



KDK ARCHAEOLOGY LTD

Archaeological Strip, Map and Sample Report

Green End Farm
1 Hitchin Road
Arlesey
Bedfordshire



Quality Check

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Summary

In February 2019 KDK Archaeology Ltd undertook an Archaeological Strip, Map and Sample Excavation at Green End Farm, Arlesey, Bedfordshire prior to the construction of new residential property on the site with associated parking and access. The project was required under the terms of the National Planning Policy Framework (NPPF) as Condition 3 of planning permission.

The excavations uncovered the remains of a number of medieval features in the form of ditches, gullies and pits, along with a post-medieval ditch and a modern pit and gully. Several of the features are continuations of those identified in a previous excavation immediately to the southeast which were of agricultural origin (Shlasko, 2018). However, there were a number of pits which could suggest the site is closer to the edge of settlement.

1 Introduction

1.1 In February 2019 KDK Archaeology Ltd undertook a programme of Strip, Map and Sample excavation of Green End Farm, Arlesey, Bedfordshire. The project was commissioned by Rob Scott, and was carried out according to a Written Scheme of Investigation (WSI) prepared by KDK (Dodd 2019), and approved by Central Bedfordshire Council Archaeology Team (CBCAT), Archaeological Advisor (AA) to the Local Planning Authority (LPA), Central Bedfordshire Council. The relevant planning application reference is CB/18/03097/FULL.

1.2 *Planning Background*

This project has been required under the terms of National Planning Policy Framework (NPPF) as Condition 3 of planning permission for the development of the site.

1.3 *The Site*

Location

The development is situated within the village and Civil Parish of Arlesey in the administrative district of Central Bedfordshire. The site is located within the historical medieval core of the village at National Grid Reference (NGR) TL 1922 3538 (Fig. 1)

Description

The plot is roughly rectangular in shape and is located to the east side of Hitchin Road in the southern part of the village. The site connects to the main road through a trackway and is situated behind several modern residential properties. Residential dwellings bound the site to the east, south and west and to the north lies Green End Farm (Fig. 2).

Geology & Topography

The underlying geology of the site comprises West Melbury Marly Chalk Formation, though no superficial deposits were recorded (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>). The site is fairly level at c.42m AOD.

Development

The initial development application was for a three-bedroom detached bungalow with three parking spaces and access (Fig. 3).

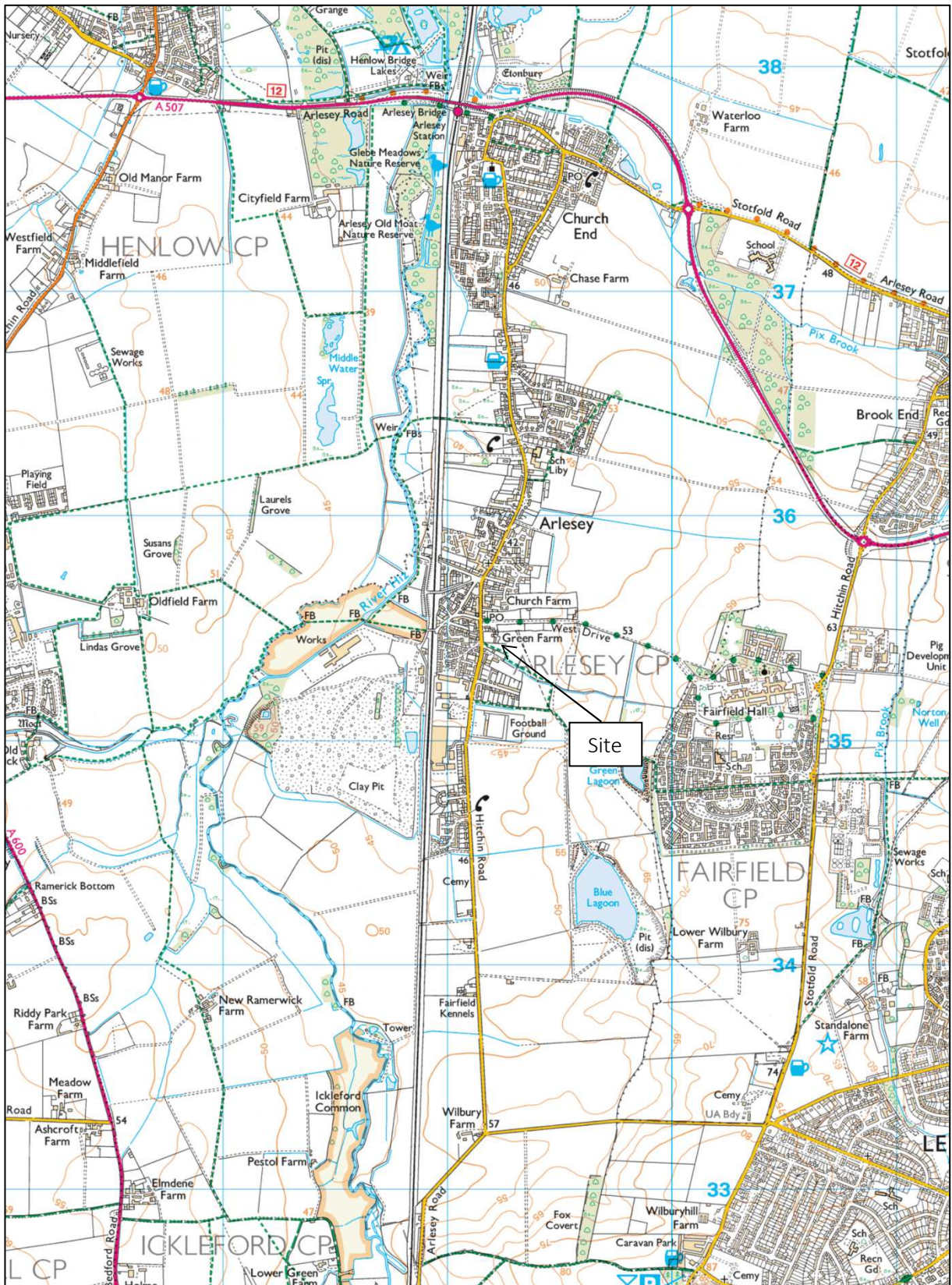


Figure 1: General location (scale 1:25,000)

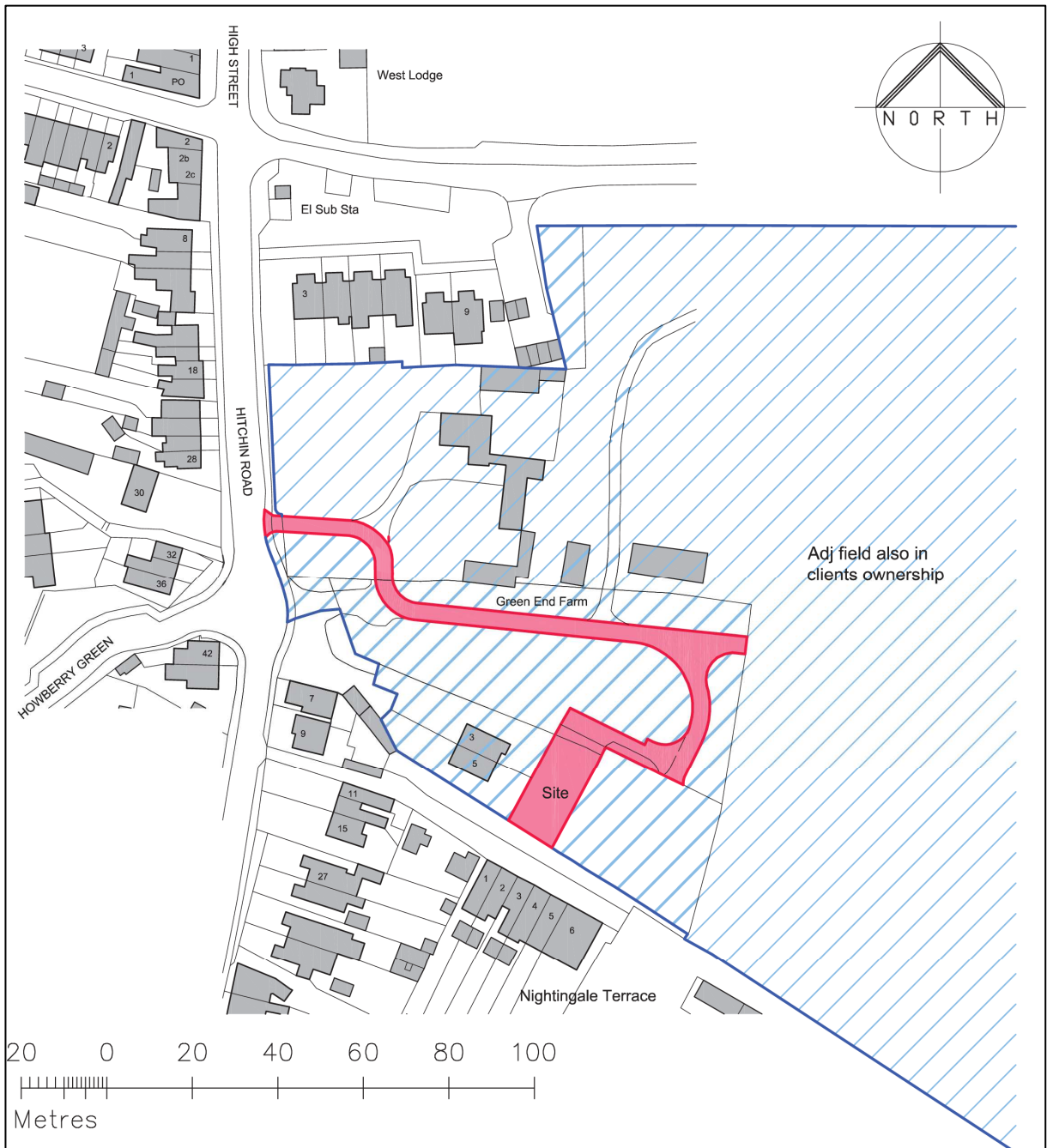


Figure 2: Site location (scale 1:1250)

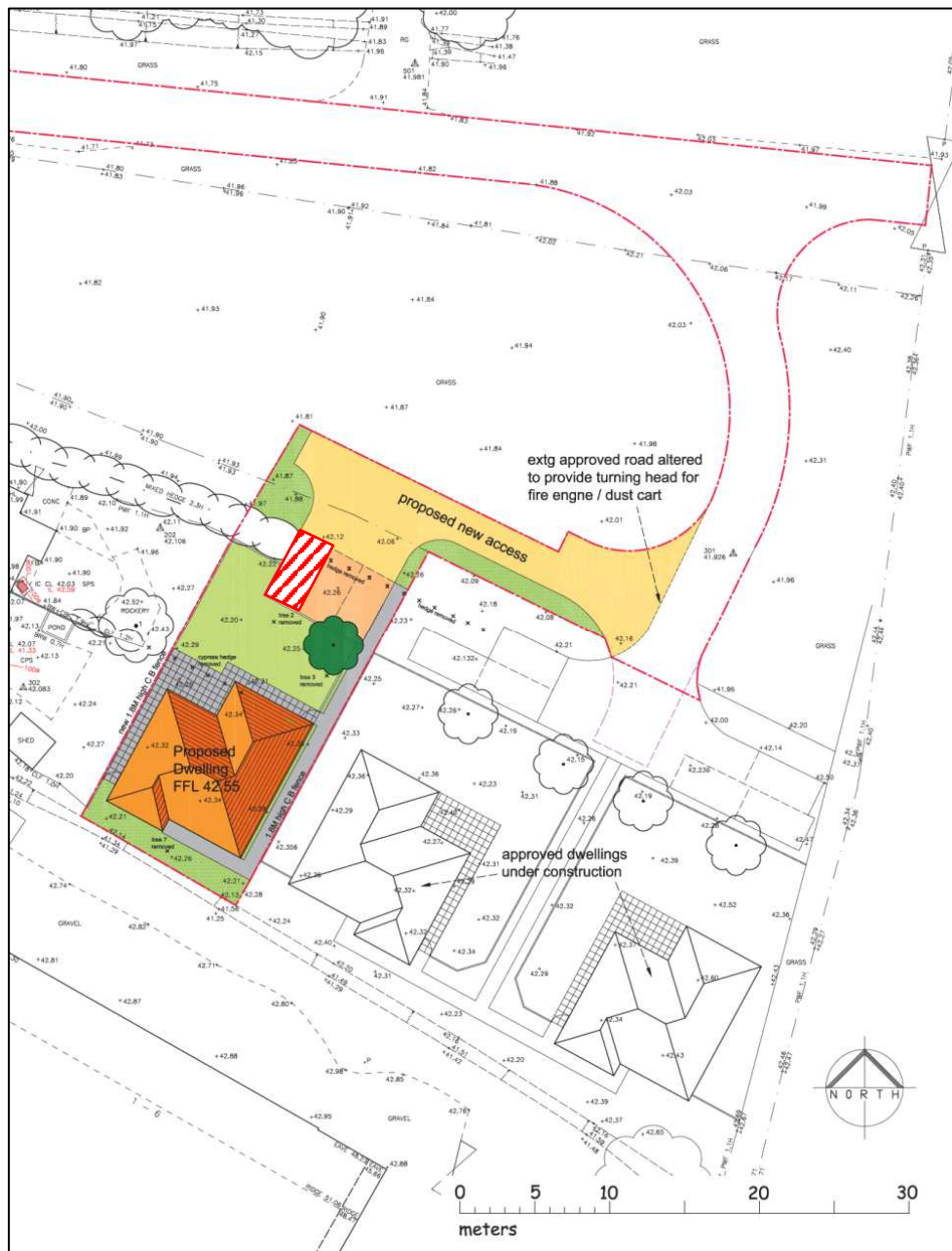


Figure 3: Development plan, with third car parking space omitted (1:500)



2 Aims and Methods

2.1 The aims of this project as defined in the approved WSI (Dodd 2019) were:

- To establish the date, nature and extent of activity or occupation within the development area.
- To establish the relationship of any remains found to the surrounding contemporary landscape.
- To recover palaeo-environmental remains to determine local environmental conditions.

