

Melbourn Substation to Black Peak Farm and Muncey's Farm Melbourn: Cable Trench



Archaeological Watching Brief Report



March 2016

**Client: CgMs on behalf of
Lightsource Renewable Energy Ltd.**

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Melbourn Substation to Black Peak Farm and Muncey's Farm, Melbourn: Cable Trench

Archaeological Watching Brief

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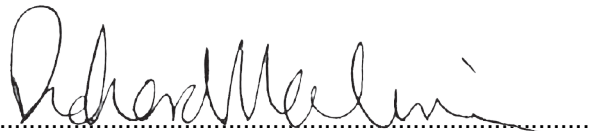
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Summary

From November 25th 2014 until February 12th 2015, OA East carried out an archaeological watching brief along 5.8km of trenching for an electric cable through Melbourn, Cambridgeshire between Black Peak Farm (TL 4057 4358), Muncey's Farm (TL 3808 4295) and Melbourn Substation (TL 3697 4374). The monitoring was carried out during soil stripping (0.6-1.6m in width) and trenching to place cable duct.

Across the landscape, a number of broad natural hollows were revealed. Most contained buried subsoils, producing a range of datable material up to the post-medieval period but two at Royston Road produced a quantity of Late Mesolithic/Early Neolithic worked flint. A shallow Grooved Ware (Late Neolithic) Pit was revealed on the plateau between New Road and Muncey's Farm containing worked flints, pottery and animal bone.

As well as a number of undated features, a Late Iron Age pit containing burnt stones, a possible clay lining and possibly a complete vessel was exposed. Along Royston Road, three ditches, likely of Medieval or earlier date were also recorded. Near Muncey's farm a post-medieval furrow and ditches were recorded. In addition to the hollow/subsoil finds, post-medieval features included postholes between Black Peak Farm and New Road.

1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Between November 2014 and February 2015, an electrical cable was laid between solar farms at Muncey's Farm, south of Melbourn (TL 3808 4295), and Black Peak Farm, east of Melbourn (TL 4057 4358), joining north of Muncey's Farm (TL 3785 4353). The route continued northwest to the Melbourn Substation (TL 3697 4374; Figure 1). Its total length was approximately 5.8km. An 800m length at Black Peak Farm was included within the Black Peak evaluation and watching brief report (Ladd 2016).
- 1.1.2 Excavation of a trench for the cable required an archaeological watching brief along the entire length of the route.

2 GEOLOGY AND TOPOGRAPHY

- 2.1.1 The southern branches of the route on higher ground traverse Holywell Nodular Chalk Formation, crossing through the Melbourn Rock Formation with the northern and western extents lying on lower ground consisting of Zig Zag Chalk Formation (BGS <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).
- 2.1.2 Much of the southern portion of the route followed modern field boundaries. North of Muncey's farm it was situated within a farm track and London Way. On Royston Road it generally followed the grassy verge next to the road. It crossed New Road, Royston Road and the A10.
- 2.1.3 Surface levels varied from 47m at Muncey's Farm in the south and 35m OD at Black Peak Farm in the east to 25m OD at the western terminus.

3 ARCHAEOLOGICAL BACKGROUND

- 3.1.1 Detailed archaeological background has been provided in a desk-based assessment. This drew together the available evidence from the Cambridgeshire historic environment record, identifying known remains dating to the Prehistoric, Roman and Post-Medieval periods at the western end of the cable route, identifying a moderate potential for Medieval activity in the area around Back Lane, Melbourn; and low potential elsewhere (Smalley 2014).
- 3.1.2 In addition, more recent work has taken place at each terminal of the route: a watching brief and excavation at Melbourn Substation (Greef 2014) and evaluations at Muncey's Farm (Ladd 2014b) and at Black Peak Farm (Ladd 2016). Four hundred metres north of the route, land off New Road was also recently evaluated (Ladd 2014a).
- 3.1.3 A selection of relevant CHER records, evaluations and crop marks along the route are shown on Figure 2 and described below.

Prehistoric

- 3.1.4 The recent nearby evaluations added to the evidence of prehistoric activity in the landscape, with natural hollows preserving soils with Early Neolithic finds at New Road and Black Peak (Ladd 2014, 2016). These may be similar to the peat-filled hollows excavated at Back Lane radiocarbon dated as having formed from the Late Mesolithic onwards (CHER MCB16894).
- 3.1.5 In addition to the catalogued Bronze Age finds and numerous barrows in the landscape catalogued in the desk-based assessment (Smalley 2014), a pit containing fragments of beaker pottery was found in a pit 100m from the Black Peak end of the cable route,

while parts of a Middle Bronze Age field system lay at New Road, approximately 500m from the route (Ladd 2014, 2016).

- 3.1.6 Work at Black Peak farm, following this watching brief, identified parallel precursor ditches to the Anglo-Saxon Bran Ditch, around 400m from the cable route. The earliest ditch on that alignment was radiocarbon dated to the Early Iron Age. It was suggested that these ditches marked both boundaries and trackways (Ladd 2016).
- 3.1.7 Crossing the centre of the route is the crop mark of a linear ditch which may be a parallel to the Bran Ditch precursors. This is associated with a faint crop mark of a large rectangular feature, a suspected long barrow. These crop marks are shown on Figure 2.

Roman

- 3.1.8 A Roman settlement at Black Peak, consisting of several enclosures, aligned with the earlier features lies within 200m of the cable route. An additional Roman hollow way was identified at Muncey's Farm 1km southwest of the cable route.
- 3.1.9 During construction of the A10 and its junction with Royston Road, Roman features and finds were recovered in excavation and fieldwalking (08777A), although it appears from site visits that the ground where the route crosses this area has been thoroughly truncated during that construction.

Saxon

- 3.1.10 To the north of the route, west of New Road, an Anglo-Saxon cemetery was excavated in 2000 (CHER CB15238), likely the continuation of a cemetery excavated in 1951 (CHER 03161, more detail in Back Lane excavation: MCB16894).

Medieval

- 3.1.11 Evidence from the Back Lane area includes Medieval pits and a well (CHER MCB16894).
- 3.1.12 A pre-enclosure track way running from Melbourn through Black Peak Farm is crossed by the cable route twice (see Figure 2). This has been identified with Roman Ashwell Street (OGS Crawford 1936, pl xxiii) but is probably a medieval or later deviation. A Medieval ridge and furrow system was recorded near New Road, respecting the track way, 400m from the cable route (Ladd 2014a). A possible headland identified at the New Road site and traced on aerial photographs (one of a series, see Figure 2) is crossed by the cable route (*ibid.*; CHER 09558). A headland and former track way at Muncey's farm, likely of Medieval or later date, lie within 100m of the cable route (Ladd 2014b).
- 3.1.13 The cable route from Muncey's Farm drops down to Royston Road via London Way. Southwest of Melbourn, London Way survives as a track within a hollow way and was the main pre-enclosure route from Melbourn to Royston. It is shown on the 1799 Ordnance Survey Drawing. The northeastern end of London Way now primarily serves to access the track to Muncey's farm.
- 3.1.14 West of Melbourn, the route passes near Back Lane which probably follows the pre-enclosure line of Ashwell Street (OGS Crawford 1936, pl xxiii). It proceeds west along Royston Road, around 100m south of the line of Ashwell Street.

High Potential Areas

- 3.1.15 Based on the existing records, several high potential areas were identified for more careful excavation (see Figure 2 and Methodology, below). These were:

- 570m between New Road and the Muncey's Farm track due to the possible proximity of the Saxon cemetery (CHER 03161)
- 100m either side of the junction of Back Lane and Royston Road due to the proximity of prehistoric and medieval features (CHER MCB16894)
- 250m around the junction of Royston Road and the A10 due to the results from fieldwalking and excavating during construction of the A10
- 200m stretch to the west of Black Peak Farm around the intersection with the line of Ashwell Street

4 METHODOLOGY

- 4.1.1 The objective of this watching brief was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits along the route and to preserve them by excavation and record within the cable trench.
- 4.1.2 The Brief required that areas of higher potential identified by the desk-based assessment (Smalley 2014) had top and sub-soils stripped by toothless bucket sufficiently in advance of trenching to allow for the adequate recording of archaeological features. Top soil stripping was done with either a 1m or 0.6m ditching bucket. Elsewhere, methods of stripping and/or direct trenching varied. Where relevant, these are described in the results.
- 4.1.3 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales digital photographs were taken of all relevant features and deposits.
- 4.1.4 Site conditions varied but were generally cold and dry through late November 2014 to February 2015.

5 RESULTS

5.1 Introduction

5.1.1 Results are discussed in sections along the two branches of the pipeline (from Black Peak towards London Way; Muncey's Farm towards London Way; and London Way to Melbourn Substation). As work commenced from different points in different directions, descriptions proceed in chronological order of excavation and, where applicable, in chronological order of feature starting with the earliest.

5.1.2 Typically the excavated pipe trench reached 1.2m below the modern ground surface.

5.2 Black Peak Farm to New Road

5.2.1 The southeastern end of this reach lay at 35mOD, the land descending to around 28m in the north, rising again to the west, with New Road at around 41mOD. Where the trench followed the western side of Black Peak Farm, for 800m, results have been included in the Black Peak Farm evaluation and watching brief report (Ladd 2016).

