64-68 Newmarket Road
Cambridge, Cambridgeshire

Archaeological Evaluation Report

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Client: Unex Group

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Archaeological Evaluation Report

64-68 Newmarket Road, Cambridge, Cambridgeshire

Archaeological Evaluation

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Date of Works:	May 2016
Client Name:	Unex Group
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Table of Contents

List of Figures

List of Plates

List of Tables

Summary

An archaeological evaluation was carried out at 64-68 Newmarket Road, Cambridge, Cambridgeshire to provide further information about the archaeological character of the site in support of a planning application for redevelopment for housing and commercial properties. The fieldwork took place between the 4th and 10th of May 2016. A total of seven trenches were excavated within the proposed development area.

Evidence of medieval settlement activity was uncovered in the northern part of the site in the form of pits and low levels of finds. The remainder of the test pits showed that the site had been open fields until the mid or late 19th century, and that they had been subject to heavy manuring and/or rubbish disposal throughout the 18th and 19th centuries. Test Pit 5 at the rear of the site was located in a row of terraced houses shown on maps of 1830 and 1885. This test pit showed that quarrying had taken place followed by housing development.

1 Introduction

1.1 Location and scope of work

1.1.1 An archaeological evaluation was conducted at 64-68 Newmarket Road, Cambridge, Cambridgeshire (Fig 1).

1.1.2 This archaeological evaluation was undertaken in accordance with a Brief issued by the Cambridgeshire Historic Environment Team of Cambridgeshire County Council (CCCHET; Planning Application 14/1905/FUL), supplemented by a Specification prepared by OA East (Wiseman and Connor 2016).

1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government March 2012). The results will enable decisions to be made by CCC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

1.2.1 The site lies on the boundary of the West Marlbury Chalk Formation to the south and east and the Gault Mudstones to the north and west. This is overlain by River Terrace Gravels 3 (British Geological Survey online map viewer viewer http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain /viewer.html) (accessed 15 March 2016).

1.2.2 The site is flat and lies at 13m to 17m OD. It is positioned 250 metres south of the River Cam. To the north the land slopes down to the river.

1.3 Archaeological and historical background

1.3.1 The information below draws heavily on information provided by Cambridgeshrie County Council Historic Environment Record. Other sources include a desktop study for a site at the Riverside Campus, immediately to the north of the proposed development area, undertaken by Cambridge Archaeology Unit (Appleby and Dickens 2007, 2009) and the Written Scheme of Investigation for the current evaluation (Connor 2016).

Prehistoric

1.3.2 The Cambridgeshire Historic Environment Record (CHER) lists a number of prehistoric finds in the vicinity of the proposed development area, although none from the site itself. They include a palaeolithic hand axe (CHER 05139), a Neolithic polished stone axe (CHER 05142) and a cremation of indeterminate prehistoric date (CHER 05020A). Two food vessels and a small bowl of the early Bronze Age were found in gravel diggings on Midsummer Common in about 1860 (CHER 04801). The gravel terraces of the river Cam are thought to have been particularly favoured for prehistoric settlement (Fox 1923) although in heavily built up areas the evidence for this period is often obscured or destroyed.

Iron Age and Roman

1.3.3 The Roman town of Cambridge, known in the Antonine Itineraries as Duroliponte, lies to the north-west of the Cam, in the area now known as Castle Hill c.2km to the west of the site. Pottery found in the vicinity of the proposed development area includes a few

sherds found during construction of a sewer across Midsummer Common in 1895 but it is uncertain how significant these artefacts are as they may relate to settlement or manure scatters (CHER 05020B; Salzman 1948; Browne 1974, 23).

Saxon and Early Medieval

1.3.4 The development of Anglo-Saxon Cambridge is complex and much of its details remain unknown. It seems to have developed from a series of scattered settlements that only merged into villages later (Taylor 1999, 39). Several cemeteries are known to exist but little evidence of the houses in which the Anglo-Saxons lived. The town is first documented in AD695, although the reference suggests the (presumably Roman) town of Grantacaestir was ruined (ibid, 43). By the 8th century Offa had control of the town and had created a defended burh on the north-western side of the river and built a bridge to cross it, in AD875 the Anglo-Saxon Chronicle refers to Cambridge as Granta Bryege, in the same year the town came under the rule of the Danelaw (ibid, 43). The Late Saxon town of Cambridge was centred on Market Hill south of the river and more than a kilometre to the west of the site. Few finds of this date have been found close to the subject site although a few sherds of Saxon pottery were found during excavation of a sewer across Midsummer Common in 1895 (CHER 05020B).

Later Medieval

1.3.5 Medieval remains are more common and the proposed development area lies to the south-west of the precinct of the medieval priory at Barnwell (CHER 04653) and its associated lay settlement. Barnwell Priory, was founded by Augustinian Canons in 1092, at a site near Cambridge Castle and moved to its present site in 1112. Dissolution in 1538 saw much of its stone removed for use in a new chapel at Corpus Christi College, with further demolition and robbing taking place in the early 19th century. The only surviving feature of the priory is a single vaulted chamber of mid 13th century date. A watching brief along the eastern edge of the precinct revealed only modern service features and redeposited alluvial material introduced during the revetment of the frontage in the 19th and 20th centuries (Davenport *et al* 2008). A medieval fishpond (CHER 04653b) belonging to the priory was also located within the precinct walls of the priory to the north-east (Appleby and Dickens 2009). The site of the fish pond is also recorded on the 1888 1st Edition Ordnance Survey Map (1: 2500). Twelfth to thirteenth century middens associated with Barnwell Priory were excavated at Cambridge Regional College (ECB3333 to the north of the current development site) and the medieval town of Cambridge lies only a short distance to the west.

Post-medieval

1.3.6 Details of the period post dissolution to the 19th century is not well known for the immediate area of the site although recent work within the lay settlement of Barnwell to to east has revealed that settlement continued throughout the 17th and 18th centuries. To the north of the site, at the Cambridge Regional College, excavations uncovered post-medieval quarry pits (Atkins 2012).

19th century

1.3.7 The area around the site was heavily built up during the 19th century and comprised a mix of industrial and workers housing. Brewing was a particularly well represented industry with a number of breweries known to have been built in the area in the 19th century. These include Priory Brewery (CHER MCB17304) which is documented in the 1860s and 1870s. It was taken over by the Star Brewery in 1891 (MCB16525) but there is now no trace of the brewery buildings. Auckland Brewery (MCB17310) and Shakespeare Brewery (MCB17308) were also located in this area. Other industries

included the Britannia Ironworks, the last surviving 19th century foundry/smithy buildings in Cambridge (MCB16546) which was located to the south of East Road. Workers houses (terraces) were located in Britannia Place to the immediate south east of the application area, and to the north was a 19th century Brush Works.

1.3.8 The Enclosure Map of 1807-1812 depicts the site as an open area to the rear of buildings fronting on to Newmarket Road, as does the 1813 map of St Andrews the Less. The 1810 1st Edition OS Map is too small in scale to show the site in any detail. Barker's Map of 1830 depicts the site as an area of buildings and open ground fronting on to Sun Street, now Newmarket Road (Fig 2). The 1885 OS Map (Fig 3) shows that by this time the site was occupied by terraced houses and buildings.

1.4 Acknowledgements

1.4.1 The project officer for this site was Graeme Clarke. Excavation was carried out by Nicholas Cox. The site was managed by Aileen Connor and monitored by Kasia Gdaniec.

2 Aims and Methodology

2.1 Aims

2.1.1 The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

2.2 Methodology

2.2.1 Seven Test Pits were excavated to assess preservation across the development area. Four of these were 3m x 3m in size, two (TP1 and TP6) were reduced to 1.5m x 1.5m as they revealed two layers of particularly hard concrete. During the evaluation it was agreed with the CCCHET Advisor and the client that another Test Pit (TP7) should be positioned to further assess the extent of deposits found in TP6.

2.2.2 Machine excavation was carried out under constant archaeological supervision with a wheeled JCB-type excavator using a breaker followed by a toothless ditching bucket.

2.2.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

2.2.5 Environmental samples were taken from deposits were appropriate.

3 Results

3.1 Introduction

3.1.1 Two of the test pits (1 and 6) which were located in the car park (Fig. 4), outside the building, contained medieval remains and are described first. The remaining test pits, in the interior of the building (Fig. 4), contained only evidence of post-medieval activity and modern truncation.

3.2 Car Park

Test Pit 1 (Fig. 5, Plate 1)

3.2.1 Test Pit 1 was 1.6m long, 1.4m wide, 1.0m deep and located at a height of 15.19m OD.

3.2.2 The earliest deposit exposed was natural gravel (13) at approximately 0.80m below ground level. Overlying the natural gravel was a layer of reddish brown sandy silt (12), approximately 0.20m thick. This contained no finds and may be the remains of a subsoil, it was cut by three features (6, 9 and 11).

3.2.3 In the south-west corner of the test pit was a sub-circular pit (**6**) which was at least 0.46m wide and 0.5m deep. This pit was filled by a light grey chalky silt (5) which contained a single sherd of medieval sandy greyware dating to the late 12th to 14th centuries. The pit cut subsoil 12 and was sealed by layer 4.

3.2.4 Along the southern edge of this test pit was a circular post hole (**9**). This posthole was 0.26m wide and 0.35m deep. It contained a yellow brown sandy silt post packing (8) and a post-pipe of a reddish brown sandy silt (7). No finds were associated with it. It cut through subsoil 12 and was sealed by layer 4.

3.2.5 Running the whole length of the eastern edge of the pit was a north to south aligned feature, possibly a ditch (**11**) which was of unknown width and at least 0.5m deep. This was filled by a brown sandy silt with moderate gravel inclusions (10). No finds were recovered from it, but like the other features in this test pit it cut through subsoil 12 and was sealed beneath layer 4 which contained post-medieval finds.

3.2.6 These features were all sealed below a thin band of loose silty sand (4), which was only 0.06m thick, the layer possibly represents a deliberate levelling event (**45**) which may have entailed some truncation of the backfilled features and layer 12 below.

3.2.7 Sealing layer 4 was a layer (0.4m thick) of grey sandy silt (3). Pottery from layer 3 comprised a sherd each of late medieval, early post medieval and post 18th century date. Several pieces of worked stone were recovered from this context including probable roof or floor tiles and some possible medieval fragments that had traces of a red pigment. This was the only deposit in Test Pit 1 to produce animal bones (six fragments) cattle and rabbit is present although the remainder were only identifiable as small, medium or large mammal.

3.2.8 Layer 4 was sealed by modern concrete (2) which was 0.25m thick, a second layer of concrete 1 (0.15m thick) formed the current car park surface.

Test Pit 6 (Fig. 6, Plate 2)

3.2.9 Test Pit 6 was 1.3m long, 1.3m wide, 1.02m deep and located at a height of 15.53m OD. The natural ground in this test pit was sandy gravel encountered at a little over 1m below ground level. A pit (**67**), cut through the natural gravel and was partially revealed in the north-east corner of the test pit. The pit was sub-circular in plan and was at least 0.66m wide and 0.37m deep. The excavated portion of this pit contained three fills, the

lowest being a mid grey brown clayey silt (66). The second fill was a mid blue grey silty clay (65) and the uppermost fill was a mid grey brown clayey silt (64), from which sherds of pottery of various fabrics, the earliest dating to the 12th or 13th century and the latest to the 15th or 16th century. A fragment of medieval tile was also recovered along with seeds of wheat and barley and five animal bones identified as sheep/goat and large, medium and small mammal. The pit was sealed by layer 63.

3.2.10 Layer 63 was a mid grey sandy silt which was 0.59m thick and contained a mixed group of pottery, the earliest dating to the 11th to 13th century and the latest to the 18th to early 20th century.

