1605

SPRINGFIELD BUSINESS PARK

PLOTS G AND H

CHELMSFORD

ESSEX

ARCHAEOLOGICAL EVALUATION
BY TRIAL TRENCHING
AND EXCAVATION

Field Archaeology Unit

September 2006

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ARCHAEOLOGICAL EVALUATION
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SUMMARY

Client: Church Manor Estates

NGR: TL 7360 0845

Planning Ref: CHL/1178/06

Site Code: SPSL06

OASIS No: essexcou1-13819

Project No: 1605

Date of Fieldwork: 22 February to 8 March 2006

Essex County Council Field Archaeology Unit carried out an archaeological investigation on behalf of Church Manor Estates under a condition placed on planning consent for development of Plots G and H at Springfield Business Park, in the north-eastern suburbs of Chelmsford. The site was thought to have high archaeological potential as it lay only 100m to the north of the nationally important site at Springfield Lyons, where previous excavation has recorded a Neolithic (New Stone Age) causewayed enclosure, a Late Bronze Age settlement within a defended enclosure, an Early Saxon cremation cemetery and a Late Saxon manorial site.

The investigation initially consisted of a trial-trenching evaluation of a 4% sample of the development site. No archaeological remains were identified in eight of the nine trenches excavated. The west and centre of the site had been extensively disturbed during recent construction works in Plot J, immediately beyond its north-western boundary, while parts of the south and south-east of the site had been disturbed by a series of ponds and drains. Archaeological features were identified only in trench 4 in the north-east of the site.

Excavation of an open area around trench 4 recorded a boundary ditch aligned north-south, most likely dated to the Late Bronze Age. Post-holes and root-holes were also recorded,

some of which contained single sherds of Late Bronze Age pottery. Several Mesolithic and Neolithic (Middle and New Stone Age) flints were recovered as residual finds in later contexts. The edge of a pond investigated at the southern end of the excavated area contained two sherds of Early Saxon pottery, but the pond is not firmly dated and may in fact be relatively recent. Three sherds of residual Late Iron Age and Romano-British pottery were recovered from the base of the topsoil.

The residual flints reflect an early prehistoric presence in the area and the site's proximity to the Neolithic causewayed enclosure immediately to the south. The boundary ditch is thought to be a continuation of a linear cropmark recorded to the east of the Late Bronze Age enclosure at Springfield Lyons. If so, it would have been part of a wider Late Bronze Age landscape around the enclosure, forming a major boundary running along the eastern edge of the boulder clay plateau and along the top of the valley slope of the river Chelmer.

The results of the trial-trenching evaluation suggest that the development would have no impact on archaeological remains over the majority of the site area, with the exception of trench 4 in the north-east of the site. However, excavation of an enlarged area around trench 4 has provided a detailed record of the probable Late Bronze Age ditch and other remains, and this has mitigated any impacts from development.

1.0 INTRODUCTION

1.1 Project background

The Essex County Council Field Archaeology Unit (ECC FAU) carried out an archaeological evaluation by trial-trenching, followed by a small area excavation, on behalf of Church Manor Estates, before development of Plots G and H at Springfield Business Park, Chelmsford. The archaeological investigation was undertaken under the terms of an archaeological condition placed on planning consent in accordance with Planning Policy Guidance note 16 (PPG16), as the development site lies in an area of high archaeological potential 100m north of the nationally important Neolithic, Bronze Age and Saxon site at Springfield Lyons. The condition was placed by Chelmsford Borough Council Planning Department following specialist advice from the Essex County Council Historic Environment Management team (ECC HEM).

The archaeological work followed a brief produced by the Essex County Council Historic Environment Management team (ECC HEM 2006) and the written scheme of investigation (WSI) prepared on behalf of Church Manor Estates by ECC FAU (2006).

1.2 Report and archive

Copies of this report will be supplied to the client via their consultants CgMs (including a copy to be forwarded to Chelmsford Borough Council Planning Department), ECC HEM, the Essex Historic Environment Record, and the National Monuments Record. A version will be uploaded to the Online Access Index of Archaeological Investigations (OASIS) (http://ads.ahds.ac.uk/project/oasis). The project archive including copies of the report will be deposited at Chelmsford Museum.

2.0 BACKGROUND

2.1 Location, topography and geology

The development site is located in Springfield Business Park (NGR TL 7360 0845) in the north-eastern suburb of Chelmsford. It lies off Springfield Lyons Approach, to the south-east of the old Colchester Road (B1137) and the new link road (A138) to the A12 Boreham Interchange (Fig. 1). The general area of the site has only recently become built-up, and the business park is being developed in stages, with Plots G and H and their related access roads representing the latest stage of development. The site was formerly agricultural land, but at the time of the fieldwork it was cleared waste land, covering an area of c. 2.4ha.

The site occupies the top of a south-east-facing slope overlooking the River Chelmer, at between 31 and 36m OD. The drift geology comprises Head Brickearth lying between the Boulder Clay plateau (Springfield Till) to the north-west and First Terrace Gravels and alluvial deposits of the Chelmer valley to the south and east.

2.2 Historical and archaeological background

The site lies 2km north-east of Chelmsford's Roman and medieval town centre, but 100m to the north of the nationally important site at Springfield Lyons, where an excavation carried out between 1979 and 1991 recorded a Late Bronze Age settlement in a defended enclosure (Buckley and Hedges 1987), an Early Saxon cremation cemetery and a Late Saxon manorial site (Tyler and Major 2005). The western side of a Neolithic (New Stone Age) causewayed enclosure was also recorded in the excavation, and in further trenching to the north and south (Buckley 1991; 1992).

The Late Bronze Age enclosure was first identified as a cropmark in aerial photographs taken by the Cambridge University Committee for Aerial Photography (CUCAP) and the Air Photographic Unit of the National Monuments Record (APU NMR) (Buckley and Hedges 1987, Fig. 1). Two sets of linear cropmarks to the east of the enclosure run north-south and are aligned on the east side of the development site (Fig. 1). The westernmost of these has been excavated and proved to be a Late Saxon boundary ditch; the easternmost appears to represent more than one ditch but it has not been investigated and its date is unknown. An east-west linear cropmark that cuts across the others represents a World War II tank trap.

