

# HS2 Phase 1 Central Section, Archaeological Works, Windmill Hill LS093/94 (1C17WMHTT), Warwickshire Trial Trench Report

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Code 1 - Accepted

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# 1 Executive Summary

- 1.1.1 The trial trenching addressed an area of land required for the construction of HS2 Phase 1 (CR01080) located immediately north-east of Ladbroke, Warwickshire. The aims of the evaluation were to assess the archaeological potential of the Site to contain artefacts, deposits or features of archaeological significance, particularly those of Roman and medieval date.
- 1.1.2 The Site comprises one area of land, in use as an arable field, which encompasses an area of c. 11.81ha. The Site is required for proposed ecological mitigation works including the construction of mitigation ponds and grassland planting over much of the area.
- 1.1.3 A possible Iron Age enclosure has been recorded southeast of the Site at Windmill Hill. Geophysical surveys at CR01080 and in the surrounding area indicated the presence of furrows, and later boundary ditches, with no archaeological features conclusively identified as pre-dating the medieval activity. The trial trench evaluation followed, and was undertaken to test, the geophysical survey carried out on site in 2017.
- 1.1.4 The trial trench evaluation was required to identify the location, extent, survival and significance of any heritage within the Site and to contribute to the following specific GWSI: Historic Environment Research and Delivery Strategy (HERDS) objectives:
- CE4: Accessible information and knowledge sharing;
  - KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route;
  - KC35: Investigate the impacts on rural communities of social and economic shocks in the mid -14th century and thereafter and their contribution to settlement desertion; and
  - KC40: Identify patterns of change within medieval rural settlement from the 11th to mid-14th century.
- 1.1.5 The evaluation comprised the excavation of eight trial trenches and archaeological monitoring of the excavation of eleven of twelve ponds. Trench 3 contained a single undated ditch, possibly alongside a former hedgerow and Trench 6 contained three furrows, two of which were excavated. No features or deposits of archaeological interest were identified in any of the other trenches or mitigation ponds.

## 2 Introduction

- 2.1.1 COPA were commissioned by Fusion to undertake an archaeological evaluation at HS2 2017 Construction Land Requirement, Windmill Hill LS093/94 (Project Plan for Trial Trench Investigations at Windmill Hill (LS093/94) and Southam (LS122); Fusion 2017b; Document No. 1EW03-FUS-EV-REP-CS07\_CL24002689). The Project Plan established the scope, aims, contribution to the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) objectives, techniques, deliverable and reporting mechanism for the investigation. The fieldwork was undertaken between 5 and 19 February 2018.
- 2.1.2 The trial trenching addressed one area of land (CR01080) located c. 350m north-east of Ladbroke, Warwickshire; hereafter described as 'the Site' (Figure 1). The Site is centred at NGR 442153 259252 and measures 11.81ha in area. It is bound to the south-east by Windmill Hill Spinney, to the south-west by Southam Road/Ladbroke Bypass (the A423), and in all other directions by agricultural fields and pasture. The parcel of land is occupied by two arable fields.
- 2.1.3 The land parcel is required for the proposed ecological mitigation works including the construction of mitigation ponds and grassland planting over much of the Site (Figure 2). The locations for the trial trench evaluation were selected to:
- test the results of previous geophysical survey;
  - confirm the presence/absence, extent and significance of any archaeological remains surviving within the Site ;and
  - address the potential archaeological risk to the construction of the habitat site.
- 2.1.4 The fieldwork comprised the excavation of eight trial trenches, all of which were 30m in length and 1.6m in width, and archaeological monitoring of the construction of eleven of the mitigation ponds. This report is a final report of the results of the trial trench evaluation and archaeological monitoring.

## 3 Project Background

### 3.1 Background

- 3.1.1 High Speed Two (HS2) is a new railway network proposed by Government to provide a new link between London, the West Midlands, the East Midlands, South Yorkshire, Leeds and Manchester. Phase One of HS2 will involve the construction of a new railway approximately 230km (143 miles) in length between London and the West Midlands. Powers for the construction, operation and maintenance of Phase One are conferred by the High Speed Rail (London - West Midlands) Act 2017.