3.2.11 Overlying layer 63 was layer 62, a dark grey sandy silt with a thickness of 0.31m. This layer contained post-medieval tile and post-medieval pottery with a date range of 16th to mid 19th century.

3.2.12 A pit (**71**) was revealed in the south-east corner of the test pit cut and through layers 62 and 63 into the gravel below. This pit was larger than 0.3m in width and length, and 0.7m deep. It contained a dark grey clayey silt (70) from which early 19th century pottery and a fragment of 18th century clay tobacco pipe was recovered.

3.2.13 Overlying layer 62 and backfilled pit **71** was a layer of modern concrete (61) which was 0.25m thick, this was in turn covered by a final layer of concrete (60) which was 0.2m thick and formed the surface of the current car park.

3.3 Test Pits inside disused building

Test Pit 2 (Fig. 7, Plate 3)

3.3.1 This test pit was 3m long, 3m wide, excavated to a depth of 2.2m and located at a height of 15.4m OD.

3.3.2 The earliest deposit (25) revealed by this test pit was a layer of soft yellow silt. It contained no finds and did not appear to have been modified by human action. It is likely to be a natural layer, possibly infilling a periglacial feature. Layers 21, 22 and 23 overlying it were similarly clean pale yellowish sands and silts that were likely to have a natural origin. Overlying these natural deposits was layer 20 a greyish brown soil which was homogeneous and 0.95m in thickness. It contained very little pottery, only one sherd of plant pot dating to any time from the 18th century onwards. However it did also contain a quantity of ceramic building material of generally 18th century or later date along with clay pipe, glass and vitrified coal, all suggesting a date of deposition in the 18th or 19th century. Animal bones from this deposit included cattle, sheep, chicken alongside dog and amphibian. This layer possibly filled a large feature (**24**), but equally may have slumped into the soft fills of the periglacial feature below.

3.3.3 This soil layer was overlain by layer 19 which consisted of a 0.2m thick dark grey sandy silt and contained four sherds of porcelain. This was cut by a north to south aligned drainage trench (**18**). The drain had a 0.22m thick concrete cap (17) overlain by a 0.49m thick dark grey sandy silt backfill (16).

3.3.4 Sealing the layers in this test pit was a modern hardcore layer (15) which had a concrete pad (14) laid over the top of it.

Test Pit 3 (Fig. 8)

3.3.5 This test pit was 3m long, 3m wide, excavated to a depth of 1.3m and located at a height of 15.45m OD. The natural gravels (34) which were revealed at its base were overlain by a thin layer of probable sub-soil (33). This subsoil consisted of a reddish brown sandy silt (33) which had a thickness of 0.2m, it was devoid of finds.

3.3.6 Sealing layer 33 was a layer consisting of a dark greyish brown sandy silt (32) which was 0.25m thick and contained a sherd of glazed red earthernware dating to the 16th to 18th century and a sherd of 10th or 11th century pottery..

3.3.7 Above deposit 32 was layer (31), consisting of a dark grey sandy silt, which was 0.2m in thickness. Layer 31 contained pottery of late 18th to 20th century date and a fragment of post-medieval tile.

3.3.8 This layer was cut by a north to south aligned drainage trench (**30**) of probable 19th or 20th century date which was in turn sealed by a modern hardcore layer (27; 0.15m thick) which was overlain by a concrete pad (26).

Test Pit 4 (Fig. 9, Plate 4)

3.3.9 This test pit was 3m long and 3m wide, excavated to a depth of 1.9m and located at a height of 15.29m OD. Natural gravel (44) was encountered at approximately 1.4m below ground level.

3.3.10 Sealing the natural gravel was layer 43, a dark grey sandy silt which was 0.5m in thickness and contained no finds. Above this was a 0.1m thick layer of reddish brown sand (42), again containing no finds.

3.3.11 A final dark grey sand layer (41) was 0.1m in thickness and contained sherds of pottery dating to the late 18th to 20th centuries, 19th century tile and 49 animal bone fragments.

3.3.12 Overlying layer 41 on the southern side of the test pit only was a 0.1m thick layer of red sand and hardcore (40).

3.3.13 Sealing layer 41 in the northern half of the test pit was a layer of concrete (39). Above concrete 39, in the northern section of the test pit, was the single course of a probable wall (37) which was orientated approximately east to west, was 1.76m in length, 0.12m thick and dated to the 19th century. Overlying both concrete 39 and layer 40 and abutting wall 37 was a layer of very dark grey sand (38). No finds were present in these layers but the bricks in wall 37 were 19th century at the earliest.

3.3.14 Overlying these deposits was a modern hardcore layer (36) which formed the bedding for a concrete pad (35).

Test Pit 5 (Fig. 10)

3.3.15 This test pit was 3m long, 3m wide, excavated to a depth of 2m and located at a height of 14.88m OD. The natural gravels (74) were located at a depth of 1.48m from the top of the pit.

3.3.16 Layer 53 overlaid the natural gravel, it consisted of a 0.48m thick dark reddish grey sandy silt, that contained no finds, it is possibly the remnant of a subsoil.

3.3.17 Cutting layer 53, and filling the whole of the eastern half of the test pit, was a large pit (**73**). This 1.0m deep pit ran north to south and was near vertically sided, it may represent quarrying. It was filled by a dark greyish black sandy silt (72) which contained 26 sherds of post-medieval pottery with the majority dating to the late 18th to 20th century along with 19th century ceramic building material and fragments of 19th century vessel glass, animal bones from this pit include goose. The upper fill of the pit was a mid reddish brown silty sand (52) which also contained post-medieval pottery, brick and tile, as well as cattle bone, this was the only layer on the site that produced fish.

3.3.18 Layer 53 was cut in the south-west corner of the test pit by a sub-rectangular pit (**56**) which was 0.55m long, 0.29m in wide and at least 0.07m deep. This pit contained an

articulated cat skeleton, the remains of the cat were left *in situ* but a late 17th or 18th century clay tobacco pipe stem fragment was recovered from the fill (57) of the pit, which comprised a dark grey brown sandy silt. It is likely that this cat burial was contemporary with features **54** and **58** described below.

3.3.19 Running along the southern edge of the test pit, cutting through both fill 52 and deposit 53, was a slot (**58**) which was 0.3m wide and 0.15m deep. This feature was filled by dark grey brown silty sand (59) from which sherds of pottery which dating to the 18th to 20th centuries was recovered. Animal bones included sheep/goat and pig. Immediately to the north of beam slot **58**, cutting into fill 53, was a small post hole (**54**) which was 0.3m in diameter and 0.18m deep. This post hole was filled by a dark grey brown silty sand (55) that contained no finds.

3.3.20 Above these features was a modern made ground (51) consisting of a dark grey brown sandy silt which was 0.47m thick and contained pottery which dated to the 18th to 19th centuries. Animal bones from this layer comprised entirely chicken and cat. Overlying this was a modern hardcore layer (50) which formed the bedding for a concrete pad (49).

Test Pit 7

3.3.21 Test Pit 7, which was 1.5m by 1.5m and at 15.88m OD, was located in a separate room in the north-eastern corner of the building. The room had been used for washing buses and its concrete floor was approximately 0.5m higher than the adjacent room. It revealed a backfilled service pit overlain by a steel plate and concrete. The test pit was therefore abandoned.

3.4 Finds Summary

Pottery

3.4.1 Sixty-nine sherds of pottery weighing 1528g were collected from 16 contexts. Four sherds (66g) date to the Late Saxon/early medieval period, three sherds (8g) to the medieval period, three sherds are late medieval/Tudor (27g), 13 sherds (465g) date to the 17th/18th century and 46 (962g) to the late 18th to 20th century. All except one (pit **6** in Test Pit 1) of the Late Saxon and medieval pottery sherds and one of the Tudor sherds (pit **64** in Test Pit 6) were residual in later layers.

Ceramic Building Material

3.4.2 Thirty-seven fragments (9951g) of CBM were collected from fourteen contexts. One fragment of mortar (39g) was also collected. The ceramic building material dated to the medieval (nine fragments weighing 1132g), post-medieval (18 fragments weighing 4287g) and Victorian/modern (11 fragments weighing 1132g) periods.

Worked Stone

3.4.3 Five fragments of worked stone were recovered. They comprised three joining fragments of fine shelly/oolitic limestone with traces of red pigment and two pieces of ? Collyweston roofing slates or floor tiles. All the stone came from the same context in Test Pit 1.

Glass

3.4.4 Six fragments of glass bottles and other vessels were recovered from deposit (72), fill of modern pit (**73**). All were of 19th-century date.

Clay Pipe

3.4.5 Five contexts (in Test Pits 1, 2 5, and 6) contained seven fragments (32g) of clay tobacco pipes. They ranged in date from the 17th century to the late 19th century and included two with maker's marks.

3.5 Environmental Summary

Bulk samples

3.5.1 Nine bulk samples were taken from features within the evaluated areas. The environmental samples from Test Pits 1 and 6 produced carbonised grains of cereals and weed seeds, the remaining samples were unproductive.

Faunal Remains

3.5.2 The study of the faunal assemblage yielded 41 animal bones, 28 of which could be identified to species. The faunal assemblage came from seven contexts in Test Pits 1, 2, 5 and 6. The majority came from post-medieval deposits. Species recovered included food animals (sheep/goat, pig, cattle, chicken, goose, rabbit, fish) as well as cat, dog, and amphibians.

4 Discussion and Conclusions

4.1 Discussion

Medieval

4.1.1 The presence of residual Late Saxon and medieval pottery is evidence for activity during thee periods around the area but does not indicate occupation of this site, it is more likely to be a result of general rubbish disposal and manuring than settlement. The area now covered by buildings (where Test Pits 2, 3, 4 and 5 were located) is likely to have been fields during the medieval period.

4.1.2 However, Test Pit 1 at the north end of the site (in the car park) revealed a pit and a linear feature that may be evidence of settlement related activity, although only one sherd of medieval pottery was recovered from the pit, it did also produce evidence for burnt food residues. Fragments of worked stone from later deposits at this same location must have come from somewhere nearby and could indicate the presence of a demolished property. The linear feature may be evidence for a ditch along the line of a property boundary. Together the two features perhaps represent low level back yard activity with the stone suggesting a house nearby.

4.1.3 A pit in Test Pit 6 is evidence for a similar type of activity although is likely to belong to a slightly later period since pottery of 15th or 16th century date was recovered from it. As with the pit in Test Pit 1 it too provides evidence for settlement activity in the form of building materials (tile), the charred remains of cereals and the remains of sheep/goat and other probable food animals.

4.1.4 Although the test pits were small they both produced features and materials that indicate a moderate level of settlement activity in the medieval period and perhaps as late as the 16th century.

Post-medieval

4.1.5 The majority of the test pits revealed evidence of soils that had probably been subject to both cultivation (ploughing) and heavy manuring. These soils produced the majority of the finds from the site and seem to have been accumulating in the 18th and 19th centuries. Given the thickness of the soils in the test pits it is likely that large quantities of rubbish, including night soil, were carted out of Cambridge to spread on the surrounding fields. The material found in these layers is therefore likely to give a general representation of Cambridge life in the 18th and 19th centuries.

4.1.6 A large 19th-century feature at the south end of the site (Test Pit 5) may be evidence for quarrying in this area. Perhaps it is evidence for the start of development here since it seems to have been rapidly backfilled and built on as shown by the presence of a timber structure (a post and a slot) and a domestic cat burial. Test Pit 5 produced the majority of the later finds from the site and also a wide range of animal bones were recovered from this test pit suggesting nearby domestic occupation. Test Pit 4 also provided evidence for 19 the century building in the form of the remains of a brick wall. Comparison with the 1830 Barker map (Fig. 2) and the 1885 1st Edition Ordnance Survey map show that Test Pits 4 and 5 were located in a row of terraced houses fronting onto Britannia Street (now Severn Place). It is therefore likely that the features in these Test Pits were associated with these houses.

