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**Archaeological Services**

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**An Archaeological Evaluation  
Ashton Green, Beaumont Leys,  
Leicester, Leicestershire  
NGR: SK 5730 0950 centre**

Tim Higgins and Matthew Beamish



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**An Archaeological Evaluation  
Ashton Green, Beaumont Leys,  
Leicester, Leicestershire**

**NGR: SK 5730 0950**

**Tim Higgins and Matthew Beamish**

**For: White Young Green and Leicester City Council**

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## **An Archaeological Evaluation at Ashton Green, Beaumont Leys, Leicester (SK 5730 0950)**

*Tim Higgins and Matthew Beamish*

### **Summary**

*An archaeological field evaluation by trial trenching was undertaken for development phases (1 and 2) at Ashton Green, Beaumont Leys, Leicester, by University of Leicester Archaeological Services (ULAS) in advance of proposed residential development. Forty-eight trial trenches were excavated over four fields. In one of the fields the trial trenching revealed a potential extensive Iron Age settlement of Middle Iron Age or later date, on the east side of the development along with some evidence of preceding occupation in the Late Bronze Age. The site archive will be held with Leicester Museum Service, under the accession code: [A5.2010].*

### **1. Introduction**

The proposed residential development by Leicester City Council is located in Beaumont Leys ward, in north Leicester (centred on Grid. Ref. SK 5730 0950).

An archaeological field evaluation (AFE) was undertaken as part of the requirements identified by the City Archaeologist, Leicester City Council as archaeological advisor to planning authority following Planning Policy Statement 5 (PPS5, *Planning and the Historic Environment* March 2010). The AFE was undertaken to assess whether any archaeological remains of significance were present within the development site and propose suitable treatment to avoid or minimise damage by the development.

The development site has been subject to a desk-based assessment (JSAC 2002), which identified that previous archaeological investigations in the vicinity of the site had uncovered prehistoric, medieval and post-medieval remains. This report presents the results of archaeological evaluation by trial trenching limited to the first two development phases (1, 2a and 2b, along with adjacent areas (Figure 2) which are located within fields 1-4, each side of Beaumont Leys Lane in the south of the development. The AFE was carried out in March to April 2010 by University of Leicester Archaeological Services (ULAS).

### **2. Site Description, Topography and Geology**

The proposed development area is located in Beaumont Leys ward, in north Leicester (centred on Grid. Ref SK 5730 0950). The development covers an area of *c.* 104 ha

currently used as agricultural land. A walkover survey had established that 82 ha are currently arable farmland while *c.* 22ha is pasture.

The Ordnance Survey Geological Survey of Great Britain Sheet Loughborough 141 indicates that the underlying geology of the site is likely to consist of Lacustrian deposits. The land is generally flat at a height of *c.* 90m OD.

Evaluation of the first two development phases (1 and 2) was undertaken which are located within fields 1-4, each side of Beaumont Leys Lane in the south of the development.

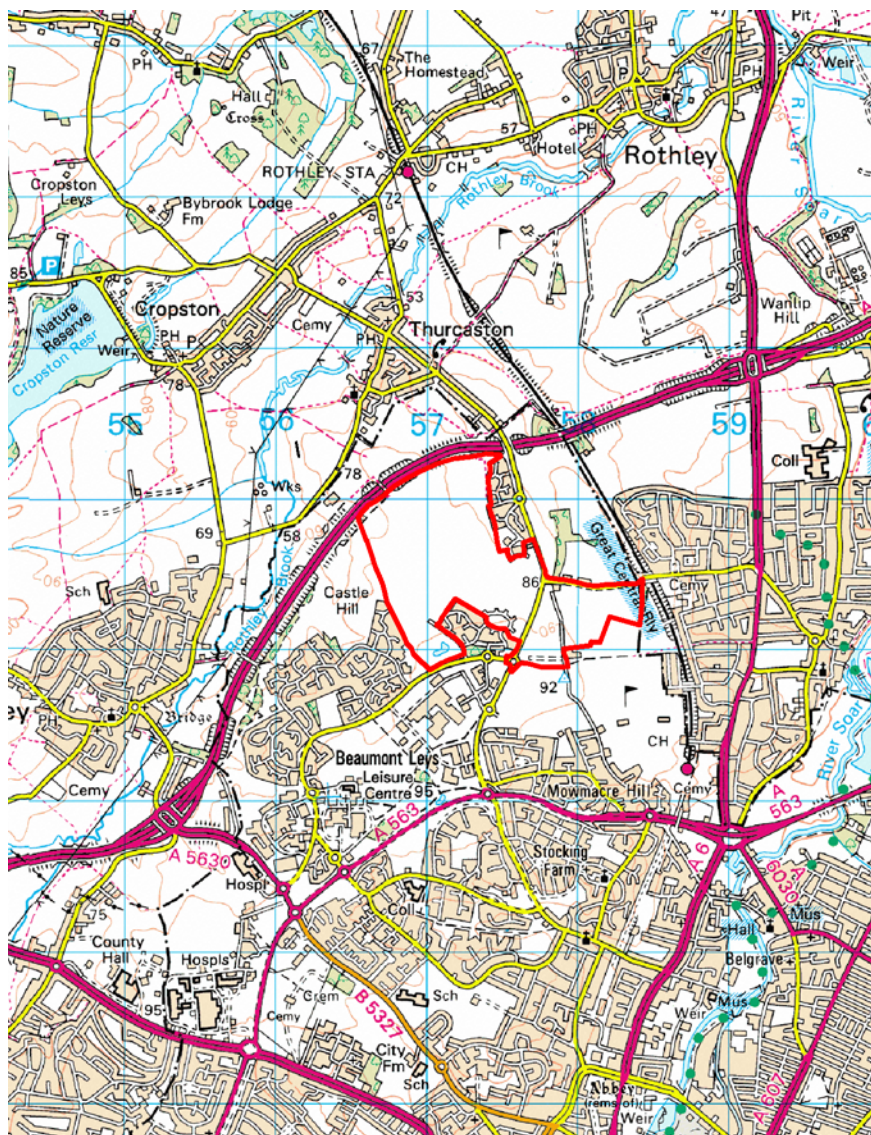


Figure 1: Location of the proposed development

Reproduced from the Landranger OS map 140 Leicester, Coventry and Rugby area 1:50000 map by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright 1996. All rights reserved. Licence number AL 10002187.

### **3. Historical and Archaeological Background**

An archaeological desk-based assessment undertaken for a previous application by John Samuels Archaeological Consultants in 2002 (JSAC 2002) had concluded that there was evidence for archaeological activity in the vicinity. The assessment included an examination of the Historic Environment Records (HER) for Leicester and Leicestershire and Rutland which showed that field walking in areas to the north, west and east of the site had revealed lithic scatters indicating early activity from the Mesolithic through to the Late Bronze Age (Leicester HER: MLC212 and MLC457 MLC636). Evidence for Roman occupation and industrial activity has been found north-west of the proposed development site (Leicester HER: MLC212) and small quantities of Roman pottery have been found west of Castle Hill earthworks figure 1 (HER: LC213). The JSAC desk-assessment concluded that the potential for significant medieval remains other than those relating to agricultural activities was low as the core of the medieval settlements were some distance from the proposed development site (JSAC 2002). The site had evidence of ridge and furrow cultivation and was probably under pasture until the late 19th century. Sewage sludge is believed to have been spread on parts of the site associated with the neighbouring Beaumont Leys sewage farm.

Since the JSAC report was produced a substantial Iron Age occupation site has been located during excavations 500m to the south of the development site (Thomas 2008 and forthcoming). The Iron Age site revealed boundary ditches, several fence lines, 'four-post' structures and several roundhouses. The finds included pottery, fired clay, quern stones and metal working slag. In addition residual sherds of Neolithic and Bronze Age pottery hinted at earlier activities on the site (Thomas 2008 and forthcoming).

#### ***Aerial photographic search.***

A search was made of aerial photographs held by Leicestershire County Council, the National Monuments Record and Cambridge University Aerial Photograph Collection. Medieval strip field systems were visible within the application area but no cropmarks or earthworks.

#### ***Fieldwalking Survey***

A fieldwalking survey was undertaken by ULAS in February 2009. The fieldwalking survey recovered relatively dispersed surface assemblages over the fields examined with the most significant items being Iron Age and Anglo-Saxon pottery sherds in Field 4 (Higgins 2009, Figure 6) and a light scatter of worked flint including a few tools and cores of late Neolithic/Early Bronze Age in Fields 4, 5, 6, 7, 8, 10 and 13 (Higgins 2009, Figures 4 and 5). Although the distribution of the flints was not dense, there were some areas of potential, based on the presence of cores and implements.

#### ***Geophysical Survey***

Northamptonshire Archaeology were commissioned by ULAS to carry out geophysical surveys at Ashton Green, Beaumont Leys, Leicester (Butler 2009). Topsoil magnetic susceptibility survey mapped broad changes in the subsurface probably stemming from geological variation. Detailed magnetometer survey

detected a possible sub-circular ditched enclosure and pits coincident with finds of Iron Age pottery and flint tools (field 4). Other anomalies located former field boundaries and possible pits or geological anomalies (fields 6 and 7).

#### 4. Aims and Objectives

The main aims of the evaluation were:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed new school buildings.
- To produce an archive and report of any results

Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

#### 5. Methodology

The *Design Specification* (Appendix 8) agreed with the Senior Planning Archaeologist at Leicester City Council proposed a 2-2.5% excavation sample of the development area and comprised trial trenching totalling *c.* 3234 sq metres, the equivalent of 48 30m x 2.2m trenches to maximum depth of 1.2m (Fig 3). The position of the trenches to be excavated within the development area was restricted to existing open ground with 12 on arable land to the east Beaumont Leys and remainder on rough grazing ground to the west. These trenches were located to test both geophysical anomalies and blank areas

Water and sewage pipes along with some telecommunications cables were known to cross the survey area, and these were avoided. Prior to any machining a CAT scan survey was undertaken to ensure that trenches were not excavated in areas of unknown services.

The topsoil and underlying layers were removed in level spits, under full archaeological supervision by 360° 20 tonne tracked machine using toothless bucket. Trenches were excavated to a width of approximately 2.2m (or one bucket width) down to either the top of archaeology or natural substratum/undisturbed ground which ever was reached first.

The bases of the trenches were cleaned in areas where potential archaeological deposits were observed. If archaeological remains were identified, they were to be planned to scale and recorded. Limited excavation would also be undertaken in order to determine the character and date of any remains.



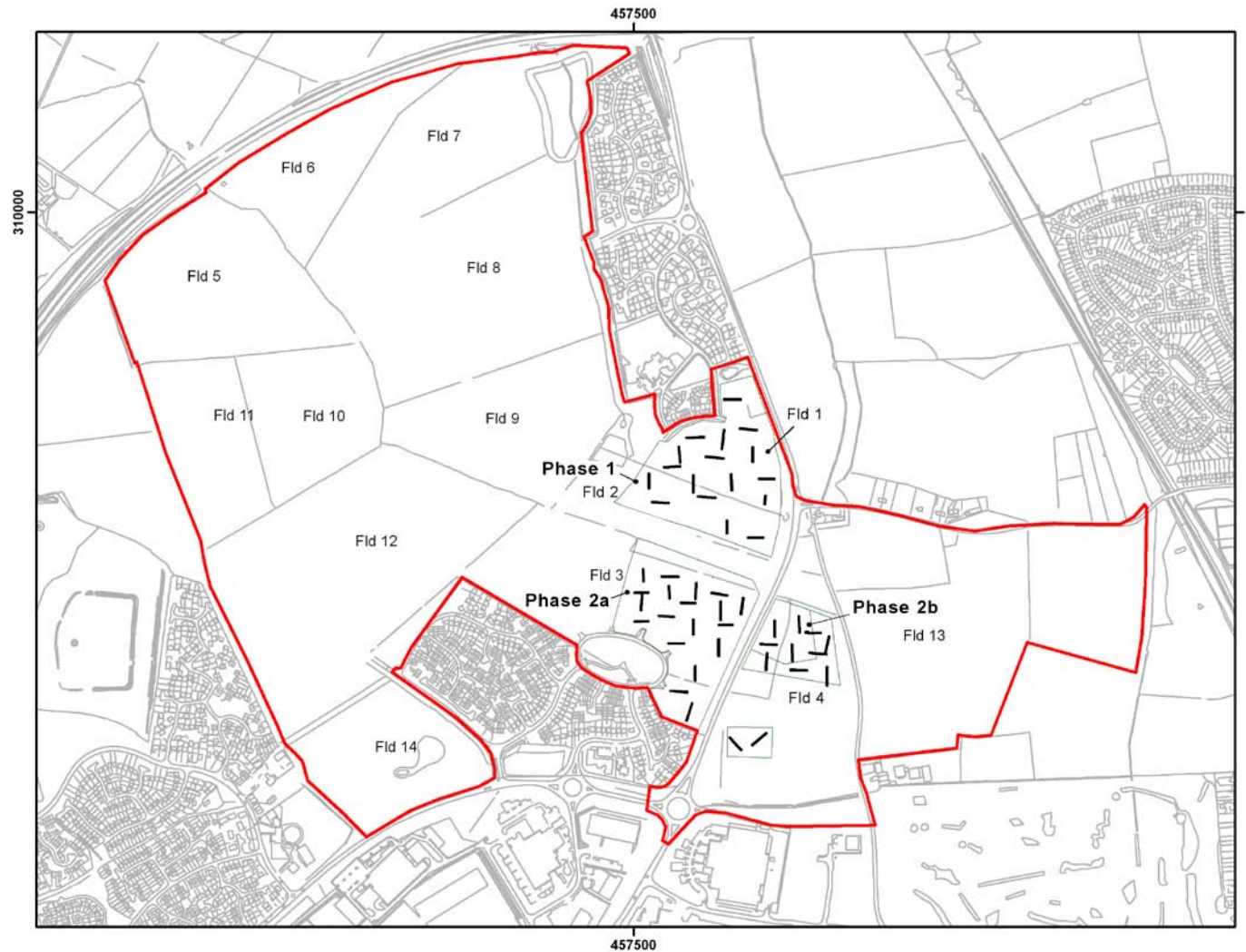


Figure 2: Development area with field numbers and trench locations.

The trenches were located using a Leica Total Station, survey data processed with n4ce survey software, and final plans completed with the aid of TurboCad v.15 design software. Particular attention was paid to potential buried palaeosols in consultation with ULAS's environmental officer. Deposits which may provide possible pollen or insect evidence were sampled.