The development site was considered to have the potential to contain archaeological deposits that relate to the medieval and post-medieval development of Arlesey. The importance of investigation medieval rural settlements in order to better understand; their origins, morphology, diversity and ultimate success or failure (Wade 2000: 24-25; Oake 2007: 14; Medlycott 2011: 70 and Edgeworth 2007: 121-123).

2.2 *Methods*

In line with the requirements of the brief, the methods used were as follows:

- The excavation area focussed on the new building and parking (Fig. 4).
- Significant features or deposits that are shown to be extending beyond the limits of the agreed excavation area were excavated and recorded following discussions with the client and the CBCAT.
- The existing ground surface, made ground/overburden was removed to the top of the archaeological deposits by a machine fitted with a toothless bucket operating under continuous and constant archaeological supervision.

2.3 *Standards*

The work conformed to the following requirements:

- The Design Brief (Utrata, 2018)
- The relevant sections of the Chartered Institute for Archaeologists' *Standard & Guidance Notes* (CIfA 2014)
- The Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2014)
- Current English Heritage guidelines (HE 2015, EH 2008)
- The Association of Local Government Archaeological Officers East of England Region *Standards for Field Archaeology in the East of England* (ALGAO 2003)

2.4 Constraints

During the development of Plots 1 and 2 immediately to the east of this site a number of service trenches were excavated that were not archaeologically monitored and went through the access area for this development (Plot 3). Due to this area being disturbed by the services it could not be included in the Strip, Map and Sample excavation area as originally proposed in the WSI. A further service trench was also excavated unmonitored, stemming from the access road into Plot 3.

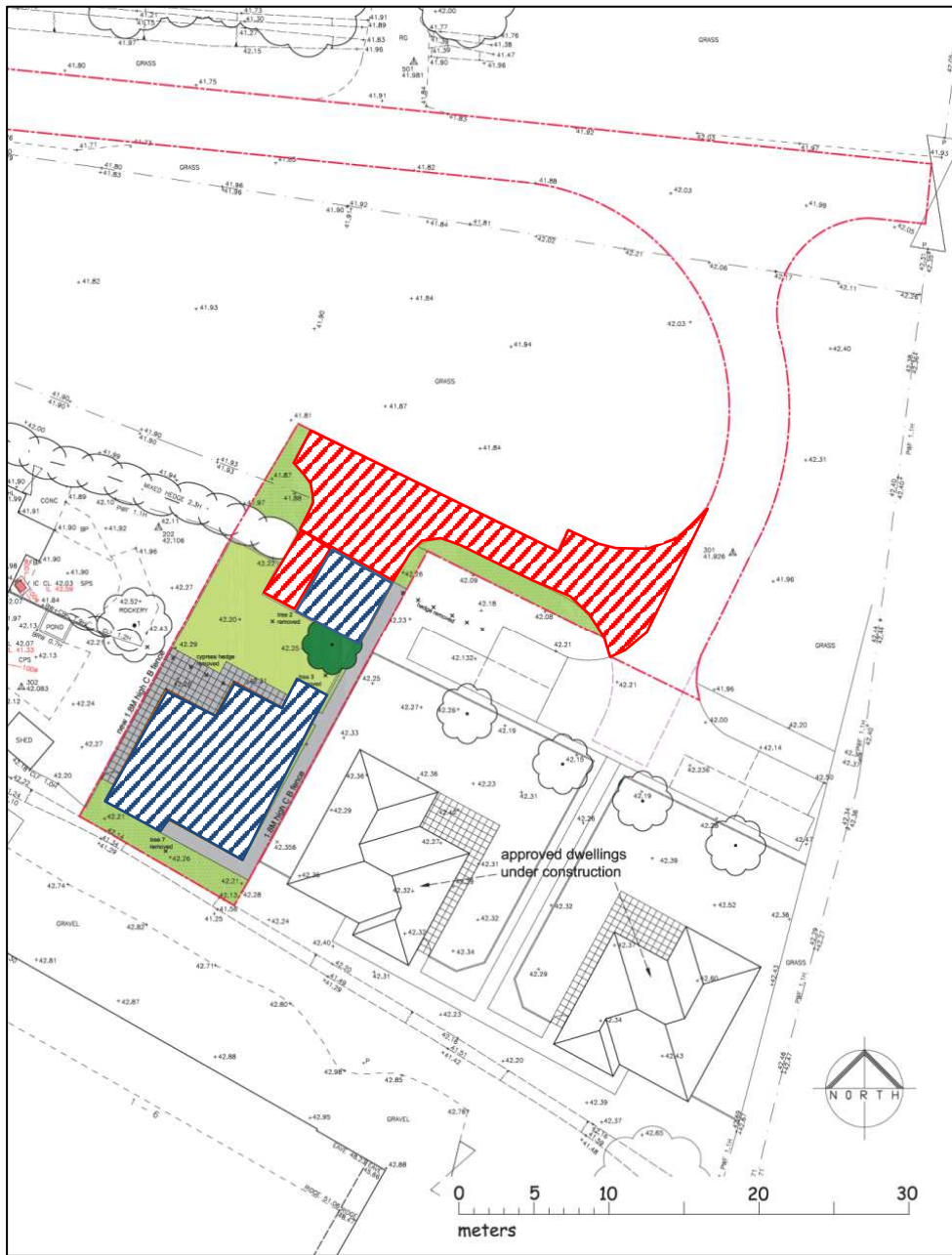


Figure 4: Strip Map and Sample area marked in blue, third parking space and access area marked in red (scale 1:500)



3 Archaeological and Historical Background

- 3.1 The site is situated to the south of the village core. The modern village of Arlesey is built in the footprint of the medieval settlement (HER 17109) and derives its name for the old English 'Alricheseia' meaning 'Island or well-watered land of a man called Ælfric' (Mills 1991). The village grew around two foci: one centered around the church (Church End - HER 17108) and the manorial site of Eatonbury (HER 395) to the north and the second strung along the High Street (HER 17109) to the south. As the two core settlements expanded, they joined to create one larger linear village.

This section has been compiled with information from the Victoria County History (Page 1908), the Central Bedfordshire Historic Environment Record (HER Search Number 201718/264 and 201819/246), previous KDK reports (Shlasko 2018) KDK's own library and other reliable online sources. HER results are illustrated in Fig. 5.

3.2 *Prehistoric-Roman* (before 600BC-c.AD450)

The earliest activity within this area is represented by a series of cropmarks east of Hitchin Road comprising a scatter of discrete, mainly sub-rectangular enclosures (HER 16812). These features are observable from aerial photographs and their form would suggest a prehistoric date.

There is further evidence of prehistoric occupation around Arlesey with Bronze Age and Iron Age activity at Fairfield Park (HER 16801; Webley et al 2007) to the east of the development site. Late Bronze Age through to Middle Iron Age settlement was also recorded near Etonbury (HER 17900; Heritage Network 2003), along with a number of finds of prehistoric flint artefacts and pottery around the Pix Brook (HERs 16083 and 16095).

Roman occupation is also suggested from large assemblage of samian pottery dating from the 1st and 2nd centuries AD (HER 389), and a Roman coin hoard was found 650m to the east of the development site (HER 390). Two coins dating to the 3rd and 4th century were discovered c.300m northeast of the development site (HER 20772)

3.3 *Saxon- Medieval* (c.AD450-1500)

The historical village of Arlesey is believed to have originated in the late Saxon period or possibly earlier. The village church, St Peter's, was constructed in 1180 by the monks of Etonbury Monastery and it is believed that the church marks the centre and earliest part of the medieval settlement. From Church End in the north of the village, the settlement spread south along the High Street connecting with the Etonbury Manorial site (HER 395).

The village of Arlesey is recorded in the Domesday Survey of 1086. Prior to the Conquest of 1066 the lands were held by the Canons of the Holy Cross of Waltham, who held the manor in alms, and 2 soakmen. In 1086, the lands at Arlesey were held by four landholders. The largest was the Bishop of Durham, whose lands were assessed at 8 hides and 2 parts of 1 virgate which he would eventually give to the monks of Waltham Abbey who would hold the lands until the dissolution in 1536. The other landholders were Herfast, subtenant of Nigel d'Aubigny, who held 3 virgates and 3 parts of a second, and Wulfsige held of the king 2 parts of 1 virgate. At the time of the survey Arlesey manor was held under William D'Eu by Burnard, and it remained in their family till the late thirteenth century. Burnard's son, Roger, gave some of holding in Arlesey to St. Neots Priory as there were strong connections to both the Priory and to Waltham Abbey. In 1270 Stephen Burnard of Edworth was in possession of the manor, before it passed to Walter Langton, the bishop of Coventry and Lichfield.

In time the village was split into three distinct manors; Arleseybury, Etonbury and Lanthony (Page 1908; Williams & Martin 1992; www.arleseytc.co.uk). The Domesday Survey also records a market held at Arlesey.



Medieval ridge and furrow visible as cropmarks and earthworks on aerial photographs have also been observed 340m north northeast and 1.63km north of the site (HER 6982)

3.4 *Post-Medieval* (1500-1900)

The building of the Great Northern Railway in the mid-1850s transformed the village. The line, which is now the East Coast mainline, runs parallel to the linear settlement and was opened on the 7th August 1850 (HER 11862). A Victorian Footbridge over the railway line marks the site of the former Three Counties Station (HER 196). An Archaeological Evaluation undertaken by Oxford Archaeology in 2005 uncovered a quarry and subsequent landscaping connected to the building of the railway (HER 9085; EBD 606).

Several other lines were constructed in the village such as a private industrial railway built by the London Brick Company (HER 1530) and an industrial railway/tramway which was opened in 1857 between Arlesey Siding Station (later 3 counties station on the GNR) and three counties hospital (HER 1529). Initially the latter was used to carry construction material and passengers to the asylum. The track was removed in 1953 but a weighbridge still exists where the line is thought to have passed. A tramway was also built in the early 19th century joining two quarry pits (HER 1528). Sections of this still survive.

Brickmaking was an important part of Arlesey's economy and during the Victorian period. Six brickworks were operational in the village and materials were sourced locally for example from the clay extraction pits 840m west of the development site (HER 6685). As well as clay, chalk for the limeworks (HER 6725) and for making cement were sourced locally (HER2871). In addition, the village extracted and processed Coprolites into artificial fertilizer. The village exported 1500 tonnes of lime and 'Eddystone' weekly from the village (www.arleseytc.co.uk).

A number of public houses existed in the village prior to the 20th century. The former 'Lamb' which was built in 1840 was situated on Station Road. In 1964 the pub was converted into four flats but was later demolished (HER 12664). Another 19th century public house, originally named the 'Brickground Hotel' existed in the village. The establishment changed its name in 1993 to 'The Mallard' to commemorate the streamlined LNER locomotive of the same name.

The pub closed in 2000 and was converted into a children's nursery (HER 16411). The 'Prince of Wales' public house, Hitchin road was closed in 1999 (HER 12665). The True Briton, which was built in the 19th century, is the only post-medieval public house still trading (HER 16413).

Other historical buildings surviving in the village include; Church Farmhouse (HER 1113819), Green Farmhouse (HER 1113824) both of which are Grade II 17th century listed houses and a group of three post-medieval brick-built cottages at 62-66 High Street (HER 15142).

Wesleyan Methodist chapel which was built in c.1850 and demolished c.1975 (HER 9303) and an onion loft at Whitney Lodge, High Street built in the early 1890s (HER 13368).

3.5 *Modern* (1900-present)

RAF Henlow is situated just outside the village to the west and during the war Arlesey became the site of two aircraft crashes. The first crash occurred on the 19th December 1943 where a Handley Page Halifax BB364 on a practice flight clipped the top of a 280-foot brickyard chimney before bursting into flames killing all nine crew members. The plane crashed the other side of the Arlesey Common bridge. The second crash was also a training flight from RAF Tempsford. On the 28th March 1944 the Lockheed Hudson Bomber crashed killing the four crew members on board (arcangelolombari.wordpress.com).

A brick Mission Church, St Andrews Mission Room, was built in 1900 to serve as a Chapel of Ease for the southern end of the village. It has since been converted into a house (HER 20437). Another building of interest is the Cosy Cinema, a now demolished iron structure built between



1898 and 1900. This building was originally used as a Drill Hall but in the 1920s opened as the Victory Cinema (HER 20566). Over the next few decades the cinema underwent several closures and was reopened in the 1930s as 'The Premier'. In the mid-30s the cinema was sold to The Touring Talking Picture Company who refurbished and redesigned the building. Later it was sold to the Cosy Cinema Company who ran the cinema until 1958 when it was closed. After several failed attempts at reopening the venue, the Cosy Cinema closed its doors for the last time in June 1962 and the building became a builder's store until it was demolished in the 1980s.

3.6 *Previous excavations on the site*

In June 2017 Archaeological Evaluation was undertaken by Archaeological Solutions Ltd immediately east of the current development site at the Land at Green End Farm. A number of ditches, postholes and a pit were observed dating to the medieval and post-medieval periods. However, there is potential for earlier activity on the site. Sherds of medieval pottery were also recovered from several of the ditch fills, all of which are believed to be residual, as the ditch itself was post-medieval (Edwards 2017).

A Strip, Map and Sample excavation was undertaken in the same area the following year by KDK Archaeology (Shlasko 2018) where the aforementioned features could be properly investigated. Further ditches, pits and gullies were exposed across the whole area of investigation. The features and the associated artefactual evidence provided evidence of agricultural activity on the site dating back to the early medieval period (*ibid* 2018:1).