4.2 Recommendations

4.2.1 Recommendations for any future work based upon this report will be made by the Cambridgeshire County Council Historic Environment Team.

Appendix A. Test Pit Descriptions and Context Inventory

Test Pit 1						
General description					**Orientation**	N-S
Test Pit contained a post hole, a ditch, a surface and a pit overlain by concrete and modern make-up.					**Avg. depth (m)**	1.30
					Width (m)	1.4
					Length (m)	1.6
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.15	Concrete	-	Modern
2	Layer	-	0.25	Concrete	-	Modern
3	Layer	-	0.40	Make-up	Pot, CBM, Stone, clay pipe	Post-medieval
4	Layer	-	0.05	Surface	-	Post-medieval
5	Fill	-	0.50	Pit	Pot	Medieval
6	Cut	0.46	0.50	Pit	-	Medieval
7	Fill	-	-	Post hole	-	-
8	Fill	-	-	Post hole	-	-
9	Cut	0.26	0.35	Post hole	-	-
10	Fill	-	-	Ditch	-	-
11	Cut	>0.3	0.5	Ditch	-	-
12	Layer	-	-	Natural	-	-
13	Layer	-	-	Natural	-	-
45	Cut			Truncation		
Test Pit 2						
General description					**Orientation**	N/A
Test Pit contained a pit overlain by concrete and modern make-up.					**Avg. depth (m)**	2.2
					Width (m)	3
					Length (m)	3
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
14	Layer	-	0.15	Concrete	-	Modern
15	Layer	-	0.15	Make-up	-	Modern
16	Fill	-	-	Drainage trench	-	-
17	Fill	-	-	Drainage trench	-	-
18	Cut	>0.4	0.7	Drainage trench	-	-
19	Layer	-	0.2	Layer	Pot, CBM	Post-medieval

20	Layer	-	-	Layer	Pot, CBM, clay pipe	-
21	Layer	-	-	Natural	-	-
22	Layer	-	-	Natural	-	-
23	Layer	-	-	Natural	-	-
24	Cut	>2.5	>2	Truncation	-	-
25	Layer	-	-	Natural	-	-

Test Pit 3						
General description					**Orientation**	
Test Pit contained a modern drain cutting a post-medieval layer overlain by modern concrete					**Avg. depth (m)**	1.3
					Width (m)	3
					Length (m)	3
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
26	Layer	-	0.15	Concrete	-	Modern
27	Layer	-	0.15	Make-up	-	Modern
28	Fill	-	-	Drainage Trench	-	Modern
29	Fill	-	-	Drainage Trench	-	Modern
30	Cut	0.75	1.00	Drainage Trench	-	Modern
31	Layer	-	0.20	Layer	Pot, CBM	Post-medieval
32	Layer	-	0.25	Layer	Pot	Post-medieval
33	Layer	-	0.20	Sub-soil	-	-
34	Layer	-	-	Natural	-	-

Test Pit 4						
General description					**Orientation**	
Test Pit contained the remains of modern structure overlying soil deposits					**Avg. depth (m)**	1.9
					Width (m)	3
					Length (m)	3
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
35	Layer	-	0.20	Concrete	-	Modern
36	Layer	-	0.40	Make-up	-	Modern
37	Masonry	-	0.12	Structure	CBM	Modern
38	Layer	-	0.10	Make-up	-	Modern
39	Layer	-	0.07	Concrete	-	Modern
40	Layer	-	-	Surface	-	-
41	Layer	-	0.10	Layer	Pot, CBM	Post-medieval

42	Layer	-	0.10	Layer	-	-
43	Layer	-	0.50	Layer	-	-
44	Layer	-	-	Natural	Pot, CBM	Post-medieval

Test Pit 5						
General description					**Orientation**	
Test Pit contained a quarry pit, an animal burial, brick wall and post-hole overlain by modern make-up and concrete.					**Avg. depth (m)**	1
					Width (m)	3
					Length (m)	3
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
49	Layer	-	0.27	Concrete	-	Modern
50	Layer	-	0.36	Make-up	-	Modern
51	Layer	-	0.47	Make-up	Pot, CBM	Modern
52	Fill	-	0.50	Pit	Pot, CBM	Post-medieval
53	Fill	-	0.48	Pit	-	-
54	Cut	-	0.18	Post hole	-	-
55	Fill	-	0.18	Post hole	-	-
56	Cut	-	0.07	Cat Burial	-	Post-medieval
57	Fill	-	0.07	Cat Burial	Clay pipe	Post-medieval
58	Cut	-	0.15	Beam slot	-	Post-medieval
59	Fill	-	0.15	Beam slot	Pot, CBM	Post-medieval
72	Fill	-	>0.34	Pit	Pot, CBM, glass, clay pipe	Modern
73	Cut	-	0.66	Pit	-	Modern
74	Layer	-	-	Natural	-	-

Test Pit 6						
General description					**Orientation**	
Test Pit contained a pit overlain by make-up and concrete.					**Avg. depth (m)**	1
					Width (m)	1.3
					Length (m)	1.3
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
60	Layer	-	0.20	Concrete	-	Modern
61	Layer	-	0.25	Concrete	-	Modern
62	Layer	-	0.36	Make-up	Pot, CBM	Modern

63	Layer	-	0.59	Make-up	CBM	Modern
64	Fill	-	0.16	Pit fill	Pot, CBM	Medieval
65	Fill	-	0.22	Pit fill	-	-
66	Fill	-	>0.13	Pit fill	-	-
67	Cut	>0.5	>0.35	Pit cut	Pot	Medieval
68	Layer	-	-	Natural	-	-
69	Layer	-	1.02	Make-up	-	Modern
70	Fill	-	0.7	Pit fill	Pot, clay pipe	Post-medieval
71	Cut	-	0.7	Pit cut	-	Post-medieval

Test Pit 7		
General description	**Orientation**	
Test Pit found a modern vehicle service trench. No contexts assigned.	**Avg. depth (m)**	
	Width (m)	1.5
	Length (m)	1.5

Appendix B. Finds Reports

B.1 Pottery

By Sue Anderson

B.1.1 Sixty-nine sherds of pottery weighing 1528g were collected from 16 contexts.

B.1.2 Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. Methods follow MPRG recommendations (MPRG 2001) and form terminology follows MPRG classifications (1998). The results were input directly onto an MS Access database, which forms the archive catalogue. Late Saxon to late medieval wares were identified based on Spoerry (2016); post-medieval to modern fabrics are based on the author's fabric series.

B.1.3 Table 1 provides a summary quantification by fabric.

Description	Fabric	Date range	No	Wt/g	MNV	Eve
Thetford-type ware	THET	10th-11th c.	1	5	1	
Thetford-type ware (Grimston)	THETG	10th-11th c.	1	30	1	
Early medieval Essex micaceous sandy wares	EMEMS	M.11th-E.13th c.	1	7	1	
(South Cambs) smooth sandy ware	SCASS	M.11th-E.13th c.	1	24	1	
Medieval sandy greyware	MSGW	L.12th-14th c.	1	1	1	
Mill Green glazed ware	MGF	L.13th-E.14th c.	1	2	1	
Brill/Boarstall Ware	BRIL	L.12th-E.14th c.	1	5	1	
Late medieval reduced wares	LMR	M.14th-M.16th c.	1	16	1	
Surrey Whiteware transitional (Tudor Green)	SURR	15th-16th c.	1	4	1	0.11

Late medieval oxidised sandy wares	OSW	M.15th-M.16th c.	1	7	1	
Glazed red earthenware	GRE	16th-18th c.	9	396	7	0.15
Post-medieval slipwares	PMSW	17th-19th c.	1	14	1	
Staffs-type slipware on red earthenware	STAFT	L.17th-18th c.	1	18	1	
English Stoneware Nottingham-type	ESWN	L.17th-L.18th c.	1	15	1	
Staffordshire white salt-glazed stonewares	SWSW	18th c.	1	22	1	0.26
Pearlware	PEW	L.18th-M.19th c.	6	50	5	0.10
Late post-medieval unglazed earthenwares	LPME	19th-20th c.	8	161	7	0.50
Refined white earthenwares	REFW	L.18th-20th c.	21	613	17	1.11
Yellow Ware	YELW	L.18th-19th c.	4	47	4	0.07
English Stoneware	ESW	19th-20th c.	2	63	2	
Porcelain	PORC	18th-20th c.	4	22	4	0.18
Late blackwares	LBW	18th-E.20th c.	1	6	1	

Table 1: Pottery quantification by fabric

B.1.4 Two sherds of possible Late Saxon Thetford-type ware were recovered, a fragment of body in a fine sandy fabric, and a base sherd of Grimston (or possibly Huntingdon) Thetford-type ware. The early medieval period was represented by a body sherd of micaceous sandy early medieval ware and a base sherd of smooth sandy ware. One small body sherd was identified as a medieval greyware but may be a local version of Thetford-type ware. Glazed wares of medieval date comprised body sherds of Mill Green ware and Brill/Boarstall ware. Most of these sherds were residual in later contexts.

B.1.5 Three sherds were of late medieval date, a body fragment of green-glazed late medieval reduced ware, an oxidised body sherd with internal orange glaze, and a rim fragment of a 'Tudor Green' Surrey whiteware dish or bowl. The early post-medieval period was represented by several fragments of post-medieval redwares (GRE, PMSW), including two jar rims and a large body sherd from a deep bowl. One body sherd was decorated with white trailed slip in a wavy line pattern similar to examples from a production site in Ely. A fragment of a press-moulded Staffordshire-type slipware vessel with brown and orange trailed slip decoration was also recovered.

B.1.6 The majority of pottery in this assemblage was of 18th-century or later date. The group included both table wares and kitchen wares, as well as some plant pots. The range of wares is typical of the period and includes fragments of transfer-printed plates and other vessels, preserve jars, lids, jugs, tankards and bottles/jars. A small fragment of a porcelain figurine in the shape of an animal was also found, and there were several other porcelain vessels including one decorated with pink lustre enamel and a transfer print.

B.1.7 Table 2 provides a summary list by context. The full catalogue is available as an Access database in the archive.

Context	Fabric	Form	Rim	No	Wt/g	Notes	Date range
3	GRE			1	49		16th-18th c.
	LMR			1	16	burnt? Glaze partly melted, partly oxid	M.14th-M.16th c.
	REFW			1	54		L.18th-20th c.
5	MSGW			1	1	greyware, moderate ms, poss local THET	L.12th-14th c.
19	PORC	Saucer/dish		1	9		18th-20th c.
20	LPME	Plantpot		1	6		18th-20th c.
31	REFW	Lid	flange	1	37		L.18th-20th c.
	REFW	Lid	flaring	1	54	oval	L.18th-20th c.