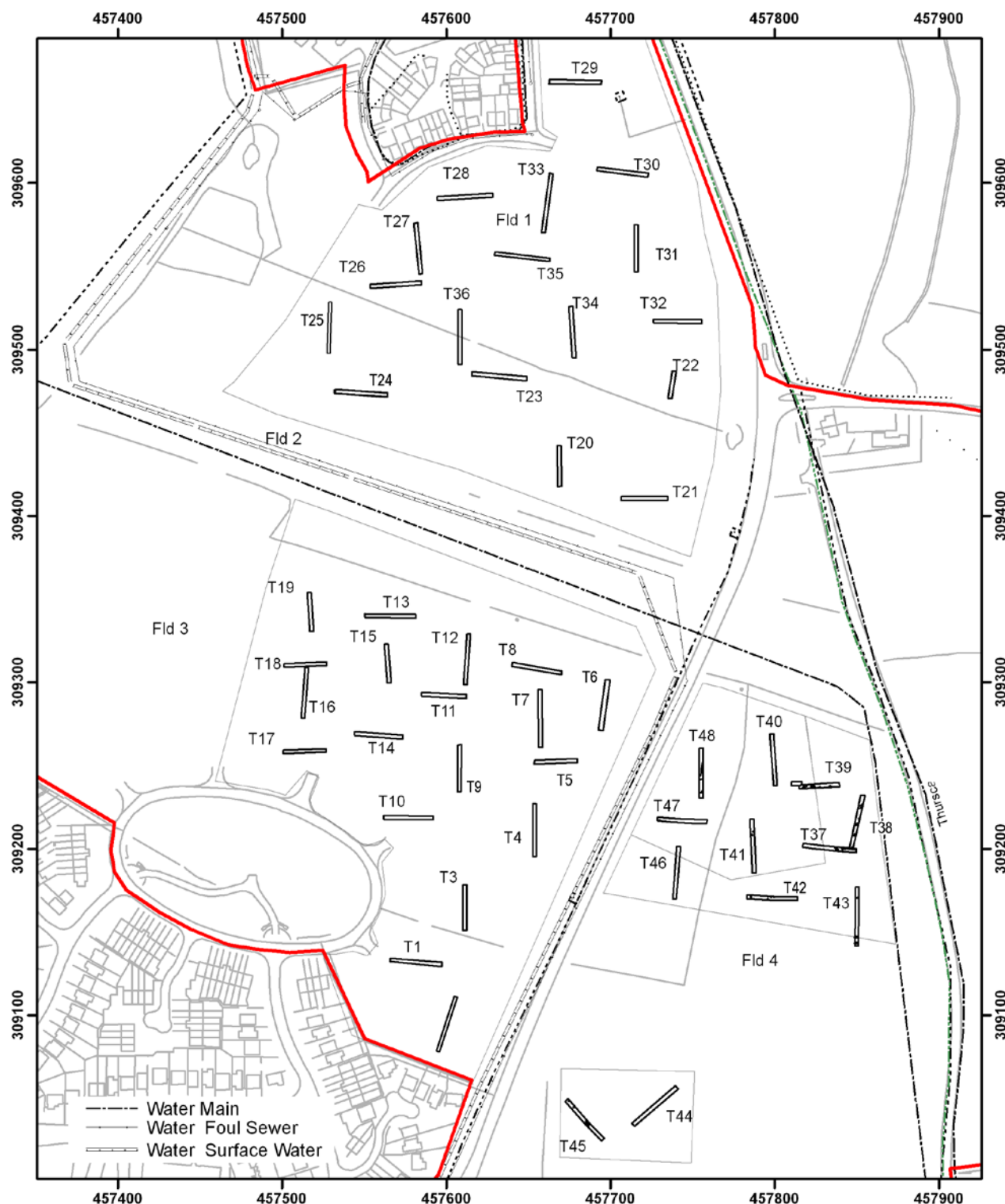


Figure 3: Trench locations and archaeological deposits

All the work followed the Institute for Archaeologists (IfA) *Standard and Guidance for Archaeological Field Evaluations*, and the *Guidelines and Procedures for Archaeological Work in Leicestershire and Rutland* (Leicestershire Museums).

The archaeological contexts are differentiated by square brackets for cuts and round brackets for fills e.g [44], (48).

## 6. Results

Forty-eight trenches were excavated in the proposed development area over four fields. All the trenches were approximately 30m in length (unless stated otherwise in Appendix 1 ) and c. 2.2m in width (Figure 3). A few trenches in the western side in fields 1, 2 and 3 were located to target areas of potential archaeological anomalies based on the geophysical survey (Butler 2009). The remaining trenches provided a sample of the blank areas (approximately 2-2.5%), in order to provide representative cover across the proposed development. An area of known service pipes was avoided between fields 2 and 3 and on the eastern edge of field 4. Four of the 12 trenches located on the east side in field 4, targeted geophysical anomalies which suggested a possible sub-circular ditched enclosure and pits coincident with finds of Iron Age pottery and flint tools (field 4) from the fieldwalking survey (Higgins 2009).

### ***Field 1 Trenches 22 and 26 to 36***

Field 1 was a pasture field located in the northern part the development area phases 1 and 2 west of Beaumont leys Lane and contained 11 trenches. Trench 22 contained no archaeological finds or deposits. The truncated remnants of medieval ridge and furrow orientated west to east were found in trench 31. Boundary ditches orientated west to east were observed in trenches 34 and 36. These appear as parallel tree lined estate boundary ditches, and appear on the Ordnance Survey first edition published in 1885 (Figure 4). In trenches 26, 30, 31, 32, 33 and 35 various modern slate filled drains were observed and they were predominately orientated north-east to south-west. The natural substratum was reached after around 0.30m- 0.35m of topsoil and subsoil had been removed.

Evidence of earlier prehistoric activity from the Neolithic to Early Bronze Age was identified in trenches 5, 7 and 11 which comprised of two flint tools and two flakes (p32). The flint was either un-stratified or appeared to be embedded in natural features, possibly tree root holes or infilled animal burrows. Unstratified Neolithic to Early Bronze Age flint was also recovered from trenches 28 and 34, and comprised one flint tool, a core, a chip and three flakes (Appendix 0).

### ***Field 2 Trenches 20 to 21 and 23 to 25***

Five trenches were opened in Field 2, another pasture field located towards the centre of phases 1 and 2 of the development area, west of Beaumont Leys Lane. Geophysical anomalies had identified parallel north to south orientated linear features towards the western side (Figure 4). In trenches 20, 21, 23 and 24 modern slate filled field drains orientated north to south were observed and these correspond with the geophysical anomalies. The natural substratum was reached after around 0.30m - 0.35m of topsoil and subsoil was removed.

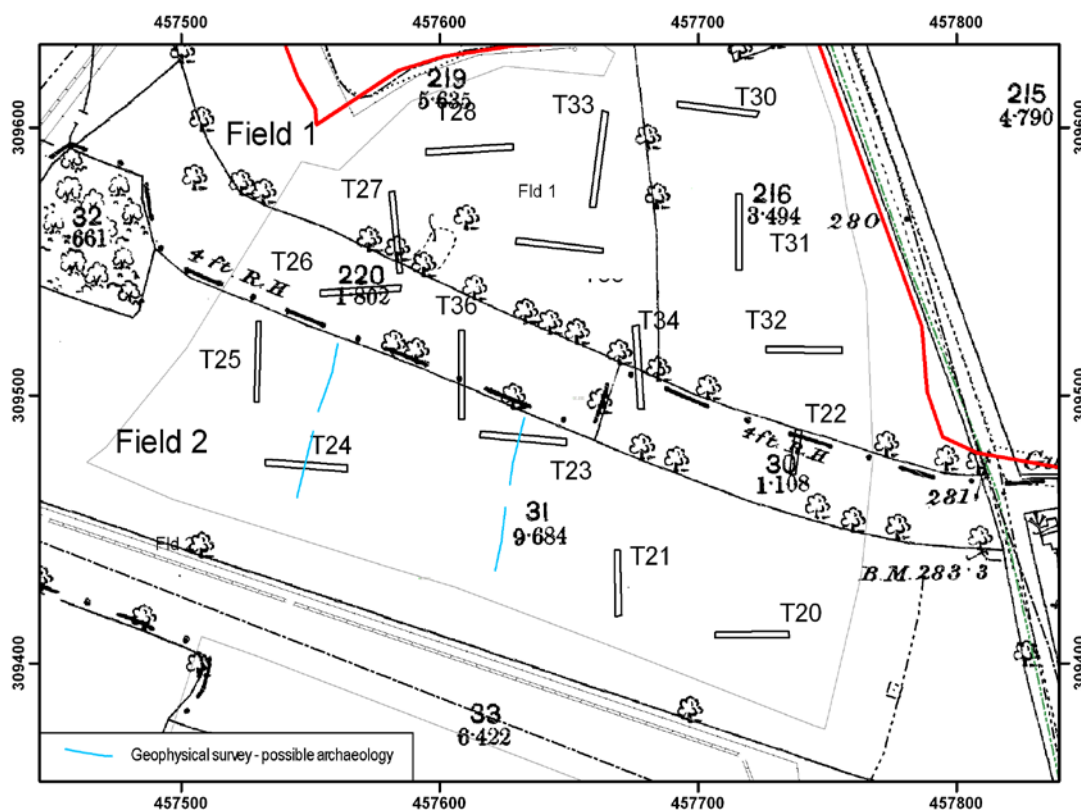


Figure 4 : Trench locations in Field 1, with possible archaeology indicated by geophysics, and 1st edition Ordnance Survey.

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### ***Field 3 Trenches 1 to 19***

Field 3 was located towards southern end of phases 1 and 2 of the development area west of Beaumont Leys Lane. Nineteen trenches were excavated all of which had north-west to south-east or north to south orientated modern ceramic or slate filled land drains. Trenches 1 - 2 and trenches 17, 18 and 19 were all disturbed by modern machine stripping and sewer trenches. Trenches 17, 18 and 19 contained little or no subsoil and the natural substratum was reached between 0.15m – 0.22m below the surface. The natural substratum in trenches 4 and 6 was sealed beneath a layer of made-up ground between 0.50m and 2.00m deep.

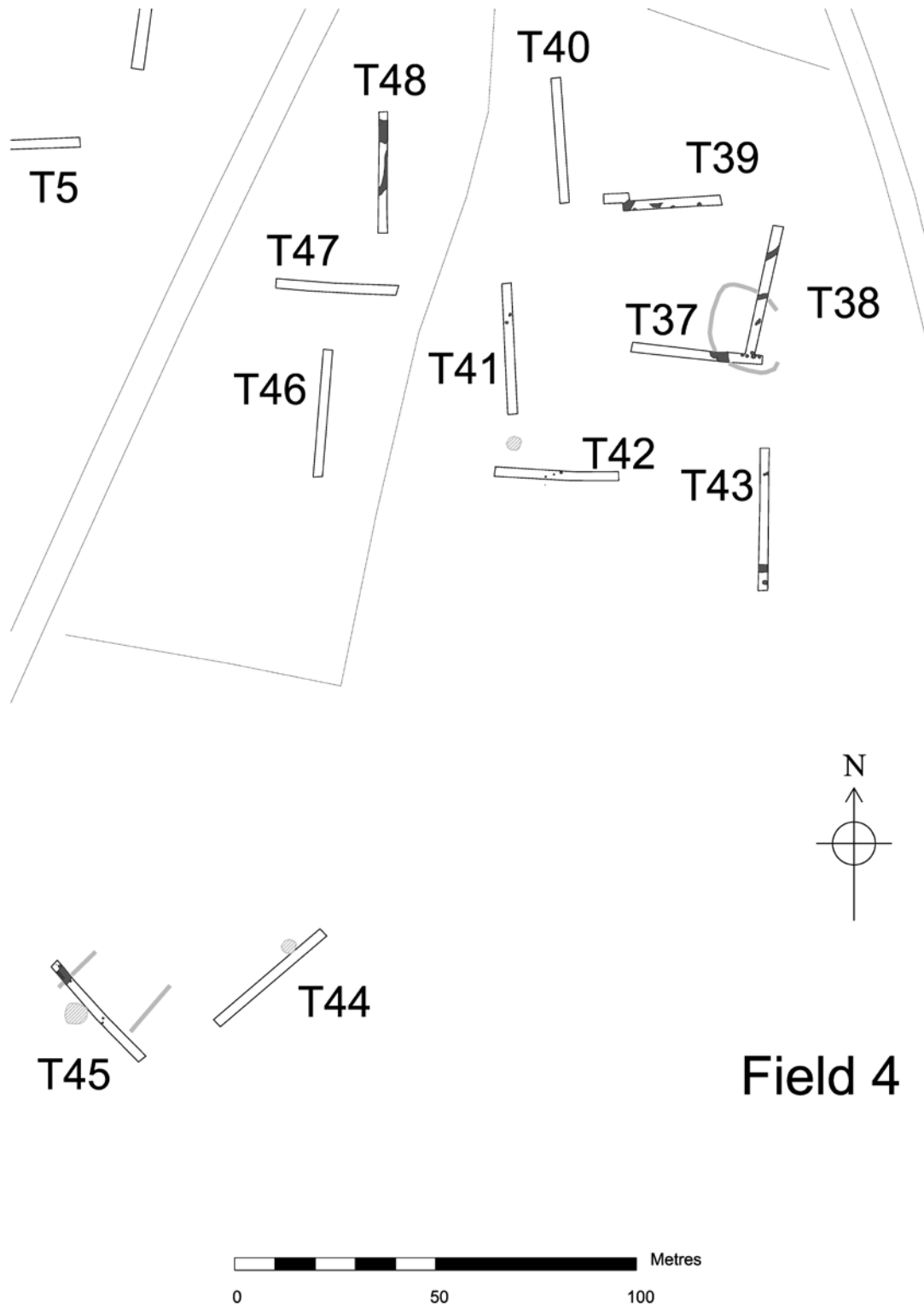


Figure 5: Trenches in Field 4, with recorded features and geophysical anomalies (interpreted as archaeology)

### ***Field 4 Trenches 37 to 48***

Twelve trenches were excavated in field 4. The trenches were targeted to test the presence and quality of survival of an anomaly previously identified by geophysical survey, believed to be a semi-circular enclosure of unknown date, and surrounding area. The two trenches in the south of the field targeted other possible linear features and pits also identified by geophysical survey. A scatter of flint tools, two Iron Age pottery sherds and a single Saxon sherd (since re-identified as Iron Age) had been found during the fieldwalking of this field. Trenches 40, 44, 46 and 47 were all negative other than medieval furrows.

Evidence of earlier prehistoric activity from the Neolithic to Early Bronze Age was again identified during the evaluation and comprised flints tools and flakes (Appendix 0). Although the finds were either un-stratified or residual in later Iron Age features, some patterning in their distribution is evident, with finds recovered from trenches 37, 38, 39, 41, and 43. A scatter of flint was recorded in the fieldwalking survey in the area of Trench 43 (Higgins 2009, 7).

#### *Trench 37*

*Figure 11*

Trench 37 directly targeted the western side of the semi-circular enclosure, suggested by the geophysical survey, and was orientated west to east. A total of six features was present towards the eastern half of the trench. A large linear feature or ditch [21] aligned north-east to south-west and a semi-circular feature or pit running under the northern baulk [48], were located towards the centre of the trench. Four small circular features context fills (49),(73),(75) and (76) were located at the east end.

Pit [48] (Figure 14, Section 1) was part of sub-circular feature running under the north baulk and had shallow steep sloping sides and a flat base. It measured 1.80m wide and 0.15m deep. The feature which appeared to be cut by ditch [21] in plan contained pale grey slightly silty-clay (47) and contained pottery with an unusual rock tempered fabric of possible Late Bronze or Early Iron Age date (Appendix 3).

Ditch [21] (Figure 14, Section 2 and Figure 6) was a large slightly curvilinear feature aligned north-east to south-west and was believed to be the west side of the semi circular enclosure ditch indicated by the geophysical survey. The ditch spanned the width of the trench and measured 2.75m in width, and 0.55m in depth. The ditch contained two identifiable fills (19) and (20). The lower fill (20) consisted of pale-grey slightly silty-clay and upper fill (19) dark grey slightly silty-clay mixed with frequent charcoal flecks and fire-cracked pebbles. Middle to Late Iron Age pottery sherds were recovered from the upper fill (19) (Appendix 3), two fragments of iron working slag from the lower fill (20) (Appendix 7) and animal bone including part of a bird leg and sheep or goat teeth from both contexts (Appendix 4).

Five small discrete features (73, 74, 75, 76 and [50]), measuring between 0.40m and 0.60m in diameter, were found at the east end of the trench and southern end of adjoining trench 38. All contained dark grey-brown silty-clay mixed with rounded pebbles. One of the features was half sectioned ((49), [50]) to reveal a steep side on the east and gradual sloping side on the west with a narrow rounded base, and measured 0.60m wide and 0.20m deep. Rim and base sherds of Middle to Late Iron

Age pottery were recovered from (49) (Appendix 3). All these features may be post-holes.



Figure 6: Photo of Enclosure ditch [21], Trench 37.

### *Trench 38*

### *Figure 11*

Trench 38 directly targeted the northern side of the semi-circular enclosure identified from the geophysical survey and was orientated north to south. A total of four features was located within this trench. Two were large linear features or ditches [28] and [62] both aligned west to east. A circular feature (74) (above p10) and irregular feature [60] were both found at the southern end of the trench.