- 3.1.2 The overall framework within which archaeological work will be undertaken is set out in the Environmental Minimum Requirements (EMR), in particular the Heritage Memorandum, the Code of Construction Practice (CoCP) for HS2 Phase One and the GWSI: HERDS. Accordingly the nominated undertaker or the Archaeological Contractor are required to implement appropriate and reasonable measures to identify, avoid or where practicable reduce impacts to the significance of heritage assets prior to the start of construction.

## 4 Site Location

- 4.1.1 The Site is located c. 350m north-east of Ladbroke, Warwickshire, centred at NGR 442153 259252 and measures 11.81ha in area. It is bound to the south-east by Windmill Hill Spinney, to the south-west by Southam Road/Ladbroke Bypass (the A423), and in all other directions by agricultural fields and pasture. The parcel of land is occupied by two arable fields.

## 5 Previous Work(s)

### 5.1 Project Plan for Southam and Windmill Hill and 2017 Geophysical Survey

- 5.1.1 A Project Plan was prepared prior to the intrusive works on the Site (Project Plan for Trial Trench Investigations at Windmill Hill (LS093/94) and Southam (LS122); Fusion 2017b; Document No. 1EW03-FUS-EV-REP-CS07\_CL24002689). This Project Plan summarised information in the Cultural Heritage Baseline Report for Community Forum Area CFA16 Ladbroke and Southam (ES.3.5.2.16.4-7). The Site was included in a remote sensing survey (interpretation of aerial photographs, hyperspectral imagery and LiDAR imagery) as part of the Environment Statement (ES). Area CR01080 at Windmill Hill was subject to a geophysical survey undertaken by COPA as described in the Project Plan (site code 1C17WMHMG, 1EW03-FUS-EV-REP-CS07-0001583). In addition geophysical surveys were undertaken by Wessex Archaeology south-east of CR01080 (ES 3.5.2.16.7), east of CR01083 by Northamptonshire Archaeology and most recently in December 2017 by TigerGeo (Site Code 1C17NFCMG, Fusion, 2017a). Furthermore, a Detailed Desk Based Assessment (DDBA) was prepared for Ladbroke (Document no. 1D037-EDP-EV-REP-C000-000027).
- 5.1.2 There is limited evidence for activity during the Palaeolithic, Mesolithic, Neolithic and Bronze Age periods in close proximity to the Site. There is some evidence for Iron Age activity in the vicinity, with a possible roundhouse located c.1.5km north of the Site (Project Plan, Figure 2, MWA19300). A single Iron Age coin was found north of the Site in the industrial estate straddling the B4451 near Southam. The 2017 geophysical survey at CR01083 identified a series of ditches and enclosures probably relating to Iron Age and Roman rural settlement activity. A possible Iron Age enclosure has been recorded south-east of the Site at Windmill Hill (LBS102)
- 5.1.3 The Site is located 7km south-east of the early Roman boundary and road, the Fosse Way. This road is associated with a network of villas and farmsteads (the nearest such complex at

Radford Semele lies c. 5.5km to the west), although the evidence of Roman activity in the Site environs is limited. The Warwickshire HER records that Roman pottery (including Samian ware) and coins were found north of the Site at Southam (MWA19204). There is limited information about this record as the information was given by a member of the public about an event which occurred in the past<sup>1</sup>.

- 5.1.4 During the medieval period the character of the area was predominantly rural. Ladbroke is recorded in Domesday Book and is known to have early medieval origins. The manor, recorded in 1086, contained a combination of arable and meadow land, as well as a mill, and an undated Saxon boundary charter indicates ploughing headlands as boundary features, which in turn indicates the likely lack of permanent field boundary markers (such as hedges) and open fields surrounding Ladbroke in the early medieval period. During the medieval period, settlement was focused on the nucleated village of Ladbroke, to the west of the Site. The surrounding areas would have formed part of the open fields during this time and there are extensive areas of medieval ridge and furrow recorded within the surroundings of the village, including at the Site (LBS100).
- 5.1.5 During the post-medieval period it is very likely that the Site retained an agricultural use and was located on the outskirts of Ladbroke. Map regression using early Ordnance Survey editions (Project Plan, Figure 5) and earlier tithe and estate maps demonstrates that some of the modern field boundaries represent far older boundaries (Project Plan, Figure 4). Relict field boundaries of possible medieval date may equally be post-medieval in date.