2nd December 2014 – 11th December 2014

5.2.2 A 1m wide trench was stripped along the full length of this section in stages with toothless bucket prior to excavation of the cable trench. A number of hollows containing deeper soils were recorded (**100, 102, 112, 114, 116, 118, 121**; e.g. Plate 1). Where tested, these varied in depth, steepness of slope and fills but were all between 8m and 180m across with upper fills of subsoil.

5.2.3 Hollow **112** is closest to the line of Ashwell Street and could represent part of a hollow way, although the route was described as following a headland by OGS Crawford (1936, pl xxiii). At New Road, opposite Carlton Rise, Ashwell Street had formed a hollow way although elsewhere it was only marked by side ditches (Ladd 2014a).

5.2.4 A sherd of beaker pottery was recovered from Fill 117 (sub-soil) of Hollow **116**. This is probably residual.

5.2.5 Hollow **118** was hand excavated to a depth of 0.8m only 2m from its southeastern edge. No clear definition was evident through its upper fill, although a single sherd of post-medieval pottery was found in the upper 0.4m (119) and a Late Iron Age sherd below that level (120). The trench excavated for the pipe went to at least 1m below top soils, revealing darker friable deposits, similar to those seen in the hollows at New Road 500m to the northwest (Ladd 2014a).

5.2.6 The other hollows were not hand excavated.

Headland 123

5.2.7 Further northwest, a thickened subsoil of reddish brown sandy silt (123) corresponded with a long headland, visible as a cropmark aligned to the north-northeast. This was hard to see at ground level, sitting on a natural break of slope. The same feature had been excavated at New Road and found to seal an earlier ditch (Ladd 2014a, 25 & Pl. 4). Unfortunately the area is not covered by Environment Agency LIDAR data which typically show such headlands and furlongs more clearly than cropmarks.

?Post-medieval Postholes/pits

5.2.8 Two postholes or pits were recorded at TL 39852 44161. These are likely related to each other and post-medieval in origin, lying close to the modern (post-enclosure) boundary, although they have different forms. Posthole/Pit **105** was 0.4m across,

circular in plan and 0.1m deep. Posthole/Pit **107** was sub-rectangular in plan and 0.7x0.5m in size and 0.1m deep. The latter contained a small piece of probable prehistoric pot and post-medieval roof tile.

- 5.2.9 A short distance to the east was a shallow oval pit (**110**; 1.2m x 0.7m x 0.2m deep) the fill of which appeared paler with a reddish greyish brown colour. Again this produced no finds.

5.3 London Way to New Road

5.3.1 This section was excavated eastwards from the track north of Muncey's Farm at around 47m OD, following field boundaries south and eastwards descending to cross a slight valley (37m OD) before rising up towards New Road (41m OD) to meet the section that had extended west from Black Peak Farm.

21st January 2015

5.3.2 A 40m stretch of the route was excavated from the western end near London Way. As with other parts of this field and at Muncey's Farm (Ladd 2014b), soil here was thin with only 0.2m of top soil and almost no sub-soil.

9th February – 12th February 2015

5.3.3 Work resumed along this stretch from the machine-trenched length near London Way eastwards to join the section east of New Road. Trenching was to proceed using a chained trenching machine. Because of the proximity of previously excavated Anglo-Saxon burials (CB15238 / 03161), the length from TL 3814 4367 to TL 3853 4369 was stripped with a 0.6m bucket in advance of trenching. Furthermore, due to the potential for asbestos, topsoil was also strip eastwards to New Road allowing further inspection for archaeological features before trenching.

5.3.4 In the low potential (unstripped) area, the trencher could not immediately be followed due to the latent asbestos risk so the trench was inspected for archaeological remains after the trencher had passed and clearance was given. The trench was 0.4m wide and 1.4m deep (through c. 0.2m topsoil and 1.2m chalk).

5.3.5 A hollow and three pits were recorded along this part of the route (see Figure 3).

Hollow

5.3.6 Along the western slopes from New Road was a hollow (**158**) of uncertain depth 50m across filled with dark reddish-brown silt. This may correspond with a headland (see Figure 2). There were no finds from this material.

Late Neolithic Pit 148

5.3.7 At TL 38133 43640, a small Late Neolithic pit (**148**) was revealed during stripping. The northern trench baulk was cut back a further 0.2m by hand to expose the full extents of the pit in plan: 1 x 0.8m and sub-oval (longer axis: east-west). Excavation exposed shallow sides and an irregular concave base surviving to a depth of 0.4m (below 0.3m of top soil), of which perhaps 0.1-0.2m was truncated during soil stripping (Plate 2). Two fills were encountered: the lower (150) mid-brown silt interface to the chalk; and a main fill (149) of mixed, mottled dark to very dark brown silt with occasional chalk fragments. The pit was excavated to 50% in order to record its section (Section 3), but 100% of the fill was retained for environmental sampling and artefact retrieval. Finds from the pit are summarized in Table 1, below.

Context	Material	Hand collected	Sample collected	Total
149	Bone	0.143	0.020	0.163
	Ceramic	0.061	0.003	0.064
	Flint	0.292	0.005	0.297
150	Bone		0.002	0.002
	Ceramic		0.001	0.001
	Flint		0.001	0.001
Total		0.496	0.032	0.528

Table 1: Finds quantities from Pit 148

5.3.8 The pit produced 40 sherds (66g) of Grooved Ware and 38 worked flints. Environmental sampling produced charred hazelnuts as well as animal bone, burnt bone and pottery fragments. The charred hazelnuts may have been deliberately selected for deposition as there was no charcoal found (Fosberry, Appendix C.2).

Late Iron Age Pit

5.3.9 At TL 38071 46328 (outside the 'high potential' Anglo-Saxon cemetery area) was a Late Iron Age pit (**151**) which had been cut by the trencher (Plate 3). Fills on its southern side had collapsed into the trench, exposing the original cut. Unstratified finds from this collapse and the spoil heap were allocated to context number 152. With the limited top soil and absence of other archaeological features these finds clearly were not intrusive.

5.3.10 The collapsed material was re-excavated by hand, hindered by the cable duct which was already in place, and a further quarter of the pit was hand excavated into the northern baulk and down to the pit's base. This enabled the reconstruction of a portion of the pit's section (Section 2) and collection of stratified finds. The pit's northern extents were not established, but a circular plan seems likely based on the southern side, which was clearly visible. Its depth was approximately 1.2m below top-soil with a flat base and vertical sides.

5.3.11 At the pit's base were a number of burnt flint cobbles around 0.2m across sitting in a deposit of reddened clay (157) around 0.2m thick, probably the remains of a lining. Above this was a band of collapsed chalk and silt (156) around 0.25m thick, followed by a very dark brown silt (155) 0.1m thick. A further collapsed chalk layer (154) 0.1m thick separated these from the top fill (153) of mid brown silt – possibly depressed subsoil truncated by ploughing elsewhere. All these fills were loose, with some voids, (not caused by the trencher) suggesting the pit had been back-filled.

5.3.12 It was possible to collect a bulk sample from Fill 155, while a lump of clay covered in organic material was retrieved from the spoil heap and assigned to Fill 152 (unstratified contents of Pit **151**); this probably came from the base but similar material could not be found from the portion hand excavated.

5.3.13 The burnt stones and clay lining suggest the use of heated water, with no evidence of *in situ* burning. The environmental samples produced charred grains, probably spelt wheat which may have arrived in the pit through primary use rather than as residual material from backfilling.

Undated Pit

5.3.14 Further east, an undated pit (**145**) lay within the stripped area at at TL 38133 43640, against the southwestern baulk. This was excavated by hand and produced no finds. It was irregular, 2.4m long, at least 0.4m wide and 0.4m deep, with two distinct fills

visible: a light grey clayey silt (147) to the northwest, overlain by a mid brown silt to the southeast. The steep angle between the fills and the irregular shape means this may be a tree throw.

5.4 Muncey's Farm to London Way

18th December 2014 – 19th December 2014

- 5.4.1 The top soil was stripped in advance of trenching (despite not being a high potential area).
- 5.4.2 A short section of the cable crossed under an existing MOD oil pipeline (TL 37980 43250). The trench around the pipeline showed only disturbed ground with redeposited chalk.
- 5.4.3 No archaeological features were recorded south of the pipeline.

5th – 6th January 2015

- 5.4.4 Top soil was stripped north of the pipe line. Two possible ditches and a probable furrow were recorded.

Possible Ditches and Furrow

- 5.4.5 They traversed the stripped area running near-perpendicular to the extant modern track. They were also perpendicular to the long headland which survives as an earthwork to the east within Muncey's farm (Ladd 2014b, 10).
- 5.4.6 The possible furrow (**124**) lay at TL 37927 43350. It was 2m wide and 0.1m deep with a slightly siltier fill than the subsoil above it.
- 5.4.7 Further north, a pair of shallow possible ditches (**126**, **128**; Plate 4) were excavated at TL 37897 43405. These were 0.7m and 0.5m wide respectively with shallow sides and irregular bases up to 0.2m deep, filled with subsoil. They intersected but their relationship was unclear.