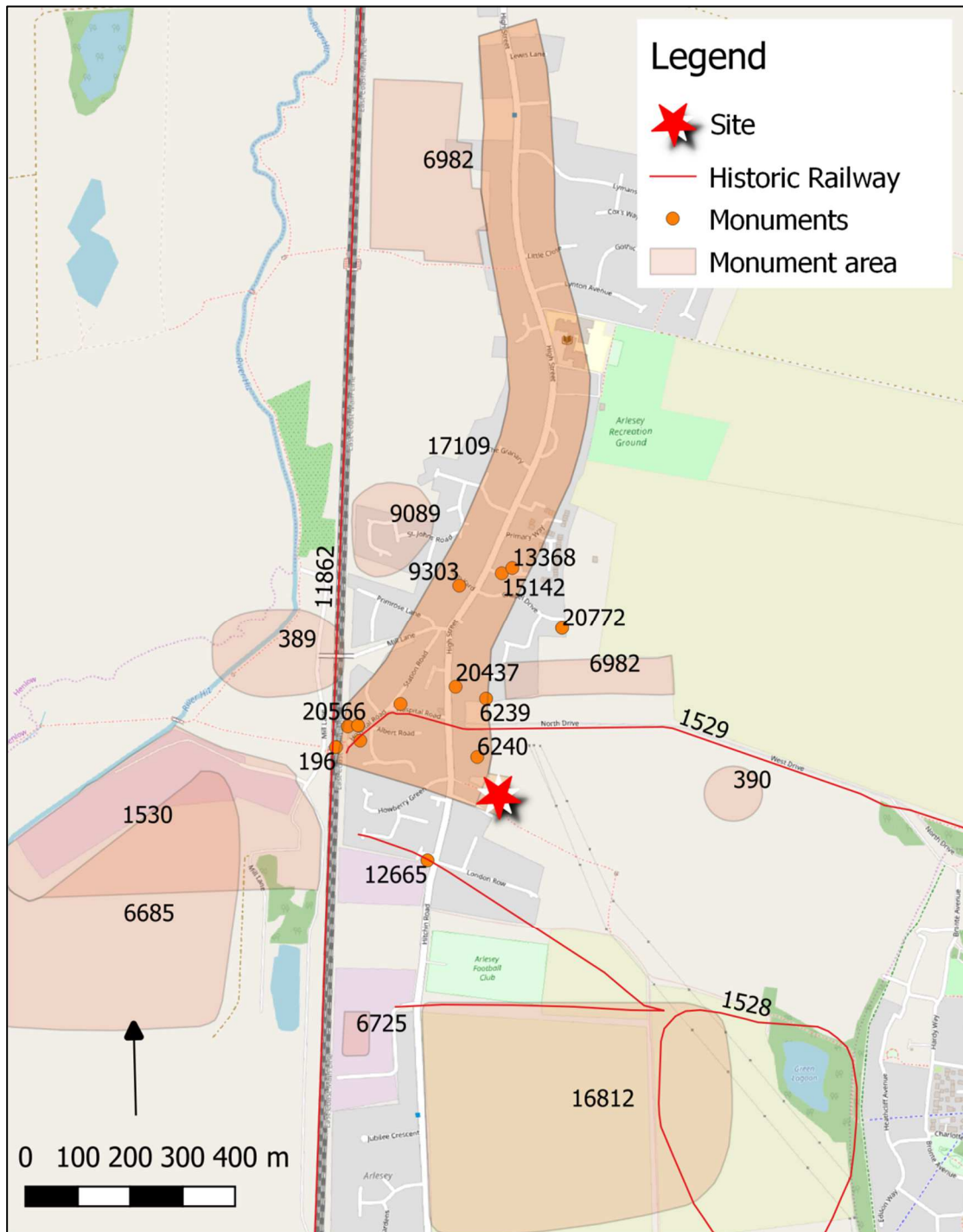


Figure 5: HER Data plan (scale 1:12500)



4 Results

4.1 Site Stripping

The footprint of the new house (Trench 1) measured 90.22 sq. m, and the parking spaces (Trench 2) 13 sq. m. These areas were mechanically stripped of topsoil and subsoil under close archaeological supervision. The northeast corner of Trench 1 was also extended by a further 5.74 sq. m in order to fully understand the features in this area (Fig. 7; Plates 1-7).

The stratigraphy encountered comprised (Fig. 6; Plates 4 & 6):

Topsoil **(101)** measured up to 0.35m in depth consisting of dark brownish grey, loam, very friable with moderate sub-angular stones less than 20mm.

Subsoil **(102)** measured up to 0.3m in depth consisting of mid greyish brown, fairly sandy clay, fairly soft with moderate sub-angular stones less than 20mm

The underlying natural strata **(103)** comprised a mixture of yellowish grey clay and orange gravelly clay, fairly firm with frequent sub-angular stones less than 20mm and flint less than 20mm.

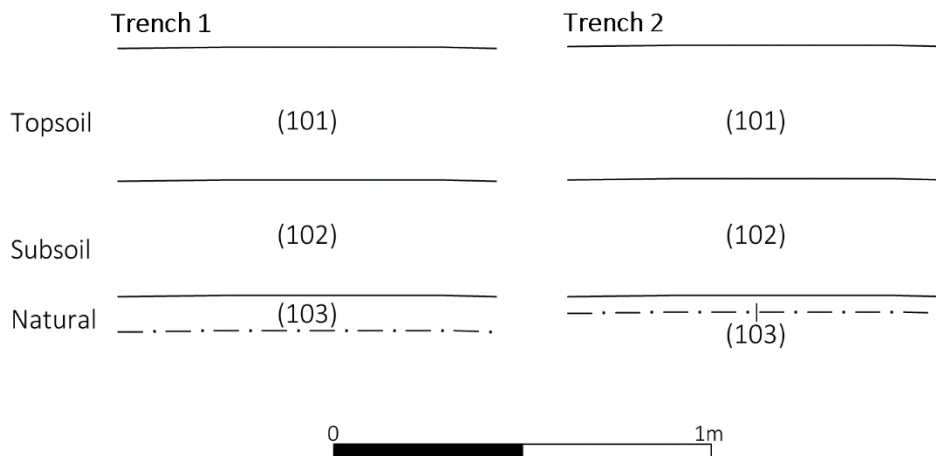


Figure 6: Stratigraphy Sections (scale 1:20)

4.2 Sampling Strategy

On completion of the site strip, archaeological features comprising ditches, gullies, pits and rooting were revealed (Fig. 7). Following consultation with the AA, it was agreed that subsequent excavation would follow the sampling strategy outlined in the brief.

4.3 Archaeology

Ditches

There was a total of four Ditches [116, 127, 145 and GN* 4], two shorter segmented Ditches [GN 1 & 2] and one possible Ditch Terminus/Pit [129]. *Group Number - Applied to features where multiple sections were excavated.

Ditches [127, 145, GN 4] and the possible Ditch Terminus/Pit [129] were concentrated along the north-eastern side of Trench 1 and were thought to represent a series of boundaries all on the same orientation, northwest-southeast:

Ditch [127] had more than 45-degree angle sides with a flat base and was backfilled by (128). It contained a single sherd of Hertfordshire-type Greyware dating to the mid/late 12th-mid 14th



century and oyster shell. The Ditch cut Pit [124] and possible Ditch Terminus/Pit [129], (Figs. 7,8 & 10; Plate 8).

Possible Ditch Terminus/Pit [129] was cut by Ditches [127] to the southwest, and Ditch GN 4 to the northeast, and as such its full profile was not seen. At the northwest end of this feature a terminus was excavated, whilst at the southeast end it continued beyond the limit of excavation. As its full shape in plan was not fully visible it was difficult to determine whether this was a ditch or pit. It was naturally silted by (130) with a single oyster shell recovered (Figs. 7,8 & 10; Plate 8).

Ditch GN 4: was asymmetrical in profile, with the northeast side more sloped than the southwest., and with a flat base. Three slots were excavated into this feature; [114] filled by (115), [131] filled by (132) and [139] filled by (140). All the fills were a result of natural silting. The Ditch contained a single sherd of Hertfordshire-type Greyware dating to the mid/late 12th-mid 14th century, and animal bone deriving from a small-medium mammal and horse. This ditch cut Ditch Terminus/Pit [129], and also Gully [141], (Figs. 7,8 & 10; Plates 8 & 9).

Ditch [145] was located in the extended part of Trench 1. This feature continued beyond the limit of excavation. It was naturally silted by (146) with no finds recovered. This feature was found adjacent to Pit [143], (Figs. 7,8 & 11; Plates 10 & 11).

The two segmented ditches [GN 1&2] were located along the southwest side of Trench 1, both of which orientated southeast-northwest:

Segmented Ditch GN 1 had less than 45-degree angle sides and a flat base. Two terminus slots at either end of the feature were excavated, that had naturally silted fills; [108] filled by (109) and [110] filled by (111). The Ditch contained finds of Hertfordshire-type Greyware dating to the mid/late 12th-mid 14th century. At the northwest end of the feature Gully GN 2 was found to be cutting through the segmented Ditch (Figs. 7-9; Plates 12 & 13).

Segmented Ditch GN 3 was situated to the northwest of GN 1 and on the same alignment. This feature was comparable to GN 1 with a terminus at either end of the feature, both of which were excavated and had naturally silted; [120] was filled by (121) and [122] was filled by (123). It had sheer sides and a U-shaped base and contained no finds (Figs. 7-9; Plates 14 & 15).

A further Ditch was also found in Trench 2, [116]:

Ditch [116] was orientated northwest-southeast. It had concave sides and a U-shaped base and was backfilled by (117) that included a band of frequent sub-rounded stones less than 100mm, and also contained finds of Glazed Red Earthenware dating to the 16th-19th century. Due to this banding of stones this feature was thought to have been used for drainage. The ditch cut Pit [106], (Figs. 7 & 12; Plate 16).

Pits

A total of six pits were excavated and a single modern pit that was unexcavated. Five of the pits were excavated in Trench 1 and described as follows:

Pit [104] was a discrete feature found in the southeast corner of Trench 1. It was circular in plan with a flat base. It partly extended beyond the limit of excavation and was naturally silted by (105) that contained no finds (Figs. 7,8 & 11; Plate 17).

Pit [124] was situated to the northeast of Pit [104]. It was sub-rectangular in plan with steep sides and a flat base and was naturally silted by (125) and (126). It contained a single sherd of Sandy Ware dating to the 12th-13th century, and a fragment of animal bone deriving from a medium-sized mammal. This Pit was cut by Ditch [127], (Figs. 7,8 & 11; Plate 18).

Pit [133] and [135] were both situated at the northwest side of Trench 1. Pit [133] was sub-rectangular in plan with steep sides and a flat base, and was naturally silted by (134) that



contained fragments of Hertfordshire-type Greyware dating to the mid/late 12th-mid 14th century, and a piece of unworked granite stone, not local to the area. Pit [133] was cut by Pit [135] situated to the east-southeast. Pit [135] was sub-circular in plan with concave sides and a flat base, and was naturally silted by (136) and also contained fragments of Hertfordshire-type Greyware dating to the mid/late 12th-mid 14th century. The modern pit that was unexcavated was seen to be cutting Pit [133], (Figs. 7,8 & 11; Plate 19). Modern artefacts were visible on the surface and not collected.

Pit [143] was found in the extension area of Trench 1. It partly extended beyond the limit of excavation but where visible appeared to be sub-circular in plan with less than 45-degree sides and a flat base and was naturally silted by (144) with no finds. This pit cut Gully [141] and was adjacent to Ditch [145], (Fig. 7-8 & 10; Plates 10 & 20)

A further Pit was excavated in Trench 2:

Pit [106] partly extended beyond the limit of excavation but where visible appeared to be sub-circular in plan with concave sides and a flat base. It was naturally silted by (107) that contained finds of Medieval Shelly Ware dating to 1100-1400, Sandy Ware dating to the 12th-13th century and animal bone deriving from cattle, pig, small-medium mammal, large mammal and oyster shell. The pit was cut by Ditch [116], (Figs. 7 & 12; Plate 16).

Gullies

Two gullies were excavated in Trench 1:

Gully GN 2: was found at the southwest side of Trench 1 it was orientated northwest with a slight curve to the south-southeast. At the northwest end of the gully a terminus was excavated [118], that was naturally silted by (119), whilst at the south-southeast end a further slot was excavated, [112], also naturally silted by (113) and showed the gully cutting through segmented Ditch GN 1. The gully had steep sides and a U-shaped base and contained a single sherd of mass-produced earthenware dating to the 19th-20th century (Figs. 7-9; Plates 21 & 22) .

Gully [141]: was found in the extended part of Trench 1. It was cut by Ditch GN 4 any by Pit [143] and extended beyond the limit of excavation, as such only a small section of the gully was observed. It was orientated northeast-southwest and had more than 45-degree sides and a U-shaped base, and was naturally silted by (142) and contained no finds (Figs. 7,8 & 10; Plate 23).

Rooting

In the central part of Trench 1 a concentration of rooting was noted that consisted of an irregular linear shape in plan and an oval shaped concentration. Initially the latter was recorded as [137] and filled by (138), as a possible small Pit. However, upon excavation it had some irregularity in both plan and section due to rooting and contained no finds, and instead was not thought to have been archaeological (Figs. 7-8 & 11; Plate 24).

4.4 *Specialist Summaries*

The pottery assemblage amounted to 37 sherds comprising a mixture of earlier medieval and post-medieval wares. The medieval material dates from at least the 12th century and consisted of fragments of unglazed jars, whilst the post-medieval pottery mainly derived from large internally-glazed bowls.

A total of 14 fragments of animal bone was derived from medieval features, from a time when the village of Arlesey was a small agricultural settlement. Four species were positively identified; cattle, pig, horse and European flat oyster, whilst specimens that were not identifiable were assigned to size; small/medium/large. No animal/human gnawing, butchery marks of other forms of modification was noted, however, the body parts recovered are commonly generated



by primary butchery whereby the least meaty bones or portions are discarded during the initial disarticulation of the carcass and disposed of into the fills of cut features. The represented animals in the assemblage would have been exploited for a range of uses or products such as traction, meat, milk, wool, and leather.

Eight environmental samples were taken from Ditches [110] [120] [131] and [127] and Pits [124] [129] [133] and [135].