The site lies 100m south-east of the line of the Roman London-Colchester road (B1137), and the excavation and related trenching have recorded scattered evidence of Iron Age and Romano-British finds and features. The excavated Late Saxon manorial centre is identified as the site of Cuton Hall, a manor recorded in the Domesday Book of 1086, although changes in manorial holdings after the Norman Conquest resulted in Cuton Hall moving to a new site nearer the Chelmer. Springfield Lyons was not mentioned at all in Domesday, and the earliest record of it dates to 1339 (Tyler and Major 2005, 200).

Recent archaeological investigations undertaken around the Springfield Lyons site have recorded activity dating from the Neolithic to the medieval period. A trial-trenching evaluation to the east, 400m down-slope of the development site, recorded Neolithic flint artefacts, evidence of dispersed Late Bronze Age settlement activity, and Romano-British field boundary ditches dated to the 1st–2nd century (Bennett, A. (ed) 1998, 203; 2000, 221-2). A second trial-trenching evaluation on the southern edge of the Springfield Lyons enclosure, adjacent to Chelmer Village Way, recorded further evidence of landscape development, with Romano-British field boundary ditches continuing in use into the 14th century (OAU 2006).

3.0 AIMS AND OBJECTIVES

Generally, the aim of the work was to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains in the site area. The research objectives for the project were in line with those laid out in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000).

The regional research framework emphasises the importance of studying "the central problem of the Neolithic and Bronze Age: the development of farming and the attendant development and integration of monuments, fields and settlements" (Brown and Murphy 2000, 10). Further investigation of the surrounding area is important for placing the Springfield Lyons site in its wider context, especially given the recent discovery of further Late Bronze Age evidence to the north-east. A wider understanding of settlement development through the Saxon and medieval periods is also highlighted in the research framework (Wade 2000, 25), and further investigation of the Springfield Lyons area could elucidate the pattern and development of land boundaries and settlement in the area.

To facilitate the research objectives, the specific aims of the investigation were:

- To record any further evidence of Neolithic ceremonial monuments, or of settlement.
- To record any further evidence of Bronze Age settlement outside the area of the defended enclosure.
- To record any evidence related to the excavated early Saxon cemetery or the late Saxon manorial site.
- To record any evidence of medieval or later settlement around Springfield Lyons.

4.0 METHOD

Initial trial trenching consisted of a 4% sample of the proposed development area, plots G and H, with provision for a 1% contingency for further trenching in order to examine areas in more detail where necessary. The pond in the south-east of the site is to be retained in the new development, while two further ponds, drainage runs, earth bunds, a tarmac footpath, and stands of Japanese knotweed all constituted constraints on the archaeological investigation. As a result the area available for trial-trenching was 1.8ha, and a 4% sample of this resulted in nine trenches, each measuring 40m by 2m (Fig. 1). During the fieldwork trench 1 was re-orientated and shortened to avoid a densely overgrown area of site, while trench 3 was extended to incorporate and evaluate the area to the west of trench 4, where archaeological remains were exposed. The presence of archaeological features in trench 4

prompted further investigation. In consultation with Pat Connell (ECC HEM monitoring officer), Paul Chadwick (CgMs) and the client, an area measuring 19m by 33m was opened around trench 4 for excavation (Fig 1).

The investigation was carried out according to regional standards in field archaeology. All fieldwork methods and recording conformed to the codes of practice and guidance issued by the Institute of Field Archaeologists (1999a; 1999b) and adhered to regional guidelines (Gurney 2003). Standard ECC FAU recording and excavation methods were used.

Topsoil was stripped using a mechanical excavator fitted with a toothless bucket, under the supervision of an archaeologist. All surfaces were sufficiently cleaned to ensure that any features present were visible and spoil heaps were examined for archaeological material. Archaeological features and deposits were excavated using hand tools, and were described using the ECC FAU proforma context recording sheet. Plans and sections were drawn at an appropriate scale, and a full photographic record was maintained. All finds were collected and bagged by context, and two bulk soil samples were taken from the fills of pond 50 at the southern edge of the excavation area.

5.0 RESULTS

The following description of the fieldwork results is supplemented by further information on the excavated features and deposits in Appendix 1.

5.1 Trial-trenching evaluation (Fig. 1)

The uppermost natural deposit consisted of a patchy mix of orange to yellow-brown clayey brickearth and orange-yellow sands and gravels, which varied in colour and consistency across the site. In undisturbed areas of the site the natural was overlain by topsoil around 0.35m deep, although in some trenches clayey subsoil up to 0.15m thick was also recorded. The top of the natural brickearth often merged with the overlying soils.

Trenches 2, 3, 5, 6 and 7 in the north-west and centre of the site identified a large area that had been disturbed during recent construction works in Plot J immediately to the north-west of the site (Fig. 1). The disturbed area probably represents a construction compound, and its outline was evident both at ground level and in the evaluation trenches, where its edge was recognised as a distinct cut. The natural brickearth was encountered at between 34.1 and 35.4m OD, and the original topsoil had clearly been stripped and replaced by a mixed deposit of imported material and compacted clay that was in turn overlain by a thin layer of re-instated topsoil/subsoil mix, averaging a depth of 0.35m. No archaeological features or

deposits were visible beneath the modern overburden, or in those areas of trenches 3 and 7 that extended beyond the modern disturbance.

Trench 1, at the site's northern limit, exposed the western edge of a pond that appears on the 2nd edition Ordnance Survey map. Archaeological evidence suggested it had only recently been backfilled. The latest fill of the feature comprised tree branches, twigs and decaying leaf/plant remains likely to be found at the base of standing water. Further objects included brick fragments and glass/plastic bottles securely sealed within the pungent and potentially contaminated organic material. Underlying the modern fill were clean silts that may have been of some antiquity, but no datable artefacts were retrieved.

Trenches 8 and 9 along the southern edge of the site did not identify any archaeological features either. Trench 8, however, recorded a significant fall in levels towards its north-western end, suggesting a natural channel running east-west along the line of the modern ponds. The modern ground surface is level along the line of the trench, but the original level was 0.5m deeper, at 34.4m OD, at the north-western end of the trench than to the south-east. The natural comprised gravel with brickearth patches, which sloped down to the north-west end of the trench, where it was overlain by fine sterile homogenous clay-sands 0.3m thick. This may represent a minor watercourse following a variation in the drift geology. Trench 9 was situated in an area of little disturbance closest to the Springfield Lyons excavation area. Topsoil and subsoil were 0.15m and 0.17m deep respectively, but no archaeological remains were identified beneath them.

