OBSERVATIONS OF GEOTECHNICAL TEST-PITS DUG AT DOWNHAM ROAD, ELY: AN ARCHAEOLOGICAL WATCHING BRIEF

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Introduction

On Wednesday 1st September 2010 an archaeological watching brief was carried out during the excavation of eight geotechnical test-pits by RSA Geotechnics Ltd. on land destined for the construction of the new Ely Leisure Centre. Seven of the 0.5m x 3m wide machine cut slots were located in the field to the west of the A10/B1411 roundabout (with its centre on GR TL 5300 8130); the field referred to as Field C during the course of the archaeological trench evaluation of this same site carried out by Jacqui Hutton of the Cambridge Archaeological Unit in 2009 (see Appleby, Bartlett and Hutton 2009). The evaluation as a whole had revealed evidence for Middle Saxon occupation and an associated field system with a background of Iron Age and Romano-British activity. In Area C the findings were dominated by N-S and E-W ridge and furrow cultivation of probable medieval to post-medieval date, with some undated linear and pit features.

Method

Logs of the profile and depths of the topsoil and preserved or truncated subsoil were recorded for each test-pit along with measured sketch sections, whilst spoil from the topsoil and subsoil layers were also bucket sampled for finds.

The test-pit sections logged here have the same numbers as those recorded by RSA Geotechnics and are those shown in Figure 1.

Results

Test-pit 1

0 – 0.32m	topsoil
0.32 – 0.5m	subsoil: light brown sandy-silty clay with admix humic (roots and plough disturbance, occ. charcoal and spots of burnt clay, rare burnt flint, and small clasts of chalk. Small sherd of post-medieval pot and iron nail
0.5-0.9m	Chalky Boulder Clay (weathered). NATURAL
0.9m – 1.0m	glacial sand (lens of orange sand)
1.0 – 1.8m	Jurassic Kimmeridge Clay (dark grey fossiliferous clay)
1.8 – 2.0m	'dogger' limestone within Kimmeridge Clay

Test-pit 2

0 – 0.3m	topsoil: pale to light brown silty humic loam. Contained residual flint flake
0.3 – 0.56m	upper subsoil: a light chocolate brown silt with darker coloured streaks (admixed humic).Includes occ to rare charcoal plus tiny fragments of degraded earthenware pot
0.65 – 0.8m	lower subsoil: light brown-orange gravely sands and silt

0.8 – 1.3m	gravely sand merging with a more sandy gravel towards base: probably river gravels within a palaeochannel?. NATURAL
1.3 – 1.54m	glacial sand (a sharp yellow sand with gravel inclusions)
1.54 – 2.4m	Kimmeridge Clay (dark grey and organic)

Test-pit 3

0 – 0.25m	topsoil
0.25 – 0.4m	mixed subsoil: a disturbed sandy gravel mixed with humic silt (plough disturbance). Contains similar small fragments of degraded earthenware pot or tile plus some small pieces of coal and tile (post-med.)
0.4 – 1.0m	Boulder Clay (weathered). NATURAL.
1.0 – 2.5-m	Kimmeridge Clay
2.5 – 2.8m	Kimmeridge Clay (dark grey shelly facies with ammonite)
2.8m	'dogger' limestone within Kimmeridge Clay

Test-pit 4

0 – 0.25m	topsoil: pale to light brown sandy humic topsoil with C19th pot sherd + residual flint flake
0.25 – 0.5m	upper subsoil: mixed dark brown humic streaks within dark brown – yellow orange sand (incl. moderate amount charcoal, coal plus occ tile/brick and iron objects. Sherd of post-medieval (19thC?) porcelain pot
0.5 – 0.7m	lower subsoil: light brown yellow to grey clay-rich subsoil
0.7 – 0.95m	weathered Boulder Clay (?) NATURAL
0.95 – 1.0m	orange sand
1.0 – 2.2m	Kimmeridge Clay
2.2-2.4m	'dogger' limestone within Kimmeridge Clay

Test-pit 5

0 – 0.3m	topsoil: mid-brown silty humic loam. Contained single piece of residual burnt daub
0.3 – 0.5m	upper subsoil: mid-brown to yellow-brown silt with rare charcoal and some pieces of oyster shell
0.5 – 0.9m	lower subsoil: yellow-brown 'earthy' silty-sandy gravel and some clay becoming an orange silty sand towards base
0.9 – 1.5m	glacial sand: a pale yellow loose sand with silt. NATURAL
1.5 – 2.6m	Kimmeridge Clay: a grey sandy facies
2.6 – 2.8m	Kimmeridge Clay: a dark grey-black shelly facies