## 6 Geology and Topography

### 6.1 Geology

- 6.1.1 The bedrock geology of the Site is mapped by the British Geological Survey (BGS) as interbedded limestone and mudstone deposits of the Rugby Limestone Member. No superficial, or drift, geology is recorded within the Site<sup>2</sup>. The parent material gives rise to highly lime-rich loamy and clayey soils with impeded drainage within the Site<sup>3</sup>.

### 6.2 Topography

- 6.2.1 The topography of the Site slopes from the south-east side of the area at c.104m aOD to c. 89m aOD at the north-west side.

## 7 Specific Project Objectives

- 7.1.1 Section 4 of the Project Plan identifies the contribution the results of the trial trench investigation can make to a number of specific research objectives set out in the GWSI:

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<sup>1</sup> Our Warwickshire, 2018 Southam: Possible Roman site with pottery and coins reported in area to south of Alko Works, Kineton Road, Southam (MWA19204) [https://www.ourwarwickshire.org.uk/content/catalogue\\_her/possible-roman-site-south-of-alko-works-kineton-road-southam](https://www.ourwarwickshire.org.uk/content/catalogue_her/possible-roman-site-south-of-alko-works-kineton-road-southam)

<sup>2</sup> British Geological Society 2018 Geology of Britain viewer, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

<sup>3</sup> Cranfield Soil and Agrifood Institute 2018 Soilscapes, <http://www.landis.org.uk/soilscapes/>

HERDS. Trial trench investigation provides the most suitable method for the recovery of archaeological evidence to inform the research objectives. Section 5 of the Project Plan provides a methodology and deliverables for the trial trench evaluation.

7.1.2 The project plan lists each of the GWSI: HERDS objectives and the contribution the trial trench investigation will make to meet them. They are repeated here for reference.

- Objective CE4: Accessible information and knowledge sharing.
- Objective KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route
- Objective KC35: Investigate the impacts on rural communities of social and economic shocks in the mid -14th century and thereafter and their contribution to settlement desertion
- Objective KC40: Identify patterns of change within medieval rural settlement from the 11th to mid-14th century

## 8 Scope and Methodology

### 8.1 Scope

8.1.1 The trial trench investigation and archaeological monitoring were undertaken on two areas of land (CR01080) located c. 350m northeast of Ladbroke, Warwickshire (Figure 1). The Site is centred at NGR 442153 259252 and measures 11.81ha. The land parcel is required for the proposed ecological mitigation works including the construction of mitigation ponds and grassland planting over much of the Site (Figure 2). The Site is currently in use as two arable fields.

8.1.2 The scope and method for the trial trench evaluation are set out in Section 5 of the Project Plan for Southam and Windmill Hill. Eight trenches were positioned to target geophysical anomalies and pond locations. These were originally designed to be 30m long by 2m wide but the scheme was subject to works variation (see Section 8.3). In addition, a contingency was allowed of up to 3900m<sup>2</sup> strip map and sample excavation to encompass the proposed pond and swale locations within the Site. The purpose of the contingency was to investigate any significant or unexpected remains during the main phase of trial trench evaluation.

### 8.2 Methodology

8.2.1 The scope and method for the trial trench evaluation are set out in Section 4 of the Project Plan for Trial Trench Investigations at Windmill Hill (LS093/94) and Southam (LS122). A location specific written scheme of investigation (LSWSI) was also prepared, which included all of the urgent works sites (Fusion, 2017c; HS2 Doc no: 1EW03-FUS-EV-REP-C000-002691). The LSWSI was prepared in accordance with the standards and guidance provided by the GWSI: HERDS, the Technical Standards for Specification for historic environment project

plans and location specific written schemes of investigation (Document No. HS2-HS2-EVSTD-000-000036) and Specification for Historic Environment Investigations (Document No. HS2-HS2-EV-STD-000-000035) and relevant ClfA Standards.