5.2 Excavation area (Figs 1-3)

The excavation area that was opened up around evaluation trench 4 measured 19m by 33m. The natural comprised compacted sands interlaced with narrow seams and small patches of gravels, at between 32 and 33m OD. The topsoil was up to 0.33m deep, overlying subsoil 0.21m deep. Plough-marks within the subsoil ran north-north-west to south-south-west. The ploughing had disturbed the underlying features, and a range of artefacts was retrieved from the subsoil 6, including two Mesolithic (Middle Stone Age) flint artefacts, small amounts of Late Bronze Age, Late Iron Age and Roman pottery, and a piece of post-medieval brick/tile.

A sample of all features below the subsoil was excavated. Generally these features were filled with grey-brown sandy and clayey silt, and contained small amounts of pottery and worked flint. The majority of the pottery recovered comprised small undiagnostic sherds, although a general Late Bronze Age date is suggested.

Boundary ditch 45/58/27. The main feature within the excavation area was a boundary ditch aligned north-south, which was first identified within trench 4, prompting the further

excavation. The ditch seems to have been dug in several phases, each extending or re-establishing it further north. Initially a shallow ditch, 45, 0.12m deep, extended to a butt-end 11m from the southern limit of the area (Fig 2). It was cut by a larger ditch, 58 (segments 1, 3, 25, 41, 47), 2m wide and up to 0.35m deep, with moderately steep sides and a base that varied between curved and flat (Fig. 3). Both ditches 45 and 58 contained a few sherds of pottery tentatively dated to the Late Bronze Age, and flint flakes of Neolithic/Bronze Age type. At the northern end of the area, the butt-end of a shallow ditch, 27, only 0.15m deep, denoted the latest ditch cut in the sequence. It contained no dateable finds, but is presumably of similar date to the other ditches along the same line.

***Stakes and posts*.** Stake- or post-holes, 7, 9, 11 and 13 were recorded in the sides or at the edge of ditch 58, while other stake- or post-holes were recorded in the area to the east of the ditch. There is a possible south-west to north-east alignment including stake-holes 15, 17, 19 and 23, and post-hole 49, perhaps representing a fence line, although this alignment may be co-incidental. A small pit, 43, was adjacent to ditches 45 and 58, although its stratigraphic relationship with the ditches could not be defined. None of these features contained any finds, and they are undatable.

Natural features. Further anomalies comprised vegetation marks, bio-turbation and rooting to the east of the boundary ditch, of which features 35 and 37 contained single pottery sherds, including a diagnostic Late Bronze Age sherd. No such remains were exposed on the opposing western side of the boundary.

Pond 50. The evaluation trench 4 had exposed a mid grey-brown silty clay deposit, 51, that extended over the southernmost 10m of the trench, but whose relationship with boundary ditch 58 was not clear. Initially, it was thought that ditch 58 was the later feature, but despite cleaning the immediate area the ditch line was never confidently traced across the silty clay deposit 51 and the relationship may have been misunderstood.

A slot excavated by machine to a depth of 1.5m below the surface of the natural identified the feature as a pond, 50, although excavation was stopped short of its bottom because of safety considerations. The earliest deposits recorded were blue-mottled yellow-grey silt-clay, 56, and blue-grey clay, 55, both water-lain but clean and inorganic. These were sealed by a series of sterile yellow clay and sandy silt deposits, 54, 53 and 52. The upper fill, 51, was over 0.5m thick and homogenous, rather than layered like the underlying deposits, suggesting deliberate backfilling to level-off the area. Flotation of bulk samples taken from a charcoal-flecked lens in the lowest fill 56, and from top fill 51, revealed no significant environmental or archaeological material (see section 6, below). One of the lower fills, 55,

contained small fragments of lava quernstone, datable to the Roman period or later, while the top fill 51 contained two sherds of Early Saxon pottery and a Mesolithic/early Neolithic flint tool. However, such a small amount of material does not provide a firm date for the pond or its disuse, and could easily be residual. On balance, the pond is most likely to be later than the boundary ditch, and is probable relatively recent, representing a forerunner of the modern pond immediately to its south.

6.0 FINDS AND ENVIRONMENTAL MATERIAL

By Joyce Compton

Small groups of finds were recovered from a total of twelve contexts, all from trench 4 and the excavation area opened up around it. In addition, the soil sample from fill 56 of pond 50 produced a small amount of charcoal. All of the material has been recorded by count and weight, in grams, by context. Full details can be found in Appendix 2. The assemblage mainly comprises prehistoric pottery and flints, most of which were recovered from the fills of ditch 58. Finds of later date were recovered from the subsoil 6 and from upper fills of pond 50. The finds are described by category below.

6.1 Pottery

A total of forty-five sherds, weighing 125g, was recovered from seven contexts in all. The largest proportion is prehistoric, see below. Late Iron Age grog-tempered ware (2 sherds, 12g), and a small sherd of Roman sandy grey ware, were found in the subsoil. Fill 51 of pond 50 produced two body sherds (8g) of organic-tempered pottery which is probably Early Saxon.

6.2 **Prehistoric pottery** by N. J. Lavender

A very small quantity of prehistoric pottery (40 sherds, weighing 104g) was recovered from six contexts. The pottery was recorded using a system devised for prehistoric pottery in Essex (Brown 1988). The assemblage comprises flint-tempered sherds (Fabric D), apart from two heavily abraded flat base sherds recovered from the subsoil, which are in flint-and-sand-tempered Fabric E. The majority of the sherds were small (average weight 2.7g) and undiagnostic. Two sherds (subsoil 6 and fill 38 of feature 37), which appear to be slightly angular shoulder-sherds from Form A or D jars, would not be out of keeping with the large Late Bronze Age assemblage recovered from the enclosure to the south (Brown 1987).

6.3 Brick and tile

A tiny piece of brick and a sherd of abraded peg tile were recovered from the subsoil. These are post-medieval.

6.4 Baked clay

A fragment of baked clay, weighing 24g, with no surfaces, was found in the subsoil and is not closely datable.

6.5 Stone

A number of rounded fragments, and many small chips, of Niedermendig lava were retrieved from fill 55 of pond 50. There are no surface details. This stone type was variously utilised to form querns and/or millstones during the Roman, Saxon and medieval periods. Unfortunately the fragments cannot be more closely dated, but are certainly no earlier than Roman.