Test-pit 6

0 – 0.32m	topsoil. Finds include a large sherd of a c.18th-19th century GRE shallow dish and a sherd of yellow striped decorated glaze (17th-18thC?)
0.32 – 0.6m	subsoil: a mid-brown to yellow-brown and dark brown silt. Includes occ small fragments of coal and charcoal.
0.6 – 0.8m	Boulder Clay (weathered). NATURAL
0.8 – 1.06m	Boulder Clay
1.06 - 1.15m	glacial sand: yellow-orange sand lens
1.15 – c.1.2m	Boulder Clay
1.2 - 2.1m	Kimmeridge Clay
2.1 – 3m	Kimmeridge Clay (dark grey shelly facies)

Test-pit 7

0 – 0.25m	topsoil: dark brown loam
0.25 - 0.4m	upper subsoil: mid-brown silt with angular brown flint: includes some rare pieces of coal
0.4 – 0.5m	lower subsoil: yellow-brown to mid-brown sandy silt with occ gravel clasts

0.5 – 0.7m	Boulder Clay (weathered). NATURAL
0.7 – 1.0m	Boulder Clay (unweathered: with chalky clasts and occ gravel)
1.0 – 1.1m	glacial sand: orange sand lens
1.1 – 1.3m	Boulder Clay (?). Weathered and broken-up, with possible soil horizon in it
1.3 – 2m	Kimmeridge Clay. Eroded op of this containing large nodules of weathered-out dogger.
2m+	Kimmeridge Clay (dark grey shelly facies)

Test-pit 8	location: rough parkland to the south of the A10 Ely bypass
0 – 0.25m	topsoil (mid-brown humic silt). No finds or inclusions
0.25 – 0.6m	subsoil: yellow-brown mottled silty loam. Includes some minor flint and chalk clasts, but with little or no anthropogenic indicators (some rare degraded pot fabric detritus – non id)
0.6 – 0.9m	Boulder Clay (weathered). NATURAL
0.9 – 1.0m	Boulder Clay (unweathered)

Discussion

During the digging of the test-pits no detectable archaeological features were encountered. The occurrence of both upper and lower subsoil layers within some of the pits was somewhat interesting, though all of the pottery finds proved to be post-medieval in date, the majority being recovered from the topsoil. Whilst some of these finds might well have been residual, the occurrence of a large fragment of a shallow GRE dish and some yellow-striped brown glaze (which may be 17th-19th century in date) within the topsoil of Test-pit 6 might suggest the presence of post-medieval features nearby. Within this same area of the archaeological evaluation, however, (Trench 17 in Area C) only ridge and furrow strips were observed. Nevertheless, on the basis of the ubiquitous presence of charcoal and coal found within the upper subsoil horizon, the dating of the latest phase of strip cultivation carried out here would certainly appear to be post-medieval. Earlier finds in the form of a single piece of burnt daub (perhaps medieval) from Test-pit 5, and two prehistoric flint flakes from the topsoil of Test-pits 2 and 4, whilst residual, do suggest a similar low-level background of prehistoric to medieval occupation in this area. This interpretation is also supported by the small amount of such material encountered during the 2009 evaluation. The two flint flakes found accord with the sort of worked flint (waste flakes) recovered in a residual context from features excavated in 2009; the latter composed for the most part of honey-coloured flint, and possibly of late neolithic to bronze age date (see Billington in Appleby *et al.* 2009).

The depth of subsoil and also the depth to natural recorded in the current test-pits suggests a level of truncation (both of subsoil and perhaps also of archaeology) within Test-pits 1, 3, 6 and 7, but also the preservation of a much deeper subsoil (perhaps reflecting the accumulation of agricultural soil and its coincidence with the position of ridge and furrow) in Test-pits 2, 4 and 5. The presence of natural palaeochannels cut through the clays (Boulder Clay or Kimmeridge Clay) is suggested by the depth of sands and gravel recorded within the base(s) of Test-pits 2 and 5, and also a deep (natural) palaeosol development within the top of the very weathered Boulder Clay/ Kimmeridge Clay junction in Test-pit 7. Quite close to the latter site the outline of a headland ridge was interpreted amongst the very uneven collection of surface features in this field (near evaluation Trench 26). Across the remainder of this area (Field C)

the outline of ridges, many of which probably relate to the already proven north-south and east-west ridge and furrow strips, were still detectable at surface at the time of the current test-pitting.

Test-pit 8 located within parkland to the south of the A10 bypass was only cut to a depth of 1 metre on account of the limits to the depth required for footpath construction. Within this test-pit section the zone of potential archaeological interest was preserved, yet no evidence of such activity was forthcoming. The test-pit location was some 300m to the north of the limits of archaeological investigation undertaken to the north of the West Fen Road (Mudd 2000). This recorded the presence of Saxon features, but more than 500m to the south of this point, and Iron Age and Roman further south still. To the south of West Fen Road (more than a kilometre distant) very dense Saxon and Early Medieval archaeology was found during the Ashwell Site development, this being on the edge of the first post-Roman settlement of Ely (Mortimer et al. 2005).