5.5 London Way

- 5.5.1 Due to the convergence of both sets of cables from Muncey's Farm and Black Peak Farm, the trench from here north and westwards to the sub-station was 0.7m wide (excavated with a 2ft toothless bucket).
- 5.5.2 The track from Muncey's Farm descends from its northern end (c. 46m OD) through a hollow way (part of London Way) towards Back Lane (33m OD). Throughout, it is a metalled track cut in to the hollow way. The pot-holed surface lies immediately on chalk within a hollow way up to 2m deeper than the surrounding landscape. Excavation of this section was watched to confirm the extent of truncation.

28th January 2015

- 5.5.3 At the southern end of London Way, on higher ground (TL 3776 43670), the hollow way is less pronounced. Excavation across here revealed 0.1m of road surface and up to 0.2m of a subsoil of unknown date but no archaeological features. The old ground level is uncertain here; clunch was extracted either side of the lane in the 19th century (Smalley 2014, figs. 3 & 4).

5.6 Royston Road (London Way to Bury Lane)

5.6.1 Royston Road lies between 32m and 35m OD and was the main road between Royston and Melbourn before the construction of the A10 bypass in the 1970s. Trenching proceeded along its southern side from London Way east towards Bury Lane.

7th January 2015

5.6.2 Hand-dug trial holes west of the junction of London Way and Royston Road were excavated to locate existing services. Topsoil/overburden and disturbed ground were observed with natural (probably truncated) chalk at a depth of 0.5m.

9th January 2015

5.6.3 Further trial holes were excavated by machine to establish the locations of existing services. No archaeological remains were observed, although parts of the 20th century asphalt road surface remained below topsoil and overburden adjacent to the modern road.

10th – 19th January 2015

5.6.4 Much of the 370m stretch of Royston road between Back Lane and Bury Lane, is cut into the northern slopes of Grinnel Hill by up to 2m. This has truncated any potential archaeological features.

5.6.5 Natural hollows, similar to those at the New Road evaluation, and ditches of probable medieval date were recorded here (Figure 4).

Early Neolithic Hollows

5.6.6 Near London Way the surface level truncation was less severe and three deeper natural hollows were recorded (**130**, Plate 5; **134**, Plate 6; and **138**). All exceeded 0.7m in depth below 0.5m of overburden (including the old 20th century road surface). Further excavation by hand produced a single struck flint flake from Hollow **134**.

5.6.7 Further west, below deeper truncation but less overburden, the base of a similar hollow (**140**) survived. This had a surviving depth of only 0.3m below 0.1m overburden, the surface being truncated approximately 2m below the ground level in the woodland to the south. This hollow extended for approximately 10m along the trench. Due to its shallow extents, it was only identified after machining (Plate 7). However, its distinctive dark grey friable fill (141) on the spoil heap allowed the retrieval of twelve struck flints (42g).

5.6.8 The greater density of finds from Hollow **140** could be a result of the deeper excavation when compared with Hollows **130**, **134** & **138**, the bases of which were not excavated.

5.6.9 The flints from the hollows are consistent with a Late Mesolithic/Early Neolithic date comparable to that from the hollows at New Road.

Possible Medieval Ditches

5.6.10 Cutting through some of these hollows were three ditches. The easternmost, Ditch **132**, was linear and aligned east-northeast to west-southwest. It crossed the trench over a length of approximately 5.5m, cutting through Hollow **134** (Plate 5). This ditch was 1.7m wide at its top, funnelling to a concave base 0.75m wide. The base was excavated by hand but produced no finds. It was filled with a pale brown clayey silt with occasional chalk inclusions (133).

5.6.11 Approximately 60m to the west, a second ditch (**136**) cut across the trench. Due to the limited extents visible it is uncertain if this was linear. It crossed the trench at an angle

perpendicular to Ditch **132** (i.e. aligned north-northwest to south-southeast) and had a very similar profile (Plate 8). Its fill (137) survived for a depth of 0.8m below 0.6m of overburden (including the 20th-century road surface). This ditch produced a piece of CBM which was undated but could potentially be a Roman floor tile fragment.

- 5.6.12 Further east, the base of another ditch (**143**) survived to a depth of 0.4m below 0.2m of topsoil/overburden (Plate 9). However, the modern surface was truncated at least 1m lower than the ground in the woodland to the south. Ditch **143** was approximately 1m wide and crossed the trench perpendicularly, so was probably parallel to Ditch **136**. It had shallower sides but a similar narrow flattish base and similar fill to those of **132** & **136**. It appeared to cut the truncated base of a Hollow **138**.
- 5.6.13 All three ditches are of similar form, with alignments perpendicular to Ashwell Street, which preceded the present line of Royston Road. Ditch **143** corresponds with an old field boundary shown on Ordnance Survey Maps until 1950 (Smalley 2014, Figs. 3&4).

5.7 Royston Road (Bury Lane to A10)

20th – 26th January 2015

- 5.7.1 For approximately 50m, the verge south of the road follows closely the contour of the hill so this portion did not appear to have been truncated during road construction. Topsoil of 0.2m covered subsoil varying between 0.3 and 0.5m in depth but revealed no archaeological features.
- 5.7.2 From 50m west of Bury Lane, the route crossed to the north side of Royston Road in order to avoid existing services. A machine-excavated trial hole on the northern side confirmed that this side of the road was raised up from the original ground level. The surface here is approximately 1-1.5m higher than in the field immediately to the north.
- 5.7.3 Further west, Royston Road and the junction with the A10 have been significantly raised above the surrounding ground levels, crossing over a deep storm drain, so the cable trench did not penetrate through the made ground. Any archaeological deposits relating to the Roman and prehistoric finds immediately to the southwest (ECB475, CHER: 08764, 08764B) would be truncated in this area.

5.8 West of the A10

- 5.8.1 The 150m length of trench west of the A10 was not watched. This trench ran in a field, parallel to the footpath which marks a line of Ashwell Street west of Melbourn Bury. Roman ditches and an Early Neolithic hollow are known from the Melbourn Substation site immediately at the western end of the route (Greef 2014).

6 DISCUSSION AND CONCLUSIONS

6.1 Early Neolithic

Natural Subsoil Hollows

- 6.1.1 Many of the hollows between New Road and Black Peak were broader than those excavated at New Road (Ladd 2014a). Due to their size and depths and the methods of excavation, there was little opportunity to retrieve finds. It should be pointed out that of the hollows at New Road, just two produced most of the flint artefacts (Bishop 2014).
- 6.1.2 At the level of evaluation and watching brief, no distributional analysis can be done. These hollows appear to preserve buried soils of at least Late Mesolithic date onwards and they can contain worked flint, pottery and bone.
- 6.1.3 The hollows along Royston Road appeared shallower but this is probably a result of truncation due to the road itself, thus excavation reached the bases of some hollows. Hollow **140** produced a greater quantity of flint than others nearby, but this may simply be due to excavation reaching its base.

6.2 Later Neolithic

Grooved Ware Pit 148

- 6.2.1 Pit **148** contained 40 sherds (66g) of Grooved Ware and 38 worked flints.
- 6.2.2 Garrow (2006) provided a synthesis of Neolithic and Early Bronze Age pits in East Anglia. He found a bias towards sand/gravel sites exceeding that expected from the bias of excavations towards sand/gravel geology (*ibid.* Fig. 3.8 & Table 3.2). This places Pit **148** in the minority discovered on chalk geology. At the time of that synthesis only 8% of Grooved Ware pits had been found on chalk geology (*ibid.*).
- 6.2.3 As noted by Sarah Percival (Appendix B.1), Grooved Ware pits are still rare in Cambridgeshire though are being discovered in increasing numbers. Unlike others, this pit was not located close to a water source. It lay some 600m south of the nearest stream but was around 100m from the Melbourn Rock member, which is the source of springs elsewhere so there may have been water sources nearby in the Neolithic period.
- 6.2.4 The flints (Appendix B.4) and animal bone (Appendix C.1) from Pit **148** are suggestive of an episode of settlement activity.

Hollows

- 6.2.5 The flint assemblages from natural hollows along Royston Road and those at New Road (Bishop 2014) represent occupation from the Late Mesolithic onwards. The dearth of known Neolithic pits does not necessarily point to less intensive occupation or settlement on the chalk in the region.

6.3 Late Iron Age

Pit 151

- 6.3.1 The condition of Pit **151** as it was recorded, and the limited extent that was available within the cable trench, do not allow much scope for interpretation. At its base, burnt stones were present, as was heated clay, possibly the remains of a lining. Charred grains, probably spelt wheat, were recovered (securely) from a middle fill (155). It is possible the pit was used for some kind of processing or cooking. Its fills contained

voids (probably not simply the result of the trenching machine) so it may have been backfilled.

6.4 Prehistoric

- 6.4.1 No ditch was observed in relation to the possible prehistoric ditch crop mark east of Pit **148** (Figure 2). This may be due to its absence or truncation in that area (soils had been ploughed thin). The faint crop mark was only noted following excavation. The earliest (Early Iron Age) ditch associated with the Bran Ditch at Black Peak Farm was filled with a very pale washed-in chalk (Ladd 2016). Despite top soil being stripped, such an obscure ditch might have been missed in this small trench.