6.6 Flints

Two contexts each produced a single burnt flint, total weight 40g. Twelve worked flints (total weight 37g) were recorded, and have been examined by Hazel Martingell, as follows:

"The earliest pieces were two blades. One, from the subsoil (6), is a brown-stained, punch-struck butt-end, while the other (fill 42 of ditch 58/segment 41) is a microdenticulate fragment on a blade. Both are likely to be Mesolithic. The remaining two blades (subsoil 6) and the notched blade (fill 51 of pond 50) are probably Mesolithic to Early Neolithic. The six flakes are waste and thinning flakes of Neolithic to Bronze Age date. The assemblage, although small, adds to previously found groups in the vicinity."

6.7 Environmental material

Bulk soil samples were taken from two contexts for the purposes of environmental analysis. Both samples were processed by wet-sieving with flotation using a 0.5mm mesh and collecting the flotation fraction (flot) on a 0.5mm sieve. The residue was then dried and separated into coarse and fine fractions using 2mm and 4mm sieves. The material in the coarse fraction (>4mm) was sorted by eye and then discarded, since no artefacts or ecofacts were discerned. The fine fractions were saved but not sorted. The flots were also dried and bagged by context. Those from soil sample 1 taken from the lowest recorded fill, 56, of pond 50 produced small fragments of charcoal weighing 24g. The fine fraction also contains much charcoal. No carbonised seeds, nor any other materials, were noted however. Soil sample 2 from upper fill 51 of pond 50 produced very little, although several small carbonised seeds are visible in the flot.

6.8 Potential for further work

The finds were recovered in groups of too small a size to benefit from further work. The charcoal and flots also provide little potential for further study. All of the finds should be

retained except for the post-medieval brick and tile. The fine fraction from soil sample 2 has already been discarded.

7.0 CONCLUSIONS

The trial-trenching evaluation identified archaeological features only in trench 4 in the north-east of the development site, despite its location only 100m to the north of the previously excavated archaeological site at Springfield Lyons. The other evaluation trenches located no archaeological evidence at all, while a large area in the north-west and centre of the site had been disturbed by ground reduction for a construction compound established during the redevelopment of Plot J immediately to the north-west. Other areas in the south, east and north of the site had been disturbed by ponds. A minor channel recorded at the north-west end of trench 8 may be related to the line of ponds extending across the south of the site. It is possible that this formed a natural east-west boundary, and a field boundary is shown on this line on all except the most recent Ordnance Survey maps.

The excavation area opened up around trench 4 investigated a boundary ditch aligned north-south, which was cut and subsequently recut in at least three distinct stages. Although only small amounts of datable finds were recovered, the boundary ditch was most likely of Late Bronze Age date, forming part of the wider landscape around the Late Bronze Age enclosure to the south at Springfield Lyons. Stake- and post-holes on either side of the ditch are mainly undated and cannot easily be interpreted, although at least some of them may have been associated with the boundary ditch. A few Mesolithic and Neolithic flint tools and flakes were recovered, reflecting the importance of the Springfield Lyons area in prehistoric times, and in particular the presence of the Neolithic monument immediately to the south of the site. The relationship between the probable Late Bronze Age boundary ditch and a pond at the southern edge of the excavation area was not fully understood, but the pond is most likely to be relatively recent, representing a forerunner of the modern pond to its south. Although two sherds of Early Saxon pottery were recovered from its top fill, these could be residual. Bulk samples taken from a waterlain fill towards the bottom of the pond did not produce any significant environmental evidence.

The Late Bronze Age boundary ditch is thought to be a continuation of a cropmark to the east of the Late Bronze Age enclosure at Springfield Lyons, which extends northwards to the southern limit of the present development site (Fig. 1). If so, the excavated ditch line and the cropmark would have formed a major boundary running along the western edge of the Chelmer valley, dividing the boulder clay plateau from the valley slope. Both the ditch and the cropmark appear to have been recut several times, either because the boundary

developed in a piecemeal fashion or through maintenance over a long period of time. The correlation of the excavated ditch and the cropmark is complicated by minor variations in the rectified cropmark plot (cf. Fig.1 and Buckley and Hedges 1987, Fig. 1), and a detailed check of the plot is needed. Despite this, a single Late Bronze Age boundary ditch remains the most likely interpretation, as no other ditch line was visible in trenches 3 and 7 which extended across possible alternative projections of the cropmark across the site.

8.0 ASSESSMENT OF RESULTS

Overall, there was a surprising lack of archaeological remains given the evidence from the previous archaeological excavation at Springfield Lyons 100m to the south. With the exception of the Late Bronze Age boundary ditch, there was an almost complete absence of archaeological evidence related to the main periods of activity and settlement at Springfield Lyons: the Neolithic enclosure, the Late Bronze Age enclosure and settlement, the Early Saxon cemetery and the Late Saxon manorial site. The stake- and post-holes recorded in the excavation area around trench 4 do not appear to represent major activity, while the few fragments of Mesolithic/Neolithic flints and Late Iron Age, Roman and Early Saxon pottery represent residual material. It is reasonable to assume that the development site lay outside the main focus of settlement or activity in all periods.

Archaeological survival was best in the north-east and south-west of the site, which were free of later disturbances, although all areas would have suffered some truncation from ploughing. Archaeological features would have been destroyed in the areas of the modern ponds and, in the north and west of the site, truncated by topsoil stripping and machine-tracking during recent construction works. In the latter area, shallow features such as gullies, slots and post-holes would not have survived, but deeper features such as ditches and pits would be expected to have survived if they had been present originally.

The Late Bronze Age boundary ditch followed a major topographical transition between the boulder clay plateau and the Chelmer valley, and presumably reflects the wider organisation of the landscape around the Late Bronze Age enclosure/settlement, although landscape use unfortunately leaves little trace in the archaeological record. Analysis of charred grain and other plant remains from the Springfield Lyons excavation show that the inhabitants of the Late Bronze Age enclosure practised intensive agriculture, and the range of weeds present in crop-processing waste suggest that crops were grown not only on the well-drained valley soils, but possibly also on the heavier soils of the boulder clay plateau (Brown 2001, 96). The land in the immediate vicinity of the Late Bronze Age enclosure could have been used

for either agriculture or grazing of animals, although in general it is likely that the valley slopes were more intensively exploited for agriculture and that much of the clay plateau remained pasture or woodland.