Cereal grains were found in all of the samples, aside from Pit [129], most of which had the morphology of bread, club or rivet wheat. Low number of barley grains that were hulled and straight were also found in Ditch [120] [127] and from Pit [135]. The only cereal chaff present was a culm node deriving from Ditch [127]. There were also low numbers of rye grains found in Ditch [110], and low numbers of seeds segetals in Pit [124] and [131] and Pit [136]. One cleavers seed in Pit [124] and buttercup type and cherry, plum or sloe in Ditch [131], and one stinking chamomile seed was found in Pit [135]. Uncharred root fragments and low numbers of uncharred, dried waterlogged seeds of blackberry or raspberry, fat hen and elderberry were also found in the samples.

4.5 *Phasing*

Broad phasing was established on the site by combining dating and stratigraphic evidence that are presented in Figure 13.

Phase 1: Medieval 12th and later century

The majority of the features found were dated to the medieval period, containing pottery dating from at least the 12th century. The features that form part of this initial medieval phase are: Ditches GN 1, 3 and 4, [127], possible Ditch Terminus/Pit [129], Pits [104], [106], [124], [133], [135] and Gully [141]. There were a further two features, Pit [143] and Ditch [145], that despite containing no dating evidence, given their close proximity to further medieval features, and Pit [143] cutting medieval Gully [141], are also attributed to this initial phase.

Phase 2: Post-medieval 16th and later century

The second phase is dated to the post-medieval period. Here we have a single Ditch [116] that contained pottery dating from at least the 16th century.

Phase 3: Modern

The third phase are modern features found on the site. Here we have Gully GN 2 containing a single sherd of 19th-20th century pottery. A further modern Pit was found in Trench 1 that was unexcavated.

4.6 *Discussion*

The archaeological features recorded in this excavation have primarily been identified as boundary or drainage ditches and gullies and pits. During previous excavations carried out on adjacent plots to the current development the same types of features were noted (Shlasko 2018). Indeed, several of the medieval features, notably ditches, appear to continue through to the current excavation (Fig. 14). Medieval Ditch [127] or possible Ditch Terminus/Pit [129] may be a continuation of Ditch GN 146 found in the housing area for Plot 1 and 2 and thought to represent a boundary. Post-medieval Ditch [116] may be the same ditch as excavated in the parking area for Plot 1 and 2 [107], thought to have been used for drainage.

Combining the results of both excavations suggests that the medieval features increase in density southeast to northwest, towards Hitchin Road and the Green End settlement. The site may also hint at possible structural features as Ditch GN 1 and 3 appear to be segments of a ditch, but it may also be that they represent structural foundations (*pers. com.* Utrata). Feature [133], has been interpreted as a pit but may also be included in these foundations, although the



latter feature was much deeper compared with GN 1 and 3, and no significant building material was recovered from any of the fills. It is likely that the linear features in both investigations are related to agricultural activity, though the pits in the current excavation hint at the site possibly being at the edge of settlement.



Plate 1: Trench 1, looking southeast (scale 2x1m)



Plate 2: Trench 1, looking east (scale 2x1m)



Plate 3: Trench 1, looking north (scale 2x1m)



Plate 4: Trench 1, stratigraphy, looking northwest (scale 1m)



Plate 5: Trench 2, looking northeast (scale 2x1m)



Plate 6: Trench 2, stratigraphy, looking southeast (scale 1m)



Plate 7: Trench 1, extended area, looking north (scale 1m)



Plate 8: Ditch [127] (right), Ditch Terminus/Pit [129] (central) and Ditch Slot [131] GN 4 (left), looking southeast (scale 2x1m)



Plate 9: Ditch slot [014] GN 4, looking southeast (scale 1m)



Plate 10: Ditch [145] (left) and Pit [143] (right), looking southeast (scale 0.5m)



Plate 11: Ditch [145], looking northwest
(scale 0.5m)



Plate 12: Ditch GN 1, looking southeast
(scale 1m)



Plate 13: Ditch GN 4, profile, looking northwest
(scale 0.5m)



Plate 14: Ditch GN 3, looking southeast
(scale 1m & 0.5m)



Plate 15: Ditch GN 3, profile, looking west (scale 0.5m)



Plate 16: Ditch [116] and Pit [106], looking southeast (scale 2x1m)



Plate 17: Pit [104], looking east-southeast (scale 1m)



Plate 18: Pit [124], looking northeast (scale 1m)



Plate 19: Pit [133] and [135], looking northeast (scale 1m)



Plate 20: Pit [143], looking southwest (scale 0.5m)



Plate 21: Gully GN 2, looking southeast (scale 1m & 0.5m)



Plate 22: Gully GN 2, profile, looking east-southeast (scale 0.5m)



Plate 23: Gully [141] and Ditch slot [139] GN 4, looking south-southeast (scale 1m)



Plate 24: Rooting [137], looking southwest (scale 1m)



Figure 7: Plan of archaeology for house and parking area (scale 1:150)

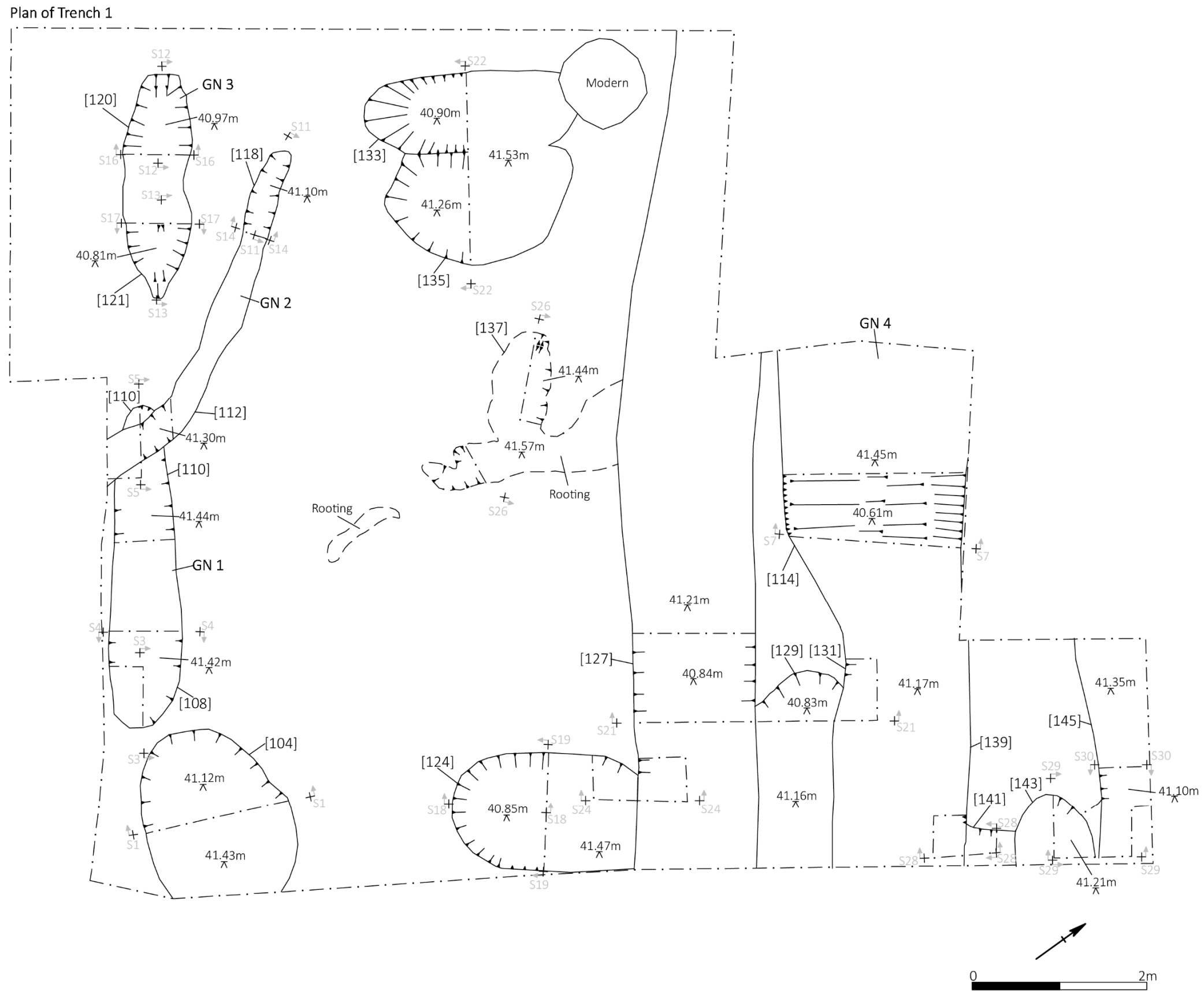


Figure 8: Trench 1, archaeology plan (scale 1:50)

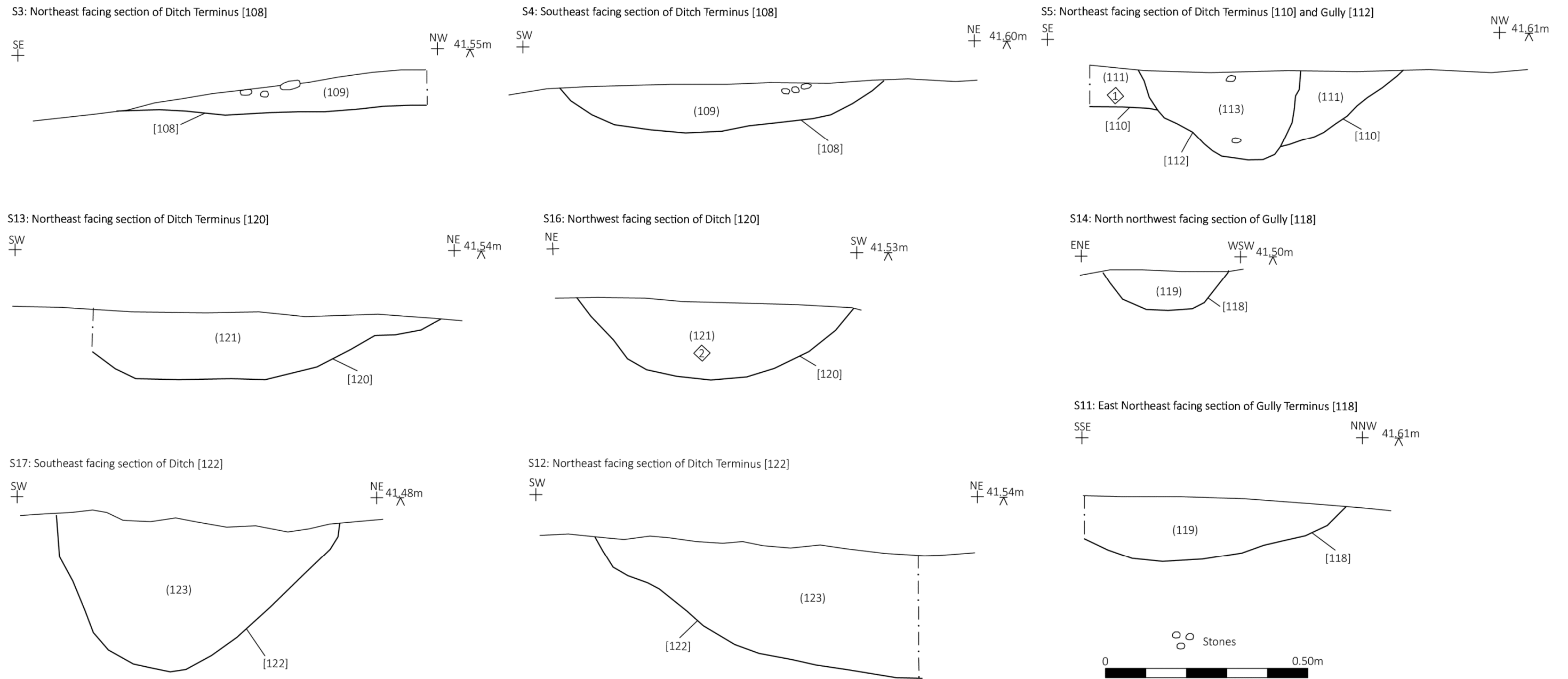


Figure 9: Trench 1, Ditch and Gully sections (scale 1:10)

