Range

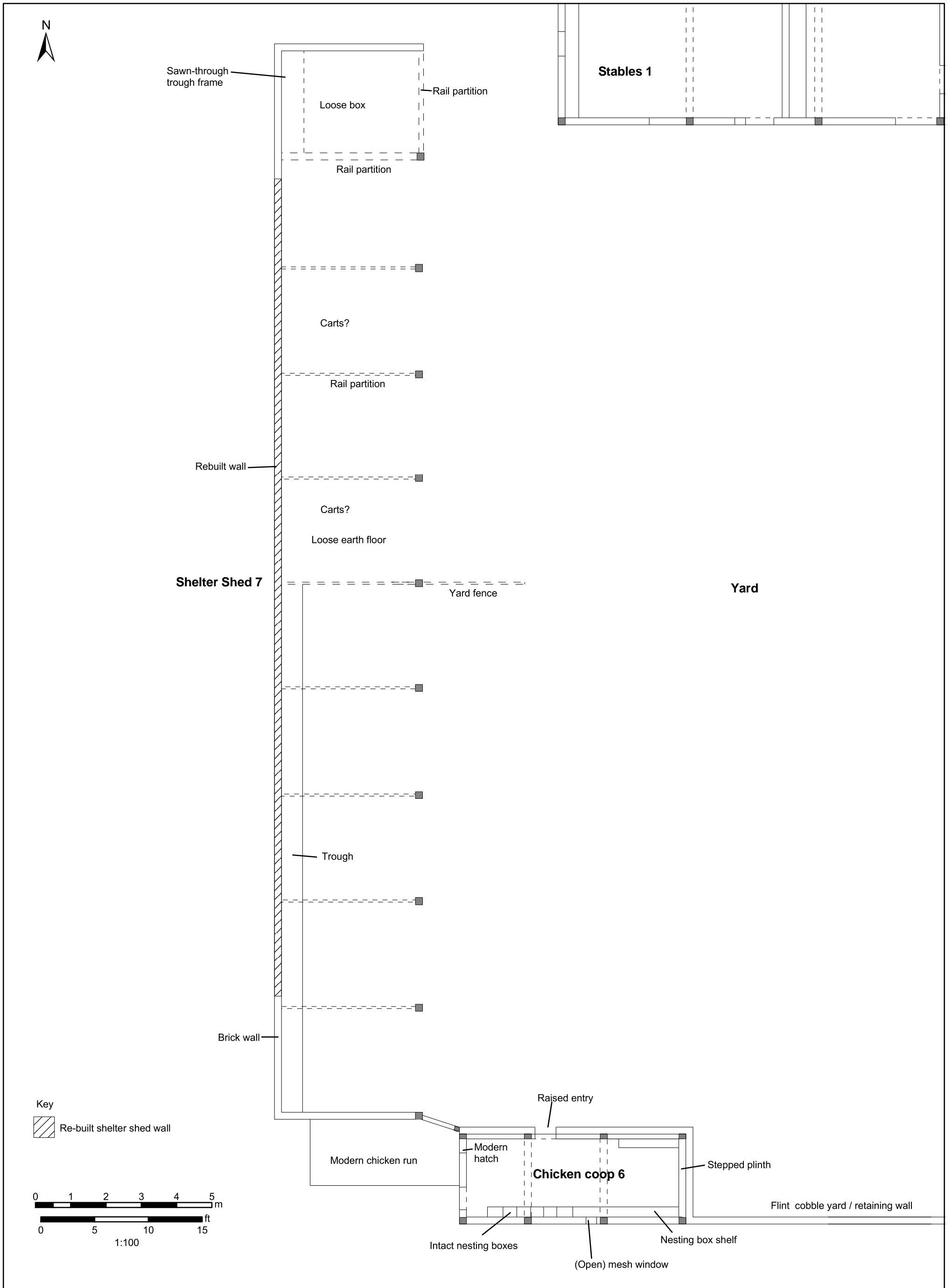


Fig.6. Plan of West Range and Chicken coop



Plate 1 View across yard to farmhouse (south)



Plate 2 View from farmhouse to north and meadows behind



Plate 3 Stables viewed to south from road



Plate 4 South and west elevations of stables



Plate 5 Detail of air vents on south elevation of stables



Plate 6 Detail of hatches and door fixtures on south elevation of stables



Plate 7 Interior of stall A viewed to west



Plate 8 Interior of stall B viewed to east



Plate 9 Shaft harness saddle on floor of stall B



Plate 10 Degrading horse halter and harness straps and chains in stall B hay rack