Ditch [62] (Figure 14, Section 3 and Figure 7) was a large slightly curvilinear feature aligned west to east and was believed to be the north side of the semi circular enclosure ditch located by the geophysical survey. The ditch spanned the width of the trench and measured 1.54m in width, and 0.82m in depth. A section across the ditch revealed a cut with gradual sloping sides at the top breaking into steeper sides defining a cut some 0.50m wide with a tapered rounded base. The ditch contained two distinct fills (77) and (61). The lower fill (77) comprised yellowish grey-brown slightly silty-clay mixed with small rounded pebbles and occasional charcoal flecks. The upper fill (61) consisted of very dark grey clay silt mixed with frequent pebbles and charcoal flecks. This upper fill also contained fragments of animal bone (Appendix 4) and Middle to Late Iron Age pottery (Appendix 3).

A second ditch was found towards the northern end of the trench [28] (27) and (78) (Figure 14, Section 4 and Figure 8). The ditch spanned the width of the trench and measured 1.24m in width, and 0.55m in depth. The feature was aligned north-east to south-west and was slightly curvilinear. A section across the ditch revealed a cut [28]

with gradual sloping sides at the top breaking into wide tapered rounded base. The ditch contained two distinctive fills (27) and (78). The lower fill (78) comprised yellowish grey-brown slightly silty-clay mixed with small rounded pebbles and occasional charcoal flecks. The upper fill (27) consisted of very dark grey clay-silt mixed with frequent pebbles and charcoal flecks. This upper fill also contained fragments of animal bone (Table 5) and Middle to Late Iron Age pottery sherds (Table 4). Cereal grains and chaff fragments (of either emmer, spelt or barley) were identified from sieved soil samples from (27) (Appendix 5).

An irregular linear feature, (59) [60], was observed at the southern end of the trench. The fill (59) comprised very dark grey silty-clay mixed with abundant charcoal flecks and rounded cobbles. The feature, which was not excavated, may represent two inter-cutting post-holes and measured 1.70m long and 0.70m wide.

Three medieval furrows were observed within this trench and were orientated west to east and measured up to 3.00m wide.



Figure 7: Photo of Enclosure ditch (61) [62], east facing section, Trench 38





Figure 8: Photo of ditch (27) [28], Trench 39. This is possibly the ring ditch surrounding a roundhouse

### *Trench 39*

### *Figure 11*

Trench 39 was parallel with Trench 37 and was located approximately 35m to the north. Five features were located within this trench and comprised from west to east, a north to south curvilinear ditch (55), a possible pit (82), an irregular elongated feature truncated along its length by a furrow (53), [54], and two small circular features (79) and (80) [81].

Ditch (55) was a large slightly curvilinear feature aligned north to south. The ditch spanned the width of the trench and measured 0.60m in width, and contained a pale grey-brown silty-clay mixed with small rounded pebbles. Decorated Middle to Late Iron Age pottery date sherds were recovered from the surface of this context (Table 4).

Directly to east of the ditch a possible sub-rounded shaped pit (82) was present, continuing under the south baulk. The pit measured 0.40m in diameter and contained pale grey-brown silty-clay mixed with small rounded pebbles.

Towards the centre of the trench was a short linear feature (53), [54], 2.30m long and 0.40m wide, truncated by a medieval furrow along its northern side (Figure 14, Section 5). The feature was cross sectioned at its western end where it had gradual sloping sides and rounded base. The fill comprised dark grey-brown silty-clay mixed with frequent charcoal flecks and occasional large rounded pebbles. Further east a possible post-hole (79) was observed continuing under the baulk. This feature measured 0.90m in diameter and contained dark grey-brown silty-clay mixed with frequent charcoal flecks and large rounded pebbles on its surface. Towards the east

end of the trench a second post-hole (80), [81] was half-sectioned. This had a sub-circular cut with gradual sloping sides, a rounded base and measured 0.80m in diameter and 0.28m deep. The fill comprised grey-brown silty-clay mixed with occasional small pebbles.

#### *Trench 41*

#### *Figure 12*

Trench 41 was located approximately 30m to the west of trench 37 and was orientated north to south. Two features were found, located in the northern half of the trench comprising of sub-circular pits with dense stone fillings, interpreted as post-pads (23) [24] (Figure 14, Section 6 and Figure 9) and (83) [84]. Both features measured 0.30m in diameter, and the excavated feature [24] was 0.30m deep. The sides of [24] were concave and the base was uneven and pitted from the impressions of the stones.

The fill of both post-pad features comprised almost entirely of several large round stones mixed with a small quantity of grey silty-clay with charcoal flecks. The stones from (23) included a fragment of saddle quern (below p.42) The uneven shape and cut of the feature suggests that it was perhaps partly excavated and then stones were driven in to create a foundation pad. Middle to Late Iron Age pottery date sherds were recovered from (23) (Table 4).

The post-pads were spaced approximately 2.00m apart from centre to centre and the alignment was north-east to south-west. Three medieval furrows were observed within this trench and were orientated west to east and measured up to 3.00m wide.

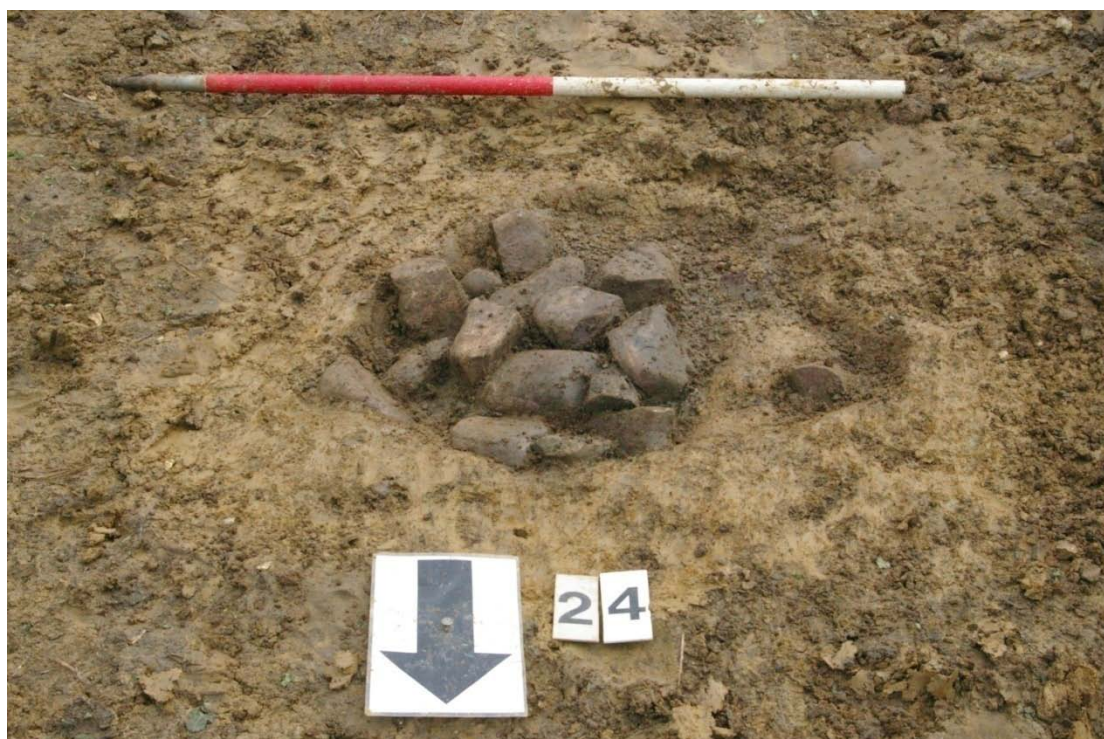


Figure 9: Photo of stone packed pit, a possible post pad foundation (23) [24], Trench 41.

### *Trench 42*

*Figure 12*

Trench 42 was located 14m south of trench 41, and was orientated west to east. Three small features, probably stake-holes, were observed towards the centre of this trench (35) [36], (37) [38] and (39) [40]. The stake-holes formed a line north-east to south west and were spaced 2.00m between centres. The stake-holes, which were all half sectioned with removal of southern fills, measured between 0.18m to 0.37m in diameter and 0.06m to 0.18m in depth. The two largest were located at either end of the alignment with smallest in the centre. The fills comprised grey-brown sandy-silt mixed with occasional pebbles and charcoal flecks.

### *Trench 43*

*Figure 12*

Trench 43 was located approximately 21m south of Trench 37 and was orientated north to south. Probable post-holes (31) [32] and (33) [34] were found at the northern end of the trench, and a ditch and a pit were found at the southern end.

Two small post-holes [32] and [34] between 0.20m and 0.30m in diameter, were found at the northern end of the trench close to the east baulk. The features were both half sectioned and well defined profiles between 0.16m and 0.20m in depth filled with dark grey silty-clay mixed with occasional small stones and charcoal flecks were recorded. The base of [34] was narrow and tapered, while that of [32] was slightly convex (Figure 15, Sections 8 and 9).

Ditch [26] was 22m to the south of the post-holes, aligned west to east, spanned the width of the trench and measured 1.70 in width, and 0.44m in depth. A section across the ditch revealed a possible rounded butt end with gradual sloping sides at the top breaking into a tapered base (Figure 15, Section 11). The ditch contained a distinctive fill (25) which comprised dark grey-brown slightly silty-clay mixed with small rounded pebbles and frequent charcoal flecks. Middle to Late Iron Age pottery sherds including the base sherds of a jar were recovered from the context (Table 4).

Pit feature [30] was a sub-circular feature continuing under the eastern baulk of the trench and measured 1.10m long, 0.85m wide and 0.28m deep. A section excavated across the feature revealed very steep vertical sides breaking sharply into flat slightly undulating base (Figure 15, Section 10). The fill (29) comprised dark grey-brown silty-clay mixed with small pebbles and frequent charcoal flecks. Middle to Late Iron Age pottery sherds were recovered from the context (Table 4).

### *Trench 45*

*Figure 13*

Trench 45 was located to target possible linear features and pits identified by the geophysical survey in the southern half of field 4. A total of four features was found in this trench: a large linear ditch or pit [58] aligned west to east [48], a post-hole [70] and a stake-hole [68] were all found at the northern end of the trench. Towards the centre of the trench two small post-hole features [64] and [66] were observed.

The large ditch or pit [58] spanned the width of the trench and measured 4.24m wide and a minimum excavated depth of 1.30m. A section excavated across the feature revealed gradually sloping sides towards the top of the cut breaking sharply into very steep vertical sides suggesting a possible tapered base (Figure 15, Section 13). The feature was not fully excavated so the base was not reached. The feature contained two distinct fills. The lower fill (71) consisted of pale yellow-brown silty-clay mixed with and occasional pebbles and charcoal flecks. The upper fill comprised dark grey-brown silty-clay mixed with occasional pebbles and charcoal flecks. Middle to Late Iron Age pottery sherds were recovered from context (57) (Table 4) and a fragment of calcined bone (Appendix 4). The feature penetrated the water table, although no evidence of waterlogged remains was observed.

On the north side of this ditch or pit a large post-hole [70], was found and comprised an oval shaped cut with steep-sloping sides breaking sharply to a wide flat base (Figure 15, Section 12). The feature measured 0.63m long, 0.44m wide and 0.25m deep, with a fill comprising numerous large rounded stones, perhaps used as post packing within a matrix of mixed dark grey-brown silty-clay.

On the south side of the large ditch or pit feature a small stake-hole (67) [68], was observed. The feature measured 0.20m in diameter, 0.20m deep and had a sub-oval shaped cut, with a steep tapered profile. The fill comprised of grey-brown silty-clay mixed with occasional small stones and charcoal flecks.

Towards the centre of the trench the remnants of two truncated post-hole features (63) [64], (65), [66] were located. Both features were sub-circular in shape with steep sloping sides and flat bases and measured 0.30m in diameter and were 0.07m deep. The fill of both post-holes consisted of grey-brown silty-clay mixed with occasional charcoal flecks. Middle to Late Iron Age pottery sherds were recovered from context (65) (Table 4).

### *Trench 48*

### *Figure 13*

Trench 48 was located in the north-west of the field, approximately 90m to the north-west of the geophysical enclosure anomaly and orientated north to south. A wide shallow deposit overlay a deep pit or linear feature [46] and ditch [44] aligned north to south which turned to the west in the south were located.

A layer of dark grey-brown silty-clay (43) mixed with abundant fire-cracked pebbles and charcoal flecks covered some seven square metres in the northern part of the trench. A trench excavated through the deposit revealed it to infill a broad shallow cut which measured 5.00m wide and 0.40m deep with gradually sloping sides. Towards the centre of the feature the cut broke sharply into very steep vertical sides [46]. The feature was not fully excavated so the base was not reached but it had a minimum excavated depth of 1.40m (Figure 15, Section 14 and Figure 10). Below the upper layer (43) was a lower fill (72) which consisted of dark grey-brown silty-clay mixed with frequent fire-cracked pebbles and charcoal flecks. Middle to Late Iron Age pottery sherds were recovered from the context (43) (Table 4). The steepness of the sides of the cut may indicate that this feature was cut to bear water.

Ditch [44] was 1.50m in width and at least 0.80m deep, and aligned north-east to south-west. The feature was slightly curvilinear possibly enclosing an area to the north-west. A section across the ditch revealed a cut with gradual sloping sides at the top breaking into wide rounded base (Figure 14, Section 7). It was not clear if the true base of the feature had been reached. The upper part of the ditch was filled by a yellowish grey-brown slightly silty-clay mixed with small rounded pebbles and occasional charcoal flecks (45). This fill contained sherds of Middle to Late Iron Age pottery (Appendix 3).



Figure 10: Photo of deep ditch or pit feature (43) [46], Trench 48.

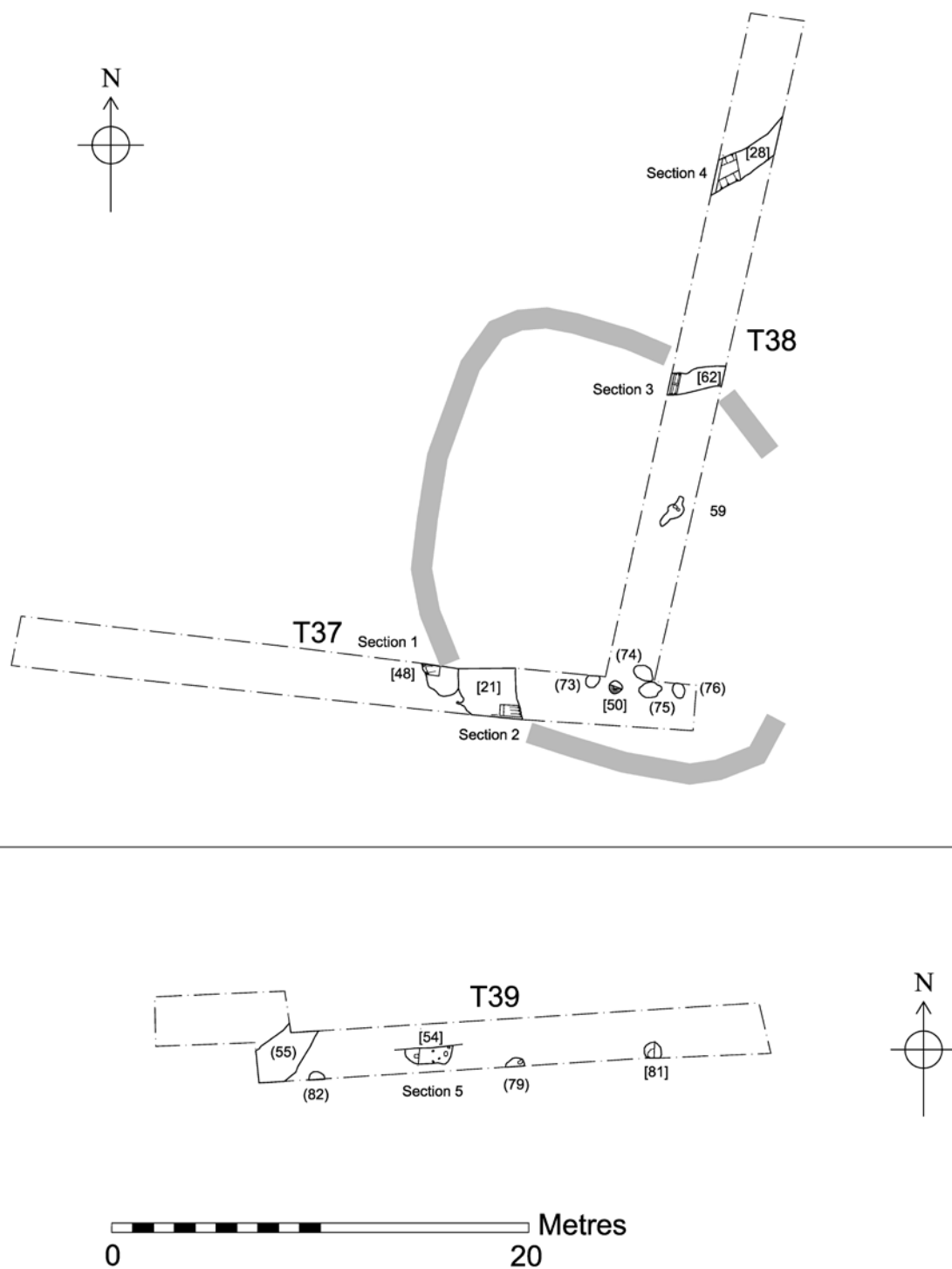


Figure 11: Trenches 37, 38 and 39: For trench relative locations see Figure 5.