Further investigation is needed to understand the landscape around the important multi-period site at Springfield Lyons more fully, although publication of recent fieldwork will add to the picture. It is proposed to publish the results of this work as a concise shorter note in *Essex Archaeology and History*, concentrating on the topography of the immediate area of the Late Bronze Age enclosure/settlement. The shorter note would also incorporate the results of fieldwork at Springfield Business Park that has still to be completed, in Plots K, M and N to the south of the present development site.

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The ECC Field Archaeology Unit thanks Church Manor Estates for commissioning and funding the archaeological investigation, and Raph Casanovas of Barber Casanovas and Ruffles and Paul Chadwick of CgMs for their help and assistance during the project. The archaeological investigation was monitored by Pat Connell of the ECC Historic Environment Management team on behalf of the local planning authority. Matthew Pocock supervised the fieldwork with the assistance of Dave Smith, Chris Down, Adrian Turner and David Maynard. Finds were processed by Phil McMichael and assessed by Joyce Compton, and specialist finds reports were produced by Nick Lavender and Hazel Martingell, with environmental assessment by Val Fryer. The report was prepared by Matt Pocock and Andrew Lewsey, who produced the digital illustrations, and edited by Patrick Allen, who managed the project overall.

BIBLIOGRAPHY

Bennett, A. (ed)	1998	43. Springfield, Ind 1, in Archaeology in Essex 1997, *Essex Archaeol. Hist,* **29**, 203
Bennett, A. (ed)	2000	Springfield, Ind 1, Sheepcotes, Fordson Road, in Archaeology in Essex 1999, *Essex Archaeol. Hist.* **31**, 221-2
Brown, N.	1987	Prehistoric pottery, in Buckley, D.G and Hedges, J.D. 1987 (below)
Brown, N.	1988	A Late Bronze Age enclosure at Lofts Farm, Essex, *Proc. Prehist. Soc.* **54**, 249-302
Brown, N.	2001	The Bronze Age enclosure at Springfield Lyons in its landscape context, *Essex Archaeol. Hist.* **32**, 92-9
Brown, N. and Glazebrook, J. (eds)	2000	*Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy*, E. Anglian Archaeol. Occ. Paper **8**
Brown, N. and Murphy, P.	2000	Neolithic and Bronze Age, in Brown, N. and Glazebrook, J (eds) 2000 (above), 10-13
Buckley, D.G.	1991	Springfield, Springfield Lyons, in Gilman. P.J. (ed), Excavations in Essex 1990, *Essex Archaeol. Hist.* **22**, 157
Buckley, D.G.	1992	Springfield, Springfield Lyons, in Gilman. P.J. (ed), Excavations in Essex 1991, *Essex Archaeol. Hist.* **23**, 108
Buckley, D.G. and Hedges J.D.	1987	*The Bronze Age and Saxon Settlements at Springfield Lyons, Essex. An interim report*. Essex CC Occ. Paper **5**
ECC FAU	2006	*Written Scheme of investigation for archaeological evaluation by trial trenching. Springfield Business Park, Plots G and H, Chelmsford, Essex*. Essex CC Field Archaeology Unit
ECC HEM	2006	*Archaeological evaluation. Springfield Business Park, Plots G and H, Chelmsford.* Essex CC Historic Environment Management archaeological brief
Gurney D.	2003	*Standards for Field Archaeology in the East of England*, E. Anglian Archaeol. Occ. Paper **14**
IFA	1999a	*Standard and Guidance for archaeological evaluation* (revised), Institute of Field Archaeologists
IFA	1999b	*Standard and Guidance for archaeological excavation* (revised). Institute of Field Archaeologists
OAU	2006	*Land Off Chelmer Village Way, Chelmsford, Essex*. Oxford Archaeology Unit. Essex Historic Environment Record
Tyler, S. and Major, H.	2005	*The Early Anglo-Saxon Cemetery and Later Saxon Settlement at Springfield Lyons, Essex*, E. Anglian Archaeol. **111**
Wade, K.	2000	Anglo-Saxon and Medieval, in Brown, N. and Glazebrook, J. (above), 23-6

APPENDIX 1: FIELDWORK DATA

Context No.	Feature No.	Description	Thickness/ Depth (m)	Dating
1	1	Ditch, aligned N-S, part of 58	0.4	?Late Bronze Age
2	1	Fill	0.4	?Late Bronze Age
3	3	Ditch, aligned N-S part of 58	0.42	?Late Bronze Age
4	3	Fill	0.42	?Late Bronze Age
5		Topsoil, dark grey-brown sand-silt. Ploughsoil	c.0.33	Modern
6		Subsoil, mid yellow-brown sand-silt. Disturbed horizon at base of ploughsoil. Contained mixed finds of almost all periods	c.0.21	Modern
7	7	Post-hole, circular, in edge of 3	0.19	Undated
8	7	Fill	0.19	Undated
9	9	Stake-hole, circular, edge of 3. V. small	0.1	Undated
10	9	Fill	0.1	Undated
11	11	Post-hole	0.14	Undated
12	11	Fill	0.14	Undated
13	13	Post-hole	0.1	Undated
14	13	Fill	0.1	Undated
15	15	Post-hole, oval	0.17	Undated
16	15	Fill	0.17	Undated
17	17	Post-hole, circular	0.11	Undated
18	17	Fill	0.11	Undated
19	19	Post-hole, circular	0.1	Undated
20	19	Fill	0.1	Undated
21	21	Natural feature/bioturbation	0.04	Undated
22	21	Fill	0.04	Undated
23	23	Post-hole, circular	0.19	Undated
24	23	Fill	0.19	Undated
25	25	Ditch, aligned N-S, part of 58	0.33	?Late Bronze Age
26	25	Fill	0.33	?Late Bronze Age
27	27	Ditch, butt-end to S, cut 58 (seg. 25)	0.15	?Late Bronze Age
28	27	Fill	0.15	?Late Bronze Age
29	29	Post-pipe in post-hole 23	0.19	Undated
30	29	Fill	0.19	Undated
31	31	Natural feature/bioturbation	0.2	Undated
32	31	Fill	0.2	Undated
33	33	Natural feature/bioturbation	0.16	Undated
34	33	Fill	0.16	Undated
35	35	Natural feature/bioturbation	0.15	Undated
36	35	Fill	0.15	Undated
37	37	Natural feature/bioturbation	0.06	Undated
38	37	Fill. Contained diagnostic LBA pottery	0.06	Undated
39	39	Natural feature/bioturbation	0.06	Undated
40	39	Fill	0.06	Undated
41	41	Ditch, aligned N-S, part of 58	0.35	?Late Bronze Age
42	41	Fill	0.35	?Late Bronze Age
43	43	Pit, oval	0.22	Undated
44	43	Fill	0.22	Undated
45	45	Ditch, aligned N-S, cut by 58 (seg. 47)	0.12	?Late Bronze Age
46	45	Fill	0.12	?Late Bronze Age