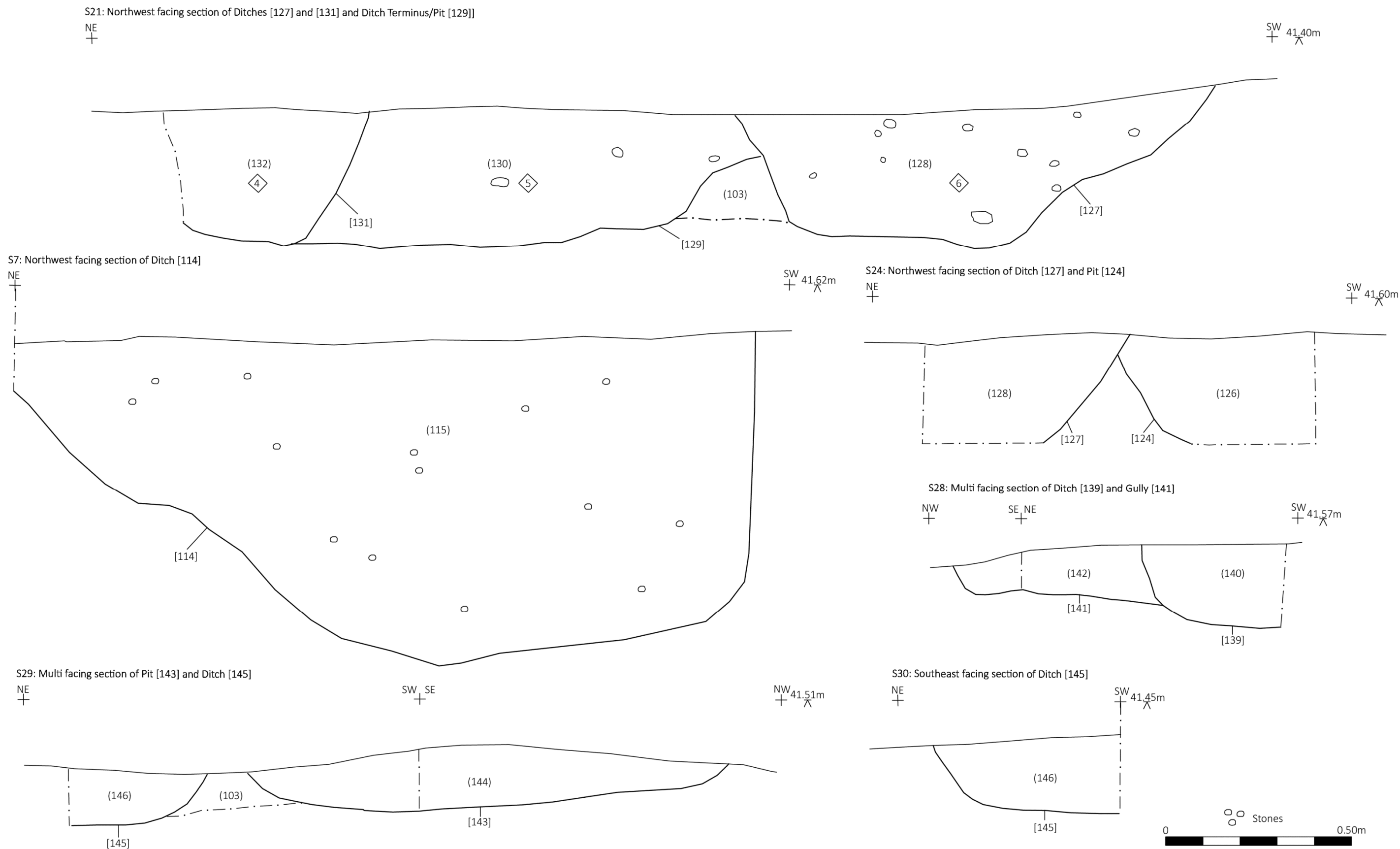
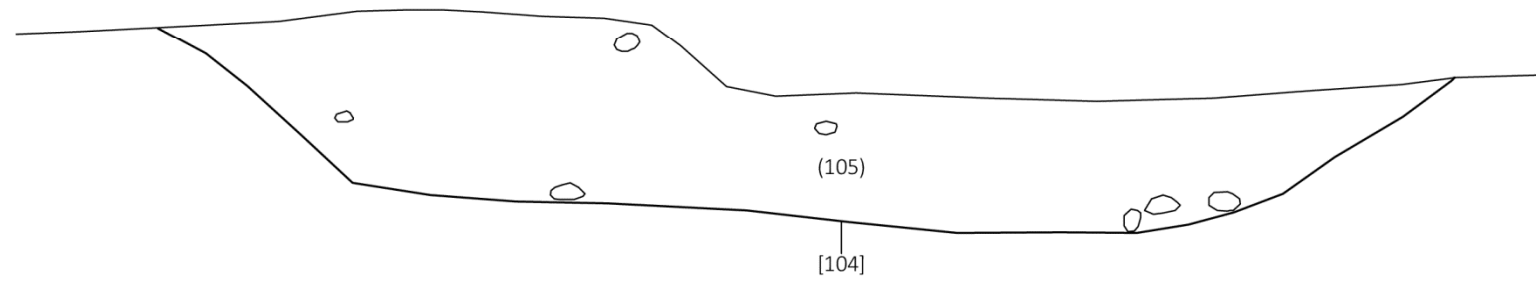


Figure 10: Trench 1, Ditch, Gully and Pit sections (scale 1:10)



S1: Northwest facing section of Pit [104]

NE
+

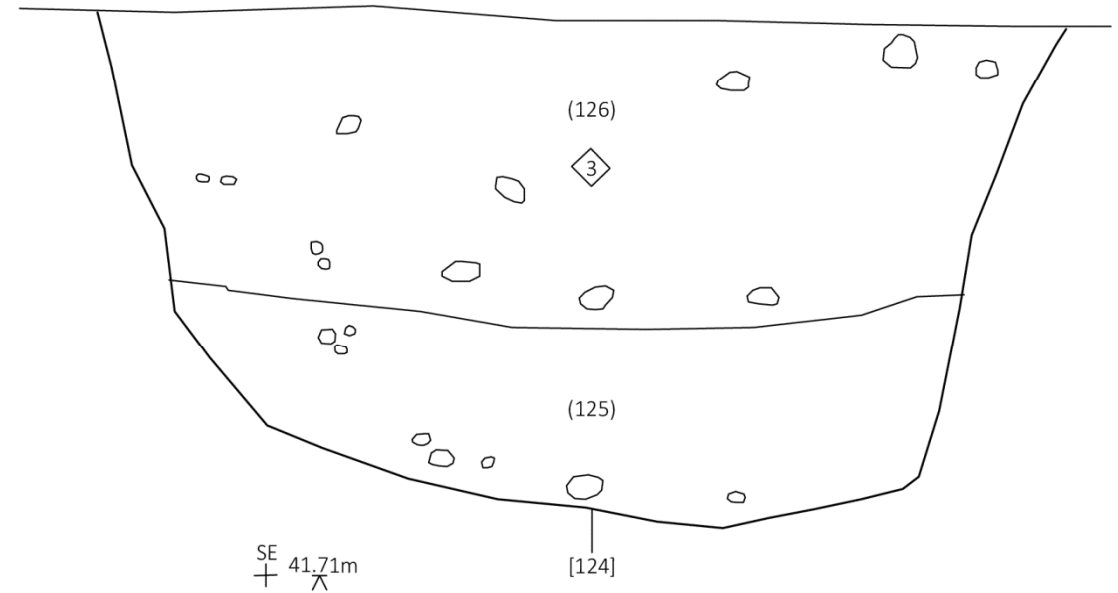


S19: Southwest facing section of Pit [124]

SW
+ 41.60m

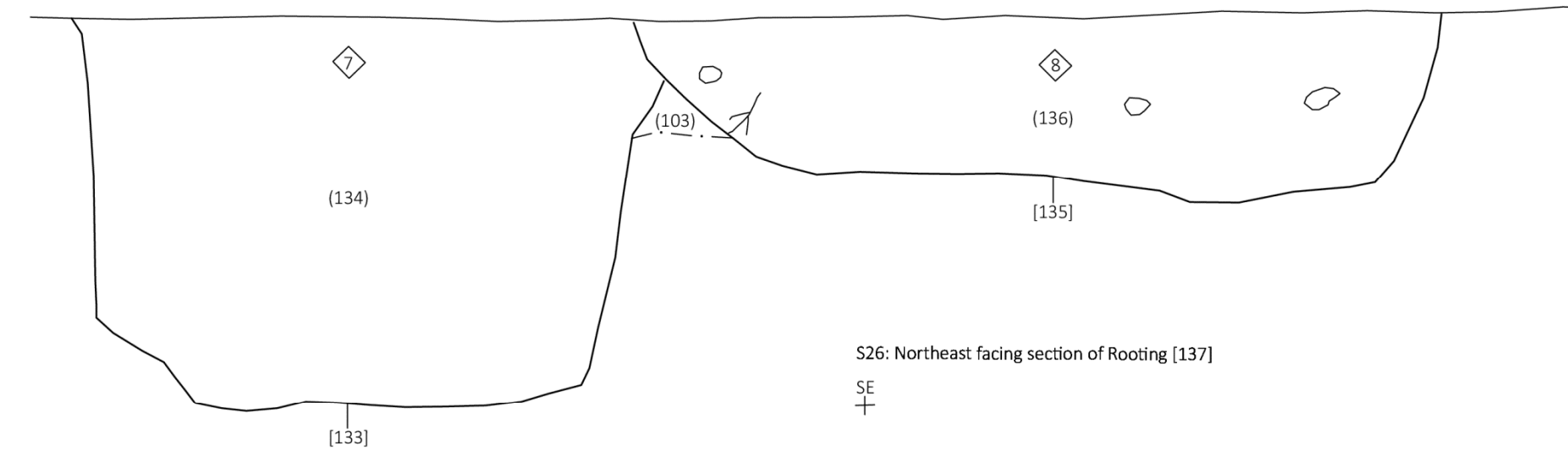
NW
+

SE
+ 41.68m



S22: Southwest facing section of Pit [133] and [135]

NW
+



S26: Northeast facing section of Rooting [137]

SE
+

NW
+ 41.74m

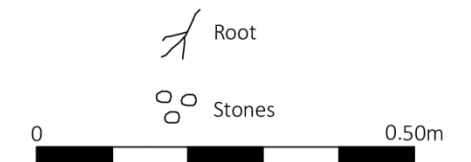
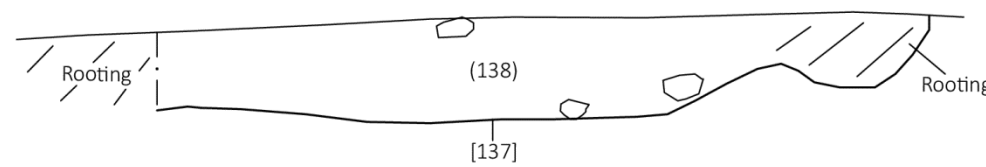


Figure 11: Trench 1, Pit and Rooting sections (scale 1:10)

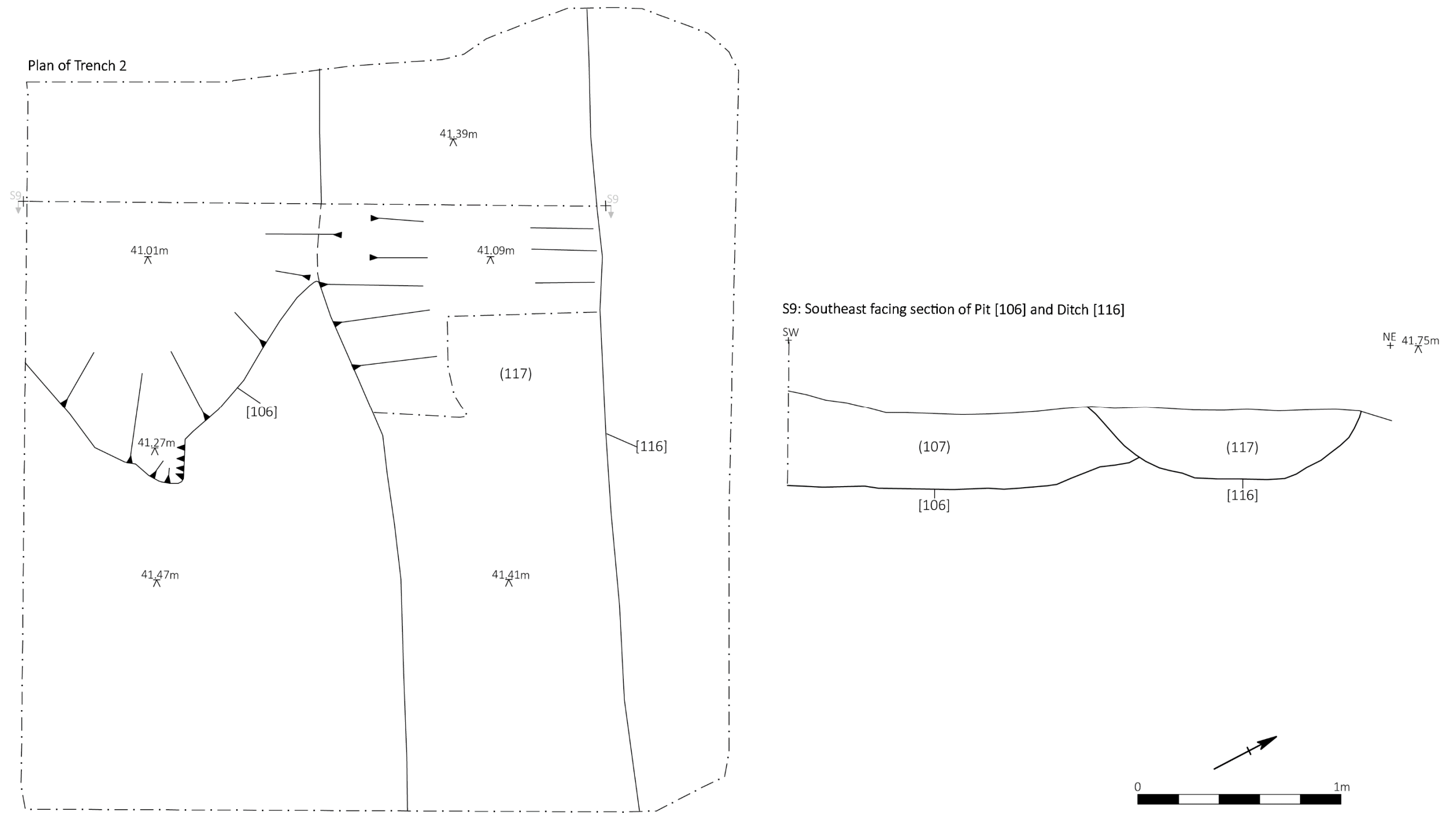


Figure 12: Trench 2 archaeology plan and section (scale 1:20)