- 8.2.2 All archaeological works were carried out in accordance with the Project Plan, the LSWSI and any further instructions from the Contractor. This design takes account of the guidance and specifications set out in the HS2 Phase One EMRs, CoCP, GWSI: HERDS and Technical Standards principally the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035), and the guidance provided by the Chartered Institute for Archaeologists (ClfA) Code of Conduct (ClfA 2014a) and the Standard and Guidance for Archaeological Field Evaluation (ClfA 2014b).
- 8.2.3 Prior to the start of the trial trench evaluation a site meeting and walkover was held between the Contractor and the Archaeological Contractor to confirm that each of the indicative trench locations remained accessible and clear of obstruction. Access routes, safe working areas and any constraints to the trial trenching works were also identified.
- 8.2.4 The on-site archaeological recording and recovery techniques were in line with the methods set out in the Project Plan, the LSWSI and current industry best practice and were fully understood by all working on the site. All paper and digital records made during the course of the archaeological evaluation, and the treatment of artefacts and environmental remains, were reviewed continuously. Record checking and collation was completed at regular intervals, as appropriate, and before an area was considered complete, abandoned, backfilled or the site closed.

## 8.3 Works Variations

- 8.3.1 All eight trenches were excavated using an eight-tonne tracked excavator fitted with a 1.6m wide toothless bucket. This equipment was deemed to be the most appropriate for the job given the access constraints, weather and ground conditions.
- 8.3.2 Due to excavation of the twelve mitigation ponds starting prior to the archaeological evaluation it was decided that archaeological monitoring of this work should be carried out in addition to the trenching. Archaeological monitoring of all pond excavation was carried out except that of Mitigation Pond 8.
- 8.3.3 Trench 6 was moved 10m to the south to ensure it was located fully within the Site limits.

# 9 Results and Observations

## 9.1 Stratigraphic sequence

- 9.1.1 The stratigraphic sequence across the Site was relatively straightforward. Topsoil, recorded in all trenches (1-9) and ponds (ponds 1-7, 9-12) across the Site, comprised compact, dark grey-brown silty clay, with small stones and was on average between 0.10-0.35m in thickness. It was recorded to overlie compact, mid grey-brown silty clay subsoil with small stones, which

was on average 0.15-0.65m thick. In Trench 5, however, to the north-east of the Site, the subsoil was 0.80m thick. Trenches 1 and 4 (located to the south and north-west of the Site, respectively) also contained a layer of compact, mid orange-brown silty clay colluvium measuring 0.20-0.38m thick, with small stones. The natural geology, encountered across the Site in trenches and ponds, consisted of a compact, mid blue-grey and mid orangey-yellow silty clay, with occasional small stones and pieces of chalk.

## 9.2 Archaeology

- 9.2.1 The archaeological monitoring of the excavation of Mitigation Ponds 1-7 and 9-12 revealed no deposits of archaeological interest and no finds were observed in the topsoil during the course of the fieldwork.
- 9.2.2 Of the eight trial trenches only two, Trenches 3 and 6, revealed any deposits of archaeological interest. In Trench 3 a north-west/south-east orientated ditch (303) was excavated. This ditch was 1.10m in width and 0.58m in depth with a v-shaped profile. It produced a single fragment of post-medieval ceramic building material (CBM) and cut through the subsoil (301) suggesting a relatively modern date. This field boundary is visible as a sub-division of the field on the 1886 Edition OS map.
- 9.2.3 Trench 6 revealed evidence of three furrows on a north-west/south-east alignment as indicated by anomalies in the geophysical survey. Two of these (603 and 605) were sample excavated and one (607) was left unexcavated. 603 measured 2.95m wide and 0.20m deep while 605 measured 2.67m wide and 0.12m deep. Both had straight sides and a flat base. No artefactual material was recovered from either of the interventions into the furrows.