6.5 Roman-Medieval

Ditches at Royston Road

- 6.5.1 Along Royston Road, three ditches were recorded. The narrow trench made judging alignments uncertain, but two (**136** and **143**) were aligned roughly perpendicularly to the road with a third to the east (**132**) aligned almost at right-angles to the others, but perhaps 20 degrees from the road alignment (as it bends eastwards). Ditch **143** was probably part of a post-medieval field boundary.
- 6.5.2 The only find was a piece of possible Roman tile from Ditch **136**. Roman ditches perpendicular to Ashwell Street were found 500m to the west at Melbourn Substation (Greef 2014). However, the longevity of Ashwell Street means that medieval and later boundaries would align on it as well.

Headlands

- 6.5.3 Comparing the positions of deeper subsoil hollows against the cropmark plot (Figure 2) it is possible to suggest that some (**116**, **118** and **158**) may correspond with old headlands.

6.6 Post-medieval

Furrow and ditches near Muncey's Farm

- 6.6.1 One possible furrow (**124**) and two possible ditches (**126**, **128**) were excavated close to the Muncey's farm track. These may be contemporary with the headland that lies west of the modern track (see Figure 2 and Ladd 2014b) or the pre-enclosure line of the modern track shown on the 1799 Ordnance Survey First Series map.

7 ACKNOWLEDGEMENTS

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- 7.1.2 The brief for archaeological works was written by Kasia Gdaniec of Cambridgeshire HET.

APPENDIX A. CONTEXT INVENTORY

Context	Cut	Trench	Category	Feature Type	Function	Length	Breadth	Depth
100	100		cut	hollow	natural		10.8	
101	100		fill	hollow	natural			
102	102		cut	hollow	natural		52.4	
103	102		fill	hollow	natural			
104	102		fill	hollow	natural			
105	105		cut	post hole	undated	0.2	0.2	0.1
106	105		fill	post hole	undated			
107	107		cut	post hole	undated	0.7	0.4	0.15
108	107		fill	post hole	undated			
109			void	void				
110	110		cut	pit	undated	0.5	0.5	0.1
111	110		fill	pit	undated			
112	112		cut	hollow	natural		64	
113	112		fill	hollow	natural			
114	114		cut	hollow	natural		12.6	
115	114		fill	hollow	natural			
116	116		cut	hollow	natural		82	
117	116		fill	hollow	natural			
118	118		cut	hollow	natural		184	
119	118		fill	hollow	natural			
120	118		fill	hollow	natural			
121	121		cut	hollow	natural		86	
122	121		fill	hollow	natural			
123			layer	headland?			30	
124	124		cut	furrow?			1.8	0.2
125	124		fill	furrow?				
126	126		cut	furrow?			0.4	0.1
127	126		fill	furrow?				
128	128		cut	furrow?			0.5	0.2
129	128		fill	furrow?				
130	130		cut	hollow	natural		9	1.2
131	130		fill	hollow	natural			
132	132		cut	ditch	med?		1.6	0.8
133	132		fill	ditch				
134	134		cut	hollow	natural		10	1.4
135	134		fill	hollow	natural			
136	136		cut	ditch	med?		3	0.8
137	136		fill	ditch				
138	138		cut	hollow	natural		10	
139	138		fill	hollow	natural			
140	140		cut	hollow	natural		8	0.4
141	140		fill	hollow	natural			
142	140		fill	hollow	natural			
143	143		cut	ditch			2	0.5
144	143		fill	ditch				
145	145		cut	pit	undated		2.4	0.35
146	145		fill	pit				
147	145		fill	pit				
148	148		cut	pit	neolithic		1.06	0.8
149	148		fill	pit	neolithic			
150	148		fill	pit	neolithic			
151	151		cut	pit			1.3	1

Context	Cut	Trench	Category	Feature Type	Function	Length	Breadth	Depth
152	151		fill	pit	(spoil heap finds)			
153	151		fill	pit				
154	151		fill	pit				
155	151		fill	pit				
156	151		fill	pit				
157	151		fill	pit				
158	158		cut	hollow?			52	
159	158		fill	hollow/colluvium				

Table 2: Contexts

APPENDIX B. FINDS

B.1 Prehistoric Pottery

By Sarah Percival

Introduction

B.1.1 A total of 64 sherds weighing 508g were collected from five excavated features (Table 3). The earliest pottery found is a small assemblage of Later Neolithic Grooved Ware. Two sherds of Later Neolithic to Early Bronze Age rusticated Beaker was also recovered along with 20 sherds of Late Iron Age date (late 1st century BC to mid 1st century AD). The pottery is fragmentary and no complete vessels were present. The sherds are mostly small and poorly preserved and the average sherd weight is 8g. One small scrap of pottery weighing 1g is probably prehistoric but is otherwise not closely datable.

Feature	Feature Type	Context	Spotdate	Quantity	Weight (g)
107	Post Hole	108	Not Closely Datable	1	1
116	Hollow	116	Later Neolithic Early Bronze Age	2	11
118	Hollow	120	Late Iron Age	1	3
148	Pit	149	Later Neolithic	39	65
		150	Later Neolithic	1	1
151	Pit	152	Late Iron Age	15	294
		155	Late Iron Age	1	3
		157	Late Iron Age	4	130
Total				64	508

Table 3: Quantity and weight of prehistoric pottery by feature

Methodology

B.1.2 The assemblage was analysed in accordance with the Guidelines for analysis and publication laid down by the Prehistoric Ceramic Research Group (PCRG 2010). The total assemblage was studied and a full catalogue was prepared. The sherds were examined using a binocular microscope (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types. Fabric codes were prefixed by a letter code representing the main inclusion present (F representing flint, G grog and Q quartz). Vessel form was recorded; R representing rim sherds, B base sherds, D decorated sherds and U undecorated body sherds. The sherds were counted and weighed to the nearest whole gram. Decoration and abrasion were also noted. The pottery and archive are curated by OAE.

Later Neolithic

B.1.3 A small assemblage of Grooved Ware comprising 40 sherds weighing 66g was recovered from two fills of Pit **148**. All of the sherds are extremely abraded but retain some possible incised decoration on the exterior. One pointed sherd may be from a rim. The sherds are made of shell-tempered fabric suggesting that they are perhaps from a vessel of the Clacton sub-style (Knight 2016, 77). Grooved Ware dates to c.2900 cal. BC to c. 2100 cal. BC (Garwood 1999).

Later Neolithic - Early Bronze Age

B.1.4 Two sherds weighing 11g are from a single fingertip rusticated Beaker. The sherds are made of sandy fabric with rare, fine grog inclusions and are typical of Beaker found in non funerary contexts in East Anglia.

B.1.5 The Beaker sherds were found in fill of Hollow 116 and are likely to be residual.

Late Iron Age

B.1.6 Three fills within Pit **151** each produced sherds of Late Iron Age pot including a rim from one jar and body and base sherds from at least five others. The vessels are all hand made in a variety of grog, sand and shell-tempered fabrics (Table 4). A single rim sherd in sandy, shell-tempered fabric from Hollow **118** is probably of the same date.

B.1.7 The assemblage includes a rounded, everted rim from a rilled jar decorated with a row of fingertip impressions around the shoulder with rilling or combing beneath (Thompson 1982, form C8-1). Similar vessels are found widely in the region for example at Braughing in contexts dating to c.10BC -AD20 (Thompson 1982, 289).

B.1.8 Bases from two further vessels include a jar decorated with burnished cross hatch comparable with mid to late 1st century AD examples from Broughton (Atkins et al. 2014; fig.4.38 SF448) and an undated plain jar.

Fabric	Description	Quantity	Weight (g)
GTW	Common pale sub-rounded grog in a fine clay matrix	7	135
Qqu	Occasional white sub-rounded quartz and quartz sand rich clay	4	130
QS	Common rounded quartz sand with moderate shell	5	84
STW fine	Common fine shell in clean clay matrix	4	78
Total		20	427

Table 4: Quantity and weight of Late Iron Age pottery by fabric

Discussion

B.1.9 The small assemblage shows occupation at the site during the early and late prehistoric periods with pit digging and pottery deposition taking place in the later Neolithic and late Iron Age. Grooved Ware Pit **148** is of interest being one of a small but growing number of this type from the county. Grooved Ware with shell inclusions has previously been found at sites in western Cambridgeshire such as Etton, near Maxey (Kinnes 1998, 161) Site 4, Over (Garrow 2006, 102) and Eynesbury, St Neots (Mepham 2004, 30) and is usually found on sites near water courses.

B.1.10 The Late Iron Age pit contains only handmade forms dating to around the late 1st century BC to early 1st century AD. The pots are utilitarian forms typical of domestic use.

B.2 Post Roman Pottery

By Sarah Percival

Introduction

B.2.1 A single sherd of post-medieval slipware with trailed decoration weighing 2g was recovered from Fill 119 of Hollow **118**. The sherd dates to the 17th to 19th centuries.

B.3 Ceramic Building Material

By Sarah Percival

Introduction

B.3.1 A total of five pieces of ceramic building material weighing 98g were collected from four excavated features. The CBM is fragmentary and mostly small and poorly preserved.