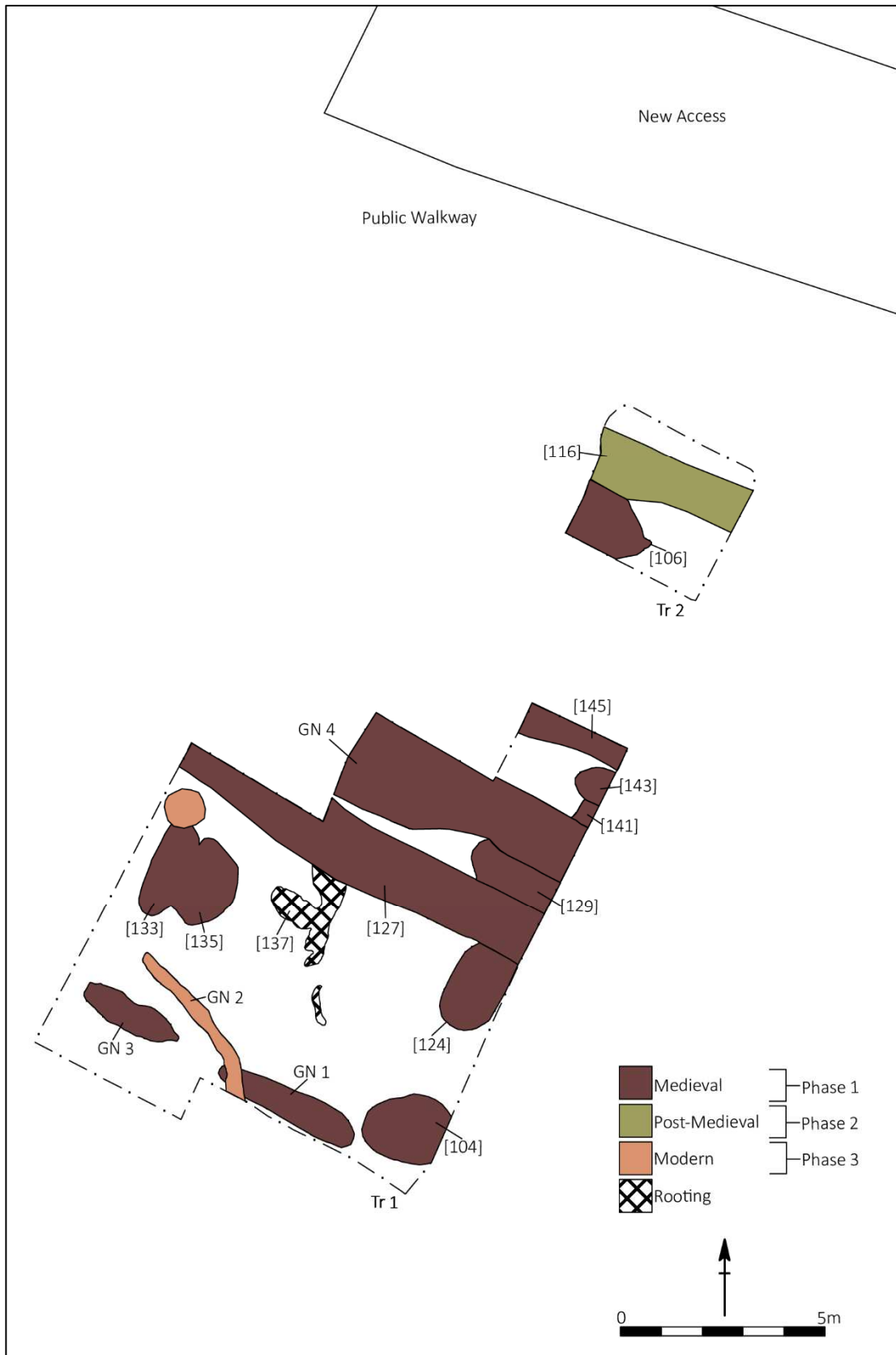


Figure 13: Phase plan (scale 1:150)

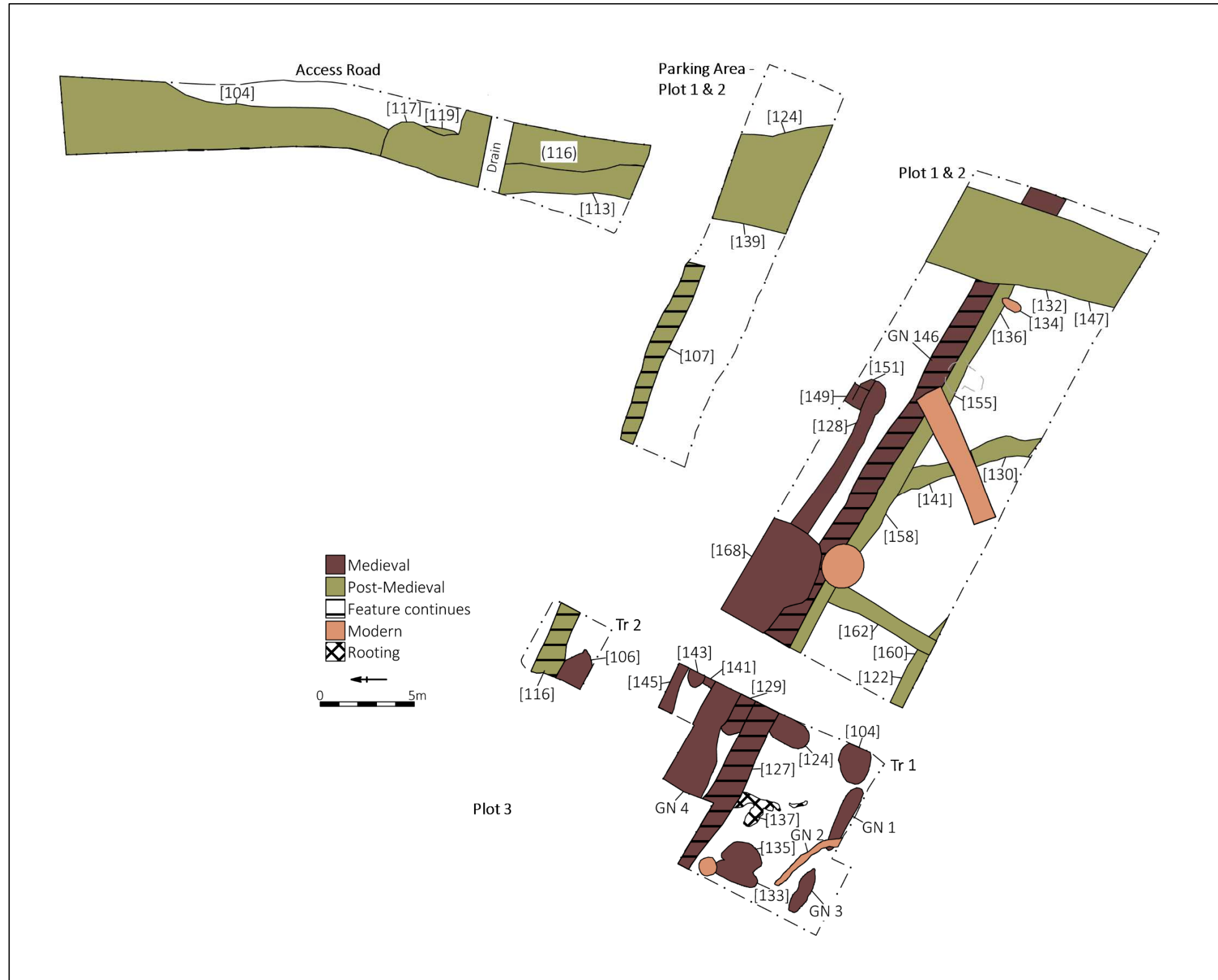


Figure 14: Overall Phase Plan (scale 1:250)



5 Conclusions

The features recorded from the excavation demonstrate that there has been activity on the site from at least as early as the Medieval period, and into the post-medieval period. The most significant features recorded are a product of agricultural activity, with ditches having been constructed as boundaries or for drainage. The site is low-lying and prone to flooding which is likely to have been the case historically, so it is perhaps not surprising that a degree of land management has been required.

There was no substantive evidence of structural features on this, or the adjacent site, and no environmental evidence of industrial processes taking place in the vicinity, lending weight to the notion that the excavation area lies on the periphery of settlement, at least for the Medieval and post-medieval periods. The pits recorded offer a hint that the site may be in a transition zone between an agricultural area and the periphery of settlement.

It is possible that as the site is small and effectively only offers a key-hole view, it may fall between widely dispersed features of a larger landscape from earlier times. In general terms the results of this investigation reinforce the conclusions drawn from the excavation of the neighbouring plots (Shlasko, 2018).

The recorded features of this site, together with the previously excavated neighbouring site, meant the research aims of the project were fairly comprehensively met in that it was possible to establish the date, nature and extent of activity, at least within the confines of the excavation, and relationships with other features on the neighbouring plots were established. The excavation has successfully added to our understanding of the development and growth of Arlesey, albeit in a modest way.



6 Acknowledgements

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The fieldwork was carried out by Carina Summerfield-Hill MSc ACIfA, Barney King, Chris Martin-Taylor MSc PCIfA and Rebecca Bradford MSc. The report was written by Carina Summerfield-Hill, and edited by David Kaye BA ACIfA.



7 Archive

7.1 The project archive will comprise:

1. Brief
2. Written Scheme of Investigation
3. Initial report
4. Monitoring sheets
5. Site drawings
6. Client's site plans
7. List of photographs
8. B/W prints & negatives
9. Specialist reports
10. CDROM with copies of all digital files.

7.2 The archive will be deposited with is Higgins Art Gallery & Museum (Accession number BEDFM 2019.02).



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Appendix 1: Excavation Summary Tables

Context Table

Context	Type	Measurements			Description			Orientation	Filled by	Interpretation
		W	L	D	Colour/Shape	Texture/Sides	Consistency/Base			
101	Layer			0.35	Dark brownish grey	Loam	Very friable			Topsoil
102	Layer			0.3	Dark brownish grey	Fairly sandy clay	Fairly soft			Subsoil
103	Layer			>0.1	Mixed yellowish grey and orange	Concentrations of gravels and clay	Fairly firm			Natural
104	Cut	1.6	>1.86	1.6	Circular	<45 degrees	Flat		105	Pit: found at the SE corner of Trench 1. It was filled by (105) that contained no finds.
105	Fill	1.6	>1.86	1.6	Mid greyish brown	Fairly silty clay	Very soft			Fill of Pit [104]: possibly naturally silted with no finds.
106	Cut	>1.46	>1.39	>1.46	Sub-circular	Concave	Irregular		107	Pit: found in Trench 2, which was cut by Ditch [116]. It is a most likely medieval due to the finds in fill, the quality of finds suggests possible rubbish pit, that was back filled after use.
107	Fill	>1.46	>0.39	>1.46	Mid greyish brown	Slightly silty clay	Fairly friable			Fill of Pit [106]: backfill containing finds of animal bone and pottery.
108	Cut	0.75	>1.1	0.75	Linear	<45 degrees, shallow	Flat	SE-NW	109	Ditch, part of GN 1: found at the SW side of Trench 1. This was a terminus slot excavated. This ditch may have formed a segmented ditch with GN 3, or could possibly represent structural foundations.
109	Fill	0.75	>1.1	0.75	Mid greyish brown	Fairly silty clay	Very soft			Fill of Ditch [108], part of GN 1: naturally silted with finds of pottery.
110	Cut	0.7	>1.6	0.7	Linear	<45 degrees	Flat	SE-NW	111	Ditch, part of GN 1: Found at SW side of Trench 1. This ditch may have formed a segmented ditch with GN 3, or could possibly represent structural foundations.
111	Fill	0.7	>1.6	0.7	Mid greyish brown	Fairly silty clay	Very soft			Fill of Ditch [110], part of GN 1: naturally silted with no finds. Fill cut by Gully [112].
112	Cut	0.32	>0.35	0.32	Curvilinear	>45 degrees	U-shaped		113	Gully, part of GN 2: found at the SW side of Trench 1.
113	Fill	0.32	>0.35	0.32	Mid greyish brown	Fairly silty clay	Very soft			Fill of Gully [112], part of GN 2: naturally silted with no finds



114	Cut	2	>4	2	Linear	SW: sheer NE: Stepped	Flat	SE- NW	115	Ditch [114], part of GN 4: found along the NE side of Trench 1. NE side of feature was stepped but sloping, SW side is sheer for unknown reasons. Single fill with some animal bone and a single sherd of pottery. Significant width and depth of ditch indicates it may have been a field boundary.
115	Fill	2	>4	2	Mid brownish grey	Fairly silty clay	Fairly sticky			Fill of Ditch [114], part of GN 4: contains animal bone and single sherd of pottery. Fill likely formed by natural deposition due to silty composition and homogenous fill.
116	Cut	1.35	>3.8	1.35	Linear	Concave	U-shaped	SE- NW	117	Ditch: found in Trench 2 and cutting Pit [106], possibly used for drainage.
117	Fill	1.35	>3.8	1.35	Mid brownish grey	Fairly silty clay	Very friable			Fill of Ditch [116]: containing post-medieval pottery.
118	Cut	0.4	>4	0.4	Linear	Steep	U-shaped	SE- NW	119	Gully, part of GN 2: in the SW end of Trench 1, containing a sherd of modern pottery. As the gully is only shallow it may have been used for drainage.
119	Fill	0.4	>4	0.4	Mid greyish brown	Fairly silty clay	Very sticky			Fill of gully [118], part of GN 2: naturally silted fill containing a single sherd of modern pottery.
120	Cut	0.8	3	0.4	Linear	Straight	U-shaped	E-W	121	Ditch, part of GN 3: found in SW corner of Trench 1. Linear feature containing two pieces of pottery possibly suggesting the ditch is medieval. The ditch may have formed a segmented ditch with GN 1, or may be structural foundations.
121	Fill	0.8	3	0.4	Dark greyish brown	Fairly silty clay	Very sticky			Fill of Ditch [120], part of GN 2: naturally silted containing two pieces of pottery, possibly medieval.
122	Cut	0.8	3	0.4	Linear	Sheer	U-shaped	E-W	123	Ditch, part of GN 3: found in SW corner of Trench 1. Linear feature no finds however possibly medieval due to finds in other half of ditch. The ditch may have formed a segmented ditch with GN 1, or may be structural foundation.
123	Fill	0.8	3	0.4	Dark greyish brown	Fairly silty clay	Very sticky			Fill of Ditch [121], part of GN 3: naturally silted with no finds.
124	Cut	1.3	2.26	0.7	Sub-circular	Steep	Flat	NE- SW	125 126	Pit: found at the SE side of Trench 2. Two slots were excavated in this feature which originally was thought to have been a Ditch terminus, but on further excavation was clearly a Pit. A profile slot was excavated and a relationship slot. The relationship demonstrated that the Pit was cut by Ditch slot [127].
125	Fill	1.05	2.26	0.3	Mid greyish brown	Fairly silty clay	Soft			Fill of Pit [124]: basal fill thought to have been a result of natural silting with no finds