### Discussion

- 9.2.4 Of the eight trenches excavated, only two revealed features which corresponded with the anomalies recorded in the geophysical survey (Trenches 3 and 6). The other trenches, which were targeted on possible ditches and other linear features, did not contain any archaeological remains. The fieldwork did record variations in natural geology and it is likely that different responses resulted in natural having been interpreted as archaeological anomalies.
- 9.2.5 The presence of the ridge and furrow features in Trench 6 on a north-west/south-east alignment fits with the geophysical survey results for the area, although furrows were not encountered in trenches and ponds elsewhere at the Site, perhaps due to significant truncation of these remains by later agricultural practices. The Site and the fields to the east may have been part of a large open field system which is thought to be at least of medieval origin (although there is evidence that open fields at Ladbroke may date back to the early medieval period).
- 9.2.6 The landscape is known to have continued in agricultural use from the medieval period. The medieval open fields appear to have been enclosed during the 14th and subsequently in the 16th and 17th centuries, after which the field system remained relatively unchanged. The

ditch recorded in Trench 3, which corresponds with a field boundary recorded on historic Ordnance Survey map, represents a later phase of the use of this landscape for agriculture.

## 10 Assessment and Interpretation of results against Original Expectations and Specific Objectives

### 10.1 Objectives

10.1.1 The objectives below were in part fulfilled by the fieldwork and subsequent reporting. The limited archaeological features on the Site will make a small contribution towards the wider understanding of Ladbroke during medieval and post-medieval period. The objectives are repeated below along with reasons for the partial success in meeting these objectives:

10.1.2 Objective CE4: Accessible information and knowledge sharing.

- This objective will be met by dissemination of this report as part of a publically accessible archive

10.1.3 Objective KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route

- As no evidence of Romano-British activity was identified on site this objective could not be achieved

10.1.4 Objective KC35: Investigate the impacts on rural communities of social and economic shocks in the mid -14th century and thereafter and their contribution to settlement desertion

- As no evidence of medieval activity beyond ridge and furrow was identified on site this objective could not be achieved.

10.1.5 Objective KC40: Identify patterns of change within medieval rural settlement from the 11th to mid-14th century

- Although no dating material was recovered from the furrows excavated in Trench 6, these are likely to have formed part of the medieval (or, perhaps, early medieval) open field system associated with the settlement of Ladbroke. Following the enclosure of the open fields (in the 14th and again in the 16th-17th centuries), this landscape continued to be utilised for agriculture, with a field boundary ditch corresponding with a boundary mapped in the 19th century recorded in Trench 3.

## 11 Statement of Potential of Archaeology

- 11.1.1 Although there is no dating evidence for the furrows investigated on the Site, open fields around Ladbroke are known to have been present from the early medieval period and it is most likely that the furrows recorded date at least to the medieval period. The presence of the ridge and furrow on the Site does add to the understanding of the use of the landscape around Ladbroke in the medieval period. However, these furrows were generally poorly preserved and are of little archaeological significance.

## 12 Conclusions and Recommendations for Appropriate Archaeological Investigation Strategy

- 12.1.1 There is an overall lack of archaeological remains on the site beyond traces of a medieval to post-medieval system of north-west/southeast orientated ridge and furrow earthworks. This survives in the orientation of the modern field system but likely went out of use some time in the post-medieval period and certainly by the time of the construction of the A423.
- 12.1.2 The results of the evaluation confirmed the lack of significant archaeological remains beyond a small amount of evidence for medieval- to post-medieval ridge and furrow. The presence of post-medieval CBM in one of the furrows suggests they may have gone out of use by this time. This report also indicated that these features may have been part of a larger set of open fields related to the settlement of Ladbroke.

## 13 Consideration of Results and Conclusions Within Their Wider Context

- 13.1.1 The trial trench evaluation and archaeological monitoring confirmed the absence of archaeological remains across large parts of the Site. The localised archaeological remains identified are limited to the poorly preserved remains of ridge and furrow cultivation and modern enclosure of the landscape. Roman and medieval remains have been reported in the wider area around the Site, indicating activity during these periods; Roman agricultural activity most likely taking place in the landscape traversed by the Fosse Way and medieval agricultural practices being undertaken in the hinterland of the settlement at Ladbroke. The archaeological investigation revealed no evidence of Roman activity so has not added to knowledge of the Roman period in the wider area. Limited evidence of medieval/post-medieval agricultural practices was exposed in the form of furrows, though the presence of these had previously been identified by geophysical survey and evidence of this type is common across the Midlands and the HS2 route. The archaeological investigation did not add any further information to the body of knowledge concerning the development of the wider

area in the medieval and post-medieval periods and the results of the investigation have very little potential to add to the research objectives set out in the GWSI:HERDS.