47	45	Ditch, aligned N-S, part of 58	0.31	?Late Bronze Age
48	47	Fill	0.31	?Late Bronze Age
49	49	Pit, circular	0.28	Undated
50	50	Pond	1.78 +	Uncertain date
51	50	Fill	0.53	Uncertain date
52	50	Fill		Uncertain date
53	50	Fill		Uncertain date
54	50	Fill		Uncertain date
55	50	Fill		Uncertain date
56	50	Fill		Uncertain date
57	49	Fill	0.28	Uncertain date
58	58	Ditch, aligned N-S. Includes excavated ditch segments 1, 3, 25, 41, 47		?Late Bronze Age

Trench co-ordinates

Trench 1	X= 573555	Y= 208455
	X= 573578	Y= 208465
Trench 2	X= 573534	Y= 208454
	X= 573534	Y= 208414
Trench 3	X= 573552	Y= 208438
	X= 573605	Y= 208436
Trench 4	X= 573610.5	Y= 208450
	X= 573610.5	Y= 208410
Trench 5	X= 573490.5	Y= 208394
	X= 573530.5	Y= 208394
Trench 6	X= 573546.8	Y= 208405
	X= 573546.8	Y= 208365
Trench 7	X= 573555.5	Y= 208396.4
	X= 573595.5	Y= 208396.4
Trench 8	X= 573475.9	Y= 208346.3
	X= 573503.4	Y= 208317.4
Trench 9	X= 573518	Y= 208316
	X= 573558	Y= 208316

APPENDIX 2: FINDS DATA

Index of all finds

Context	Feature	Count	Weight	Description	Date
2	1	1	2	Flint chip	-
4	3	1 1	16 4	Burnt flint Pottery; flint-tempered body sherd	- Prehistoric
6	Layer	5 1 2 1 2 32	26 24 10 2 12 60	Flint flakes and blades Baked clay Brick crumb and tile fragment Pottery; body sherd, sandy grey ware Pottery; joining body sherds, grog-tempered Pottery; flint-tempered body sherds and crumbs	- - Post med. Roman Late Iron Age Prehistoric
26	25	1	1	Flint chip	-
28	27	1 1	2 24	Flint chip Burnt flint	- -
36	35	1	6	Pottery; flint-tempered body sherd	Prehistoric
38	37	1	18	Pottery; flint-tempered body sherd	Late Bronze Age
42	41	1	2	Flint flake	-
46	45	1	1	Pottery; flint-tempered body sherd, no surfaces	Prehistoric
48	47	2 4	2 14	Flint flakes Pottery; flint-tempered body sherd and crumbs	- Prehistoric
51	50	1 2	2 8	Flint blade Pottery; body sherds	- Saxon
55	50	c.50	1335	Stone; Niedermendig lava fragments, no original surfaces	Roman or later
56	50	-	24	Charcoal from sample 1	-

Flint data

Context	Feature	Count	Weight	Description
2	1	1	2	Chipping, tertiary
4	3	1	16	Burnt flint piece
6	Subsoil	5	26	Two flakes, one tertiary , one secondary One blade, secondary, rough One blade, secondary, fine One blade, butt-part, punch-struck (Mesolithic)
26	25	1	1	Thinning flake
28	27	1 1	2 24	Flake, secondary Burnt flint piece (Discarded)
42	41	1	2	Microdenticulate fragment on blade (?Mesolithic)
48	47	2	2	Two flakes, trimming, tertiary (mid Neolithic to Early Bronze Age)
51	50	1	2	Notched blade, converging, secondary, utilised left edge (Mesolithic to early Neolithic)

APPENDIX 3: CONTENTS OF ARCHIVE

SITE NAME: Springfield Business Park, Plots G and H

Index to the Archive

File containing:

1. Introduction

1.1 Brief for Evaluation/Watching Brief
1.2 Specification for Evaluation/Watching Brief.

2. Research Archive

2.1 Published Report
2.2 Client Report
2.3 Analytical Reports
  2.3.1 Finds Report
  2.3.2 Environmental Reports
2.4 Catalogues
  2.4.1 Context Finds Record
  2.4.2 Finds Catalogue
  2.4.3 Environmental Catalogue
2.5 Computer Disk

3. Site Archive

3.1 Context Index
3.2 Context Record Register
3.3 Original Context Records 1 to 74
3.4 Soil Sample Register
3.5 Soil Sample Record Sheets
3.6 Drawing Registers
  3.6.1 Plans Register
  3.6.2 Sections Register
3.7 Levels Register
3.8 Sample Register
3.9 Survey Data
3.10 Photographic Register
3.11 Site Photographic Record
3.12 Miscellaneous maps and plans

The finds occupy one box.

APPENDIX 4: ESSEX HISTORIC ENVIRONMENT RECORD SUMMARY

***Site name/Address*: Plots G and H, Springfield Business Park, Springfield Lyons Approach, Chelmsford**	
Parish: Springfield	***District*:** Chelmsford
***NGR*:** TQ 8762 8674	***Site Code*:** SPSL06
***Type of Work*:** Trial Trenching and Excavation	***Site Director/Group*:** M.Pocock, ECC FAU
***Date of Work*:** 22 February-8 March 2006	***Size of Area Investigated*:** Evaluation: 1.8ha x 4% = 9 40m x 2m trenches Excavation area: 19 x 33m = 627 sq m
Location of Finds/Curating Museum: Chelmsford	***Funding source*:** Church Manor Estates
***Further Seasons Anticipated*?:** No	***Related HER Nos.*:**
***Final Report*:** Essex Archaeology and History shorter note	
***Periods Represented*:** Mesolithic/Neolithic, Late Bronze Age, Late Iron Age/Roman, Early Saxon	
Previous Summaries/Reports: An archaeological evaluation was carried out on a development site in Springfield Business Park 100m to the north of the site at Springfield Lyons, where previous excavations have recorded a Neolithic causewayed enclosure, a Late Bronze Age settlement within a defended enclosure, an Early Saxon cremation cemetery and a Late Saxon manorial site. No archaeological remains were identified in eight of the nine evaluation trenches. A large area across the west and centre of the site had been disturbed during recent construction works immediately to the north-west, while parts of the south and south-east of the site had been disturbed by a series of ponds and drains. Archaeological features were identified only in trench 4 in the north-east of the site. Excavation of an open area around trench 4 recorded a boundary ditch aligned north-south, most likely of Late Bronze Age date. Post-holes and root-holes were also recorded, some of which contained single sherds of Late Bronze Age pottery. Several Mesolithic and Neolithic flints were recovered as residual finds in later contexts. The edge of a pond investigated at the south end of the excavated area contained two sherds of Early Saxon pottery, but the pond is not firmly dated and may in fact be relatively recent. The Late Bronze Age boundary ditch is thought to be a continuation of a linear cropmark recorded to the east of the Late Bronze Age enclosure at Springfield Lyons. If so, it would have been part of a wider Late Bronze Age landscape around the enclosure, forming a major boundary running along the eastern edge of the boulder clay plateau, and along the top of the valley slope of the river Chelmer.	
Author of Summary: Patrick Allen	**Date of Summary:** September 2006