Feature	Feature type	Context	Type	Fabric	Date	Quantity	Weight (g)
107	Posthole	108	Roof tile	Dense hard-fired orange sandy	Post medieval	2	4
123	Layer	123	Brick	Dense hard-fired orange sandy rare chalk	Post medieval	1	11
124	Furrow	125	Roof tile	Dense hard-fired orange sandy, sparse large angular flint	Post medieval	1	36
136	Ditch	137	Floor tile	Dense hard-fired orange sandy	Uncertain	1	47
Total						5	98

Table 5: Quantity and weight of CBM by feature

Methodology

B.3.2 The CBM was counted and weighed by form and fabric and any complete dimensions measured. Abrasion, re-use and burning were also recorded following guidelines laid down by the Archaeological Ceramic Building Materials Group (ACBMG 2002). Terminology follows Brodrigg (1987).

Nature of the Assemblage

B.3.3 The assemblage comprises three fragments of post medieval roof tile in orange sandy fabrics, plus a fragment of brick of similar date and fabric, and a piece of possible floor tile with deep incised striations which is undated but may be Roman (Table 5).

B.4 Flint

By Lawrence Billington

Introduction and quantification

B.4.1 A total of 55 worked flints were recovered during the fieldwork. The flintwork was exclusively derived from sealed deposits; three natural hollows and a single pit. The assemblage is quantified by type and context in Table 6.

Context	103	135	142	149	150	Totals
Cut	102	134	140	148	148	
Context type	hollow	hollow	hollow	pit	pit	
Chip				1	5	6
Irregular waste				4		4
Flake	2	1	4	22		29
Blade			3	2		5
Bladelet			2	1		3
Blade like flake			5	1		6
Serrated blade				1		1
Core fragment				1		1
Totals	2	1	14	33	5	55

Table 6: Basic quantification of the flint assemblage by context and type

Pit 148

B.4.2 A total of 38 worked flints were recovered from the fills of Pit 148. The majority of these, 33, were from Fill 149, including six small flakes/chips retrieved from a bulk soil sample. The five worked flints from Fill 150 consisted of five chips recovered from a bulk soil sample. The assemblage is in good condition, reflecting its recovery from a sealed

context, although all of the flint is heavily corticated, obscuring the original colour of the flint. A relatively high proportion of the assemblage (nine pieces) display traces of burning. The raw material is a good quality fine grained flint and appears to have derived from nodular flints with a fresh, unweathered cortex with occasional incipient thermal flaws. This material is likely to have its source in deposits closely associated with the parent chalk, probably available very locally where the flint bearing Holywell Nodular Chalk outcrops.

- B.4.3 The assemblage is dominated by unretouched flake based material. Core reduction practices appear to have been somewhat varied. The majority of removals are relatively thick flakes which have been detached via direct hard hammer percussion from simple flake cores. There are, however, one or two pieces which resemble flakes removed during the thinning of core tools such as axes or from the working of discoidal type cores. There are also a small number of blade based removals and one fine flake with a finely faceted striking platform which appears to have been struck from a levallois-like core (see Ballin 2011). The only core in the assemblage is fragmentary and derives from an irregular, failed, flake core. Most stages of core reduction appear to be represented although fully/mostly cortical flakes are absent, suggesting that the initial stages of core reduction may not be represented in the assemblage. Two flakes could be refitted and several others appear to derive from the same nodule of raw material on the basis of their very similar cortical surfaces.
- B.4.4 Tool use is attested by traces of macroscopically visible probable use wear on three unretouched removals and a single retouched piece, a serrated blade. This piece is made on a large, robust, blade and bears serration along one lateral edge and traces of utilisation or damage on the other. No gloss was visible on the serrated edge. Microwear analysis of serrated pieces from Mesolithic and Neolithic contexts has invariably shown an association with working silica rich plant material (e.g. Donahue 2002; Donahue and Evans 2009).
- B.4.5 In terms of dating, the assemblage is somewhat ambiguous. Whilst the technology represented is clearly Neolithic, some pieces are more characteristic of the earlier part of the period (i.e. blade based piece) whilst others, notably those pieces with finely faceted striking platforms and the broader flakes are more typical of later Neolithic technologies. Serrated blades are found in both Early and Late Neolithic assemblages in Eastern England, although they are particularly common in some Early Neolithic assemblages from the region where they can be the dominant retouched tool type (e.g. Billington 2011; Bishop 2007). In general terms the composition of the assemblage is typical of material recovered from Neolithic pits in the region, with the deposition of flint working waste and utilised/retouched pieces probably attesting to an episode of settlement/domestic type activity (see Garrow 2006).

The Hollows

- B.4.6 Two worked flints were recovered from hollow 102 whilst a single flake was recovered from Hollow **134**. This material is not strongly diagnostic but is consistent with a broad Neolithic date. A more substantial assemblage of 14 flints was recovered from Hollow **140**. This material is heavily corticated and although few pieces retain any surviving cortical surfaces appear to derive from a similar source of raw material to that seen in the assemblage from Pit **148**.
- B.4.7 Whilst no refits could be made between any of these pieces the assemblage is very coherent in technological terms and largely represents fine blade based removals deriving from the later, more productive, stages of core reduction. There is some

variability in the form of the removals, with regular prismatic bladelets alongside more robust blade like flakes, but there is no reason to suspect that this is not essentially a chronologically unmixed assemblage. The technological traits of the assemblage clearly indicate a Mesolithic or Early Neolithic date and whilst in this sense it is comparable to the larger assemblages of flintwork derived from similar periglacial hollows at the nearby New Road excavations, it is interesting to note that the New Road assemblages, unlike the small sample considered here, were dominated by evidence for the initial stages of core reduction and raw material provisioning (Bishop 2014, 38).

Discussion and recommendations

- B.4.8 Although small the flint assemblage is significant in consisting of chronologically unmixed assemblages deriving from sealed contexts. Cataloguing and analysis of selected attributes of the assemblage has been undertaken as part of this assessment and no more work of this kind is recommended. It would be useful to reconsider the assemblage in the light of any other dating evidence from the site and any further work should consider the assemblage in the context of the larger assemblages of flintwork derived from the New Road excavations.



Context	Cut	sample	Raw Material	type	subtype	burnt	broken	patina	reduction	platform type	platform prep	hammer	scars	termination	damage	under 20mm?	util	colour	cortex	weight	notes
103	102	1	3	1	1	2	3	5	2	1	3	1	3								thinning?
103	102	1	3	1	1	4	3	3													blae like robust
135	134	1	3	1	1	2	3	5	8	1	1	3	1								broad could be levallois like
142	140	1	3	4	1	2	3	5	1	1	2	1	1								fine prismatic
142	140	1	3	4	1	4	3	5													fine prismatic missing prox and dist but mostly complete maybe burnt, one end shattered, not truncation?
142	140	1	3	3	1	3	3	5					1								robust
142	140	1	3	3	1	4	3	5													robust
142	140	1	3	5	1	3	3	5					1								
142	140	1	3	5	1	3	3	5													robust short
142	140	1	3	3	1	2	3	5	2	1	1	1	3								
142	140	1	3	5	1	2	3	5	2	1	3	1	1								
142	140	1	3	1	1	2	3	5	2	1	1	1	1								
142	140	1	3	1	1	1	3	4	3	1	1	1	1								lateral break decorat
142	140	1	3	5	2	4	3	5													
142	140	1	3	1	1	3	3	5					1								
142	140	1	3	5	1	2	3	5	6	1	3	1	3								
142	140	1	3	1	1	2	3	5	2	1	2	1	1								broad thin thinning?
149	148	1	5	12	1	1	3	3													flake irreg nodular healk
149	148	1	3	1	2	2	3	5	2	3	3	3	3								large trimming
149	148	1	3	1	2	5	3	5	3	1	1	1	1			1					fine levallois like with util lat ligh burning has caused distal break
149	148	1	3	5	1	2	3	4	3	1	1	1	1			1					large blade like removes steps facteed plat not classic but still looks Llooks util
149	148	1	3	1	2	3	3	3													decorat
149	148	1	2		1			3													
149	148	1	3	1	1	2	3	4	2	1	1	1	1								refits to below
149	148	1	3	1	1	2	3	4	2	1	1	1	1								refits to above
149	148	1	3	1	1	2	3	5	2	1	1	1	1								thinning or discoid?
149	148	1	3	1	1	2	3	5	2	1	1	1	1								
149	148	1	2		2			3													
149	148	1	3	1	2	2	3	3	2	1	1	1	1								
149	148	1	2		2			3													