Context	Fabric	Form	Rim	No	Wt/g	Notes	Date range
32	GRE	Bowl		1	225		16th-18th c.
	THETG			1	30	poss HUNTHET, redder than typical for THETG	10th-11th c.
41	LPME	Plantpot		1	17		18th-20th c.
	PORC	Cup	upright plain	1	7		18th-20th c.
	YELW			1	17		L.18th-19th c.
	YELW	Jar	everted	1	19		L.18th-19th c.
44	ESW			1	9		17th-19th c.
	REFW			1	6		L.18th-20th c.
	REFW			1	145	base stamped '16oz'	L.18th-20th c.
51	LPME	Plantpot		1	6		18th-20th c.
	PMSW			1	14	prob Ely	17th-19th c.
	REFW	Plate	everted	1	6		L.18th-20th c.
	YELW	Jug	upright plain	1	7		L.18th-19th c.
52	GRE	Jar?		1	23		16th-18th c.
	PEW			1	6		L.18th-M.19th c.
	PEW	Jar?	bead	1	3		L.18th-M.19th c.
	STAFT			1	18	pale pink fabric	L.17th-18th c.
59	GRE			1	12		16th-18th c.
	PEW			1	4		L.18th-M.19th c.
	REFW			1	2		L.18th-20th c.
	REFW	Bowl	flaring	1	2		L.18th-20th c.
	YELW			1	4		L.18th-19th c.
62	GRE			1	19		16th-18th c.
	PEW			2	11		L.18th-M.19th c.
63	GRE			1	7		16th-18th c.
	LBW			1	6		18th-E.20th c.
	OSW			1	7		M.15th-M.16th c.
	SCASS			1	24		M.11th-E.13th c.
64	BRIL			1	5		L.12th-E.14th c.
	EMEMS			1	7		M.11th-E.13th c.
	MGF			1	2		L.13th-E.14th c.
	SURR	Bowl	upright plain	1	4		15th-16th c.
	THET			1	5	fs, oxid core	10th-11th c.
70	PORC			1	3		E.19th c.
72	ESW	Bottle/jar		1	54	white fabric	17th-19th c.
	ESWN			1	15		L.17th-L.18th c.
	GRE	Jar	square bead	3	61		16th-18th c.
	LPME	Plantpot		3	45		18th-20th c.
	LPME	Plantpot	bead	2	87		18th-20th c.
	PEW			1	26		L.18th-M.19th c.
	PORC	Figurine		1	3		18th-20th c.
	REFW			4	66		L.18th-20th c.
	REFW	Jug?	upright plain	1	7	deposit of ?plaster int	L.18th-20th c.
	REFW	Lid	flange	3	133		L.18th-20th c.
	REFW	Preserve jar	upright plain	4	66		L.18th-20th c.
	REFW	Tankard?		1	35	crazed & stained, Fe deposits	L.18th-20th c.
	SWSW	Jar		1	22		18th c.

Table 2: Pottery by context

B.2 Ceramic Building Material

By Sue Anderson

B.2.1 Thirty-seven fragments (9951g) of CBM were collected from fourteen contexts. Table 3 provides a summary of the types present. One fragment of mortar (39g) was also collected.

Type	Form	Code	No	Wt (g)
Roofing	Plain roof tile: medieval/late medieval	RTM	5	390
		RTM?	1	150
	Plain roof tile: post-medieval	RTP	9	1066
		RTP?	1	52
	Pantile	PAN	1	137
		PAN?	1	25
Walling	Estuarine clay (early) brick	EB	2	522
	Later brick	LB	12	6516
	Modern brick	B	1	34
	Air brick	AB	2	326
Flooring	Floor brick/floor tile	FB/FT	1	635
	Floor brick?	FB?	1	98

Table 3: CBM form quantities

B.2.2 The assemblage includes several fragments of roof tile which are potentially of later medieval date, including two pieces of bricks in estuarine clay fabrics and several roof tiles in fabrics which appear similar to late medieval Bourne D ware pottery, but with more frequent calcareous inclusions. One possible medieval roof tile was in a dense sandy fabric and was partly burnt.

B.2.3 The majority of fragments were probably of post-medieval date and included both red and white-firing tiles and bricks, including specialist pieces such as two air bricks and a floor brick. Most were in fine sandy fabrics, although some of the tiles contained calcareous inclusions and a few fragments of tile and brick were grog-tempered. Most of the later bricks were 60+mm thick. One complete example of a white-firing brick, collected as a sample from structure **37**, measured 224 x 110 x 61mm; it was hand-struck in a mould and had a shallow rectangular frog. A thin layer of grey whitewash was applied to one header.

B.2.4 A fragment of cementitious mortar, triangular in section (25 x 25mm) was recovered from (72).

B.2.5 Table 4 provides a summary of the finds by context.

Context	Fabric	Form	No	Wt	Abr	L	W	T	Mortar	Notes	Date
3	msf	LB	1	1313	+		105	60	msf cream on base		pmed
	est	EB	1	5	+						14/15?
	fs	RTM?	1	150	+			17	thin patches	partly reduced/burnt?	med?
	msc	RTP?	1	52					fs white all over	pink	pmed
	fsc	RTM	2	209						red, reduced core,a bit like Bourne D	lmed?
	wfc	RTP	2	304						yellow; one with circular peg hole, not full	pmed?

Context	Fabric	Form	No	Wt	Abr	L	W	T	Mortar	Notes	Date
										thickness	
	est	EB	1	517	+			55		burnt/overfired header; strawed base	14/15?
19	comp	B	1	34							L.19-20
	wfs	AB	1	90	+						L.19-20
20	wfs	RTP	1	90							pmed
	wfc	RTP	1	104					cq white patches		pmed
	wfg	LB	1	359				65			19+
	wfs	LB	1	448	+		110	60	cq on break		18/19+
	fsc	RTP	1	69						fully oxid, sparse calc	pmed
31	wfe	LB	1	1233			105	52	cq patches, thick on base	coarse Fe, overfired, cracked, yellow/purple	pmed?
37	wfg	LB	1	2331		224	110	61	ms patches	frogged, handmade; thin layer greyish whitewash on header	19
41	wfs	RTP	1	96				15		v smooth surface, poss PAN; sooted	19?
	wfg	LB	1	570			104	65			19
44	wfs	RTP	1	333				15		v smooth surface, poss PAN; burnt black deposit	19?
	wfs	FB/FT	1	635	+			35	patches on surface		pmed
51	wfs	AB	1	236				67	cq in one hole	grey surfaces	19+
52	fs	PAN?	1	25						flake	19+
	fscfe	RTM	1	16					thin on base		med?
59	fsc	RTM	1	154				12			lmed
	wfs	RTP	1	30				13		v fine calc?	pmed
62	wfg	RTP	1	40	+			12		red grog	pmed
63	est	LB	1	80	+					red	lmed+
64	est	RTM	1	11	+					red surfaces,dark grey core	12-15
72	fsfe	PAN	1	137				18		nibbed	17+
	fsg	LB	3	55						pale orange	pmed
	wfs	LB	2	127	+						pmed
	wfs	FB?	1	98	+			48		burnt	pmed
	cem	mort	1	39			25	25		grey, triangular-section	19+

Table 4: CBM catalogue

Fabrics: comp – compressed shale; cq – coarse quartz; est – estuarine clays; fs – fine sandy; fsc/msc – fine/medium sandy with calcareous inclusions; fscfe – fsc with ferrous fragments; fsfe – fs with ferrous fragments; fsg – fs with grog; msf – medium sandy with flint; wfc – white fsc; wfe – white fsfe; wfg – white fsg; wfs – white fs.

B.3 Worked Stone

By Sue Anderson

B.3.1 Five fragments of worked stone were recovered from layer (3). They comprised three joining fragments of fine shelly/oolitic limestone and two pieces of ?Collyweston roofing slates or floor tiles. The limestone fragments were part of a block with rough external

surfaces and a smoothed internal hollow which appeared to be thinly plastered and coated with traces of red pigment.

B.3.2 Four fragments of burnt coal, including one vitrified 'clinker' and two laminated and calcined fragments, were found in posthole fill (7).

B.3.3 Table 5 summarises the finds.

Context	Type	No	Wt (g)	Notes	Date
3	limestone	3	3236	3 joining fragments of fine shelly oolitic limestone - squarish block with rough outer surfaces and smooth hollowed out inner surface (U-shaped), covered with a thin layer of whitewash and traces of red ?pigment. 200+mm wide, c.45mm thick, 180+mm high	med?
	limestone	2	521	pink/buff fine micaceous limestone with occasional shell (?Collyweston), partly burnt – roof slates or flooring? One appears worn/weathered. c.20mm thick	pmed?
7	coal	4	71	1 burnt,1 vitrified, 2 heavily calcined	pmed

Table 5: Stone

B.4 Glass

By Sue Anderson

B.4.1 Six fragments of glass bottles and other vessels were recovered from pit fill (72). All were of 19th-century date. The finds are summarised in Table 6.

Context	Type	Colour	No	Wt/g	Thickness	Notes	Date
72	bottle	clear	1	91	40mm diam	cylindrical, mould-blown, lettering HOSPITAL / [CAM]BRIDGE	19
	bottle	brown	1	11		moulded flat string ring	19
	jar?	purplish tinge	1	12	45mm diam	45% complete, rounded rim, frosted	19?
	bowl	clear	1	14	190mm diam	7% complete, flaring-sided, moulded beading at rim and rustication ext	19?
	bottle	clear	1	14		frosted body frag	19?
	bottle	pale blue	1	22		hexagonal? Body frag	19?

Table 6: Glass

B.5 Clay Tobacco Pipe

By Sue Anderson

B.5.1 Five contexts contained seven fragments (32g) of clay tobacco pipes. They ranged in date from the 17th century to the late 19th century and included two with maker's marks. One of these was partly illegible, with only the initial of the forename visible on one side of the heel. The other was a ring stamp comprising the name 'R. SMITH' and 'OFFORD ST...' surrounding the number '49'; it was on the bowl of an unusually small later 19th-century pipe. A Richard Smith is listed as a pipemaker in Whittesey in Casey's Directory of 1862 (Flood 1976, 45), but there is no Offord Street there.

B.5.2 Table 7 provides a catalogue of the finds.

Context	Frag	No	Wt (g)	Bore diam (mm)	Notes	Date
3	stem	1	5	3.1		17
	stem	1	4	3.3		17
20	stem	1	5	3.0		17
	stem/bowl	1	4	1.7	small part of bowl with oakleaf sprig dec on facing part; spur broken off	E.19
57	stem/bowl	1	6	2.7	small part of bowl, small oval heel with initials 'I' and illeg	M.17-E.18
70	stem	1	2	2.0		18
72	stem/bowl	1	6	1.2	v small bowl with spur, stamped R.SMITH / OFFORD ST in circle around '49'	L.19

Table 7: Clay tobacco pipes

Appendix C. Environmental Reports

C.1 Environmental Samples

By Rachel Fosberry

Introduction

C.1.1 Nine bulk samples were taken from features within the evaluated areas in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. The features sampled include ditches, pits and layers revealed within test pits. Deposits are thought to be medieval or post-medieval in date.

Methodology

C.1.2 For this initial assessment, one bucket (approximately 10 litres) of each bulk sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.1.3 For the purpose of this initial assessment, items such as seeds, cereal grains and legumes have been scanned and recorded qualitatively according to the following categories

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

Results

C.1.4 Preservation of plant remains is by carbonisation although charcoal is scarce and is mostly vitrified indicating the use of coal as fuel. There was a considerable amount of rooting within all of the samples.

C.1.5 The results are discussed by test pit:

Test pit 1

C.1.6 Five samples were taken from features within Test Pit 1.Occasional charred cereal grains were recovered from layer 3 and fill 5 of pit **6**. The grains are all abraded but it is possible to identify single grains of both wheat (*Triticum* sp.) and barley (*Hordeum vulgare*) by their characteristic morphology.

Test pit 2

C.1.7 Layer 20 contains sparse vitrified charcoal only.

Test Pit 3

C.1.8 Layer 33 contains three indeterminate grains.

Test Pit 5

C.1.9 Layer 52 contains sparse vitrified charcoal only.

Test Pit 6

C.1.10 Fill 64 of pit **65** contains two charred grains of both wheat and barley and five indeterminate charred grains.