## 14 Evaluation of Methodology Employed and Results Obtained

### 14.1 Strategy Appraisal

14.1.1 The trial trench evaluation comprised eight trenches and a watching brief on twelve mitigation ponds. All trenches were 30m (l) and 1.6m (w). The Site encompasses an area of c. 11.81ha. In total 0.036% of the Site was sampled by the trial trenching targeted on specific geophysical anomalies, in addition to the watching brief for the twelve mitigation ponds. This strategy was appropriate given the scope of the works and impact of the planned construction works.

### 14.2 Evaluation Methodology

14.2.1 The methodology overall has shown that Trench 6 contained evidence of a medieval to post-medieval ridge and furrow system as indicated by geophysical survey. Trench 3 also picked up evidence of a disused modern field boundary ditch also indicated by geophysical survey.

14.2.2 The methodology employed appears to have been suitable to allow assessment of the presence/absence of archaeological remains in the area of trial trenches and mitigation ponds.

## 15 Publication and Dissemination Proposals

15.1.1 The results of the trial trench evaluation indicate a minimal amount of archaeology. It is likely that furrows extend over much of the Site but no other activity was evident.

15.1.2 It is not anticipated that further dissemination of the results of the evaluation other than those contained within this report (which will be publicly available and will inform the County HER) will be necessary.

## 16 Archive Deposition

16.1.1 The archive, comprising drawn, written and digital records, along with artefactual material, will be held at COPA's offices until the final deposition arrangements have been confirmed by HS2.

# 17 References

## 17.1 Glossary of terms

17.1.1 The following terms have been used in this report:

- Archaeological Contractor - the organisation undertaking the specific historic environment works for the Contractor.
- Contractor – Fusion; the organisation undertaking the Enabling Works for Area Central on behalf of the Employer.
- Detailed Desk Based Assessment (DDBA) – analytical document that builds on the information gathered previously in the Environmental Statement to address particular issues, questions or uncertainties within a given area. It may be developed to provide a more detailed understanding of the resource in an area to inform design development or construction programming.
- Employer – HS2 Ltd, the organisation responsible for delivery of HS2 Phase One Scheme and all terms and conditions, policies, procedures, and payments
- Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- Location – a specific HS2 worksite or group of worksites that are being addressed as a combine historic environment investigation programme of assessment, evaluation and investigation.
- Location Specific Written Scheme of Investigation (LSWSI) - specification document assembling one or more Project Plans within an area of land defined primarily for construction programme purposes. The LS-WSIs will be agreed with the Project Manager and would provide a costed and programmed approach to delivering outcomes.
- Project Plans – specification document for each specific package of activity (e.g. a survey, desk based assessment, excavation, recoding project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget.
- Works – the specific historic environment assessment, evaluation or investigation works at each location.

## 17.2 References

Title	Reference
1886 Edition OS map. Warwickshire XL.SE	<a href="http://maps.nls.uk/view/101585590">http://maps.nls.uk/view/101585590</a> (Accessed 23/02/2018)
British Geological Survey, Geology of Britain viewer	<a href="http://mapapps.bgs.ac.uk/geologyofbritain/home.html">http://mapapps.bgs.ac.uk/geologyofbritain/home.html</a> (Accessed 23-02-2018)
CifA 2014a Standard and Guidance for Archaeological Field Evaluation. Chartered Institute for Archaeologists (Reading)	CifA 2014a
CifA 2014b Code of Conduct. Chartered Institute for Archaeologists (Reading)	CifA 2014b
Cranfield Soil and Agrifood Institute, Soilscales	<a href="http://www.landis.org.uk/soilscales/index.cfm">http://www.landis.org.uk/soilscales/index.cfm</a>
Detailed Desk Based Assessment At Ladbroke	1D037-EDP-EV-REP-C000-000027
Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy	HS2-HS2-EV-STR-000-000015
HS2 Phase One Environmental Statement and Supplementary Environmental Statements	ES 3.5.2.16.4 ES 3.5.2.16.5 ES 3.5.2.16.6 ES 3.5.2.16.7 CH-002-016
HS2 Ltd, 2015. Heritage Risk Model Phase 1 Review 2014 - Volume I	C253-ATK-EV-REP-000-000002
HS2 2017 Southam Ecological Mitigation Site LS122, general arrangement (environmental)	1EW03-AEC-EV-DGA-CS07_CL24-034300
HS2 Technical Standard: Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
HS2 Technical Standard: Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy	HS2-HS2-EV-STR-000-000015
HS2 Urgent Works Package 1 Quality Plan	1EW03-FUS-QY-PLN-C000-000022
HS2 Technical Standard: Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Technical Standard: Historic Environment Physical Archive Procedure	HS2-HS2-EV-STD-000-000039