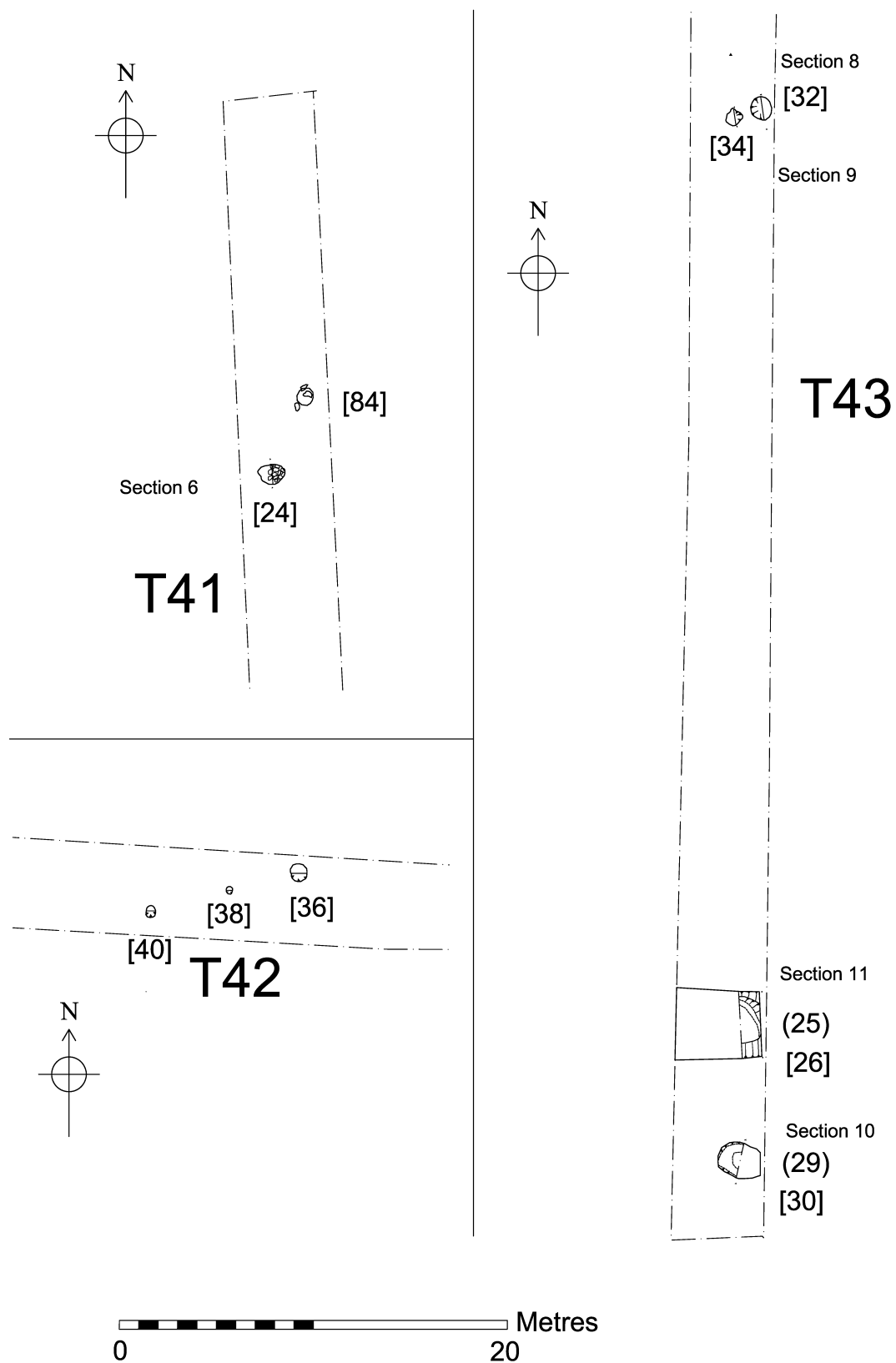


Figure 12: Trenches 41-43. For trench relative locations see Figure 5.

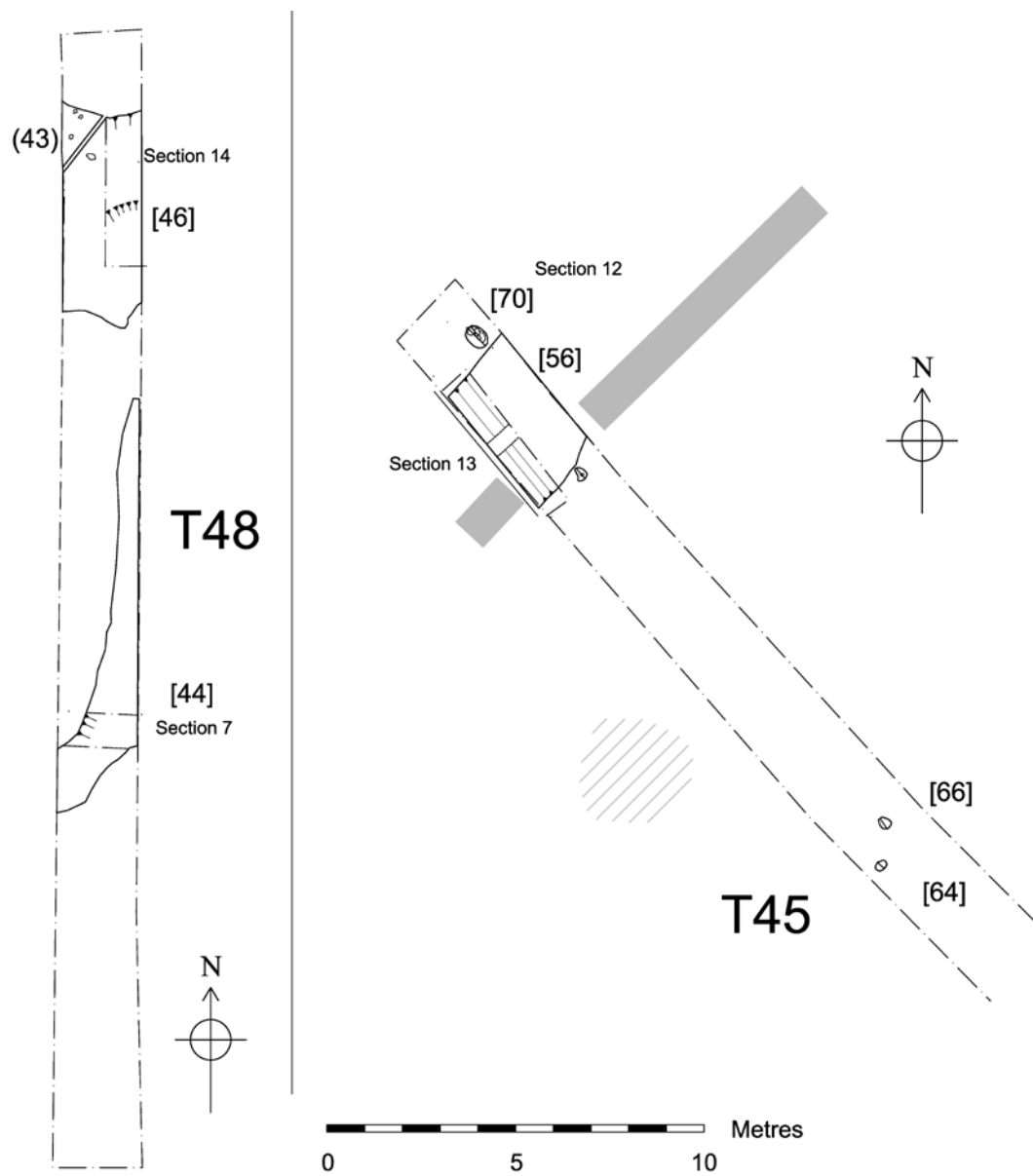


Figure 13: Trenches 45 and 48, and results of geophysical survey. For trench relative locations see Figure 5.



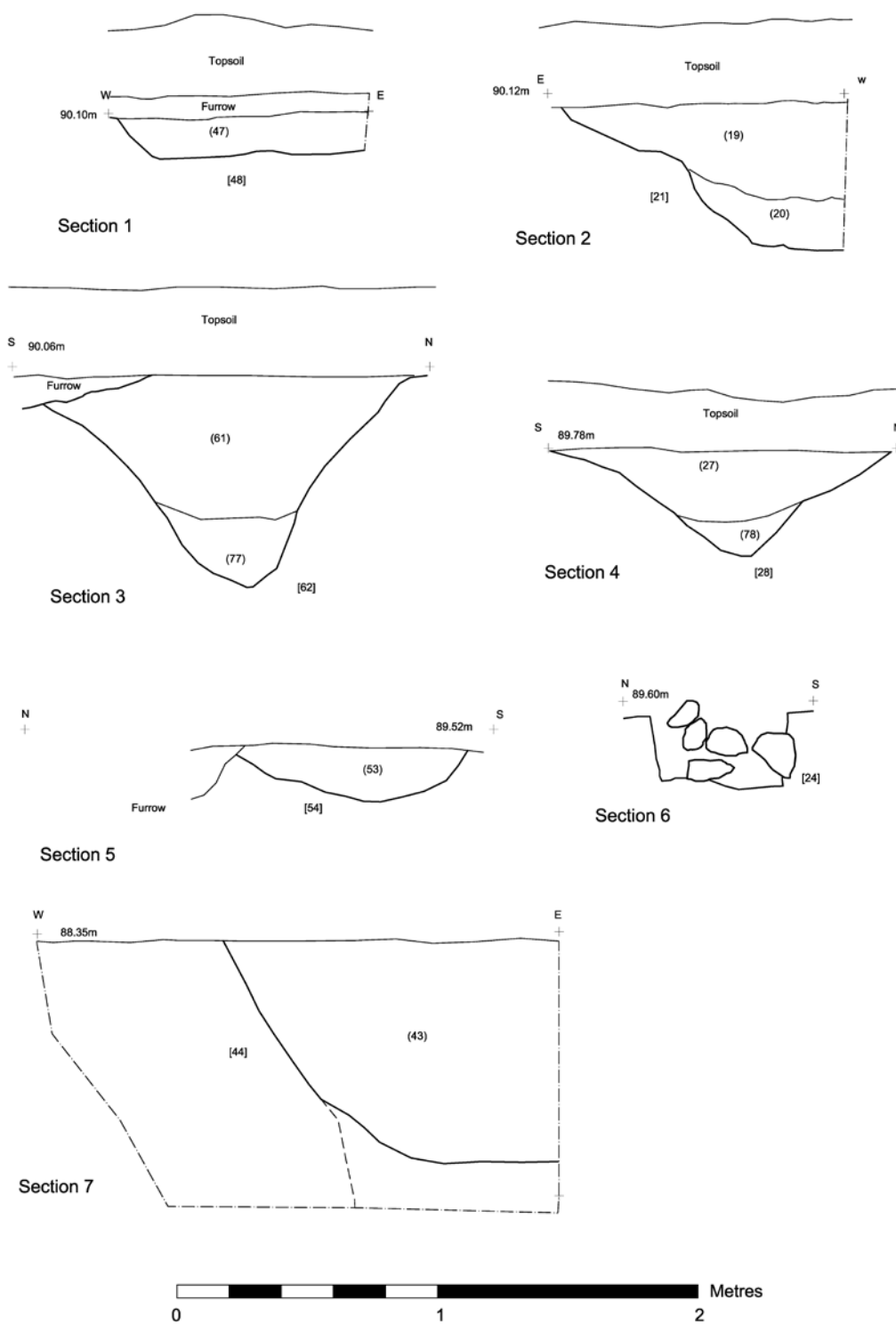


Figure 14: Sections 1-7

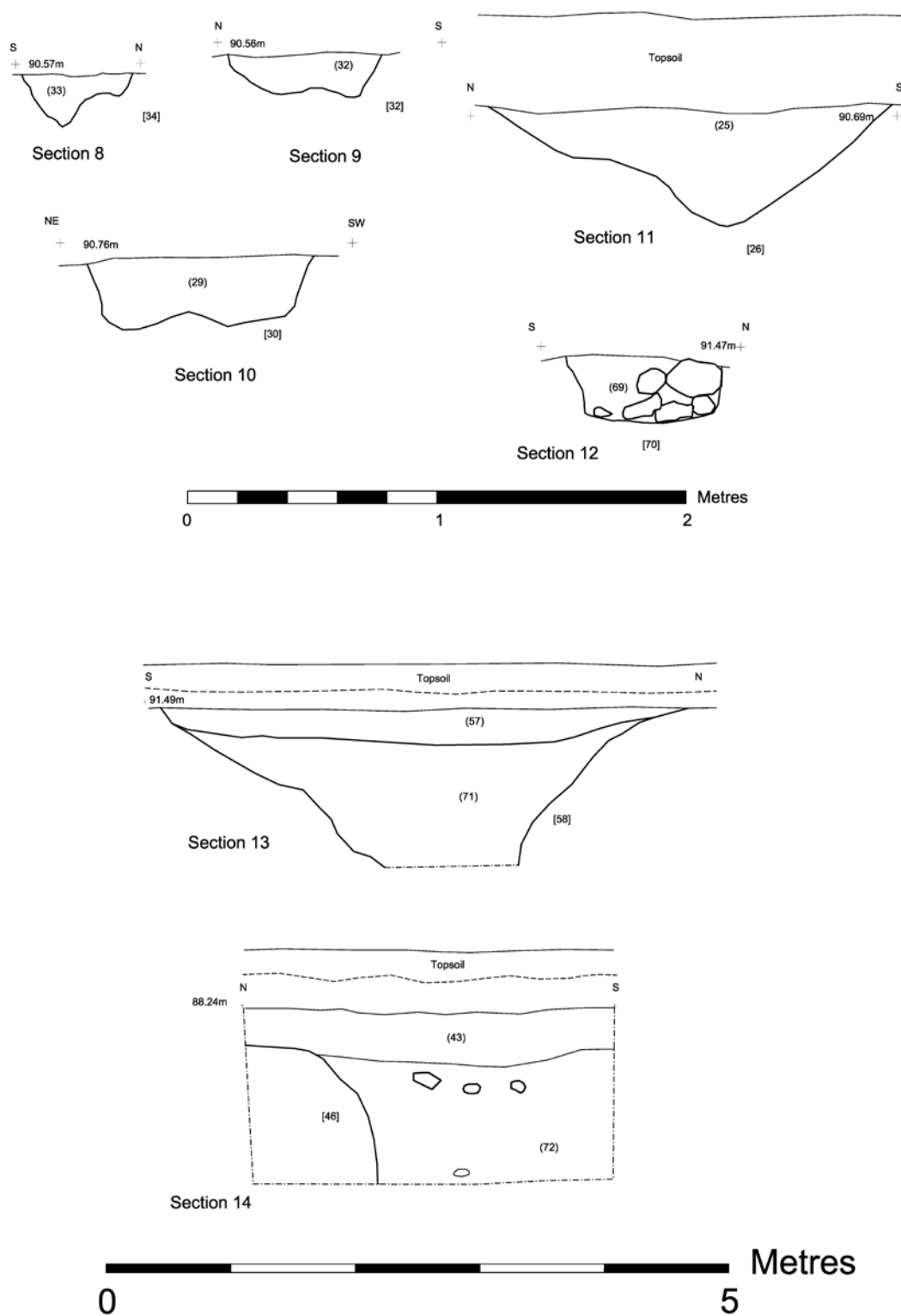


Figure 15: Sections 8-14

## 7. Interpretation of results

The evaluation of this field has successfully confirmed the location of a sub-circular enclosure in field 4, first indicated by geophysical anomalies. The enclosure ditch was identified and excavated in trench 37, [21] and trench 38, [62]. From the pottery present, the enclosure dates to the Middle to Late Iron Age (Appendix 3).