Sample No.	Context No.	Cut No.	Feature Type	Total No. buckets/bags	% context sampled	Test Pit	Volume processed (L)	Flot Volume (ml)	Cereals	Charcoal	Flot comments	Pottery	Mammal bones
1	3	-	Layer	2	2	1	8	10	#	++	single grains of wheat and barley, 2 indet grains	##	#
2	5	6	Pit	4	10	1	9	2	#	0	2 indet grains	#	#
3	8	9	Pit	1	10	1	4	1	0	+	Sparse vitrified charcoal	0	0
4	10	11	Ditch	2	10	1	9	5	0	+	Sparse vitrified charcoal	0	#
5	12	-	Layer	4	2	1	8	5	0	+	Sparse vitrified charcoal	0	0

6	20	-	Layer	2	2	2	9	40	0	++	Sparse vitrified charcoal	#	#
9	33	-	Layer	2	2	3	9	2	#	++	3 indet grains	0	0
11	52	-	Layer	2	<5	5	8	65	0	+++	Vitrified charcoal	#	0
12	64	67	Pit	2	5	6	8	5	#	++	two grains of wheat and barley, 5 indet grains	#	0

Table 8: Environmental samples

Discussion

C.1.11 The environmental samples taken at Newmarket Road have produced evidence of the disposal of burnt food remains but it is unclear at this stage whether they are contemporary or not. The nature of the site suggest that there is likely to have been re-working of the deposits through subsequent pit digging.

C.2 Faunal Remains

By Dr Angelos Hadjikoumis

Introduction

C.2.1 The study of the faunal assemblage yielded 41 fragments of animal remains, identified to some degree. Most were recovered through hand collection, while some were from residues of bulk samples (2-10 mm fractions combined). These faunal remains were studied to evaluate the preservation condition and overall potential of zooarchaeological remains at the site.

Methodology

C.2.2 Identification and full recording was attempted on each specimen. Identification was carried out with the use relevant osteological atlases (*e.g.* Barone 1976; Pales and Garcia 1981; Schmid 1972). Distinguishing between sheep and goat was attempted on postcranial remains mainly following Boessneck *et al.* (1964) and on mandibular cheek teeth following Halstead *et al.* (2002) and Payne (1985). Besides anatomical and taxonomic identification, age-at-death was estimated based on dental eruption and wear, as well as the epiphyseal fusion state of selected postcranial anatomical elements. Only a single mandible (or loose mandibular cheek teeth) was amenable to age determination following Payne (1973; 1987). Cattle and pig did not yield any age-at-death data based on tooth eruption and wear. Age-at-death based on epiphyseal fusion follows Silver (1969) for sheep, goat, cattle, pig and dog, and Smith (1969) for cat.

Results

C.2.3 The most abundant taxon dating to the post-medieval period among mammals is sheep/goat, followed by pig, cattle and dog. Four out of five sheep/goat remains belonged to sheep and one could not be attributed to one of the two caprines.

C.2.4 Single remains of goose and chicken dating to the post-medieval period were also recovered through hand collection. The bulk samples yielded some mammal remains but the presence of small fish and amphibian remains suggest the presence of animals at the site, which are difficult to be spotted through hand-collection. The numbers of

remains attributed to general size categories is in accordance with those attributed to more specific taxa.

C.2.5 Remains were also derived from contexts that were attributed to the modern period. From the nine remains identified to species level, seven belonged to a chicken (same animal) and two to a cat (possibly same animal). All chicken bones were fully fused, thus suggesting an adult animal, while the cat femur was unfused at both ends suggesting that this animal died in its first year (younger than 200 days old).

C.2.6 As the summary table of raw data suggests, the potential to assign most recorded remains to an age interval is overall good (see column 'Age' in Table 9). The same holds true concerning this assemblage's potential for the collection of biometric measurements. The small sizes of sub-samples and the lack of chronological resolution, however, renders any analyses on mortality or biometric patterns unreliable at this stage. It can, nevertheless, be mentioned that all the recorded postcranial (excluding the cat femur mentioned above) and dental remains were recorded as fully fused or with an adult dentition. Butchery marks were recorded on the remains of sheep, dog, large mammal, medium mammal, chicken and goose (see column 'Butchery' in Table 9).

Context	Type	Chronology	Collection	Element	Taxon	Erosion	Butchery	Biometry	Age	Gnawed
3	Layer	post-medieval	hand	PH1	Cattle	0		√	√	√
3	Layer	post-medieval	hand	Rib	Large mammal	1	√			√
3	Layer	post-medieval	hand	Rib	Medium mammal	0				
51	Layer	modern	hand	Femur	Chicken	2		√	√	
51	Layer	modern	hand	Tibiotarsus	Chicken	2	√	√	√	
51	Layer	modern	hand	Tarsometatarsus	Chicken	1		√	√	
51	Layer	modern	hand	Tarsometatarsus	Chicken	1		√	√	
51	Layer	modern	hand	Coracoid	Chicken	0			√	
51	Layer	modern	hand	Ulna	Chicken	0		√	√	
51	Layer	modern	hand	Radius	Chicken	0		√	√	
51	Layer	modern	hand	Pelvis	Cat	1		√	√	
51	Layer	modern	hand	Femur	Cat	0			√	
20	Layer	post-medieval	hand	Tibia	Cattle	1				√
20	Layer	post-medieval	hand	Radius	Sheep	1		√	√	
20	Layer	post-medieval	hand	Ulna	Sheep	1				
20	Layer	post-medieval	hand	Mandible	Sheep	0	√		√	
64	Fill	post-medieval	hand	Tibia	Sheep	1	√	√	√	
59	Fill	post-medieval	hand	Incisor	Sheep/Goat	n/a				
59	Fill	post-medieval	hand	Incisor	Pig	n/a				
59	Fill	post-medieval	hand	Incisor	Pig	n/a				
20	Layer	post-medieval	hand	Ulna	Dog	2	√			
64	Fill	post-medieval	hand	Rib	Large mammal	2				√
72	Fill	modern	hand	Rib	Large mammal	3	√			
20	Layer	post-medieval	hand	Rib	Large mammal	1	√			
64	Fill	post-medieval	hand	Rib	Medium mammal	2				
59	Fill	post-medieval	hand	Rib	Medium mammal	0				
20	Layer	post-medieval	hand	Rib	Medium mammal	0				
20	Layer	post-medieval	hand	Patella	Medium mammal	1	√			
20	Layer	post-medieval	hand	Long bone	Medium mammal	1				
20	Layer	post-medieval	hand	Tibia	Small mammal	2			√	
72	Fill	modern	hand	Humerus	Goose	0	√	√	√	
20	Layer	post-medieval	hand	Femur	Chicken	0		√	√	
52	Fill	post-medieval	flot	Loose mand tooth	Cattle	n/a				

64	Fill	post-medieval	flot	Loose max tooth	Sheep/Goat	n/a				
3	Layer	post-medieval	flot	Loose mand tooth	Lagomorph	n/a				
3	Layer	post-medieval	flot	Ulna	Medium mammal	2				√
64	Fill	post-medieval	flot	Rib	Small mammal	2				
3	Layer	post-medieval	flot	Vertebra	Small animal	2				
52	Fill	post-medieval	flot	Vertebra	Fish	n/a				
52	Fill	post-medieval	flot	Vertebra	Fish	n/a				
20	Layer	post-medieval	flot	Long bone	Amphibian	0				
20	Layer	post-medieval	flot	Long bone	Amphibian	0				

Table 9: Summary table of the faunal data collected.

Erosion grades (simplified version of Brickley & McKinley 2004, 14-15): 0 (surface morphology clearly visible, fresh appearance), 1 (light and patchy surface erosion), 2 (more extensive surface erosion than grade 1), 3 (most of bone surface affected by some degree of erosion, 4 (all of bone surface affected by erosive action), 5 (heavy erosion across whole surface, completely masking normal surface morphology).

Preservation

C.2.7 Overall, the preservation of the material is very good (see column 'erosion' in Table 9).

Contamination

C.2.8 No obvious contamination was noted in the assemblage.

Sampling Bias

C.2.9 Small sample sizes is the primary source of bias of any analyses based on this faunal assemblage, which is particularly exacerbated by the lack of chronological resolution. Thus, the results produced are tentative and of limited reliability at the present stage. Moreover, the presence of fish and amphibian remains in the residues of bulk samples suggests that such remains may, or may not, be relatively abundant in some contexts.

Statement of Research Potential

C.2.10 The evaluation assemblage has no potential for a more detailed study of animal remains from the site due to the low volume of faunal material. The material collected is well preserved and a larger assemblage from well dated contexts could therefore provide information about age-at-death, biometric and other data. The majority of the evaluation assemblage was collected from contexts that are likely to be 18th century or later and probably arrived at the site in rubbish brought in from elsewhere in the town. The potential is therefore limited to a general understanding of later post-medieval consumption in Cambridge. Only a very limited assemblage of animal bones was found in contexts identified as medieval or early post-medieval.

Appendix D. Bibliography

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Appendix E. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-251799		
Project Name	64-68 Newmarket Road, Cambridge, Cambridgeshire		
Project Dates (fieldwork) Start	04-05-2016	Finish	11-05-2016
Previous Work (by OA East)		Future Work	

Project Reference Codes

Site Code	CAMNMR16	Planning App. No.	14/1905/FUL
HER No.	ECB 4717	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Direction from Local Planning Authority - PPG15
Development Type	Urban Residential

Please select all techniques used:

☐ Aerial Photography - interpretation	☐ Grab-Sampling	☐ Remote Operated Vehicle Survey
☐ Aerial Photography - new	☐ Gravity-Core	☐ Sample Trenches
☐ Annotated Sketch	☐ Laser Scanning	☐ Survey/Recording Of Fabric/Structure
☐ Augering	☐ Measured Survey	☐ Targeted Trenches
☐ Dendrochronological Survey	☒ Metal Detectors	☒ Test Pits
☐ Documentary Search	☐ Phosphate Survey	☐ Topographic Survey
☒ Environmental Sampling	☐ Photogrammetric Survey	☐ Vibro-core
☐ Fieldwalking	☐ Photographic Survey	☐ Visual Inspection (Initial Site Visit)
☐ Geophysical Survey	☐ Rectified Photography	

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Ditch	Medieval 1066 to 1540	Pottery	Medieval 1066 to 1540
Pit	Medieval 1066 to 1540	Pottery	Post Medieval 1540 to 1901
Posthole	Medieval 1066 to 1540	Clay tobacco pipe	Post Medieval 1540 to 1901

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)	
District	Cambridge City	64-68 Newmarket Road Cambridge CB5 8EE	
Parish	Cambridge		
HER	Cambridgeshire		
Study Area	49m2	National Grid Reference	TL 46017 58833

Project Originators

Organisation	OA EAST
Project Brief Originator	Cambridgeshire Historic Environment Team
Project Design Originator	Aileen Connor and Rob Wiseman
Project Manager	Aileen Connor
Supervisor	Graeme Clarke

Project Archives

Physical Archive	Digital Archive	Paper Archive
Cambridgeshire CC	OA East	Cambridgeshire CC
CAMNMR16	CAMNMR16	CAMNMR16

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☐	☐
Ceramics	☒	☐	☐
Environmental	☒	☐	☐
Glass	☒	☐	☐
Human Bones	☐	☐	☐
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☐	☐	☐
Stratigraphic		☐	☐
Survey		☐	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☐	☐	☐
None	☐	☐	☐
Other	☒	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☐ GIS	☒ Context Sheet
☐ Geophysics	☒ Correspondence
☐ Images	☐ Diary
☐ Illustrations	☒ Drawing
☐ Moving Image	☐ Manuscript
☐ Spreadsheets	☒ Map
☐ Survey	☐ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☐ Misc.
	☐ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☐ Survey

Notes:

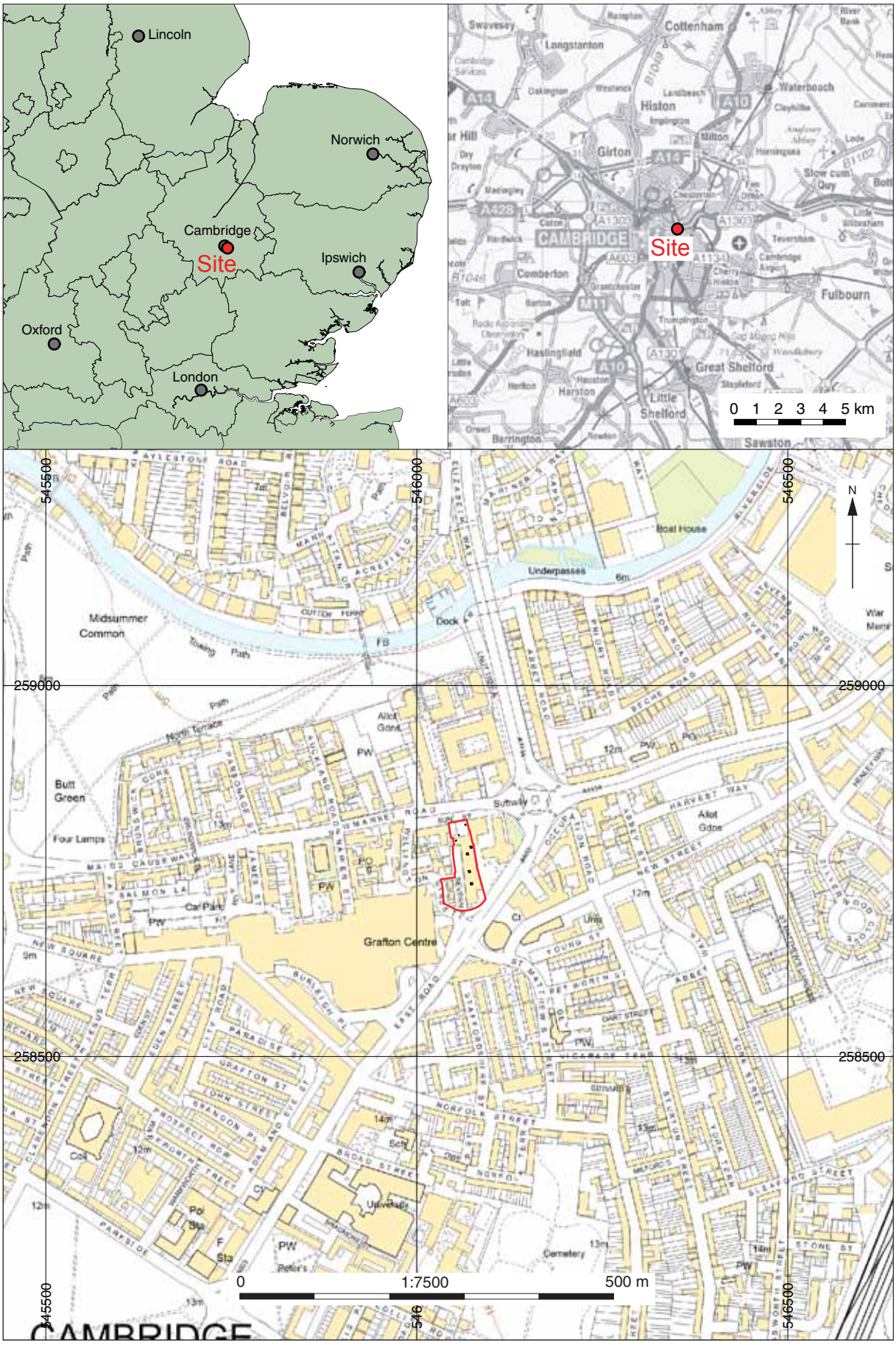

Figure 1: Site location showing archaeological test pits (black) in development area (red)