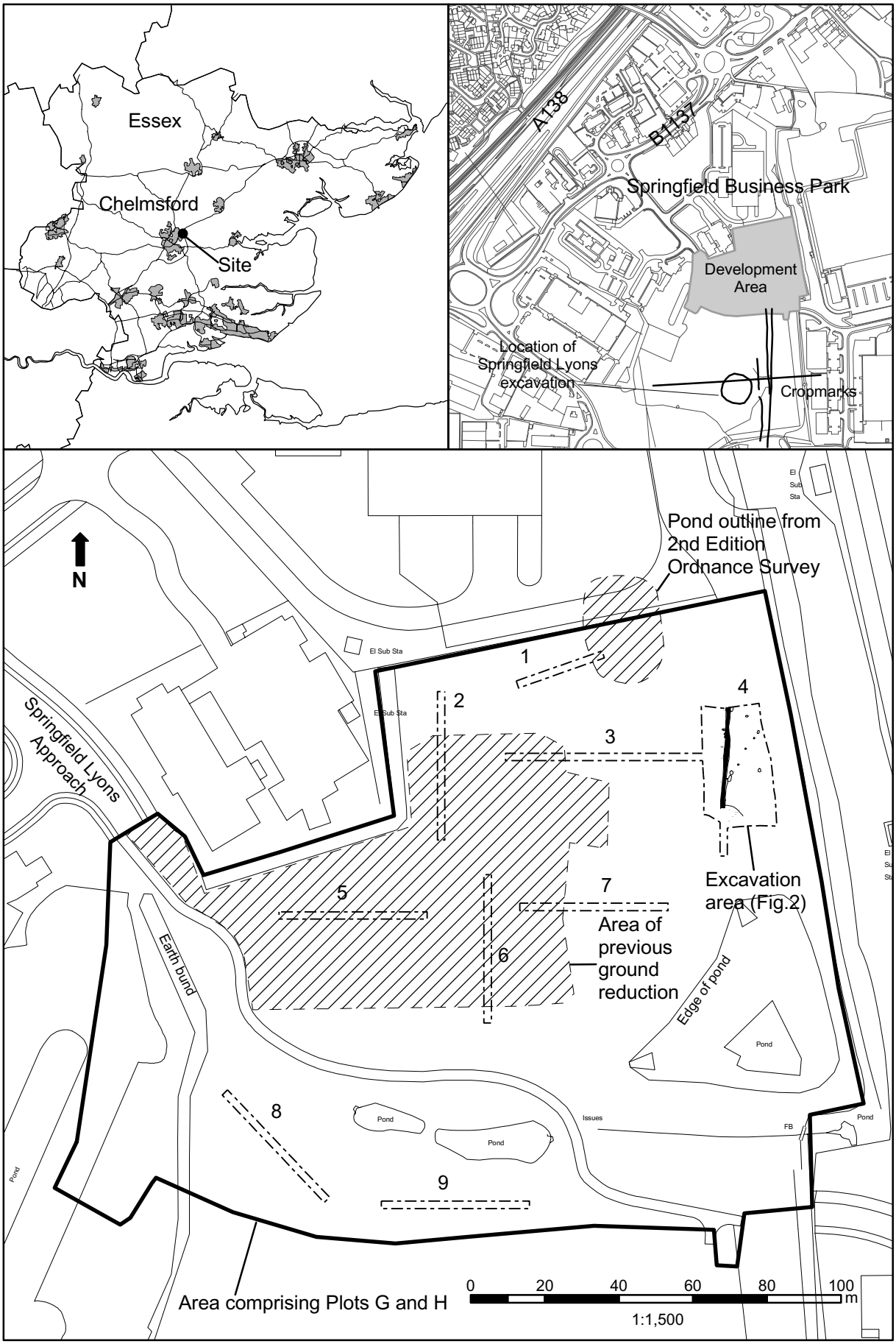

Fig.1. Location plan

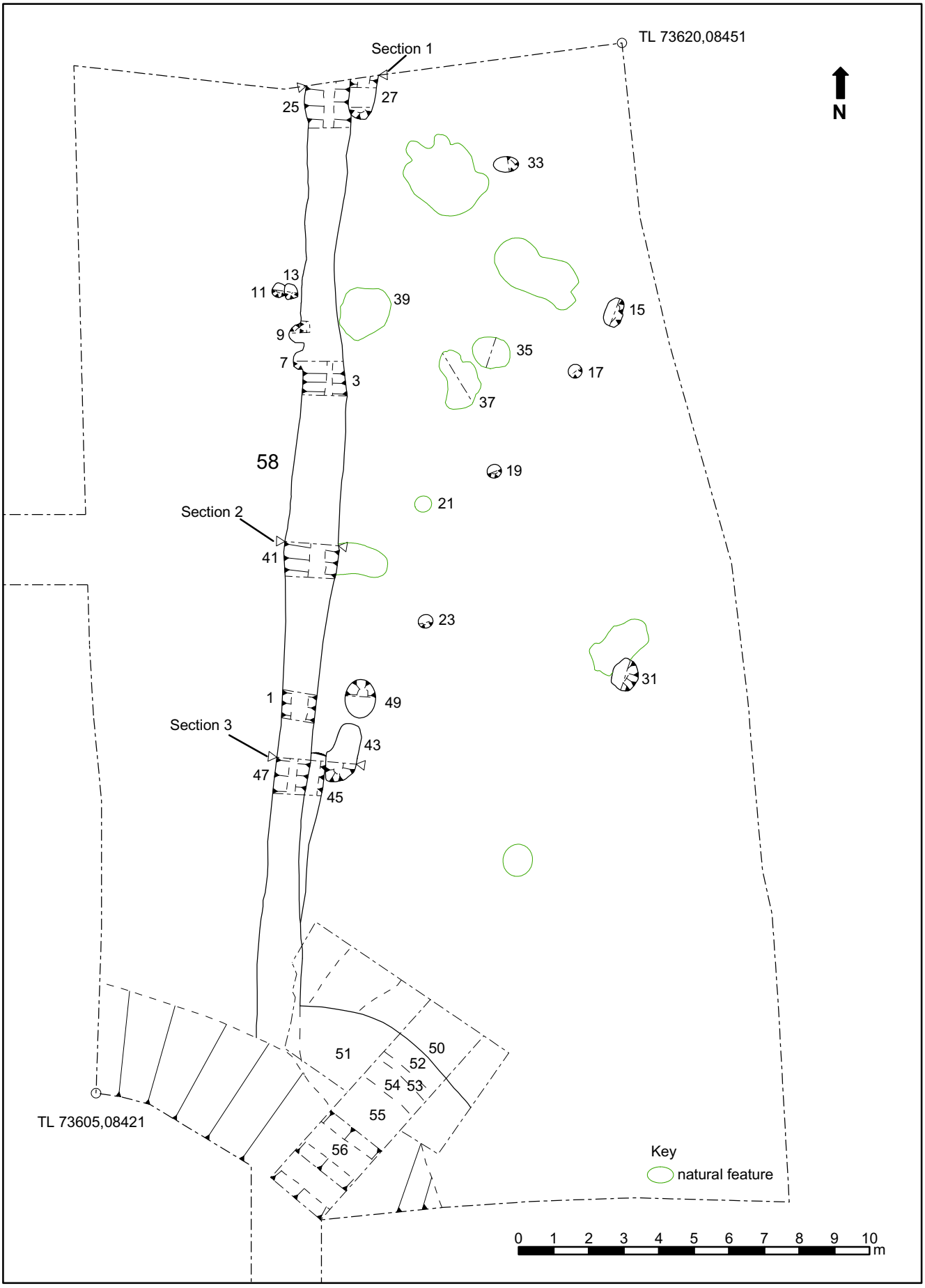