Trench 39 was located on the north-west side of the enclosure and in addition to trenches 37 and 38 all three contained a high density of archaeological features. These features were either domestic activities within or around the enclosure, with post-holes and a possible ring ditch suggesting structures. The curvilinear ditch [28] in trench 38 and another curvilinear ditch [55] may well have encircled further round houses.

A lower density of features was found in trench 43 consisting post-holes [32] and [34], ditch [26] and a pit [30]. The ditch may be the terminal of a ring ditch for another potential roundhouse.

Trenches 41 and 42 also had a light scatter of outlying features comprising stake-holes and substantial post-pads. These indicate that other possible structures spread to south and west beyond the enclosure.

On the western side of the field in trench 48 one clear substantial ditch [44], and a large pit below a possible ditch cut [46] may relate to enclosures or boundaries. From the pottery present (Appendix 3), the ditch dates to the Middle to Late Iron Age.

The steepness of the sides of the adjacent pit may indicate that this feature was a well, and served to supply water to people or animals.

The dump of charcoal and fire-cracked pebbles associated with the pit along with the presence of pottery and animal bone also suggests domestic activities within or around the enclosure. The deposit of charcoal and fire-cracked stone is of interest due to its topographic, context and associations. Similar layers are often found as parts of Bronze Age burnt mounds, in low-lying stream edge locations away from areas of permanent settlement, and where associations with other artefacts are rare (Beamish 2009). The sites are areas where water was heated in pits using hot stones probably for occasional cooking although clear evidence of function for these sites is often absent, and other functions requiring hot water and/or steam (bathing/steam-bathing, leather working etc) are quite possible.

One of two linear ditches suggested by the geophysical survey in the south-west of field 4 was successfully located in trench 45. This feature [58] may represent another boundary ditch. The geophysical survey indicated that this feature was straight, and at least 13m long. The parallel sister ditch, some 20m to the south-east was not located, and neither was a possible pit feature. A scatter of post-holes and the presence of Middle to Late Iron Age pottery suggests potential domestic structures and activities within or around the ditch. A possible interpretation of these deposits as an enclosure and boundary ditch is offered (Figure 16).

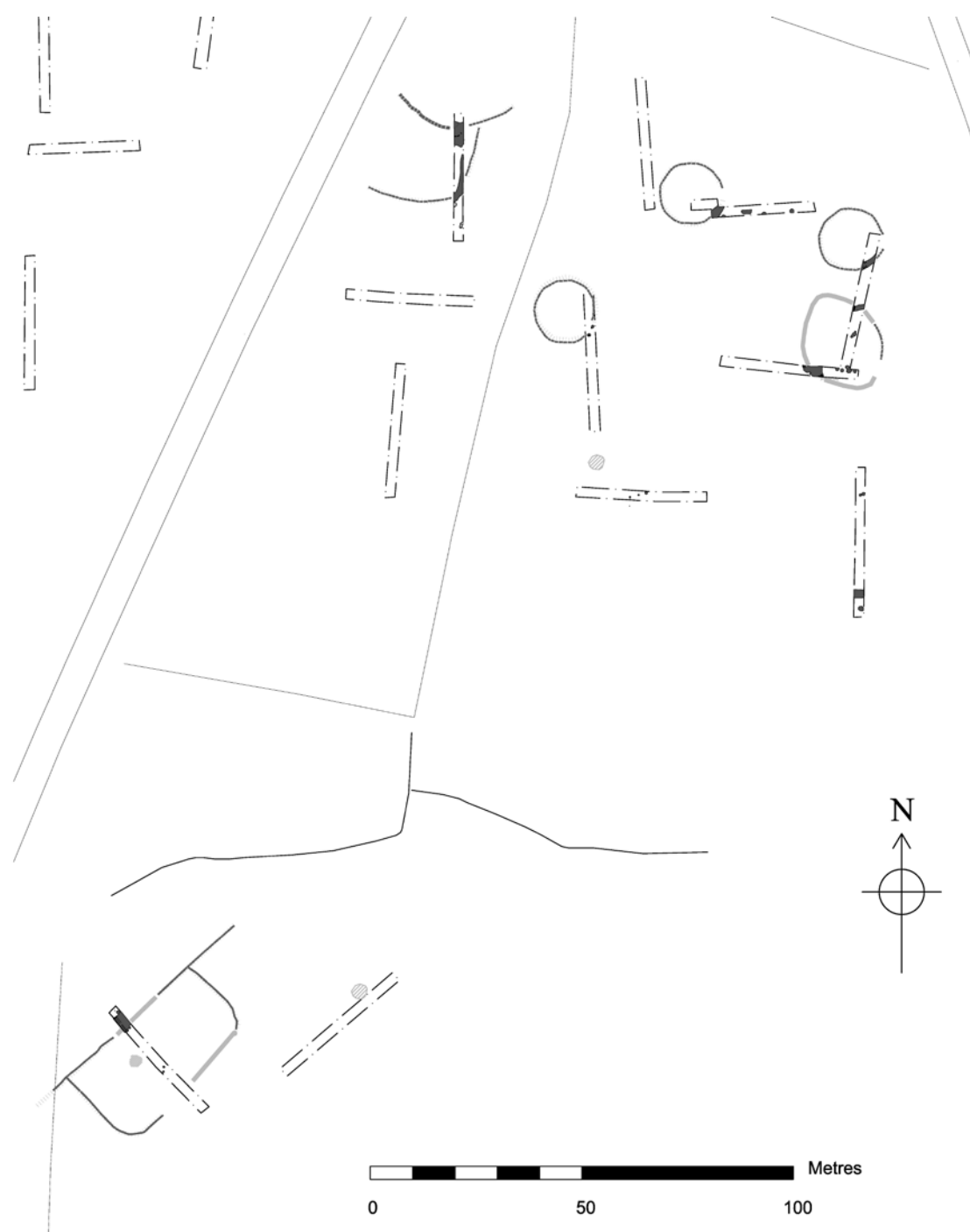


Figure 16: Interpretative plan Field 4. Enclosures and roundhouses are based on the evidence recorded in geophysical survey and trench evaluation.

## 8. Discussion

Evidence of earlier prehistoric activity from the Neolithic to Early Bronze Age was identified during the evaluation and comprised of worked flint although the finds were either unstratified or residual in the fills of later features.

Very few flint tools or cores were recovered, with most material relating to debris from tool manufacture (Appendix 0). The distribution of these finds from field-walking and evaluation trenching has some consistency west to east across the site (Figure 17) – material including a core and a scraper also being recovered from trench 28 in the north-west of the area.

A shallow pit probably predating a later Iron Age enclosure ditch in Trench 37 contained an unusual form of pottery that may be dated to the Late Bronze Age or Early Iron Age. Sites from this period are poorly represented in Leicestershire, although some sites dating to this period have been recorded recently (Beamish and Shore 2008).

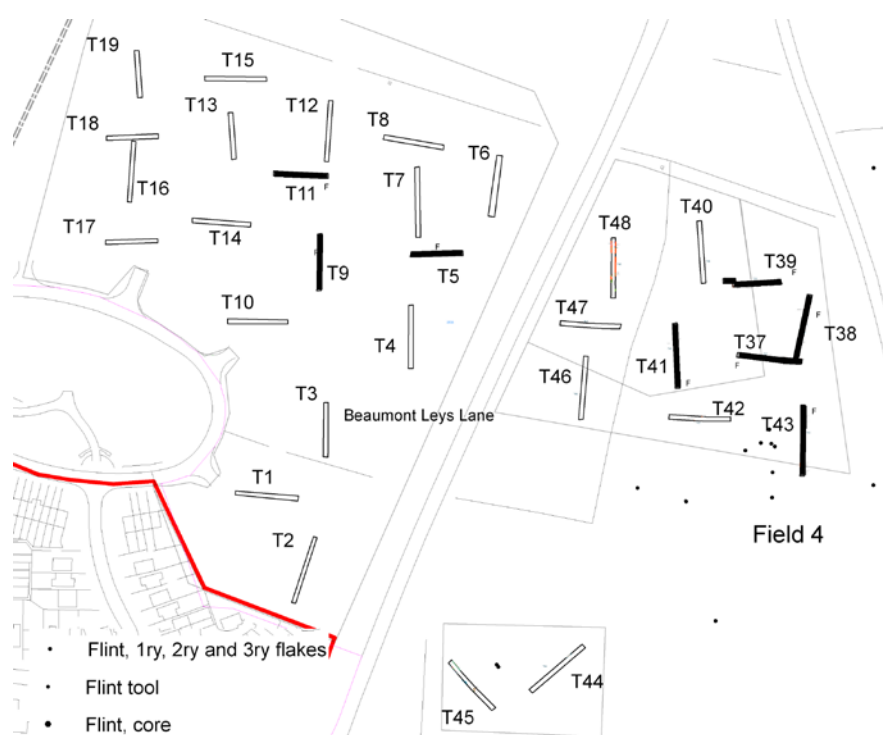


Figure 17: Field-walk recovered flint, and trenches where flint recovered (black)

Areas of later prehistoric activity have been identified in two broad areas of field 4, in the north and south-west (Figure 16). These deposits appear contemporary on the basis of material culture (although may relate to successive occupations) and probably relate to a farmstead or farmsteads dating from the Middle to Late Iron Age (c. 400 BC-AD 43).

Several small enclosures probably existed, with one enclosure identified, and the partial remains of several more suggested from the trenching evidence. These enclosures are most probably related to agricultural subsistence and the control of livestock, either to contain or exclude animals at different times in the agricultural year.

Such enclosures are relatively common in the Iron Age of the East Midlands, and similar sites have been recorded from cropmarks, earthworks, geophysical surveys

and excavations. Previous assessments identified over 220 locations of Late Iron Age occupation in Leicestershire and Rutland, and analysis of well-surveyed areas suggested a density of one Late Iron Age site per 1.8-2 sq km (Clay 2002).

The remains of a possible roundhouse ring ditch were located in the north of the site, and the post-holes of further structures in the west. Excavations at Hood's Close, Beaumont Leys 400m to the south of field 4, revealed numerous roundhouses, semi-circular structures, and post-built structures including probable granaries extending over two hectares (Thomas 2008 and forthcoming). A second *aggregated* Iron Age settlement has been located close to Leicester's east side at Manor Farm, Humberstone. Analysis of these substantial areas of Iron Age settlement concludes that the large areas of occupation reflect long-lived and shifting settlement rather than villages per se, although populations were larger and not the extended family that may have occupied an enclosed farmstead (Thomas 2008 and forthcoming).

The composition of the pottery from the site compares with other Iron Age sites excavated within the vicinity including Hood's Close, Beaumont Leys (Thomas 2008 and forthcoming) and Hallam Fields, Birstall (Speed 2009).

The deposits recorded on the west side and in the south-west corner may represent smaller outlying activity areas, peripheral to the main farmstead in the north-west corner of the field. However, this interpretation may purely reflect a focus perceived from geophysical survey results that are not complete. The ditches surviving probable roundhouses were not identified by the magnetometer survey and therefore any settlement focus cannot be identified at this stage.

The assessment of charred plant remains has identified cereal cleaning waste in a ditch fill, and these remains probably indicate that cereal cultivation and consumption is occurring nearby (Monckton p.38), the discovery of a saddle quern fragment also consistent with cereal preparation, although not exclusively so. The presence of querns in varying degrees of fragmentation within the structural features of buildings has been discussed in relation to the significance of those buildings to the inhabitants or builders, and the possible symbolic meanings they may have had (Thomas 2008 and forthcoming).

Iron Age sites on low-lying clay soils have previously been interpreted as having had a pastoral bias in the economy of the site (Monckton 2004), and the recent investigation of the nearby aggregated settlement at Hoods Close, Beaumont Leys (Thomas 2008 and forthcoming) also had a low density of charred plant remains, with a similar pastoral bias interpreted. The site within Field 4 has the potential to compare with the Hoods Close site, as such clear evidence of grain preparation has been identified, and a clear potential for an animal bone assemblage has also been demonstrated.

## 9. Archive

A full copy of the archive as defined in Brown (2008) will usually be presented within six months of the completion of the fieldwork. This archive will include all written, drawn and photographic records relating to the investigations undertaken.

The archive consists of:

A copy of the report,

Indices

48 trench recording sheets

-- context sheets,

-- plan and section drawing sheets

Digital photos with contact prints, photographic index

Finds comprising sherds of pottery, tile or brick and animal bone (Appendix 1),

The site archive will be held by Leicester Museum Services under the accession number A5.2009

A summary of the work will be published in the *Transactions of the Leicestershire Archaeological and Historical Society* in due course.

## 10. Acknowledgements

The fieldwork was carried out by the author, assisted by Dave Parker. Matthew Beamish managed the project. I would like to thank Mr Adrian Rous of WYG Environmental Planning Transport Ltd for arranging access to the fields, and thanks to the Leicester City Archaeologist Mr Chris Wardle for his help and accommodating several re-arranged site visits. I would also like to thank Mr. Chantrell (Farmer) for his help during the evaluation, and also the assistance of Mr. Matthew Bagley, Leicestershire County Council Travellers Sites and Liaison Officer. Newline Group provided the on site plant.