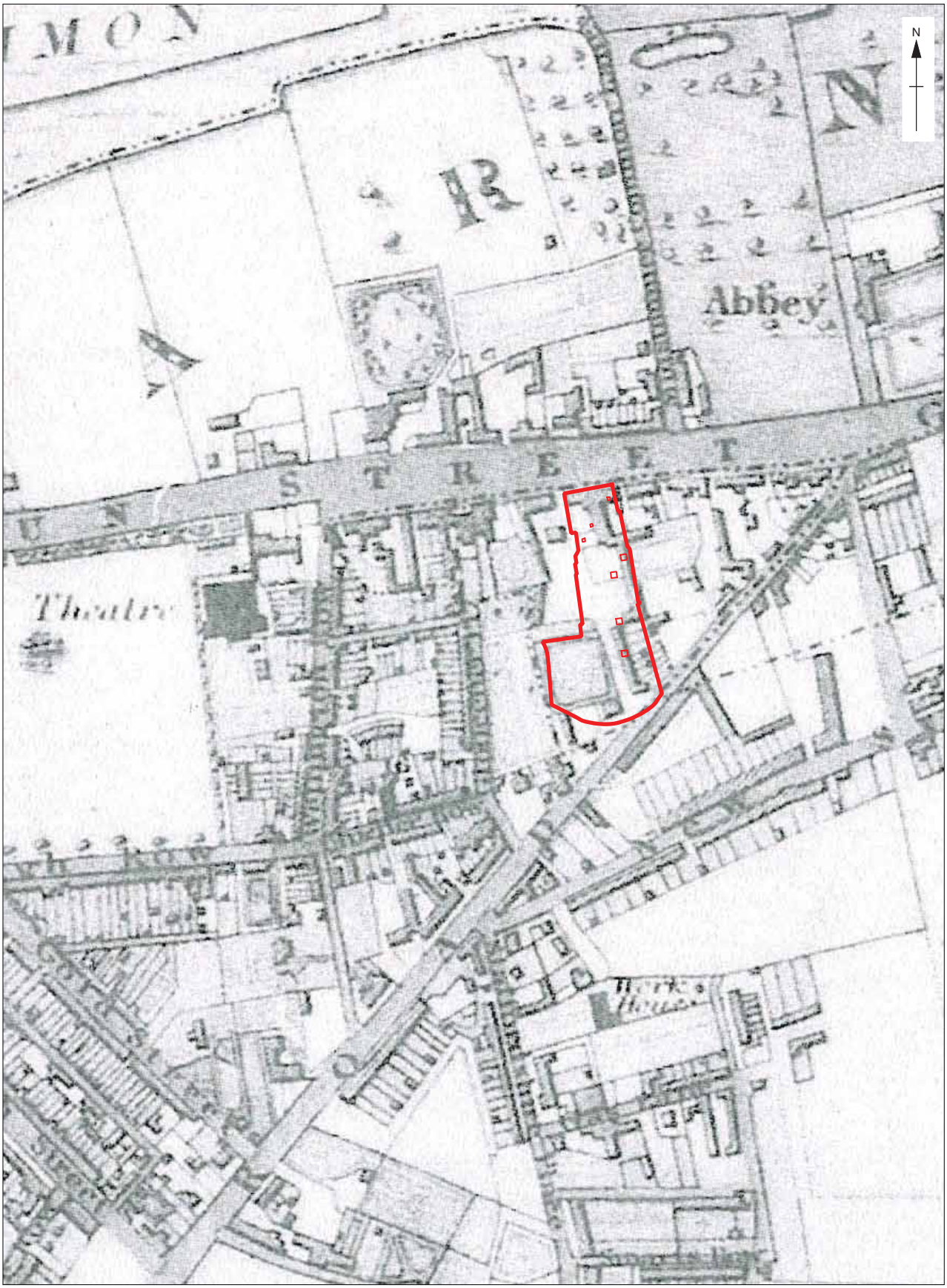

Figure 2: Barker's map of 1830, site outlined in red

Figure 3: 1885 1st edition OS map, site outlined in red

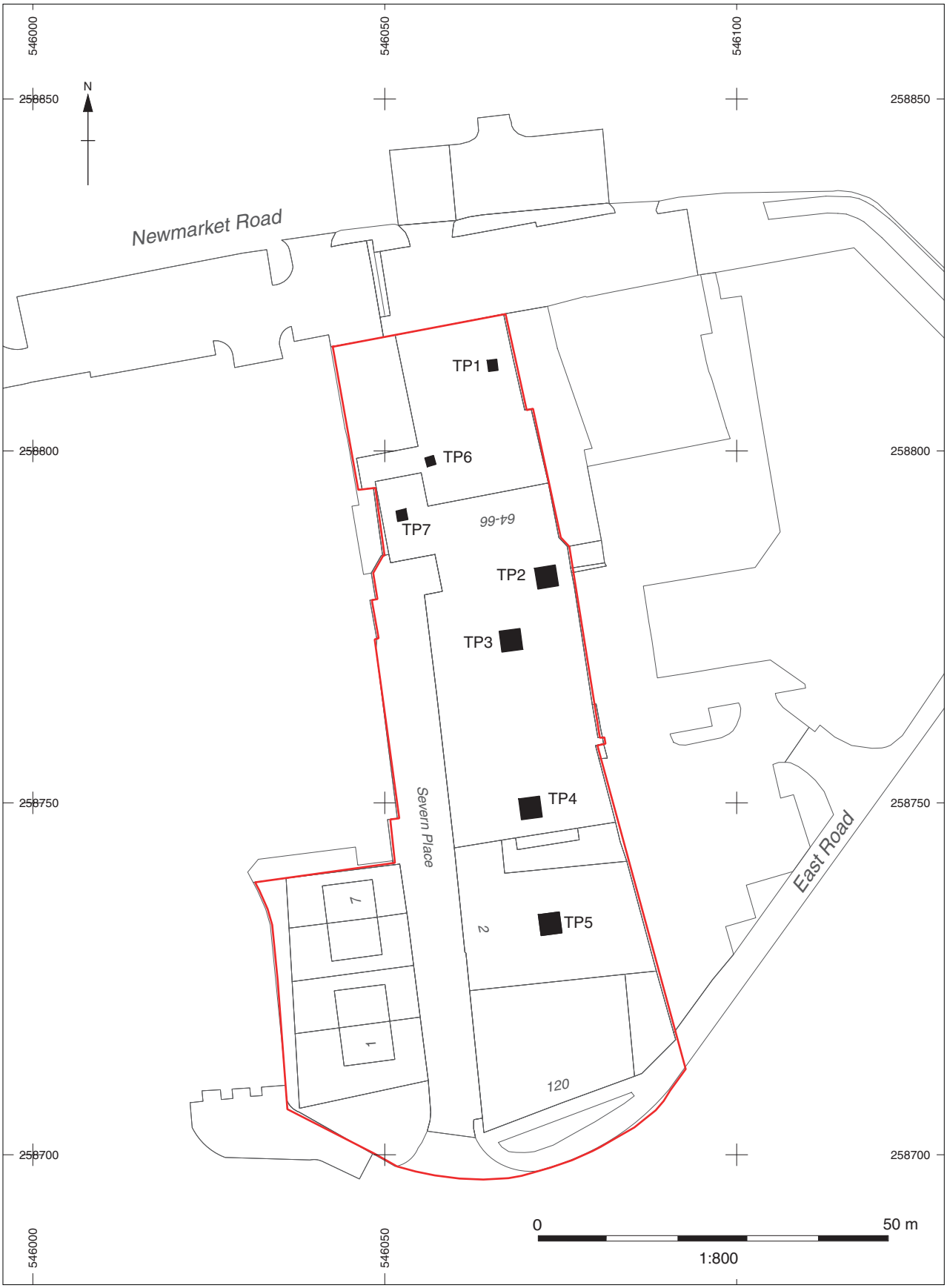

Figure 4: Test Pit location plan

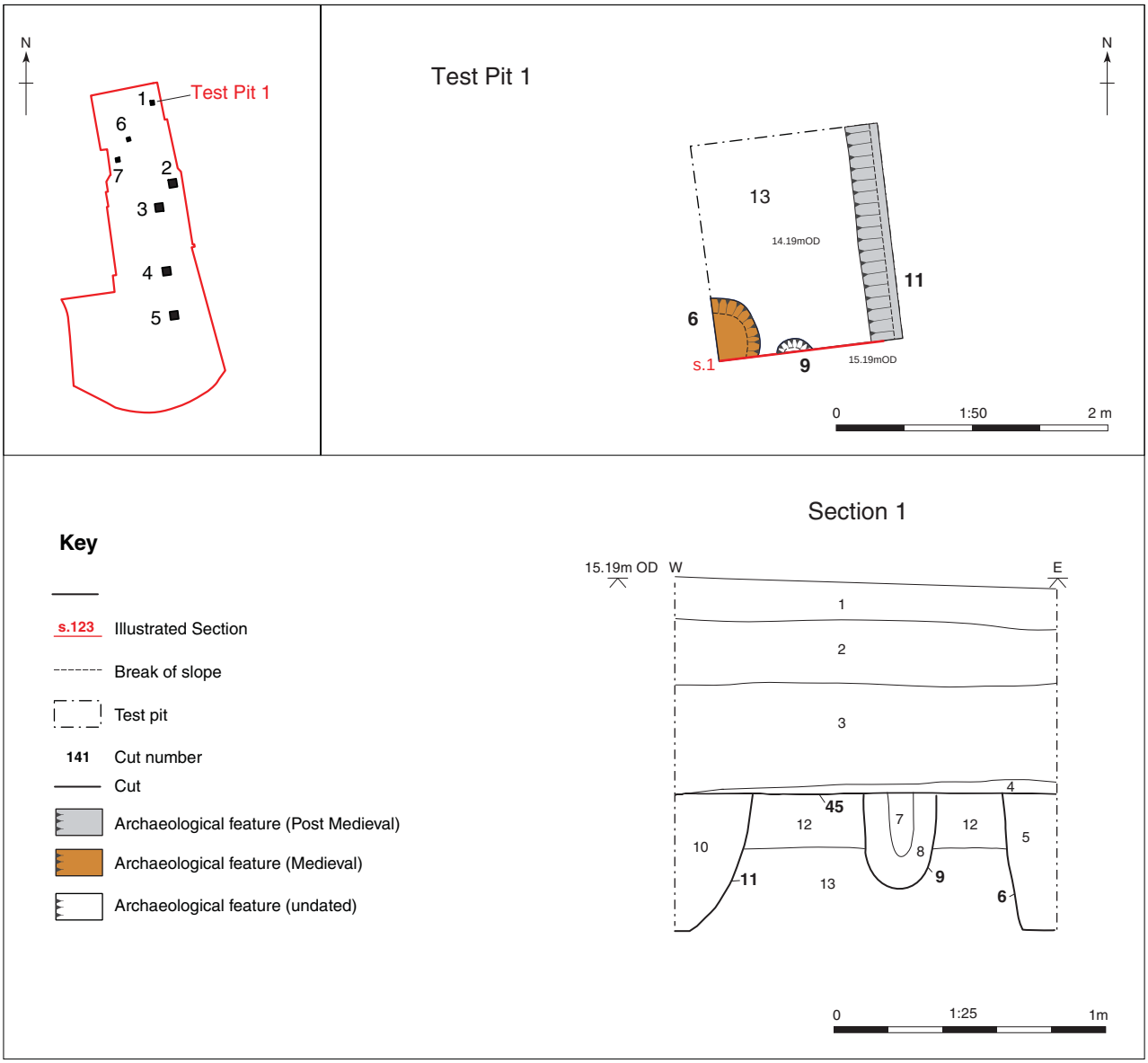

Figure 5: Plan and section of Test Pit 1.