126	Fill	1.3	2.26	0.4	Mid orangey brown	Fairly silty clay	Soft			Fill of Pit [124]: upper fill thought to be a result of natural silting containing one sherd of pottery.
127	Cut	1.3	>9.65	0.38	Linear	>45 degrees	Flat	SE-NW	128	Ditch: found towards the NE corner of Trench 1. This Ditch cuts Ditch terminus/Pit [129] and Pit [124]. This may possibly be the same ditch as excavated in strip map carried out last year for plots 1 & 2. Interpreted as a boundary. Two slots were excavated in this feature a profile slot and a relationship slot with Pit [124]. The animal bone found derived from the profile slot, whilst the pottery sherd derived from the relationship slot.
128	Fill	1.3	>9.65	0.38	Mid greyish orangey brown	Fairly silty clay	Soft			Fill of Ditch [107]: possibly backfill containing a sherd of pottery and animal bone.
129	Cut	1.25	>2.25	0.38	Not fully visible	>45 degrees	Flat	SE-NW	130	Ditch terminus/Pit: found towards the NE corner of Trench 1. This feature was cut by Ditch slot [127] and Ditch slot [131]. As this feature was cut by surrounding features and extended beyond the limit of excavation its full shape in plan and profile was not observed. This feature was cut by ditches containing medieval pottery and as such is contemporary to this period or earlier.
130	Fill	1.25	>2.25	0.38	Mid greyish orangey brown	Fairly silty clay	Soft			Fill of Ditch terminus/Pit [129]: possibly naturally silted containing a single oyster shell.
131	Cut	>0.56	>6	>0.37	Linear	>45 degrees	Base not reached	SE-NW	132	Ditch, part of GN 4: found at the NE corner of Trench 1. This slot formed part of a relationship slot, and as such is the same as Ditch [114]. The slot was found to be cutting Ditch terminus/Pit [129].
132	Fill	>0.56	>6	>0.37	Mid brownish grey	Fairly silty clay	Fairly sticky			Fill of Ditch [131], part of GN 4: a result of natural silting with no finds in this slot. Fill same as (115) excavated in the same Ditch, slot [114], which did contain evidence of medieval pottery.
133	Cut	0.91	2.5	0.62	Sub-circular	Sheer	Flat	SSE-NNW	134	Pit: found in the NW corner of Trench 1, it contained a single sherd of pottery and was cut but Pit [135].
134	Fill	0.91	2.5	0.62	Mid brownish grey	Slightly silty clay	Fairly soft			Fill of Pit [133]: naturally silted with finds of pottery and stone.
135	Cut	1.26	2.18	0.3	Sub-circular	Concave	Flat		136	Pit: found in the NW corner of Trench 1, cutting Pit [133].
136	Fill	1.26	2.18	0.3	Mid brownish grey	Slightly silty clay	Fairly soft			Fill of Pit [135]: naturally silted and contained a single sherd of pottery.
137	Cut	0.68	1.03	0.14	Irregular	>45 degrees	Irregular	ESE-WN-W	138	Rooting: found in the central part of Trench 1. Due to its irregularity this was interpreted as rooting.
138	Fill	0.68	1.03	0.14	Dark greyish brown	Fairly silty sandy clay	Fairly soft			Fill of Rooting [137]: with no finds.



139	Cut	>0.38	>0.45	>0.23	Linear	Concave	U-shaped	SE-NW	140	Ditch, part of GN 4: found in the extended area of Tr 1. Ditch same as Ditch slots [114] & [131]. This slot demonstrated that this feature cut Gully [141].
140	Fill	>0.38	>0.45	>0.23	Mid brownish grey	Fairly silty clay	Soft			Fill of Ditch [139], part of GN 4: same as (115) and (132) excavated from previous Ditch sections [114] and [131], with no finds.
141	Cut	>0.39	0.56	0.15	Linear	>45 degrees	U-shaped	NE-SW	142	Gully: found in Trench 1 extended area. Only a small section of this gully could be seen as it extended beyond the limit of excavation and was cut by Ditch slot [139] and Pit [143]. As the ditch was thought to have been medieval this gully is either contemporary to this period or earlier.
142	Fill	>0.39	0.56	0.15	Mid brownish grey	Fairly silty clay	Soft			Fill of Gully [141]: naturally silted with no finds.
143	Cut	0.9	>0.8	0.17	Sub-circular	<45 degrees	Flat		144	Pit: found in the extended area of Trench 1. This pit was found cutting Gully [141], with no finds.
144	Fill	0.9	>0.8	0.17	Mid greyish brown	Fairly silty clay	Soft			Fill of Pit [143]: naturally silted with no finds.
145	Cut	>0.58	>2.58	0.21	Linear	>45 degrees	U-shaped	SE-NW	146	Ditch: found in the extended area of Trench 1. This feature extended beyond the limit of excavation and as such its full profile was not fully visible. This feature was found adjacent to Pit [143]. In this part of the site there appears to be a series of linears, namely Ditch [114], Ditch/Pit [129], Ditch [127] all orientated NW-SE that may have all formed boundaries.
146	Fill	>0.58	>2.58	0.21	Mid greyish brown	Fairly silty clay	Soft			Fill of Ditch [145]: naturally silted with no finds.



Plan Register

Sheet No	Drawing No	Scale	Details
1	2	1:20	Pit [104]
1	6	1:20	Ditch GN 1
2	8	1:20	Ditch [114]
3	10	1:20	Pit [106] & Ditch [116]
4	12	1:10	Ditch [122]
4	15	1:10	Gully GN2 and Ditch GN3
2	20	1:20	Pit [124]
5	23	1:20	Ditch [127], Pit [129] & Ditch [131]
4	24	1:20	Pits [133] & [135]
6	27	1:20	Rooting [137]
6	31	1:20	Gully [141], Pit [143] & Ditch [145]

Section Register

Sheet No	Drawing No	Scale	Contexts
1	1	1:10	Pit [104]
1	3	1:10	Ditch [108]
1	4	1:10	Ditch [108]
1	5	1:10	Ditch [110] & Gully [112]
2	7	1:10	Ditch [114]
3	9	1:10	Pit [106] & Ditch [116]
4	11	1:10	Gully [118]
4	13	1:10	Ditch [120]
4	14	1:10	Gully [118]
4	16	1:10	Ditch [120]
4	17	1:10	Ditch [122]
2	18	1:10	Pit [124]
2	19	1:10	Pit [124]
5	21	1:10	Ditch [127] Pit [129] Ditch [131]
5	22	1:10	Pits [133] & [135]
5	24	1:10	Pit [124] & Ditch [127]
1	26	1:10	Rooting [137]
6	28	1:10	Pit [139] & [141]
6	29	1:10	Pit [143] & Ditch [145]
6	30	1:10	Ditch [145]

Sample Register

Sample No	Context No	Sample Type	Quantity
1	111	Bulk	40 Litres
2	131	Bulk	40 Litres
3	126	Bulk	40 Litres
4	132	Bulk	40 Litres
5	130	Bulk	40 Litres
6	128	Bulk	40 Litres
7	134	Bulk	40 Litres
8	136	Bulk	40 Litres





Appendix 2: Finds Concordances

Context	Pot		Bone		CBM		Shell		Other			
	Fill	No.	Gms	No.	Gms	No.	Gms	No.	Gms	No.	Gms	Notes
107		2	22	8	642			1	22			
109		2	33									
115		1	6	2	20							
117		7	799									
119		1	16			1	<1					
121		2	48									
126		1	15	1	21							
128		1	9					1	29			
132				1	273							
134										1	784	Stone (granite)
Total		17	948	12	956	1		1	29	1	784	

Finds recovered from environmental samples

Context	Pot		Bone		CBM		Shell		Other			
	Fill	No.	Gms	No.	Gms	No.	Gms	No.	Gms	No.	Gms	Notes
111		7	12	>10	4	1	>1					
121		10	37	>10	12	1	2			<5	>1	Glass shards
126		6	2	>10	8	<5	7					
128		1	>1	>10	2	<5	1			<5	>1	Glass shards
130				>10	2	<5	>1			<5	>1	Glass shards
132		7	34	>10	8	<5	7			1	1	Pb
										<5	>1	Glass shards
134		7	11	>10	5	<5	4	1	2	<5	>1	Glass shards
136		3	22	>10	4	<5	1			<5	3	Glass shards
Total		41	119		45		24		2		9	

Note: animal bone, cbm and glass very small fragments weighed rather than individually counted.



Appendix 3: Photograph List

Digital	B&W	View	Subject
1		SSE	Tr 1 pre- ex
2		E	Tr 1 pre- ex
3		NE	Tr 1 pre- ex
4		NE	Tr 1 pre- ex
5		N	Tr 1 pre- ex
6		NW	Tr 1 pre- ex
7		NE	Tr 2 pre-ex
8	1	SE	Pit [104]
9		SW	Gully [108]
10		NW	Gully [108]
11		SE	Gully [110]
12		SW	Gully [110] & [112]
13	2	NW	Gully GN 1
14	3	SE	Gully GN 1
15	4	SE	NW facing section of ditch [114]
16		SE	Ditch [114] overall
17	5	NW	SE facing section of pit [106] and linear [116]
18		WSW	ENE facing section of gully terminus [118]
19		SSE	NNW facing section of gully terminus [118]
20		SW	NE facing section of ditch terminus [120]
21		SW	NE facing section of ditch terminus [122]
22	6	SSE	Gully Group 2
23	7	SE	Ditch Group 3
24	8	SE	NW facing section of ditch terminus [124]
25		SE	Trench 2 stratigraphy
26	9	SE	NW facing section of ditch [120]
27		WNW	ESE facing section of ditch [122]
28	10	NE	Pit [124]
29	11	SE	NW facing section of Ditch [127] Pit [129] Ditch [131]
30		NW	Tr 1 stratigraphy
31	12	SE	NW facing section of Pit [124] Ditch [127]
32	13	NE	SW facing section of Pit [133] [135]
33		SE	Tr 1 post-ex
34		SE	Tr 1 post-ex
35		E	Tr 1 post-ex
36		ENE	Tr 1 post-ex
37		ESE	Tr 1 post-ex
38	14	SW	Root/pit [137]
39	15	N	Pre-ex, trench 1 extension
40	16	SE	Ditch [139] Gully [141]
41		SW	Pit [143]
42	17	SE	Ditch [145] Pit [143]
43		SE	Ditch [145] Pit [143]
44		NW	Ditch [145]
45		N	Post-ex, trench 1 extended area
46		W	Post-ex, trench 1 extended area



Appendix 4: Specialist Reports

Pottery from Arlesey, Bedfordshire (Site 437/AGE)

Paul Blinkhorn

The pottery assemblage comprised 37 sherds with a total weight of 1060g. It consisted of a mixture of earlier medieval and post-medieval wares, and was recorded using the conventions of the Bedfordshire County Archaeology Service type-series (eg Baker and Hassall 1979), as follows:

- B07:** Medieval Shelly Ware, AD1100-1400. 1 sherd, 17g.
C59b: Sandy Ware, 12th - 13th century. 6 sherds, 34g.
C60: Hertfordshire-type Greyware, mid/late 12th – mid 14th century. 22 sherds, 195g.
P01: Glazed Red Earthenware, 16th – 19th century. 7 sherds, 797g.
P56: Mass-produced Earthenware, 19th – 20th century. 1 sherds, 17g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*. The range of fabric types is typical of sites in the region. The sherds are mostly fairly large and fresh, and appear reliably stratified. The relatively low mean sherd weight for the medieval material is due to the fact that pottery from the environmental samples was included in this report.

The medieval material is all of 12th century date, and entirely consists of fragments of unglazed jars, with rimsherds in B07 and C60 noted. The sherds of P01 are all from large internally-glazed bowls, the main product of the tradition.

Table 1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type

Cntxt	B07		C59b		C60		P01		P56		Date
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
107	1	17	1	4							12thC
109					2	33					M12thC
111			3	10	2	2					M12thC
115					1	6					M12thC
117							7	797			16thC
119									1	17	MOD
121			1	5	6	79					M12thC
126			1	15	2	2					M12thC
128					1	9					M12thC
132					2	33					M12thC
134					4	10					M12thC
136					2	21					M12thC
Total	1	17	6	34	22	195	7	797	1	17	

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Animal bone from Green End Farm, Hitchin Road, Arlesey, Bedfordshire (Project 437/AGE)

Derek Watson, PhD

Introduction

An archaeological Strip, Map and Sample investigation of Green End Farm, Hitchin Road, Arlesey, Bedfordshire generated an animal bone assemblage comprising 14 fragments (1.05kg bone dry weight; Tables 1). Animal bones were recovered from 5 contexts (fills of pits and ditches), and the assemblage was highly fragmented. Further bone was recovered from environmental samples from contexts (111, 126, 128, 130, 131, 132, 134). This material comprised 45g of small fragments ($\leq 0.5\text{cm}$) that were not identifiable to species or element, and have been excluded from this analysis. The relative dates obtained from pottery recovered from the excavation are concentrated in the 12th century AD.

Methodology: Taxonomic identification and Quantification

All specimens were identified to species or taxonomic group where possible, using published criteria and quantified by a fragment count (i.e. Number of Identified Specimens/Skeletal Parts, NISP; i.e. 14 specimens). A total of four species were positively identified in the assemblage: cattle (*Bos taurus*), pig (*Sus scrofa* sp.), horse (*Equus caballus*) and the European flat oyster (*Ostrea edulis*). High fragmentation precluded estimation of age-at-death (Grant 1982; Habermehl 1975; Payne 1973; Silver 1969), or the acquisition of metric data (von den Driesch 1976). No animal/human gnawing, butchery marks and other forms of modification were observed in the assemblage. Specimens that were not identifiable to species were assigned to size classes (small/medium/large). The Minimum Number of Individuals (MNI) was calculated from the greater number of left or right complete bones or epiphyseal ends and/or mandibles with *in situ* teeth. Measurements of the elements were taken in accordance; Table 2). The mammalian species comprise no more than 1, or 2, individuals, whereas the oyster remains may represent a minimum of 2 individual bivalves.