However, the evidence for post-medieval subsoil and plough cultivation generally confirms the absence of archaeological features within the *immediate* vicinity of the test-pits.

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References

Appleby, G., Bartlett, A. and Hutton, J. 2009 *Land off Downham Road, Ely, Cambridgeshire: An Archaeological Desk Based Assessment, Geophysical Survey and Trenched Evaluation*, Cambridge Archaeological Unit Report No. 886

Mortimer, R, Regan, R and Lucy, S. 2005 *The Saxon and Medieval settlement at West Fen Road, Ely: The Ashwell Site* East Anglian Archaeology 110

Mudd, A. 2000 *West Fen Road, Ely, Cambridgeshire; Interim progress report on excavations to March 2000.* Northamptonshire Archaeology

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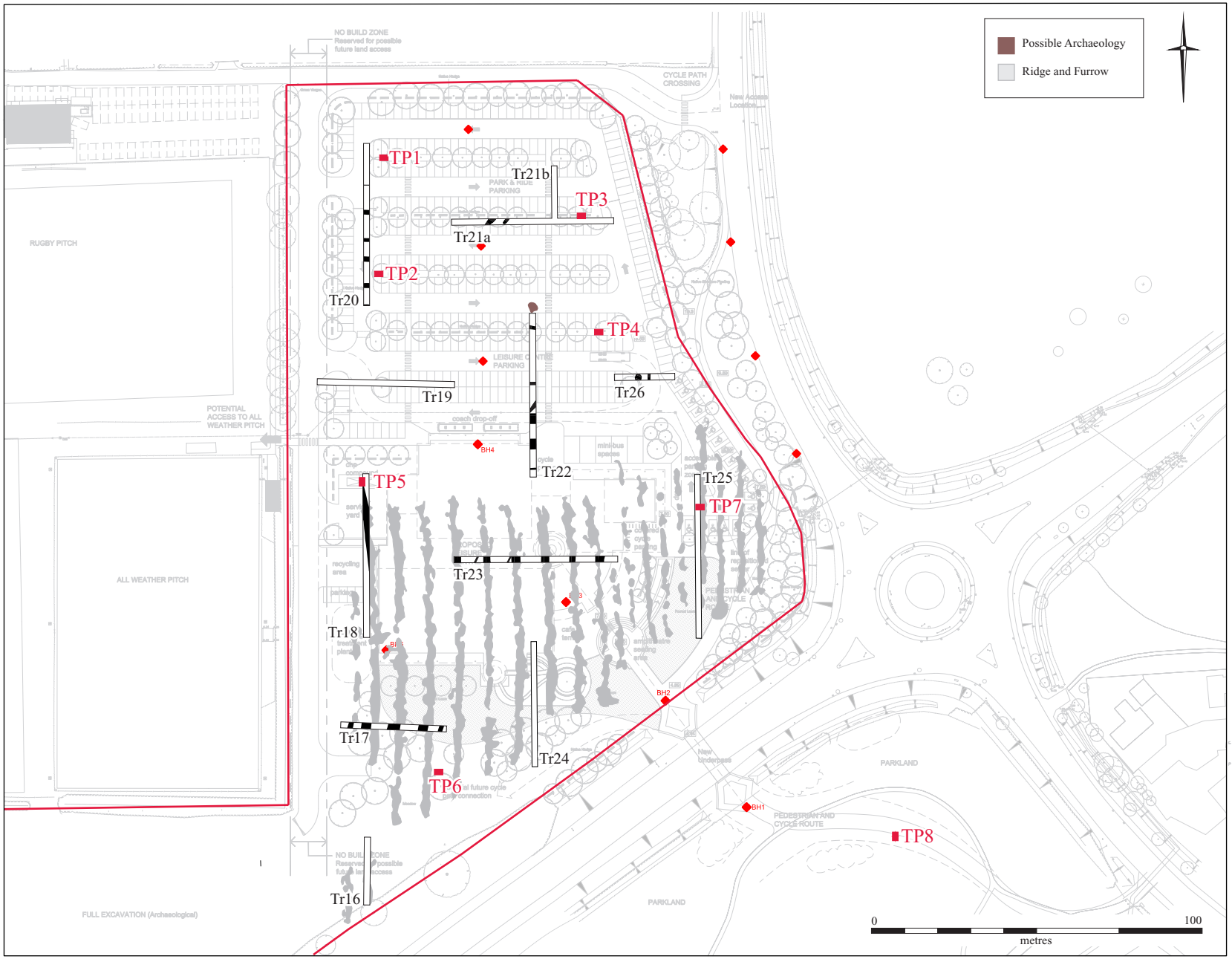

Figure 1. Downham Road, Ely. Location of Test Pits and Boreholes and Previously Investigated Archaeology.