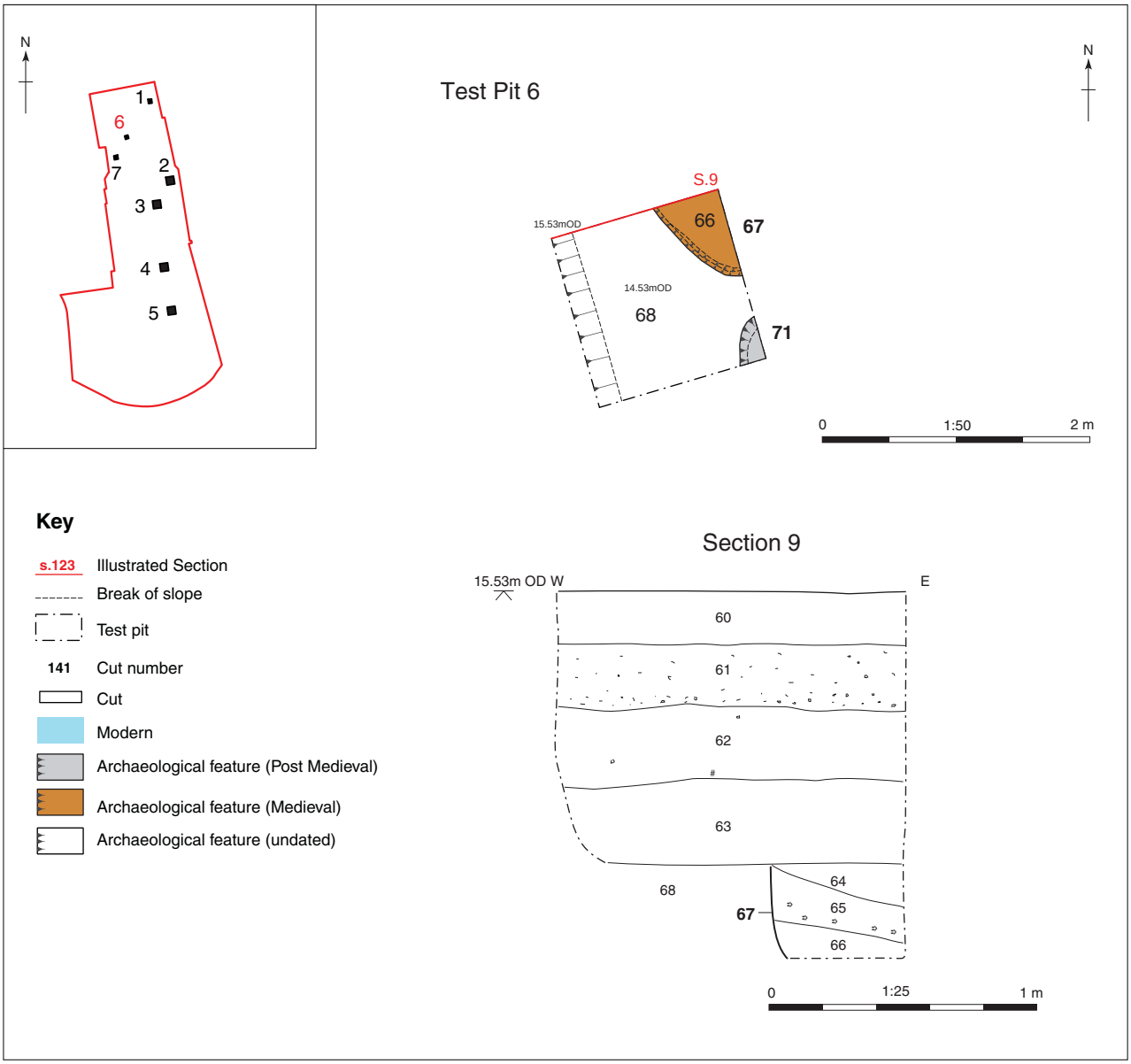

Figure 6: Plan and section of Test Pit 6

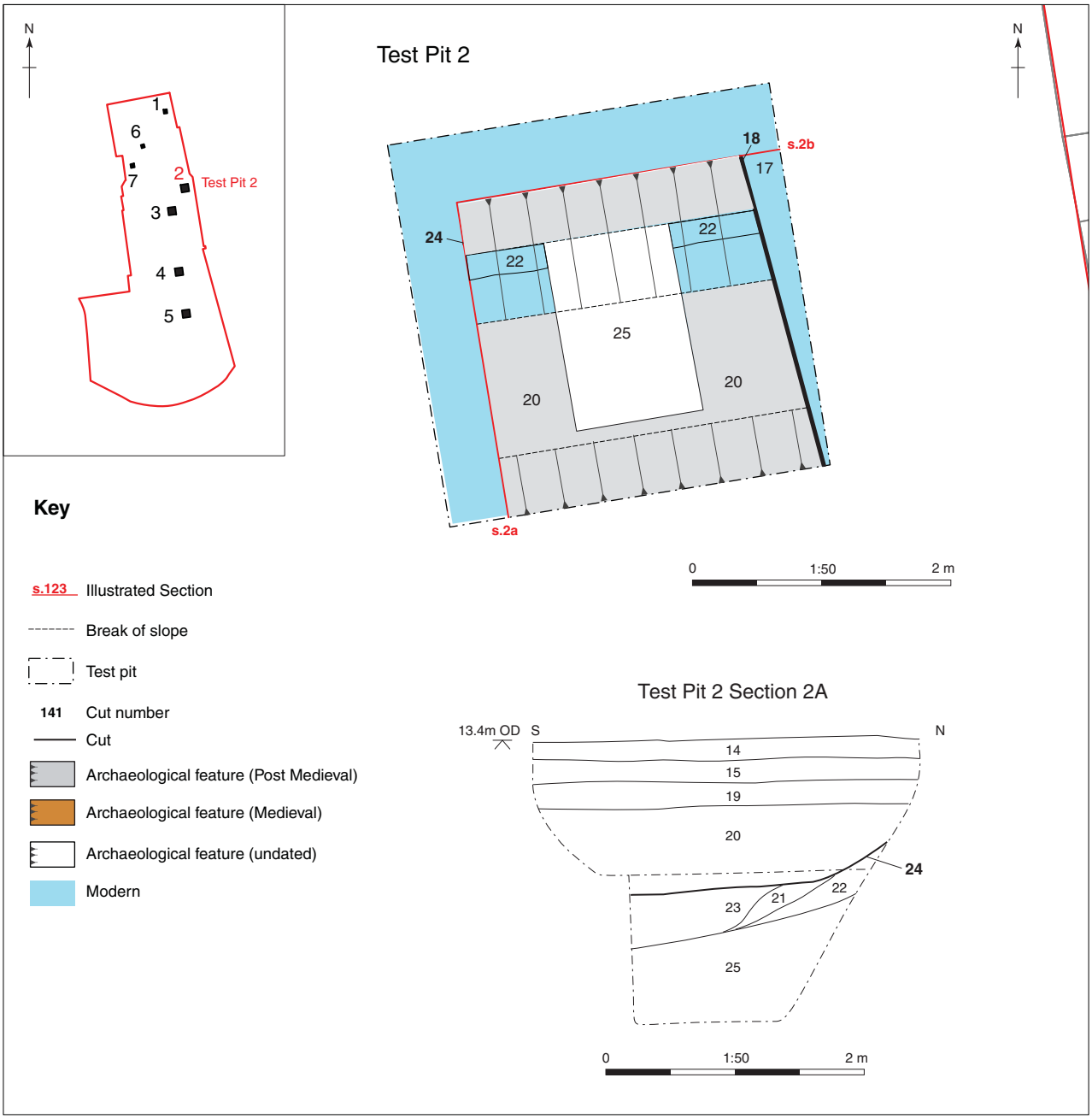

Figure 7: Plan and section of Test Pit 2

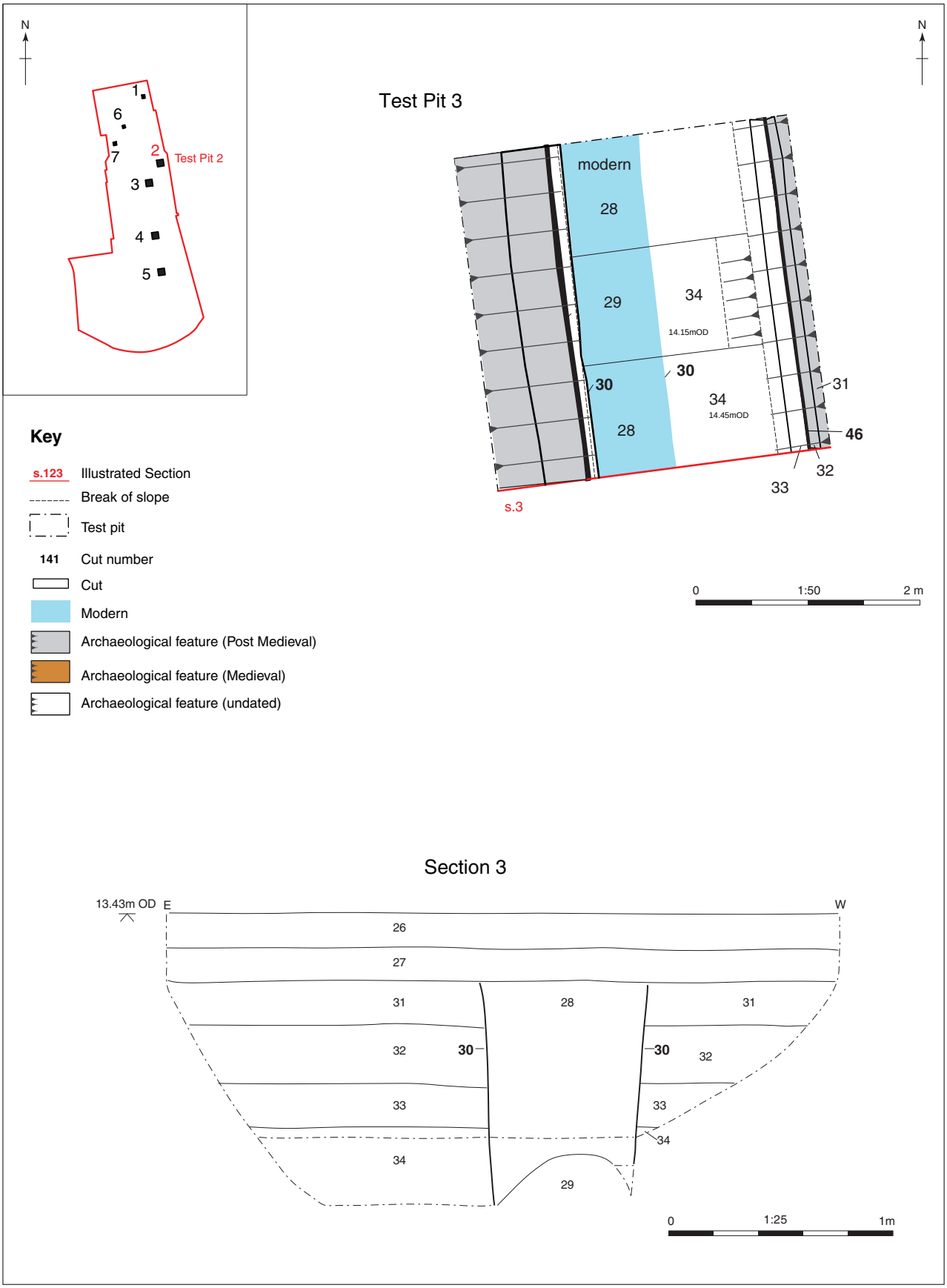

Figure 8: Plan and section of Test Pit 3.

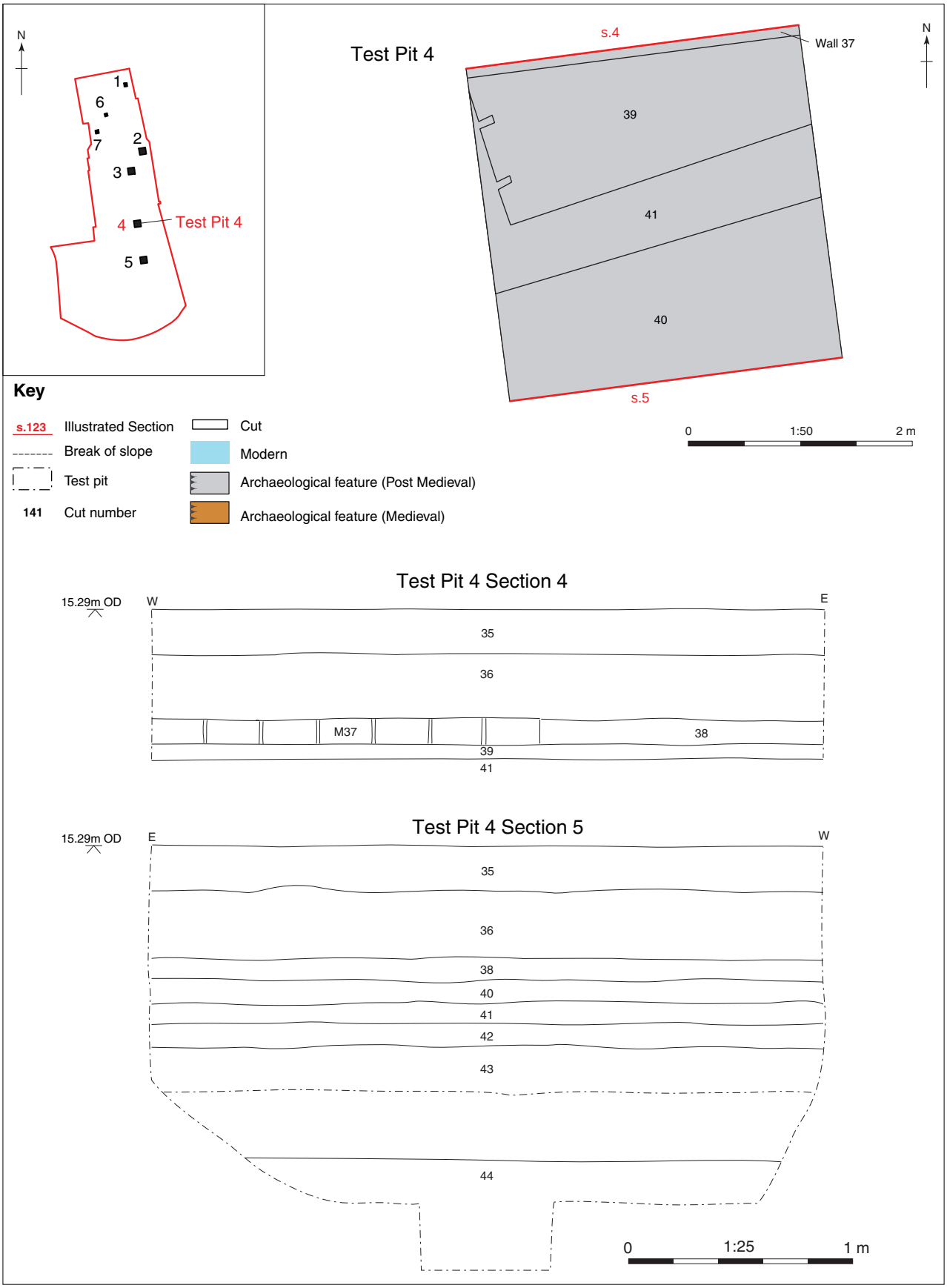

Figure 9: Plan and section of Test Pit 4

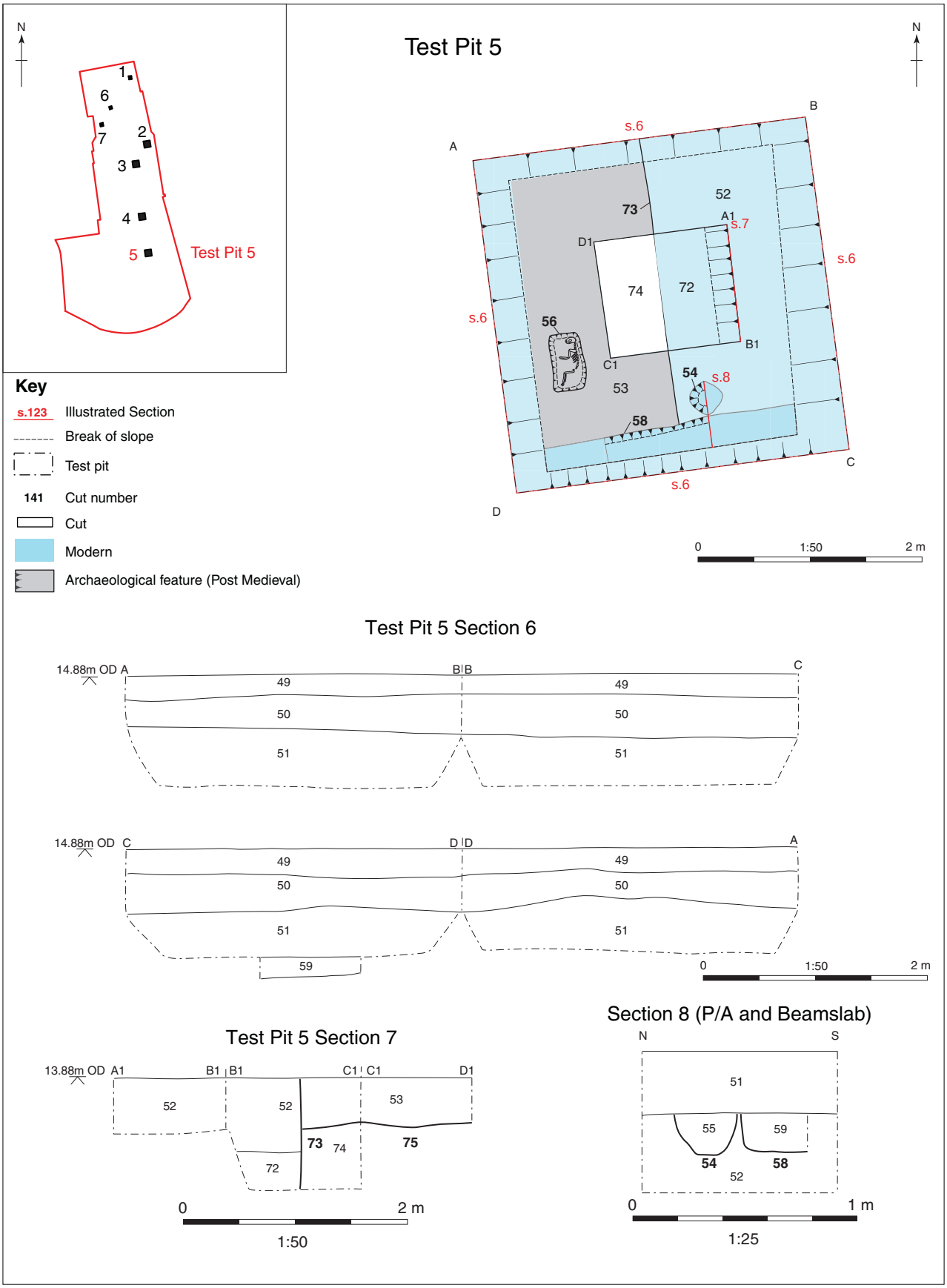

Figure 10: Plan and section of Test Pit 5

Plate 1: Test Pit 1, looking north

Plate 2: Test Pit 6, looking north

Plate 3: Test Pit 2, looking north-west

Plate 4: Test Pit 4, looking south-west

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