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02.06.2010



## Oasis Record

INFORMATION REQUIRED	
Project Name	An Archaeological Evaluation by Trial Trenching Ashton Green, Beaumont Leys, Leicester
Project Type	Evaluation
Project Manager	Matthew Beamish
Project Supervisor	Tim Higgins
Previous/Future work	Previous work: Desk based assessment / Fieldwalking/Geophysics/Lidar study
Current Land Use	Agricultural/Pasture
Development Type	residential
Reason for Investigation	PPG16
Position in the Planning Process	Requirements planning permission
Site Co ordinates	NGR: SK 5730 0950
Start/end dates of field work	15th March to 16 <sup>th</sup> April 2010
Archive Recipient	Leicester City Museum Service
Study Area	c. 15 hectares

## APPENDICES

### 1. Trench Summaries

Table 1: Trench Summaries

Trench	Field	Length(m)	Average depth (m)	Notes description	Minimum depth to archaeology or natural
1	3	31.00m	0.50m	NW-SE modern slate and ceramic field drains	0.50m natural
2	3	30.30m	0.60m	NW-SE modern field drains	0.40m natural
3	3	27.00m	0.45m	W-E modern field drains	0.40m natural
4	3	29.00m	0.75mm	negative	0.50m natural
5	3	25.20m	0.60m	NW- SE field drain	0.38m natural
6	3	30.00m	1.00m	W-E modern field drain	1.00m natural
7	3	34.00m	0.45m	NW-SE modern field drains	0.30m natural
8	3	30.00m	0.40m	NW-SE modern field drains	0.36m natural
9	3	28.50m	0.40m	W-E Modern boundary ditch	0.32m natural
10	3	30.00m	0.45m	NW-SE modern field drains	0.36m natural
11	3	28.00m	0.35m	NW-SE modern field drain	0.35m natural
12	3	30.00	0.30m	NW-SE modern field drain/ modern disturbance	0.20m natural
13	3	23.30m	0.20m	NW-SE modern field drain	0.20m natural
14	3	30.00m	0.40m	NW-SE modern field drains	0.30m natural
15	3	31.00m	0.30m	NW-SE modern field drain/ modern disturbance	0.19m natural
16	3	35.00m	0.25m	NW- SE and W-E modern field drains/ modern disturbance	0.20m natural
17	3	23.00m	0.40m	N-S modern field drains/ modern sewer trench	0.22m natural
18	3	23.50m	0.40m	N-S modern field drain/ modern sewer trench	0.12m natural
19	3	17.60	0.14m	W-E modern field drain/ Modern sewer disturbance	0.14m
20	2	28.00m	0.45m	N-S field modern drain	0.30m natural
21	2	24.30m	0.40m	N- S modern field drains	0.34m natural
22	1	22.85m	0.55m	Negative excavated within furrow. Ridge and furrow prominent	0.29m natural
23	2	33.00m	0.40m	Root tree bowl disturbance/ N-S modern field drain	0.35m natural
24	2	31.50m	0.40m	N-S modern field drains	0.30m natural
25	2	28.70m	0.45m	negative	0.30m natural
26	1	30.00m	0.50m	NW-SE modern field drain	0.41m natural
27	1	30.00m	0.45m	Boundary ditch which is visible above ground as post medieval tree lined boundary	0.30m natural
28	1	33.50m	0.45m	Natural features, flint artefacts	0.27m natural
29	1	31.00m	0.30m	Heavily disturbed ground /Modern	0.17m natural

				farm walls drains and surfaces	
30	1	31.00m	0.45m	NE-SW modern field drain	0.37m natural
31	1	28.90m	0.50m	W-E medieval furrow modern field drains	0.40m natural
32	1	30.00m	0.45m	NE-SW modern field drains	0.35m natural
33	1	36.00m	0.50m	W-E modern field drains	0.37m natural
34	1	30.00m	0.55m	W-E boundary ditch which is visible above ground as post medieval tree lined boundary	0.29m natural
35	1	31.00m	0.45m	N-S modern field drain	0.36m natural
36	1	32.00m	0.48m	W-E boundary ditch which is visible above ground as post medieval tree lined boundary	0.30m natural
37	4	32.00m	0.30m	Iron Age pits and ditches postholes W-E medieval ridge furrow	0.30m top of archaeology
38	4	32.00m	0.40m	Iron Age post holes and ditches W-E medieval ridge and furrow	0.35m top of archaeology
39	4	30.00m	0.40m	Iron Age post holes and ditches W-E medieval ridge and furrow	0.22m top of archaeology
40	4	30.00m	0.30m	W-E medieval ridge and furrow	0.25m natural
41	4	31.00m	0.30m	Iron Age post pads W-E medieval ridge and furrow	0.25m top of archaeology
42	4	31.00m	0.30m	Iron Age stake holes	0.30m top of archaeology
43	4	35.00m	0.30m	Iron Age post holes and ditches W-E medieval ridge and furrow	0.30m top of archaeology
44	4	34.00m	0.45m	W-E medieval ridge and furrow	0.30m natural
45	4	31.00m	0.35m	Large Iron Age pit and post holes W-E medieval ridge and furrow	0.30m top of archaeology
46	4	29.50m	0.45m	N-S and W-E modern field drains	0.30m natural
47	4	30.00m	0.40m	N-S modern field drains	0.20m natural
48	4	29.00m	0.60m	Large Iron Age enclosure ditch and large pit, Fire crack pebble spread N-S and W-E modern field drains	0.40m top of archaeology

## 2. The Flint

*Lynden Cooper*

The details are listed below (**Error! Reference source not found.**). The assemblage is dated generally from the Neolithic to the Bronze Age, with nothing obviously earlier.

Table 2: The Flint by context

Context	Trench	N os	Comments
(5) [6]	5	1	End Scraper (double)
(7) [8]	9	1	Secondary Flake
(7) [8]	9	1	Secondary Bladelet
(23) [24]	41	1	Flake Fragment
(23) [24]	41	1	Shatter
(25) [26]	43	1	Secondary Flake
(25) [26]	43	1	Secondary Flake
(27) [28]	38	1	Burnt Shatter
(27) [28]	38	1	Secondary Flake
(29) [30]	43	1	Flake Fragment
(29) [30]	43	1	Flake Fragment
(29) [30]	43	1	Secondary Flake
(29) [30]	43	1	Secondary Flake
(29) [30]	43	1	Secondary Flake
(29) [30]	43	1	Secondary Flake
(29) [30]	43	1	Secondary Flake
(29) [30]	43	1	?Retouched Flake
(53) [54]	39	1	Retouched Secondary Blade
(53) [54]	39	1	Flake
(53) [54]	39	1	Flake
(53) [54]	39	1	Flake
(53) [54]	39	1	Flake
(61) [62]	38	1	Scraper (on pot lid)
(61) [62]	38	1	Secondary Flake
U/S	11	1	Secondary Flake (NB c.10 mis hits on one)
U/S	28	1	Core
U/S	28	1	Concave Scraper
U/S	28	1	Retouched Flake
U/S	28	1	Chip
U/S	28	1	Tertiary Flake
U/S	34	1	Secondary Flake
U/S	37	1	Scraper
U/S	37	1	Secondary Flake
U/S	37	1	Secondary Flake
U/S	37	1	Secondary Flake
U/S	41	1	Scraper (straight edge)
U/S	41	1	Secondary Flake

### 3. The Prehistoric Pottery

*Nicholas J. Cooper*

#### *Introduction and summary*

A total of 152 sherds of predominantly Mid-Late Iron Age pottery weighing 1.321kg and with an EVEs value of 0.67 was retrieved from 18 contexts in Trenches 37-39, 41, 43, 45 and 48. The largest group, comprising about 30% of the assemblage, came from context (27) in Trench 38. The relatively low average sherd weight of 9g is in line with the secondary deposition of broken vessels in ditches and gully features, but lack of abrasion would not indicate long exposure on the ground surface. All of the material fits broadly within the East Midlands Scored ware tradition, dating to the Mid-Late Iron Age (Elsdon 1992), except for a group of sherds from context (47) in a distinctly different, coarse, rock-tempered fabric, which is undated but, on stratigraphic grounds, is definitely from an earlier phase of activity on the site, perhaps of Later Bronze or Earlier Iron Age date.

#### *Methodology*

The Iron Age material has been analysed by form and fabric using the Leicestershire County Museums prehistoric pottery fabric series (Marsden 1998, 45), with reference to the Prehistoric Ceramic Research Groups Guidelines (PCRG 1992), and quantified by sherd count, weight and estimated vessel equivalents (EVEs based on rim values). Two major contemporary assemblages have been published in recent years from sites in the county at Wanlip and Humberstone (Marsden 1998 and 2000) and a report on an adjacent site in Beaumont Leys together with another from Humberstone is in press (Marsden 2010).

#### *Analysis of Assemblage by Fabric and Form*

Note: the table below is derived from a complete record of the assemblage stored as an excel workbook in archive.

Table 3: Assemblage quantification by fabric

<b>Ashton Green Iron Age Pottery Summary</b>					
<b>Fabric</b>	<b>Sherds</b>	<b>Weight</b>	<b>EVEs</b>	<b>%sherds</b>	<b>ASW</b>
R6 Andesite	13	109	0	9	8
M1 mudston	1	21	0	1	21
Q1 sand	22	174	0.075	14	8
R1/2 granite	110	992	0.595	72	9
S1 shell	6	25	0	4	4
<b>Total</b>	<b>152</b>	<b>1321</b>	<b>0.67</b>	<b>100</b>	<b>9</b>

Table 3 summarises the quantification of the assemblage by fabric. The range of Iron Age fabrics (but in varying proportions) matches those from the nearby Leicestershire assemblages cited above and are described briefly here for convenience (Marsden 2000, 171; 1998, 45) and to incorporate two new fabrics identified.

*Q1 Sandy ware*

Moderate to very common sub-rounded or rounded quartz (well to moderately sorted, up to 1mm) and sparse-moderate angular quartz.

*R1/R2 igneous rock inclusions (granodiorite) sometimes with sand as Q1*

Sparse to very common sub-angular igneous rock fragments, poorly-sorted, most up to 5mm.

*S1 Shell tempered*

Moderate, to very common, poorly-sorted fossil marine shell up to 8mm.

New Fabrics:

*M1 Mudstone*

Clean clay matrix with moderate, poorly-sorted angular, platy fragments of Mercia mudstone up to 8mm.

*R6 Andesite*

Abundant, poorly sorted angular (crushed?) white or grey rock fragments up to 5mm with black crystals within them. Inclusions protrude from the surface internally and externally. The rock has been provisionally identified as a porphyritic (large crystals) andesite, an igneous rock characteristic of the Bardon Hill outcrop in NW Leicestershire (Alison Tasker, University of Leicester Dept. of Geology pers. comm.). The assemblage is dominated by the granodiorite-tempered fabrics (R1 and R2) (72%) with a small, but significant, proportion of the sandy (Q1) fabric (14%), occasionally with larger fragments of angular quartz (or possibly quartzite) characteristic of Q4/5 which in the hand look similar to the granodiorite-tempered fabrics. The pattern is broadly in line with the assemblages noted above and consistent with what would be expected in the north and west of Leicestershire, close to the probable source of the opening materials, the granodiorite outcrops of Moutsorrel (Knight, Marsden and Carney 2003). There are a few examples of scored ware vessels in shell-tempered fabrics which are characteristic of eastern Leicestershire and Rutland (Cooper 2000).

These fabrics are used to produce jar forms in the scored ware tradition usually with plain upright (seven examples; one with finger tipping from 38) but also with single examples of out-curving, everted and in-turned rims. The occurrence of scored decoration on sherds across all the contexts, except (47), supports the idea that they are broadly contemporary. The dating of the material from (47) is hampered by the lack of diagnostic form or decoration. A single base sherd from the group of 12 stratified sherds suggests a jar form similar to those produced in scored ware but the distinctive protrusion of the inclusion through the surfaces is reminiscent of earlier traditions in the county and may fit most closely with the examples of post-Deverel-Rimbury undecorated phase vessels from the Late Bronze Age identified on the Ashby Folville to Thurstaston pipeline and probably dated between 1200 and 900 cal BC (McSloy 2008, 14-15, fig. 8.21-22).

Table 4: Pottery by Context

Trench	Con	Cut	Fabric	Form	Type	Rim	Dec	Sherds	Weight	EVEs	Diam	Comment
37	19	21	M1 mudstn	misc			scored	1	21			Enclosure Ditch
37	19	21	R1	misc				3	16			
37	20	21	R1	misc				2	3			
37	47	48	Andesite	jar	base			1	11			
37	47	48	Andesite	misc				11	87			earlier Feature
37	US		Andesite	misc				1	11			
37	US		R1	misc			scored	1	6			
37	US		Q1	jar	E8	plainupright		1	9	0.075	13	
37	US		S1					3	17			
38	27	28	R1	jar		plainupright		1	32	0.17	12	
38	27	28	R1	jar		plainupright		1	12	0.06	16	
38	27	28	R1 quartz	jar		inturned		1	16	0.05	14	
38	27	28	R1	jar	base		scored	14	294			
38	27	28	R1	misc				18	82			
38	27	28	Q1	Misc			scored	3	19			
38	27	28	S1	misc				1	3			
38	59	60	R1	jar		plainupri	scored	3	36	0.07	16	fingertip impressions on rim
38	61	62	R1	jar		plainupri	scored	1	11	0.075	8	
38	61	62	R1	misc				9	54			
38	61	62	R1	jar		outcurving		1	3	0.05	14	
39	53	54	R1	misc				1	6			
39	55	56	Q1	misc			scored	4	43			with quartzite
41	23	24	R1	misc			scored x1	13	107			with quartzite
41	23	24	R1	misc			scored x1	18	114			lower part of fill
41	US		R1	jar	E4	everted		2	12	0.05	12	
43	29	30	R1	misc				2	7			
45	57	58	Q1	misc				3	16			
45	69	70	R1	misc				1	19			
45	65	66	R1	misc				1	9			
48	43	44	R1	jar	E6	flat		1	8	0.02	20	finger impression below rim
48	43	44	R1	misc			scored	3	58			Trench 46 on the bag
48	45	46	S1	misc				1	1			Trench 46 on the bag
	49	50	R1	jar		plainupri		1	6			
	49	50	R1	jar		base		5	26			
	25	26	Q1	jar		base		11	87			
	25	26	R1	jar	E9			5	27	0.05	11	Suspension hole
48	22		R1					2	28			
48	22		S1					1	4			
<b>Totals</b>								<b>152</b>	<b>1321</b>	<b>0.67</b>	<b>136</b>	<b>13.6</b>
							<b>ASW</b>	<b>8.6908</b>				<b>Average Diameter</b>

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#### 4. The Animal Bone

*Jennifer Browning*

A rapid scan of the animal bone was carried out, primarily to assess preservation and variety and therefore provide an indication of the faunal potential, should the site progress to excavation. The assemblage was fragmented but on the whole surface condition was fairly good, suggesting that a large sample could provide useful information on the exploitation of animals, including evidence for butchery, burning and pathologies. Cattle and sheep/goat were identified in the assemblage. In addition, a bone from a small species of wild bird was recovered, which indicates good potential for the survival of small mammal, bird and fish bones on the site, as well as domestic mammals.

The bones were recovered from contexts believed to date from the Iron Age. The recovery of bone assemblages from a number of sites in the region is providing evidence for the initial comparisons of sites (Rackham 2002; Browning forthcoming). Within this context, the recovery of environmental remains and animal bones from Iron Age sites is a research priority for environmental archaeology in the East Midlands, as the relative importance of arable and/ or pastoral farming can be assessed (Monckton 2006, 272).

Table 5: Summary of the animal bone recovered during trial trenching, arranged by context number

Context	No fragments	Description
19	2	Large mammal shaft fragment, bird tibiotarsus (small, non-domestic species)
20	5	Large mammal shaft and skull fragments x 4, sheep/goat molar;
61	7	Medium mammal shaft fragment, large mammal shaft fragment x 4, cattle skull (occipital fragment), cattle radius fragment (butchered),
27	11	Cattle molar (4 fragments), cattle mandible fragment, large mammal rib fragment, large mammal fragments x 5,
57	1	Calcined fragment
u/s	2	Cattle molar, large mammal shaft fragment,



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## **5. Assessment of environmental samples**

*Angela Monckton*

May 12<sup>th</sup> 2010

### **Introduction**

An archaeological evaluation was carried out by ULAS directed by Tim Higgins and samples were taken from features including ditches and pits the recovery of charred plant remains which may give evidence of diet, agriculture or activities on sites in the past. The features were of Iron Age date from the evidence of pottery. Past excavations in the county have recovered charred cereals by sampling at a variety of Iron Age sites as evidence of food and agriculture (Monckton 2004a). The samples were also examined for other remains such as snail shells (Monckton 1992) but none were found. The site was therefore investigated for the presence of cereals and other remains to compare with results from these and other sites in the region.

### ***Methods***

Bulk samples were taken from the features and processed to recover plant and animal remains. Two parts of each sample were processed but only one flot sorted for this assessment.

Samples were wet sieved in a York tank using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. The residues were air dried and then separated on a 4mm riddle and the fractions over 4mm, the coarse fractions, were sorted for all finds. The fractions below 4mm were examined for the presence of remains and reserved for sorting during the analysis stage if required. The flotation fractions (flots) were transferred to plastic boxes and air dried and then packed carefully in self-seal polythene bags and submitted to this assessment for charred plant remains. This work was carried out by Anita Radini at the University of Leicester Archaeological Services.

All the flots were examined and sorted using a low power stereo microscope and any plant remains were removed to glass specimen tubes. The plant remains were identified by comparison with modern reference material. Charred remains including charcoal was poorly represented in most of the samples, and the fine fraction residues (below 4mm) contained only occasional charcoal flecks, so further sorting was not necessary. A few snail shells were also recovered. The remains were noted with an estimate of quantity and tabulated below (Table 6). The plant names follow Stace (1991).