Context	Cut	sample	Raw Material	type	subtype	burnt	broken	patina	reduction	platform type	platform prep	hammer	scars	termination	damage	under 20mm?	util	colour	cortex	weight	notes	
149 148		1	3	1	1	2	3	4	2	1	1	1	1	1								
149 148		1	3	1	1	2	3	5	2	1	1	1	1	1							fine	
149 148		1	3	1	1	2	3	5	2	1	2	1	1	1							fine thin thinning?	
149 148		1	3	1	1	2	3	5	2	1	1	1	1	1							blade like almost	
149 148		1	3	1	1	2	3	4	2	1	1	1	1	1							squat	
149 148		1	3	1	1	2	3	4	2	1	1	1	1	1							fairly robust	
149 148		1	3	1	1	2	3	5	2	1	1	1	1	1							mostly cortical	
149 148		1	3	1	1	3	3	3	3												small	
149 148		1	3	1	1	2	3	4	2	1	1	1	1	1								
149 148		1	3	1	1	2	3	5	2	1	1	1	1	1								
149 148		1	2		1		3															
149 148		1	3	1	2	2	3	3	2	1	1	1	1	1								
149 148		1	3	1	2	2	3	5	2	1	1	1	1	1			1				fine thinning/discoid	
149 148		1	4	26	1	2	3	4	2	2	1	1	1	1							large blade single arris util one late serrated the other, no gloss?	
149 148		2	1	3	1	1	2	3	5	2	1	1	1	1								
149 148		2	1	3	1	1	2	3	4	6	1	1	1	1								
149 148		2	1	3	1	2	4	3	5													
149 148		2	1	1		1		3														
149 148		2	1	3	1	1	3	3	5													
149 148		2	1	3	4	1	2	3	5	2	1	3	1	1							bidlt, inadvert	
150 148		2	1	1		1		3														
150 148		3	1	1		1		3														
150 148		3	1	1		1		3														
150 148		3	1	1		1		3														
150 148		3	1	1		1		3														
150 148		3	1	1		1		3														
150 148		3	1	nat		1		3														
150 148		3	1	nat		1		3														
150 148		3	1	nat		1		3														

Table 7: Flint catalogue



Raw Material	type	subtype flake	subtype retouched	subtype core	burnt	patina	broken	reduction	platform type	platform prep	intent break
1 flint	1 chip true	1 flake	1 end scraper	1 irregular core	2 burnt	1 none	1 broken	1 100%	1 shattered	1 trimmed	1 impact
2 non flint	2 irreg waste	2 narrow flake (metric blade)	2 side scraper	2 single platform flake core	1 unburnt	2 blue	2 unbroken	2 75-99%	2 plain	2 abraded	2 lip
3 flake	3 blade (true)	3 sub circular scraper	3 sub circular scraper	3 two platform flake core	3 heavy	3 heavy	3 dist	3 25-74%	3 faceted	3 none	3 wedge fracture
4 retouched	4 bladelet (true)	4 thumb nail scraper	4 thumb nail scraper	4 multiple platform flake core	4 n/a	4 n/a	4 medial	4 under 25%	4 dihedral	4 n/a	
5 core	5 blade like flake (non metric true blade)	5 end and side scraper	5 end and side scraper	5 single platform blade/narrow flake core			5 prox	5 none	5 cortical		
6 hammerstone	6 rejuvenation	6 horse shoe scraper	6 horse shoe scraper	6 two platform blade/narrow flake core			6 silet	6 n/a	6 linear		
7 unworked burnt	7 thinning flake	7 misc scraper	7 misc scraper	7 multiple platform blade/narrow flake core					7 punctiform		
	8 axe flake	8 scraper and other	8 scraper and other	8 opposed platform core					8 >1 scar		
	9 tranchet flake	9 flake knife	9 flake knife	9 keeled core					9 natural (patin)		
	10 microburin	10 polished knife	10 polished knife	10 discoidal core					10 unknown		
	11 burin spall	11 piercer	11 piercer	11 levallois type core					11 finely faceted		
	12 faceted butt flake	12 burin	12 burin	12 core fragment							
	13 levallois flake	13 microlith	13 microlith	13 retouched core							
	14 wedge	14 backed blade/let	14 backed blade/let	14 tested nodule/minimally worked core				scars			
	chip subtype	15 fabricator	15 fabricator	15 core on a flake				1 single			
	1 bld chip	16 leaf arrowhead	16 leaf arrowhead					2			
		17 chisel arrowhead	17 chisel arrowhead	under 20mm?				blade/narrow	termination	utilised	
		18 oblique arrowhead	18 oblique arrowhead	1 yes				3 multiple	1 normal	1 light spalling	
		19 barbed and tanged	19 barbed and tanged					4 opposed	2 step	2 heavy blunted	
		20 other arrowhead	20 other arrowhead					5 unknown	3 hinge	3 other	
		21 flint axe	21 flint axe					4 soft stone?	4 plunge		
		22 gunflint	22 gunflint					5 n/a	5 n/a		
		23 misc retouched flake	23 misc retouched flake	cortex							
		24 misc retouched blade/let	24 misc retouched blade/let	1 thick unweathered							
		25 serrated flake	25 serrated flake	2 abraded derived							
		26 serrated blade	26 serrated blade	3 unclear							
		27 notched flake/blade	27 notched flake/blade	4 patinated/thermal surface colour							
		28 denticulat	28 denticulat	1 dark/grey translucent homogenous							
		29 laurel leaf	29 laurel leaf	2 coloured translucent							
		30 bifacial implement	30 bifacial implement	3 coloured opaque							



Raw Material	type	subtype flake	subtype retouched	subtype core	burnt	patina	broken	reduction	platform type	platform prep	intent break
			31 edge trimmed flake 32 edge trimmed blade 33 abruptly retouched pieces 34 truncated blade/let	4 grey							

Table 8: Flint catalogue key

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Animal Bone

By *Vida Rajkovača*

Methods: Identification, quantification and ageing

- C.1.1 The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), and reference material from the Cambridge Archaeological Unit. Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident.
- C.1.2 Looking at the hand-recovered material, only three contexts produced bone (Table 9). Cow and pig were positively identified. It is quite likely that a large first phalanx from Context 149 with a later Neolithic date is in fact an aurochs, though the specimen is heavily weathered and incomplete making it impossible to confirm this.
- C.1.3 The bone recovered as heavy residues was overwhelmingly dominated by unidentifiable crumbs of mammalian bone, some of which was charred or calcined (Table 10).

Taxon	[108]	[137]	[149]	Total NISP
Cow	.	1	2	3
Pig	.	.	3	3
Sub-total to species	.	1	5	6
Cattle-sized	1	1	2	4
Sheep-sized	.	.	3	3
Total	1	2	10	13

Table 9: Number of Identified Specimens for all species from all contexts: hand-recovered material – breakdown by context.

C.1.4

Taxon	[111]	[149]	[150]	[155]	Total NISP
Sheep/ goat	.	.	.	2	2
Sub-total to species	.	.	.	2	2
Sheep-sized	.	5	.	4	9
Mammal n.f.i.	2	32	9	.	43
Total	2	37	9	6	54

Table 10: Number of Identified Specimens for all species from all contexts: material from heavy residues

- C.1.5 Though on a rather small scale, the assemblage generated the results in keeping with expected period patterns. The presence of pig and potential aurochs in the Neolithic assemblage reflects the typical dominance of woodland species in the period.
- C.1.6 The assemblage is quantitatively insufficient in itself, though when viewed against similarly dated assemblages from the area it could shed more light on animal use in the region. High level of fragmentation unfortunately means there were no measurable or ageable specimens.

C.2 Environmental samples

By Rachel Fosberry

Introduction

- C.2.1 Five bulk samples were taken from features within the watched areas on the cable route in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.
- C.2.2 The features sampled were all pits.

Methodology

- C.2.3 The total volume (up to 31 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 a complete list of the recorded remains are presented in Table xxx. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* 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.2.4 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:

= 1-10, ## = 11-50, ### = 51+ specimens ##### = 100+ specimens

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

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

Key to Table 11: Ph = post hole u = untransformed by charring or waterlogging, possibly modern

Results

- C.2.5 Plant remains are preserved by carbonisation. Sample 5, Fill 155 of Pit **151** contains approximately fifty charred wheat grains (*Triticum* sp.) in addition to occasional barley (*Hordeum vulgare*) grains and single seeds of knotgrass family (*Polygonum* sp.) and goosefoot (*Chenopodium* sp.). The lower Fill (152) of this feature was sub-sampled (Sample 4) and found to consist of clay with occasional waterlogged wood and charred bark fragments.
- C.2.6 Neolithic Pit **148** (Sample 2, fill 149 and Sample 3, fill 150) contains occasional charred hazelnut (*Corylus avellana*) shells. Animal bone, burnt bone and pottery fragments were recovered from the residues.

Sample	Context	Cut	Volume processed (l)	Date	Charred grain	Charcoal	Charred hazelnuts	Animal bone	Burnt bone	Pottery
1	111	110	3	?Post-med	0	+++	0	+	0	0
2	149	148	31	Neolithic	0	+	++	++	++	#
3	150	148	9	Neolithic	0	0	+	+	+	#
4	152	151	1	LIA/Roman	0	+	0	0	0	0
5	155	151	3	LIA/Roman	###	+	0	+	+	#

Table 11: Environmental Samples

Discussion

- C.2.7 Neolithic Pit **148** contains charred hazelnut shells that presumably have been discarded into a fire and then placed in the pit. The fact that there isn't any charcoal preserved suggests that the charred hazelnut shells have been deliberately picked out of the remains of the fire for deliberate disposal in the pit. Alternatively the charred shells could be simply indicative of the burning of hazel wood that has been reduced to ash leaving no preserved remains, however, charred hazelnuts are commonly recovered from pits of this period that are likely to be evidence of the consumption of this collected wild food resource.
- C.2.8 The presence of charred grain in Late Iron Age/Roman Pit **151** is indicative of the deliberate burial of waste material in a pit. The grain is not well preserved which limits identification but both wheat and barley are evident and some of the wheat grains have the characteristic morphology of spelt (*T. spelta*) wheat which was commonly cultivated in this region during the Roman period.