Fig.2. Excavation area (encompassing trench 4)

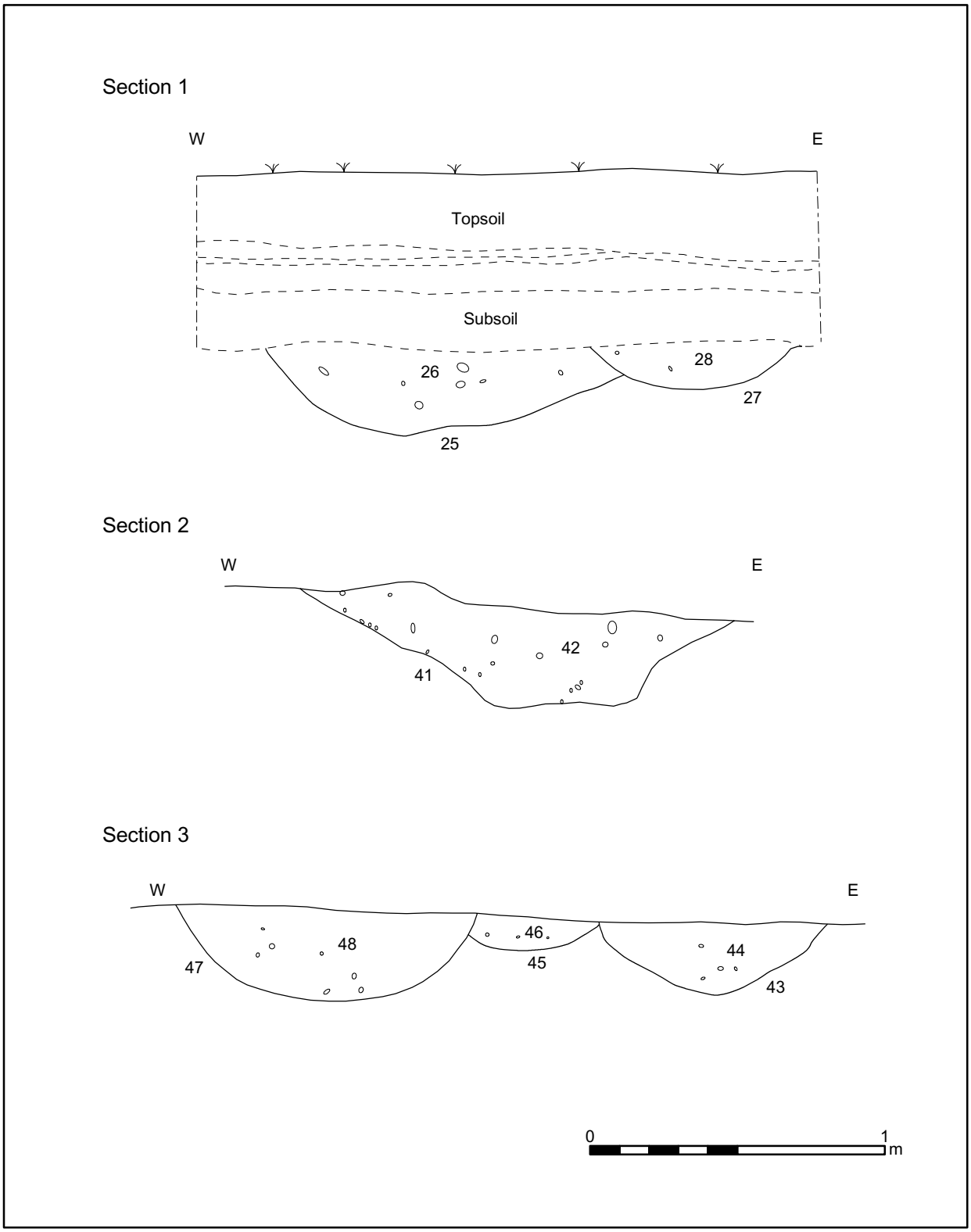

Fig.3. Sections