### **Results**

Charcoal was present in all the samples and charred plant remains excluding charcoal were found in only one of the nine contexts sampled. This sample of context (27) contained a total of 98 items of plant remains at 9.0 items per litre so was sufficient for further analysis because over 50 items are a minimum. The other samples contained occasional charred fragments of stem or indeterminate plant material together with mainly small charcoal fragments.

Sample 3 from ditch context 27 contained 26 items in part 1 and 68 items in part 2 of the sample. These included a total of 52 fragments of wheat chaff as glume bases of either emmer or spelt (*Triticum dicoccum/spelta*) including eight of spelt. Fewer cereal grains than chaff fragments were present in the sample and of a total of 20 grains included some of glume wheat, probably of spelt, and a couple of barley (*Hordeum vulgare*). Spelt and barley are the common cereals in the Iron Age and Roman periods (Greig 1991). Weed seeds were few in number consisting of a couple of seeds of brome grass (*Bromus* sp.) and a couple of seeds of other grasses and some indeterminate broken fragments. Brome grass is a common crop weed in Iron Age and Roman samples.

Uncharred seeds were present in small numbers in some of the samples and included blackberry (*Rubus fruticosus* agg.) and goosefoots (*Chenopodium* sp.) which are common in many soils because they are robust seeds. This site had been a sewage farm where slurry was spread on the land so fruit pips may have been introduced as contamination. However, these seeds were not more abundant than seen elsewhere so do not seem to be significant contamination on this part of the site. This should be monitored if future excavations are sampled.

### **Discussion and conclusions**

Charred cereal remains have been found to be present on the site and one sample showed potential for further analysis. Sample 3 from ditch [28] context (27) contained charred cereal remains with more chaff fragments than grains showing that this was cereal cleaning waste from glume wheat, probably mainly spelt. The glume wheat grains are held in the chaff after first threshing and require additional processing to remove the chaff (glumes) which can be done by parching and pounding followed by fine sieving with the waste chaff discarded and sometimes burnt. There is one glume to each grain so this sample can be seen to contain some of this cereal cleaning waste. This is likely to have been on a domestic scale as seen elsewhere on Iron Age sites. The remains in the sample are at a density of 9.0 items per litre of soil sampled which is in the middle of the range of sites examined in the county (Monckton 2004a). This moderate density of remains does include more chaff

fragments than found on most local sites and therefore suggests cereal cultivation and consumption nearby.

Remains are often at a low density on Iron Age sites but a scatter of charred cereal grains, spelt wheat chaff and weed seeds is usually found as domestic waste from food preparation (Monckton 2004a). Other features lacking charred cereal remains, or with sparse plant remains may suggest that they are some distance from occupation. However, some sites such as at Enderby may have a low density of remains perhaps because lowland clay area was more suitable for pasture rather than arable agriculture (Monckton 2004b). Additional evidence from there included land snails shells of species found on open grassland used as pasture which was thought to be the environment of the ditches nearby (Monckton 1992). Recent investigation of an aggregated settlement at Beaumont Leys (Thomas, in press) has a low density of remains and may have had a bias towards pastoral activity rather than cereal cultivation. Results from Manor Farm, Humberstone, show differences from storage of cereals to domestic and craft activity over the extensive site (Thomas, in press). There are too few samples to draw conclusions here so more investigation and sampling is necessary to recover more cereal remains and hopefully other evidence, possibly from pollen to consider together with animal bones and finds such as querns to provide evidence about life in the past.

### ***Potential***

Charred cereal remains have been found on the site with potential for analysis so that samples from any further excavations on this or nearby sites could recover more such remains to help to interpret the activities and economy of any sites investigated. The main activity of the people of Iron Age settlement sites was agriculture to support the people and provide resources for other craft and trade activities, therefore the type of farming carried out was important to their survival. Information has been gathered from an increasing number of sites for comparison in the county and the region (Monckton 2004a, 2006) in order to interpret these activities in different landscapes. The distribution of remains on sites can also show differences between areas of domestic occupation and other activities. Sites and samples are not uniform so sufficient samples are needed to maximize the possibility of recovering sufficient remains to interpret activities and to provide evidence about the distribution of remains. In addition this site could contribute to the local and Regional picture. A wider range of samples from more extensive investigations are required to contribute to these objectives.

### ***Recommendations***

If further excavations are carried out in the area it is recommended that sampling is part of the excavation strategy to recover charred plant remains or other remains from the sites following ULAS sampling Guidelines and taking account of English Heritage Guidelines (2002).

Bulk samples should be taken for wet-sieving with flotation to recover charred cereal remains, seeds, small bones or other small remains. Samples should be of around 30 litres in size because remains on Prehistoric sites are likely to be at a low density. A range of samples should be taken from contexts with potential to be datable and to contain remains to represent all feature types, areas and phases of the site. Target

contexts should include Iron Age pits, ditch or gully terminals, rubbish deposits in ditches, domestic contexts, and burnt features. Features of other periods should be sampled as appropriate if encountered according to ULAS Guidelines and as noted in the Regional strategy (Monckton 2006).

Other samples: Spot samples should be taken where small concentrations of remains such as small bones or seeds are found. If extensive contexts such as middens require investigation sampling on a grid pattern may be necessary to recover remains and possibly for finds including lithics.

Animal bones should be hand-collected as well as recovered from samples. If very rich bone deposits are found sampling may be necessary to ensure complete recovery.

Other remains: if snail shells are numerous in deposits a series of samples should be taken because land snails can indicate environmental conditions and changes in land use.

Waterlogged: deeper features should be investigated for the preservation of organic remains including plant macrofossils, pollen and possibly insect remains, which may provide evidence of the environment or land use.

Buried Soils: if buried soils are encountered sampling for micromorphological analysis by taking monoliths with sub-samples for soil chemistry should be considered. Micromorphology can reveal land use and investigate deposit formation, and phosphate analysis can be used to infer enclosures used for animals. Floors or other surfaces may also be investigated if found.

All sampling should be in consultation with the environmental archaeologists and relevant specialists.

### ***Acknowledgements***

I am grateful to Tim Higgins for taking the samples and providing information about the site, and to Anita Radini for processing the samples.

Table 6: Remains from flots (A5.2010)

Sam p No.	Cont No.	Cut No.	Sam p Vol. Litres	Flot Vol. mls	Gr Ch	Cf ch	Se ch	Oth ch	Se un	Chc	Comments. Plant remains.
1.1	53	54 E-D	6	50	-	-	-	-	2	++	Large frags charcoal
1.2	53	54	5.8	++							Similar
2.1	61	62 E-D	5.5	45	-	-	-	-	4	Fl	Charcoal flecks
2.2	61	62	6	++							Similar
3.1	27	28 E-D	5	20	4	16	-	5	4	+	Wheat and barley grains, chaff of glume wheat including spelt. Few stem and other charred frags.
3.2	27	28	5.4	+	16	36	6	12	14	+	Chaff of spelt and glume wheat. Wheat grains and a barley grain, seeds of brome grass and grasses.
4.1	23	24 P-P	6	30	-	-	-	2	5	Fl	A charred stem and a fragment. Modern straw.
4.2	23	24	5.2	+						Fl	Similar, no modern straw.
5.1	43	44 Pit/D	5	15	-	-	-	-	-	+	-
5.2	43	44	5	+						+	Similar
6.2	72	44	5.5	7	-	-	-	-	-	+	-
6.1	72	44	5.2								Not seen
7.1	45	46 E-D	5	12	-	-	-	-	-	+	-
7.2	45	46	c.5	+						+	Similar
8.2	57	58 Pit/D	4.4	15	-	-	-	-	-	+	Grey clay, no waterlogged seeds, possible uncharred stem/organic material.
8.1	57	58	6	+							Similar
9.1	71	58	5.5	20	-	-	-	-	2	+	A small charred bud, a possible chaff fragment.
9.2	71	58	6.5	+							Similar

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Chc = charcoal,

fl = flecks, frags = fragments, D = ditch, E-D = possible enclosure ditch, P-P = post pad.

+ = present, ++ = moderate amount, +++ = abundant.

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## 6. Quern

*Nicholas J. Cooper*

A fragment of a saddle quern was retrieved from (23). It is plano-convex in section with the smoothed flat grinding surface uppermost, whilst the rough, rounded, surface would have been set on to the ground. One end tapers to a blunt terminal, whilst the other is broken directly across the length. The skirts are near vertical and may have been modified by pecking on one side. The quern is manufactured from a fine quartzitic sandstone boulder with quartz crystals up to 0.2mm. Width of grinding surface 130mm, surviving length 140mm, height 75mm.

This probably represents the opportunistic use of a suitable cobble occurring in the local boulder clay. A number of examples of saddle querns in quartzitic sandstone are known from nearby Iron Age sites including two from Elms Farm, Humberstone (Roe 2000, 188, Table 11 contexts 3652 and 3040) whilst examples in other boulder types came from the adjacent site at Beaumont Leys site (Thomas 2010 in press). Saddle querns and rubbers from these locally available sources, form the mainstay of equipment used for crop processing until the arrival of beehive rotary querns from sources such as the Millstone Grit as the Iron Age progressed (Roe 2000, 189).

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## 7. Industrial Residues

*Heidi Addison*

Table 7: Industrial residues by context

Context	Cut	Fragments	Weight (g)	Comment
(20)	[21]	2	18	Hearth slag

Two small fragments of iron slag were hand recovered from a ditch fill. The vesicular character and density of the material is most likely evidence of domestic iron working and not extraction, although such small quantities preclude further interpretation.

## 8. Design Specification for evaluation

### UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

#### *Design Specification for archaeological work*

**Aston Green, Beaumont Leys, Leicester SK 573 095**

**Written scheme of investigation for trial trench evaluation**

**for White Young Green and Leicester City Council**

## 1 Introduction

### *1.1 Definition and scope of the specification*

This document sets out a Written Scheme of Investigation (WSI) to evaluate archaeological deposits at Aston Green, Beaumont Leys, Leicester in advance of proposed residential development. This document addresses the requirements of the Brief for Phase 2 of an Archaeological Field Evaluation (Trial Trenching) at Ashton Green, Leicester (Leicester City Council, September 2009).

1.2 The definition of archaeological field evaluation, taken from the Institute for Archaeologists Standards and Guidance: for Archaeological Field Evaluation (IfA S&G: AFE) is a limited programme of non-intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate. The archaeological work specified below is therefore intended to provide preliminary indications of character and extent of any buried archaeological remains in order that the potential impact of the development on such remains may be assessed by the Planning Authority.

## 2. Background

### *2.1 Context of the Project*

2.1.1 The proposed development area is located in Beaumont Leys ward, in north Leicester (centred on Grid. Ref. SK 573 095; Figure ). The development covers an area of c. 104 ha currently used as agricultural land. A walkover survey has established that 82 ha are currently arable farmland while c. 22 ha is pasture. A fieldwalking survey (Higgins 2009), and geophysical survey (Butler 2009) have previously been undertaken.

2.1.2 The Historic Environment Records (HERs) for Leicester and Leicestershire and Rutland shows that there are known archaeological sites close to the application area. To the west is the scheduled monument of a medieval preceptory at Castle Hill while to the north and east are known prehistoric sites. Geophysical and fieldwalking



surveys have identified further areas of archaeological remains within the development area (Figure ). The extent of these areas of activity remains unknown.

2.1.3 The Leicester City Council Archaeologist as archaeological advisor to the planning authority has issued a Brief for Phase 2 of an Archaeological Field Evaluation (Trial Trenching) (Leicester City Council 2009). The brief requests the analysis of available LiDAR data for the area, and evaluation by trial trenching at between 2 and 2.5%, in order to identify and locate any archaeological remains of significance and propose suitable treatment to avoid or minimise damage by the development.

### **3. Geology and topography**

3.1 The Ordnance Survey Geological Survey of Great Britain Sheet Loughborough 141 indicates that the underlying geology of the site is likely to consist of drift Lacustrine deposits. The land is generally flat at a height of c.39m OD.

### **4. Archaeological Objectives**

#### ***4.1 The main objectives of the evaluation will be:***

4.1.1 To identify the presence/absence of any archaeological deposits.

4.1.2 To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.

4.1.3 To produce an archive and report of any results.

4.21 Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development. This will be achieved through the analysis of terrain data, and through trial trenching. Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

### **5. Methodology**

#### ***5.1 General Methodology and Standards***

5.1.1 All work will follow the Institute for Archaeologists (IfA) Code of Conduct and adhere to their Standard and Guidance for Archaeological Field Evaluation (2008).

5.1.2 Staffing, recording systems, health and safety provisions and insurance details are included below.

5.1.3 Internal monitoring procedures will be undertaken including visits to the site by the project manager. These will ensure that project targets are met and professional standards are maintained. Provision will be made for external monitoring meetings with the City Archaeologist, the Planning authority and the Client.

## **5.2 *LiDAR Methodology***

5.2.1 Archived LiDAR data will be acquired from Geomatics Group, Environment Agency. The data will be processed and analysed following English Heritage draft guidelines (Crutchley 2009).

5.2.2 The data will be processed using GIS software, and Digital Elevation models will be compiled from the data. Unfiltered data (including tree canopy/vegetation), will be compared with filtered data. In an area of very little tree cover, the unfiltered data will be very similar to the filtered data.

5.2.3 Analysis will include the processing and plotting of elevation data to make small variations visible in order to extract as much elevation information as possible. Hillshade plots at various azimuth and altitude settings will be produced and combined with elevation plots to produce enhanced images.

5.2.4 The terrain will be assessed for the survival of earthwork features, especially where archaeological deposits are suspected. The terrain will be assessed for the survival of ridge and furrow type earthworks.

5.2.5 Where appropriate, profiles will be created across landscape/earthwork features.

5.2.6 The results of the analysis will be used to locate appropriate evaluation trenches to provide information on the origin of any anomalies identified in the analysis.

5.2.7 Features identified in the LiDAR study will be mapped as vector entities to National Grid coordinates, and made available as a layer in on site survey systems.

5.2.8 A report will be compiled including the methodology and results of the analysis.

## **5.3 *Trial Trenching Methodology***

5.3.1 Evaluation of the development area is to initially be limited to the first two development phases (1 and 2) which are located within fields 1-4, each side of Beaumont Leys lane in the south of the development (Figure ). The evaluation area (12.8 ha) will also include areas outside of the initial phases within these fields to target areas of indicated archaeological deposit in order to address their potentials. A 2-2.5% sample of these areas is the equivalent of forty-nine 30m x 1.8m trenches totaling c. 1463 sq m. These will be located to test both geophysical anomalies and blank areas (Fig. 3). The exact location of the trenches may need to be modified depending on the results of the LiDAR analysis and constraints on site.

5.3.2 Topsoil/modern overburden will be removed in level spits, under continuous archaeological supervision, down to the uppermost archaeological deposits by mechanical excavator using a toothless ditching bucket.

5.3.3 Trenches will be excavated to a width of 1.8m and down to the top of archaeological deposits.

5.3.4 The trenches will be backfilled and levelled at the end of the evaluation.

5.3.5 Trenches will be examined by hand cleaning and any archaeological deposits located will be planned at an appropriate scale and sample-excavated by hand as appropriate to establishing the stratigraphic and chronological sequence. The trenches will be scanned by metal detector. All plans will be tied into the Ordnance Survey National Grid. Spot heights will be taken as appropriate.

5.3.6 Sections of any excavated archaeological features will be drawn at an appropriate scale. At least one longitudinal face of each trench will be recorded. All sections will be levelled and tied to the Ordnance Survey Datum, or a permanent fixed bench mark.

5.3.7 Trench locations will be recorded using an electronic distance measurer or GPS. These will then be tied in to the Ordnance Survey National Grid.

5.3.8 Any human remains will initially be left *in situ* and will only be removed if necessary for their protection, under Ministry of Justice guidelines and in compliance with relevant environmental health regulations.

#### **5.4 Recording Systems**

5.4.1 The ULAS recording manual will be used as a guide for all recording.

5.4.2 Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto pro-forma recording sheets.

5.4.3 A site location plan based on the current Ordnance Survey 1:1250 map (reproduced with the permission of the Controller of HMSO) will be prepared. This will be supplemented by a trench plan at appropriate scale, which will show the location of the areas investigated in relationship to the investigation area and OS grid.