APPENDIX D. HISTORIC MAPS AND PHOTOS CONSULTED

D.1.1 1799 '[Anstey]' Ordnance Surveyor's Drawing by Verron

<http://www.bl.uk/onlinegallery/onlineex/ordsurvdraw/other/002osd000000002u00096000.html>

Accessed 12/08/2015

D.1.2 16/10/2003 Google Earth & Digital Globe 2016

52°04'20.96" N / 0°01'38.26" E / eye alt. 5.15km

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APPENDIX F. OASIS REPORT FORM

Project Details

OASIS Number	<input type="text"/>		
Project Name	<input type="text"/>		
Project Dates (fieldwork) Start	<input type="text"/>	Finish	<input type="text"/>
Previous Work (by OA East)	<input type="text"/>	Future Work	<input type="text"/>

Project Reference Codes

Site Code	<input type="text"/>	Planning App. No.	<input type="text"/>
HER No.	<input type="text"/>	Related HER/OASIS No.	<input type="text"/>

Type of Project/Techniques Used

Prompt

Please select all techniques used:

<input type="checkbox"/> Field Observation (periodic visits)	<input type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input type="checkbox"/> Test Pit Survey
<input type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input type="checkbox"/> Watching Brief

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
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Project Location

County	<input type="text"/>	Site Address (including postcode if possible)
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Parish	<input type="text"/>	
HER	<input type="text"/>	
Study Area	<input type="text"/>	National Grid Reference <input type="text"/>

Project Originators

Organisation	<input type="text"/>
Project Brief Originator	<input type="text"/>
Project Design Originator	<input type="text"/>
Project Manager	<input type="text"/>
Supervisor	<input type="text"/>

Project Archives

Physical Archive	Digital Archive	Paper Archive
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Archive Contents/Media

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	<input type="checkbox"/> Plans
	<input type="checkbox"/> Report
	<input type="checkbox"/> Sections
	<input type="checkbox"/> Survey

Notes:

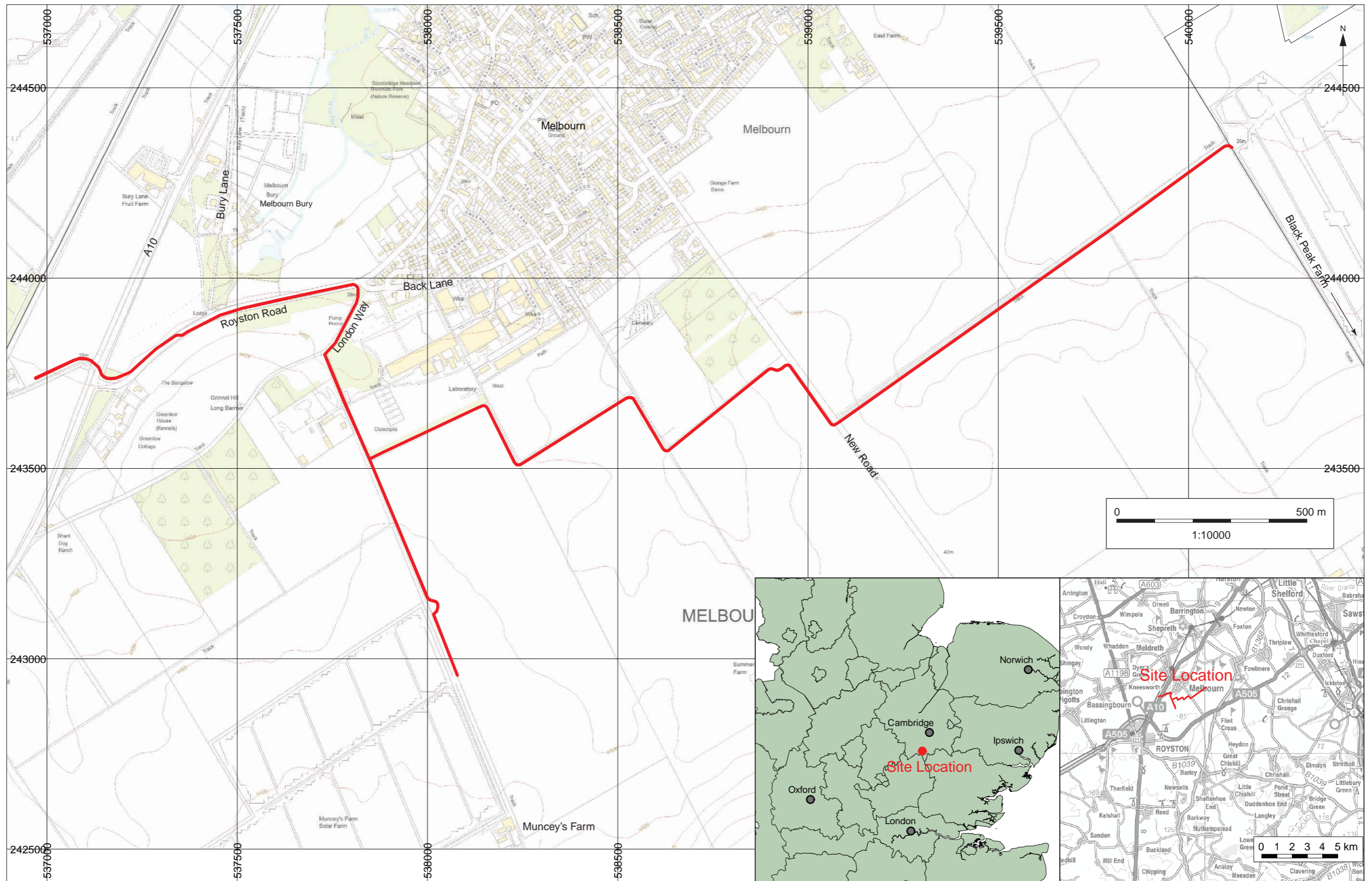


Figure 1: Site location

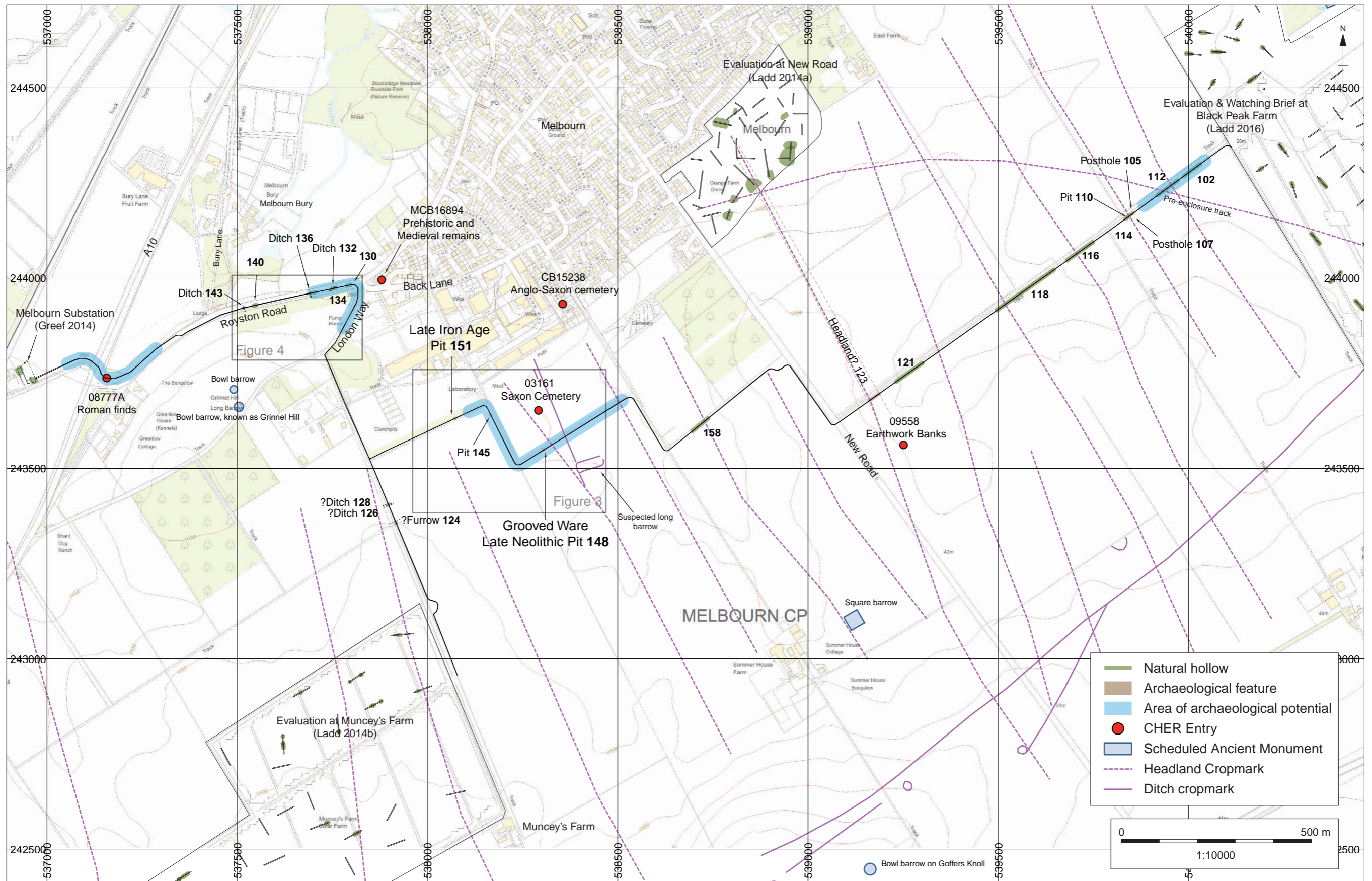


Figure 2: Plan of cable route, all features and selected crop marks and Cambridgeshire HER entries