Plate 11 View across chaff store to stall C



Plate 12 Stall C viewed to north-east



Plate 13 Hay feeder set for ponies in western aisle of stable



Plate 14 Interior of stable porch



Plate 15 Cowhouse 2 between barn and stables



Plate 16 West elevations of cowshed and barn



Plate 17 Interior of cowhouse



Plate 18 Interior of cowshed showing outline of former barn outshot

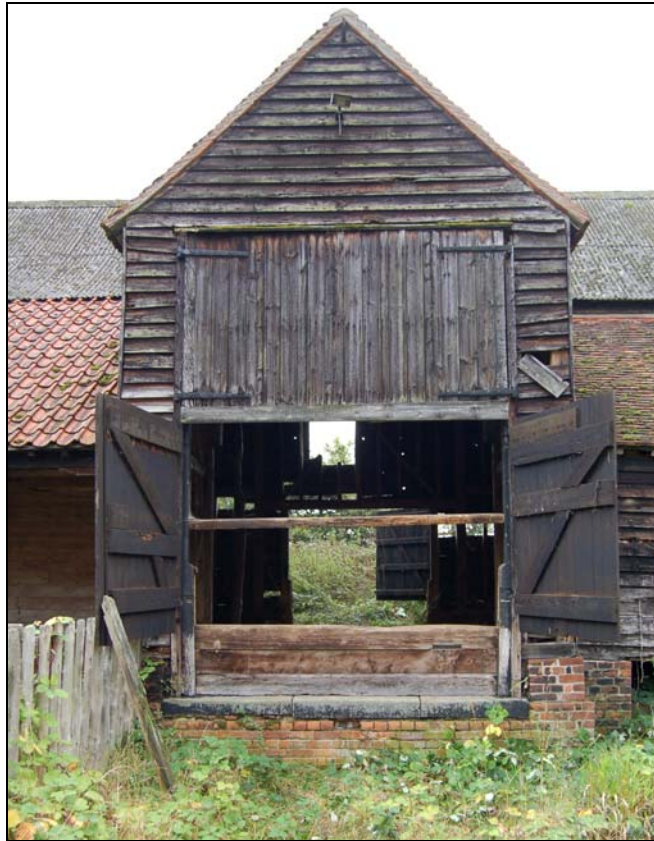


Plate 19 Barn porch



Plate 20 Rear (east) elevation of barn, between chicken shed and cowhouse



Plate 21 Interior of barn viewed to north



Plate 22 Interior of barn viewed to south-west



Plate 23 Grain bins inside granary



Plate 24 North and east elevations of chicken coop



Plate 25 Interior of chicken coop viewed to east



Plate 26 Shelter shed viewed to south-east



Plate 27 Interior of shelter shed viewed to north



Plate 28 Farmhouse and hackney stables viewed from yard

Appendix 1: Contents of Archive

Site name: Hoe Mill Farm, Woodham Walter, Essex

Project no.: 1836

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 Unbound version of report
- 1.5 CD containing digital photographs & copy of report, pdf-formatted

2. Site Archive

- 2.1 Photographic record (digital prints, colour 120mm & monochrome 35mm prints & negatives)
- 2.2 Photographic register
- 2.3 Site notes & annotated survey drawings
- 2.4 Hand-drawn architect's survey

Appendix 2: EHER Summary Sheet

Site Name/Address: Hoe Mill Farm, Woodham Walter, Essex	
Parish: Woodham Walter	District: Maldon
NGR: TL 811 801	OASIS record No.: 41570
Type of Work: Building recording	Site Director/Team: Andrew Letch ECC FAU
Dates of Work: 15th-17th October 2007	Size of Area Investigated: N/A
Curating Museum: Colchester	Funding Source: Jenny Moody Properties
Further Work Anticipated? None	Related LB Nos. Not listed
Final Report: Summary in EAH	
Periods Represented: Victorian	
<p>SUMMARY OF FIELDWORK RESULTS:</p> <p>Recording works were undertaken at Hoe Mill Barns, in advance of the conversion of a well-preserved early 19th-century planned farm complex to offices. Investigations concluded that the barn, granary, stables, shelter shed and chicken coop were built c.1830s-40s, along with three other largely unidentified structures, around a single square yard. A farmhouse and hackney stable were built on high ground to the south, but were not subject to the recording condition. During the latter part of the 19th-century the farm concentrated more on cattle rearing and the shelter shed was refurbished (perhaps with cart bays included), a large cowhouse built and a new cowshed constructed against the barn. The main yard was subdivided into four separate yards. The surrounding landscape contains good quality pasture, which is still grazed.</p> <p>The early structures are timber-framed and boarded with pegtile roofs. Reused and Baltic timbers are included in the construction. The later structures are mostly timber-framed but built from machine-sawn timbers, with king post trusses and pantile roofs. Externally, they form a cohesive and attractive group, whose character has remained virtually intact since the Victorian period. Inside, original hay racks, troughs, floors and partitions survive as well as several pieces of horse harness, fittings from the heavy horses that worked the land. The barn contains a well-preserved stone threshing floor, which is an unusual feature. A large chicken shed was built in the last century, which was recorded in the survey to a lower level.</p> <p>The farm is a rare, well-preserved example of a planned timber-built Essex farmstead, dating from the beginning of the Victorian Golden Age of Agriculture and has an important place in the history of East Anglian farming.</p>	
Previous Summaries/Reports: None	
Author of Summary: A. R. Letch	Date of Summary: 14th March 2008