5.4.4 A record of the full extent in plan of all archaeological deposits encountered will be made. Sections including the half-sections of individual layers of features will be drawn as necessary, typically at a scale of 1:10. The OD height of all principal strata and features will be recorded.

5.4.5 A photographic record of the investigations will be prepared illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

5.4.6 This record will be compiled and checked during the course of the excavations.

### **6. Finds and Samples**

6.1 The IfA *Guidelines for Finds Work* will be adhered to.

6.2 Before commencing work on the site, a Site code/Accession number will be agreed with the Planning Archaeologist that will be used to identify all records and finds from the site.

6.3 During the fieldwork, different sampling strategies may be employed according to the perceived importance of the strata under investigation. Close attention will always be given to sampling for date, structure and environment. If significant archaeological features are sample excavated, the environmental sampling strategy is likely to include the following:

A range of features to represent all feature types, areas and phases will be selected on a judgmental basis. The criteria for selection will be that deposits are datable, well sealed and with little intrusive or residual material.

Any buried soils or well sealed deposits with concentrations of carbonised material present will be intensively sampled taking a known proportion of the deposit.

Spot samples will be taken where concentrations of environmental remains are located.

- i. Waterlogged remains, if present, will be sampled for pollen, plant macrofossils, insect remains and radiocarbon dating provided that they are uncontaminated and datable. Consultation with the specialist will be undertaken.

6.4 All identified finds and artefacts are to be retained, although certain classes of building material will, in some circumstances, be discarded after recording with the approval of the City Archaeologist.

6.5 All treatment of finds and samples will follow best practice. Where appropriate they will be cleaned, marked and receive remedial conservation in accordance with recognised best-practice. This will include the site code number, finds number and context number. Bulk finds will be bagged in clear self sealing plastic bags, again marked with site code, finds and context numbers and boxed by material in standard storage boxes (340mm x 270mm x 195mm). All materials will be fully labelled, catalogued and stored in appropriate containers.

6.6 An assessment of any conservation requirements for material recovered (or identified in situ) will be undertaken in consultation with the Consultant conservator for the University of Leicester School of Archaeology and Ancient History.

## **7. Report and Archive**

7.1 An accession number will be drawn prior to the commencement of the project (Brief 8.1). Following the fieldwork the on-line OASIS form at <http://ads.ahds.ac.uk/project/oasis> will be completed. The full report in A4 format will usually follow within eight weeks of the completion of the fieldwork and copies will be dispatched to the Client, their consultant, Leicester City Archaeologist, and Leicester Historic Environment Record.

7.2 The report will include consideration of:-

The aims and methods adopted in the course of the evaluation.

The nature, location, extent, date, significance and quality of any structural, artefactual and environmental material uncovered.

The anticipated degree of survival of archaeological deposits.

The anticipated archaeological impact of the current proposals.

Appropriate illustrative material including maps, plans, sections, drawings and photographs.

Summary.

The location and size of the archive.

A quantitative and qualitative assessment of the potential of the archive for further analysis leading to full publication, following guidelines laid down in *Management of Archaeological Projects* (English Heritage).

7.3 A full copy of the archive as defined in the *IfA Standard and Guidance for archaeological archives* (Brown 2008) will normally be presented to Leicester City Council Museums service within six months of the completion of fieldwork. This archive will include all written, drawn and photographic records relating directly to the investigations undertaken.

## **8 Publication and Dissemination of Results**

8.1 A summary of the work will be submitted for publication in the Transactions of the Leicestershire Archaeological and Historical Society.

## **9. Acknowledgement and Publicity**

9.1 ULAS shall acknowledge the contribution of the Client in any displays, broadcasts or publications relating to the site or in which the report may be included.

9.2 ULAS and the Client shall each ensure that a senior employee shall be responsible for dealing with any enquiries received from press, television and any other broadcasting media and members of the public. All enquiries made to ULAS shall be directed to the Client for comment.

## **10. Copyright**

10.1 The copyright of all original finished documents and this specification shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations. An exclusive licence will be provided to White Young Green for the use of such documents by White Young Green in all matters directly relating to the project.

## **11. Timetable**

11.1 The evaluation start will be arranged with Leicester City Council and White Young Green. It is envisaged that the LiDAR analysis will require five days, and the fieldwork will take up to fifteen days on site.

11.2 The on-site director/supervisor will carry out the post-excavation work, with time allocated within the costing of the project for analysis of any artefacts found on the site by the relevant in-house specialists at ULAS.

## **12. Health and Safety**

12.1 ULAS is covered by and adheres to the University of Leicester Archaeological Services Health and Safety Policy and Health and Safety manual with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is attached as Appendix 1. The relevant Health and Safety Executive guidelines will be adhered to as appropriate. The HSE has determined that archaeological investigations are exempt from CDM regulations.

12.2 A Risks assessment will be completed prior to work commencing on-site, and updated as necessary during the site works.

## **13. Insurance**

13.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. The Public Liability Insurance is with St Pauls Travellers Policy No. UCPOP3651237 while the Professional Indemnity Insurance is with Lloyds Underwriters (50%) and Brit Insurances (50%) Policy No. FUNK3605.

#### **14. Monitoring arrangements**

14.1 Unlimited access to monitor the project will be available to both the Client and his representatives and Planning Archaeologist subject to the health and safety requirements of the site. At least one week's notice will be given to the Leicester City Planning Archaeologist before the commencement of the archaeological evaluation in order that monitoring arrangements can be made.

14.2 All monitoring shall be carried out in accordance with the IfA *Standard and Guidance for Archaeological Field Evaluations*.

14.3 Internal monitoring will be carried out by the ULAS project manager.

#### **15. Contingencies and unforeseen circumstances**

15.1 In the event that unforeseen archaeological discoveries are made during the project, ULAS shall inform the site agent/project manager, Client and the City Archaeologist and Planning Authority and prepare a short written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the City Archaeologist, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.

#### **16. Bibliography**

- Crutchley, S., 2009 *The Light Fantastic: Using airborne laser scanning in archaeological survey*. English Heritage, draft guidelines.
- Brown, D., 2008 *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (Institute for Archaeologists)
- Butler, A., 2009 *An Archaeological Geophysical Survey on Land at Ashton Green, Beaumont Leys, Leicester* (Northamptonshire Archaeology Report 09/30)
- Higgins, T., 2009 *An Archaeological Fieldwalking survey at Ashton Green, Beaumont Leys, Leicester*. ULAS Report 2009-036
- Leicester City Council, Culture and Regeneration, 2009 *Brief for Phase 2 of an Archaeological Field Evaluation (Trial Trenching) at Ashton Green, Leicester*

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## APPENDIX 1

### Draft Project Health and Safety Policy Statement

A risks assessment will be produced by on-site staff, which will be updated and amended during the course of the evaluation.

#### 1. Nature of the work

##### 1.1 Brief description of the work involved e.g.

The work will involve machine excavation by mechanical excavator during daylight hours to reveal underlying archaeological deposits. Overall depth is likely to be c. 0.5 m with possible features excavated to a depth of another 1m. Trenches will not be excavated to a depth exceeding 1.2m. Spoil will be stockpiled no less than 1.5 m from the edge of the excavation, the topsoil and subsoil being kept separate. Remaining works will involve the examination of the exposed surface with hand tools (shovels, trowels etc) and excavation of archaeological features. Deeper features will be fenced with lamp irons and hazard tape. Three staff will be used on the evaluation.

#### 2 Risks Assessment

##### 2.1 *Working on an excavation site.*

Precautions. Trenches to not be excavated to a depth exceeding 1.2m. Spoil will be kept 1.5m away from the edge of the excavated area to prevent falls of loose debris. Loose spoil heaps will not be walked on. Protective footwear will be worn at all times. Hard hats will be worn when working in deeper sections or with plant. First aid kit to be kept in site accommodation/vehicle. Vehicle and mobile phone to be kept on site in case of emergency.

##### 2.2 *Working with plant.*

Precautions. Archaeologists experienced in working with machines will supervise topsoil stripping at all times. Hard hats, protective footwear and

hazard jackets will be worn at all times. Machine driver to be suitably qualified and insured. If services or wells are encountered machining will be halted until extent has been established by hand excavation or areas where it is safe to machine have been established.

2.3 ***Working within areas prone to waterlogging.***

If waterlogging occurs on site preventing work continuing it is proposed to excavate a sump, suitably fenced and clearly marked to enable the water to drain away. If this is insufficient a pump will be used. The sump will be covered when not in use and backfilled if no longer required. Protective clothing will be worn at all times and precautions taken to prevent contact with stagnant water which may carry Wile's disease or similar.

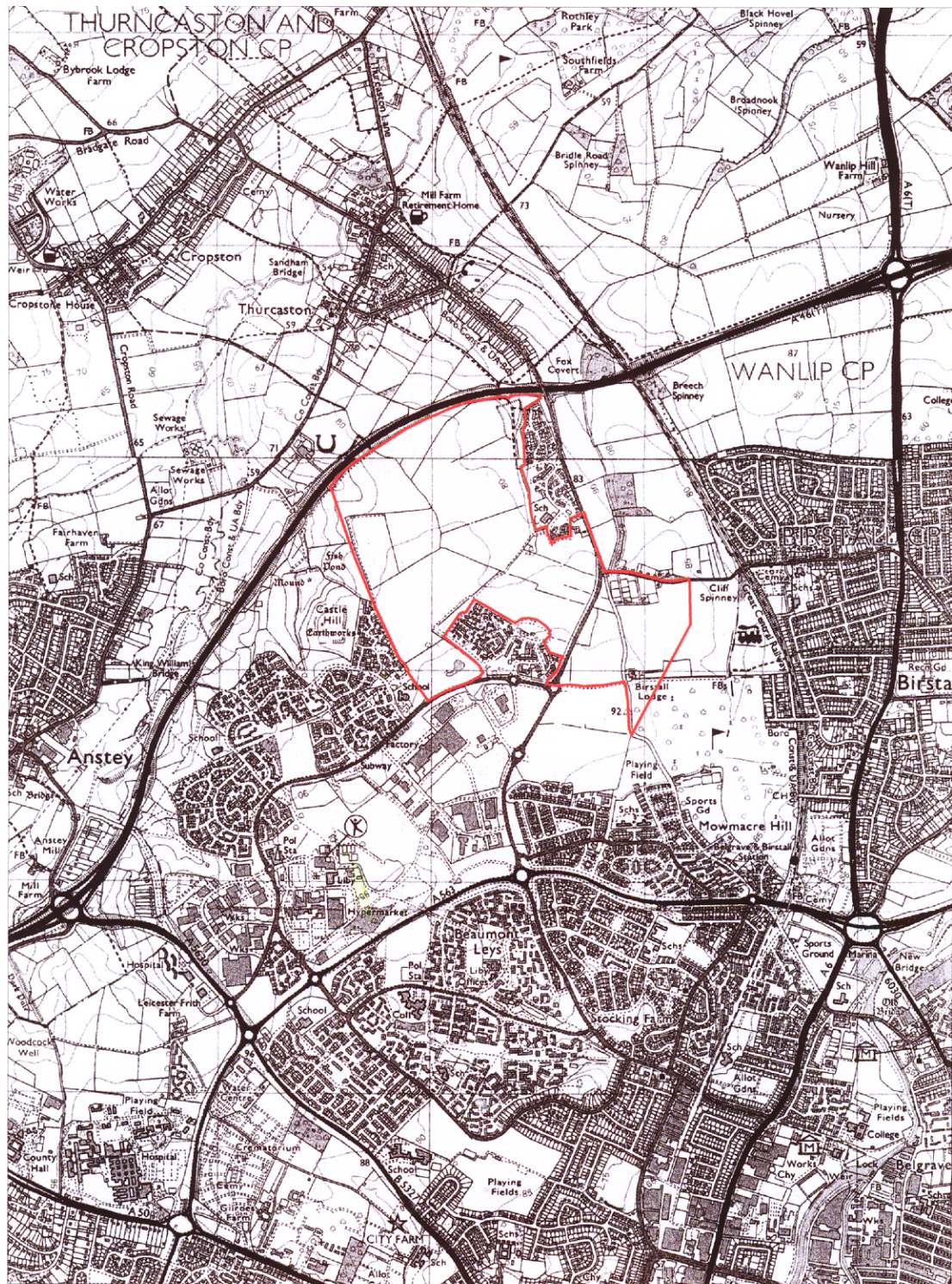
2.4 ***Working with chemicals.***

If chemicals are used to conserve or help lift archaeological material these will only be used by qualified personnel with protective clothing (i.e. a trained conservator) and will be removed from site immediately after use.

2.5 ***Other risks***

Precautions. If there is any suspicion of unforeseen hazards being encountered e.g. chemical contaminants, unexploded bombs, hazardous gases, work will cease immediately. The client and relevant public authorities will be informed immediately.





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File: S / 2000 / 2073 / Fig 1. Location Plan. Cr. 2073 / P / 01

Leicester City Council  
Ashton Green

Figure 1: Location plan as supplied

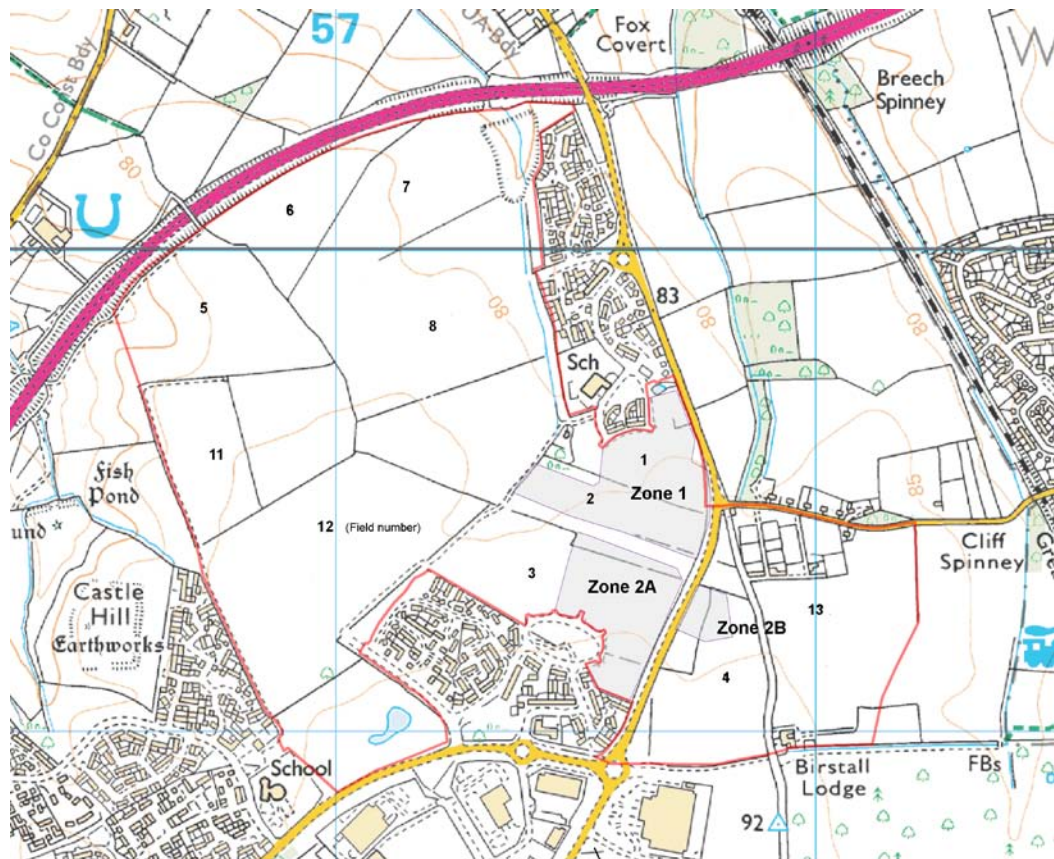


Figure 2: Initial development zones (1, 2A and 2B)



Figure 3: Areas of archaeological evaluation with geophysical survey interpretation, and proposed location of trenches

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