Discussion & Conclusions

The animal bone assemblage is small, though it does enable the formulation of tentative conclusions concerning human activities and animal exploitation. The animal bone was recovered from the fills of pits and ditches with pottery spot-dated to the medieval period (12th century) when the village at Arlesey comprised a small agricultural settlement. The body parts represented within the assemblage are those commonly generated by primary butchery as the recovered bone comprises lower extremities and teeth, i.e. the disposal of the least meaty bones/portions that are often discarded during initial disarticulation of an animal carcass, which are then incorporated into the fills of cut features that are used for disposal; with the meatiest cuts and marrow bones consumed and disposed of elsewhere. The presence of a large mandibular pig canine demonstrates that this animal was male. The animals represented in the assemblage were probably exploited for a range of uses and products e.g. traction, meat, milk, wool, leather etc.

**Table 1:** Animal bone from Green End Farm, Hitchin Road, Arlesey, Bedfordshire

Animal Bone	12th Century											
Context	107		115		126		128		132		Total	
Species/element	#	%	#	%	#	%	#	%	#	%	#	%
Horse									1	(7.1)	1	(7.1)
<u>Radius</u>									1	(7.1)	1	(7.1)
Cattle	3	(21.4)									3	(21.4)
Humerus	1	(7.1)									1	(7.1)
Radius	1	(7.1)									1	(7.1)
Metatarsal	1	(7.1)									1	(7.1)
Pig	2	(14.3)									2	(14.3)
Mandible C + P3-M2	1	(7.1)									1	(7.1)
Mandible (no teeth)	1	(7.1)									1	(7.1)
Oyster	1	(7.1)					1	(7.1)			2	(14.3)
shell	1	(7.1)					1	(7.1)			2	(14.3)
Small-Medium	1	(7.1)	2	(14.3)					1	(7.1)	3	(21.4)
Tibia			2	(14.3)							2	(14.3)
Indeterminate	1	(7.1)							1	(7.1)	2	(14.3)
Medium					1	(7.1)					1	(7.1)
Femur					1	(7.1)					1	(7.1)
Large	1	(7.1)									1	(7.1)
Indeterminate	1	(7.1)									1	(7.1)
Total	8	(57.1)	2	(14.3)	1	(7.1)	1	(7.1)	2	(14.3)	14	(100)

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GREEN END FARM, ARLESEY: ASSESSMENT OF ARCHAEOBOTANICAL REMAINS IN ENVIRONMENTAL SAMPLES TAKEN DURING AN EXCAVATION.

Lisa Gray MSc MA ACIfA Archaeobotanist

1. INTRODUCTION – AIMS AND OBJECTIVES

This excavation took place prior to the construction of a bungalow (Dodd 2019, 3) at a site where previous archaeological evaluations had revealed agricultural activity dating back to the early medieval period (Dodd 2019, 12 citing Shlasko 2018, 1). It also follows an archaeobotanical evaluation report written by the author (Gray 2018).

Eight samples were presented for assessment (see table 1 below).

Table 1: Sample Details

Sample No.	Context No.	Description	Provisional Date	Sample Volume (L.)	Flot Volume (L.)
1	111	Ditch [110]	Possibly Medieval	40	0.2
2	121	Ditch [120]	Possibly Medieval	40	0.15
3	126	Pit [124]	Possibly Medieval	40	0.05
4	132	Ditch [131]	Medieval	40	0.3
5	130	Pit/ditch [129]	Unknown	40	0.2
6	128	Ditch [127]	Medieval	40	0.2
7	134	Pit [133]	Unknown	40	0.1
8	136	Pit [135]	Unknown	40	0.15

The aims of this assessment are to determine the local, regional and national significance of the archaeobotanical remains in the samples and to assess the potential of the plant macro-remains to provide information about diet, craft, medicine, crop-husbandry, feature function and environment.

Comments will also be made on faunal and artefactual remains in the samples with the advice that they are passed onto relevant specialists.

2. SAMPLING AND PROCESSING METHODS

These samples were completely processed by KDK Archaeology using a flotation device. Flot was collected in a 300-micron mesh sieve then dried.

Once with the author the flot was scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The whole flot was examined. The abundance, diversity and state of preservation of eco- and artefacts in the sample was recorded. A magnet was passed across each flot to record the presence or absence of magnetised material or hammerscale.

Identifications were made using uncharred reference material (author's own and the Northern European Seed Reference Collection at the Institute of Archaeology, University College London) and reference manuals (such as Beijerinck 1947; Cappers *et al.* 2006; Charles 1984; Fuller 2007; Jacomet 2006). Nomenclature for plants is taken from Stace (Stace 2010). Latin names are given once and the common names used thereafter. Low numbers of non-charcoal charred plant macro-remains were counted. Uncharred plant remains, fauna and magnetic fragments were given estimated levels of abundance unless, in the case of seeds, numbers are very low in which case they were counted.

At this stage numbers given are estimates but where only one item is present that has been counted.



Identifiable charred wood >4mm in diameter has been described as that. Charred wood <4mm diameter are described as 'flecks'. Samples this size are easier to break to reveal the cross-sections and diagnostic features necessary for identification and are less likely to be blown or unintentionally moved around the site (Asouti 2006, 31; Smart and Hoffman, 1988, 178-179). Fragments smaller than this and larger than 2mmØ were scanned in case any fragments of twig or roundwood survived.



3.RESULTS

3.1. The Plant Remains (see table 2 below)

Table 2: Plant Macro-Remains in Samples

Sample No.	Context No.	Description	Sample Volume (L.)	Flot Volume (L.)	Charred plant remains												Uncharred Plant Remains						
					Grains			Seeds			Chaff			Nutshell	Plant tissue	Charcoal >4mm	Charcoal <4mm	Seeds			Root/rhizomes		
					a	d	p	a	d	p	a	d	p	a	a	a	a	a	d	p	a		
1	111	Ditch [110]	40	0.2	2	1	2	-	-	-	-	-	-	-	-	-	1	-	1	1	1	3	3
2	121	Ditch [120]	40	0.15	2	1	2	-	-	-	-	-	-	1	-	-	1	-	1	1	1	3	3
3	126	Pit [124]	40	0.05	2	1	2	1	1	3	-	-	-	-	-	-	1	-	1	1	1	3	3
4	132	Ditch [131]	40	0.3	1	1	2	1	1	2	-	-	-	-	-	-	1	1	1	1	1	3	3
5	130	Pit [129]	40	0.2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	3	3
6	128	Ditch [127]	40	0.2	1	1	2	-	-	-	1	1	1	-	1	-	-	-	1	1	1	3	3
7	134	Pit [133]	40	0.1	3	1	2	-	-	-	-	-	-	-	-	-	1	-	1	1	1	3	3
8	136	Pit [135]	40	0.15	2	1	2	1	1	3	-	-	-	-	1	-	1	-	1	1	1	3	3

Key: a = abundance [1=occasional1-10,2=moderate 11-100 and 3= abundant>100; d = diversity [1=low1-4 taxa types, 2=moderate5-10,3= high; p = preservation [1 = poor (family level only), 2= moderate (genus), 3= good (species identification possible)



A fragment of charred twig was found in sample, ditch [110] (sample <1>). Cereal grains were found in all samples apart from pit [129] (sample <5>). Most of these grains had the morphology of bread/club/riquet wheat (*Triticum aestivum/durum/turgidum*). Barley (*Hordeum* sp.) grains were found in lower numbers in ditch [120] (sample <2>), ditch [127] (sample <6>) and pit [135] (sample <8>). These grains were hulled and straight. The only cereal chaff present was a culm node fragments in ditch [127] (sample <6>). Low numbers of rye (*Secale cereale*) grains were found in ditch [110] (sample <1>). Low numbers of seeds segetals were found in pit [124] (sample <3>), ditch [131] (sample <4>) and pit [136] (sample <8>). One cleavers (*Galium aparine*) seed was found in pit [124] (sample <3>). Buttercup type (*Ranunculus acris/repens/bulbosus*) and cherry/plum/sloe (*Prunus* sp.) seeds were found in ditch [131] (sample <4>). One stinking chamomile (*Anthemis cotula*) seed was found in pit [135] (sample <8>). Uncharred root/rhizome fragments were present in all samples. Low numbers of uncharred, dried waterlogged seeds of ruderal plants and scrub were found in each sample. These were seeds of blackberry/raspberry (*Rubus fruticosus/idaeus*), fat hen (*Chenopodium album*) and elderberry (*Sambucus nigra*).

3.2. Fauna

Terrestrial mollusca present in low to moderate numbers in each flot. Earthworm cocoons were found in samples ditch [127] (sample <6>) and pit [135] (sample <8>).

3.3. Inorganic Remains

One fragment of iron was found in ditch [127] (sample <6>).

4. DISCUSSION

4.1. Biases in Recovery, Residuality, Contamination

The sample sheets describe contamination as low and with minor root disturbance. The presence of terrestrial snails in these flots, particularly the subterranean snail *Ceciliodes acicula* (Müller) can be indicative of bioturbation. *Ceciliodes acicula* borrows well below the ground surface (Kerney & Cameron 1979, 149). These items can be indicative of bioturbation and oxygenation of the soil. Conditions like these tend to create aerobic preservation conditions that are biased towards the survival of charred plant remains and uncharred plant remains with robust testas as evident in the samples. Due to the evidence of bioturbation It is possible that the uncharred seeds are intrusive.

4.2. Quality and type of preservation.

The archaeological plant macro-remains were preserved by charring. No plant remains were preserved by mineralisation (Green 1979, 281) or silicification (Robinson and Straker 1990), which means that there is no archaeobotanical evidence for the cess disposal or slow-burning aerated fires.

Charring of plant macrofossils occurs when plant material is heated under ‘...reducing conditions...’ where oxygen is largely excluded (Boardman and Jones 1990, 2) leaving a carbon skeleton resistant to biological and chemical decay (Campbell *et al* 2011,17). These conditions can occur in a charcoal clamp, the centre of a bonfire or pit or in an oven or when a building burns down with the roof excluding the oxygen from the fire (Reynolds, 1979, 57).

4.3. Potential

At this stage plant remains are not counted so only an estimate of sample richness is possible. The density per litre of sampled soil of charred plant remains in these samples is low to moderate and the grains are mostly well-preserved. Previous work at this site revealed charred plant macro-remain assemblages that were similar in quantity and content to those from this intervention (Gray 2018). During the evaluation the density of charred plant remains were low to very low so likely to be background waste from activities in the area or wind-blown, accidental deposits rather than evidence



of feature use (ibid). It should be noted here that the sample volumes for the evaluation samples were not recorded so it was not possible to make a confident estimate of sample density. After this assessment it seems wise to reconsider the potential of the plant remains from the evaluation phase (361 AGE) because coupled with this phase there is useful information to be gained from any further work on both phases of sampling. The low to very low assemblages from the evaluation phase that seemed not to be very useful may, when combined with these samples, add to the overall archaeobotanical interpretation of the site.

The plant macro-remains in these samples are typical of those commonly found in Medieval samples in Britain (Van Der Veen *et al* 2013,160) and similar to those found during the evaluation (ibid).

These samples also contain items that have the potential to be radiocarbon dated. In the case of charcoal, these fragments would have to be identified to select suitable taxa. The charred plant remains have the potential to reveal general information about diet, crop husbandry and feature function.

4.4. Significance of the Samples and Recommendations for Further Work.

These samples have local and possibly regional significance. Further work on these samples as well as the three samples from the evaluation phase (Gray 2018) should provide useful information about diet, crop husbandry, feature function and possibly the local environment if the uncharred seeds are considered as contemporary with the charred plant remains.

5. ACKNOWLEDGEMENTS

Thanks are due to Nicola Bell of KDK Archaeology Ltd for providing background information.

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Appendix 5: OASIS and Site Data

PROJECT DETAILS			
Project Name & Address	Green End Farm, 1 Hitchin Rd, Arlesey, Bedfordshire	Project Site Code	437/AGE
OASIS reference	kdkarcha1-339764	Event/Accession no	BEDFM 2019.02
OS reference	TL 1922 3538	Study area size	109 sq. m
Project Type	Strip, Map and Sample Excavation	Height (mAOD)	41.95
Short Description	In February 2019 KDK Archaeology Ltd undertook an Archaeological Strip, Map and Sample Excavation at Green End Farm, Arlesey, Bedfordshire prior to the construction of new residential property on the site with associated parking and access. The project was required under the terms of the National Planning Policy Framework (NPPF) as Condition 3 of planning permission. The excavations uncovered the remains of a number of medieval features in the form of ditches, gullies and pits, along with a post-medieval ditch and a modern pit and gully. Several of the features are continuations of those identified in a previous excavation immediately to the southeast which were of agricultural origin (Shlasko, 2018). However, there were a number of pits which could suggest the site is closer to the edge of settlement.		
Previous work	Strip, Map & Sample adjacent KDK 361/AGE/2.2	Site status	None
Planning proposal	Erection of detached bungalow	Current land use	Garden and grassland
Local Planning Authority	Central Bedfordshire Council	Planning application ref.	CB/18/03097/FULL
Monument type	Ditches, Pits, Gully Ditch, Gully	Monument period	Medieval Post-medieval
Significant finds	Pottery, animal bone	Future work	Unknown
PROJECT CREATORS			
Organisation	KDK Archaeology Ltd		
Project Brief originator	Slawek Utrata (CBCAT)	Project Design originator	KDK Archaeology Ltd
Project Manager	David Kaye BA ACIfA	Director/Supervisor	Carina Summerfield-Hill MSc ACIfA
Sponsor/funding body	Rob Scott		
PROJECT DATE			
Start date	04.02.19	End date	14.02.19
PROJECT ARCHIVES			
	Location	Content (eg. pottery, animal bone, files/sheets)	
Physical	Higgins Art Gallery & Museum (Accession number BEDFM 2019.02)	Pottery, animal bone	
Paper		Brief, WSI, report, fieldwork sheets and drawings, b&w photographs and negatives, contact sheet of digital photographs printed out	
Digital		Digital versions of the above and report downloads to ADS	
BIBLIOGRAPHY (Journal/monograph, published or forthcoming, or unpublished client report)			
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