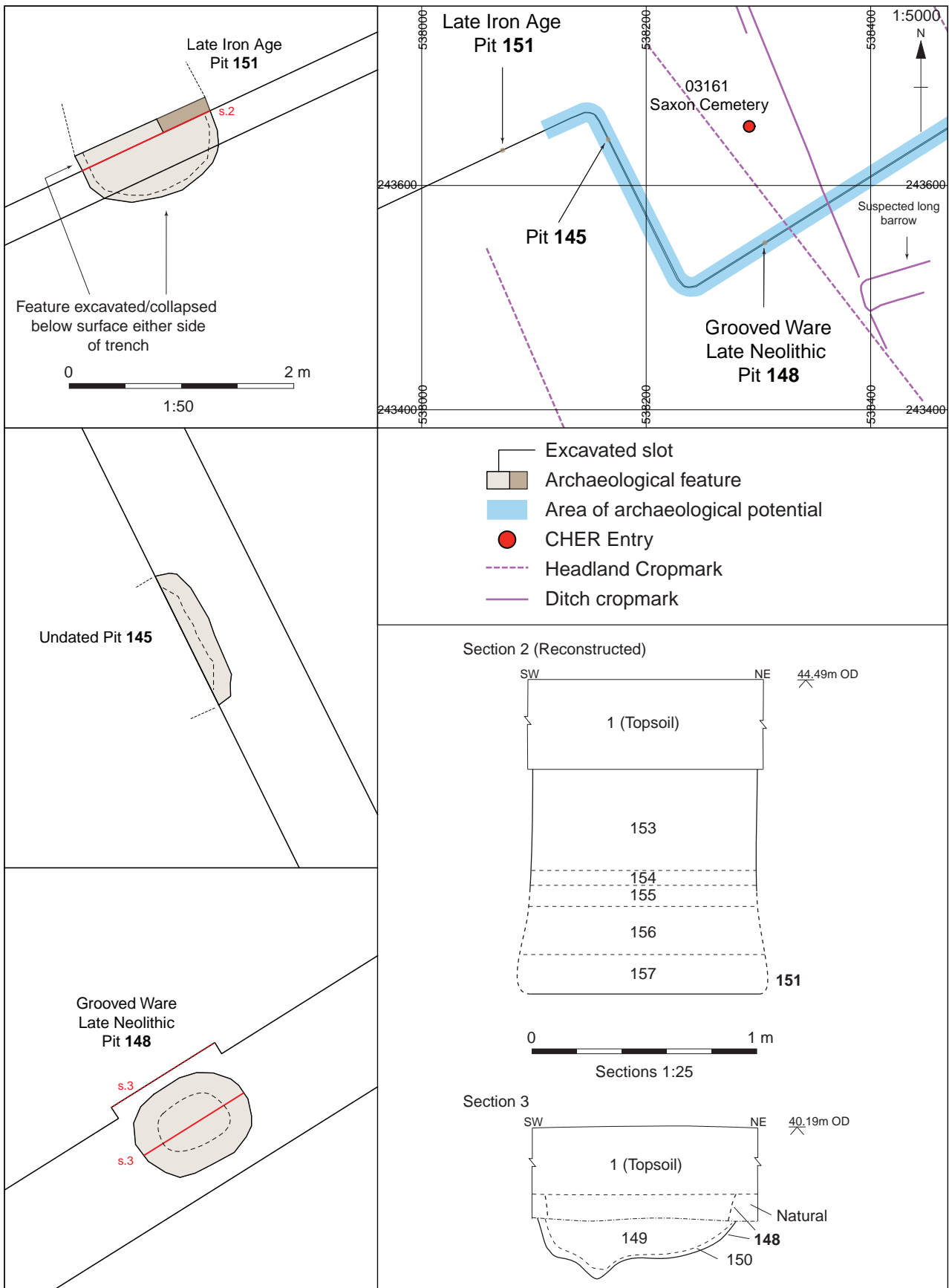


Figure 3: Pits between London Way and New Road

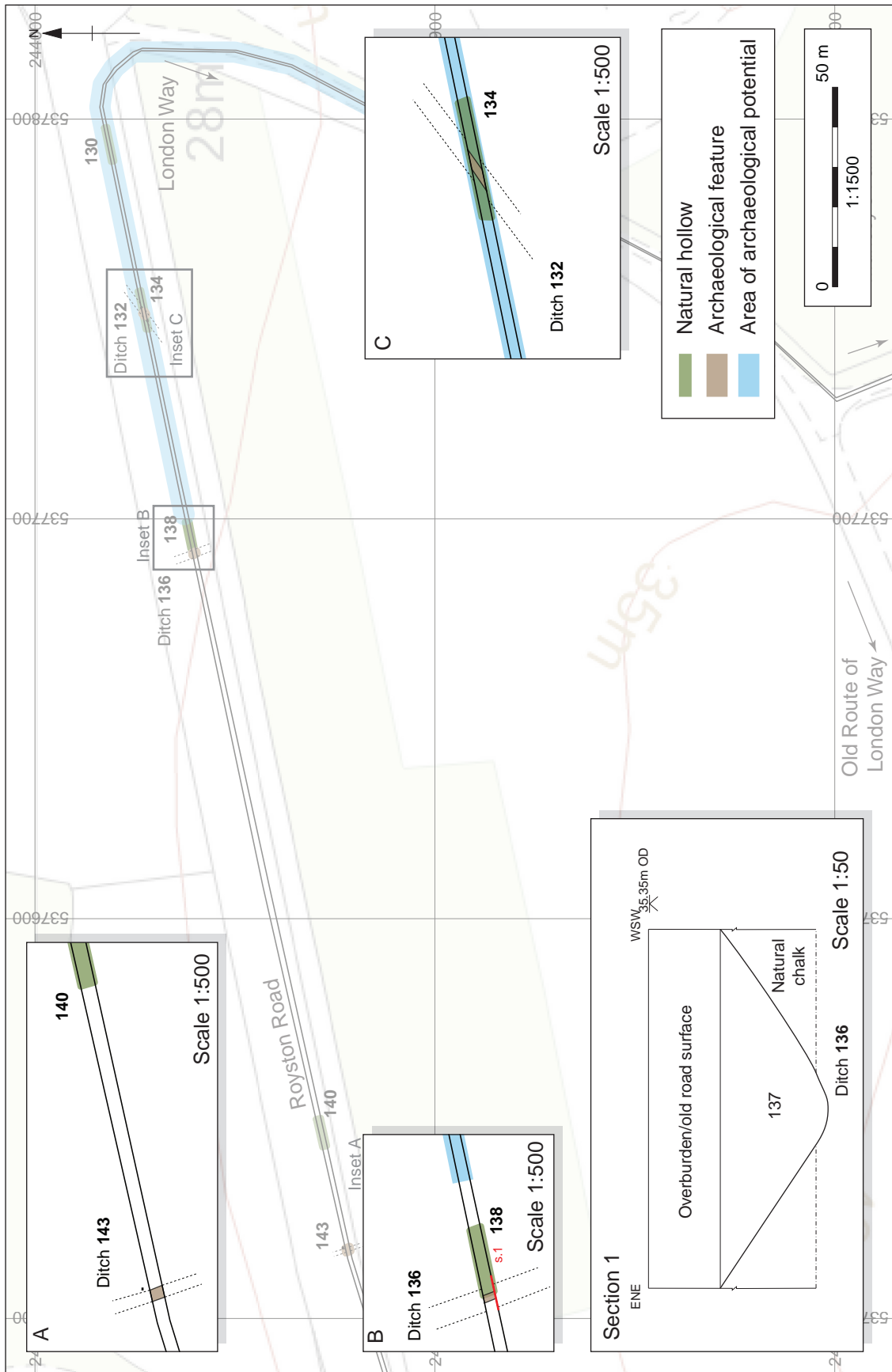


Figure 4: Royston Road (between Bury Lane and London Way)



Plate 1: Hollow **102**, showing stripped trench west of Black Peak Farm, view southwest



Plate 2: Neolithic Pit **148**, 50% excavated, view northwest



Plate 3: Late Iron Age Pit 151 in cable trench, view north



Plate 4: Possible Ditches 126 and 128 near Muncey's Farm, view southwest



Plate 5: Hollow **130**, Royston Road, near London Way, view southeast



Plate 6: Ditch **132** cutting Hollow **134**, in baulk section and base of trench, Royston Road, near London Way, view northeast



Plate 7: Hollow 140, Royston Road, view southwest



Plate 8: Ditch 136 cutting Hollow 138, in baulk section and base of trench, Royston Road, near Bury Lane, view northwest



Plate 9: Ditch 143, Royston Road, near Bury Lane, view south



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