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HS2 Technical Standard: Historic Environment Digital Data Management and Archiving Procedure	HS2-HS2-EV-STD-000-000040
HS2 Enabling Works Information W10200 General Constraints	1E001-HS2-PR-ITT-000-000098
Fusion, 2017a. HS2 Phase 1 EWC Central Geophysical Survey Report for North of Field Cottage (1803), Works, Site Code 1C17NFCMG	1EW03-FUS-EV-REP-CS07_CL24-002684
Fusion, 2017b. HS2 Project Plan for Trial Trench Investigations at Windmill Hill (LS093/94) and Southam (LS122)	1EW03-FUS-EV-REP-CS07_CL24002689
Fusion, 2018. HS2 Location Specific Written Scheme of Investigation for additional Urgent Works Trial Trench Investigations in Buckinghamshire, Northamptonshire and Warwickshire	1EW03-FUS-EV-REP-C000-002691
Our Warwickshire, 2018 Southam: Possible Roman site with pottery and coins reported in area to south of Alko Works, Kineton Road, Southam (MWA19204)	<a href="https://www.ourwarwickshire.org.uk/content/catalogue_her/possible-roman-site-south-of-alko-works-kineton-road-southam">https://www.ourwarwickshire.org.uk/content/catalogue_her/possible-roman-site-south-of-alko-works-kineton-road-southam</a>

## 17.3 List of acronyms

AOD	Above Ordnance Datum
BGS	British Geological Society
BPGL	Below Present Ground Level
CBM	Ceramic Building Material
CFA	Community Forum Area
CIfA	Chartered Institute for Archaeologists
CoCP	Code of Construction Practice
DDBA	Detailed Desk Based Assessment
EMR	Environmental Minimum Requirements
ES	Environment Statement
EVE	Estimated Vessel Equivalent
GWSI: HERDS	Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy
HER	Historic Environment Record
LiDAR	Light Detection and Ranging
LSWSI	Location Specific Written Scheme of Investigation
MYA	Million Years Ago
NGR	National Grid Reference
NISP	Number of Identified Specimens
NSP	Number of Specimens

## 18 Acknowledgements

18.1.1 The fieldwork was undertaken by Julian Newman and Ralph Brown, assisted by Rob Falvey, Bethany Hardcastle and Alice Krausova. The report was written by Sam Bithell with the finds report written by Jacky Sommerville. The illustrations were prepared by Jake Streatfeild-James. The project was managed for COPA by Stuart Foreman.

## 19 Site Matrices

19.1.1 No site matrices were produced for the trial trench evaluation.

## 20 Specialist Contributions

### 20.1 Finds Report

by Jacky Sommerville

20.1.1 Artefactual material was hand-recovered from one deposit. The recovered material dates to the post-medieval period. Quantities of the artefact types are given in Table 1.

#### Ceramic building material

20.1.2 A moderately abraded fragment of ceramic building material was retrieved from deposit 304. It presents in a hard-fired, sandy fabric and post-medieval dating is most likely.

Table 1: Finds concordance

Context	Category	Description	Count	Weight (g)	Spot-date
304	Post-medieval ceramic building material	Fragment	1	7	Post-medieval

## 21 Appendices

### 21.1 Appendix 1 – Contextual Summary by Trench

Trench 1						
General description					Orientation	NW-SE
Topsoil and subsoil and colluvium overlaid the natural geology which was a compact silty clay; mid-bluish grey with orange mottling. No archaeology was revealed. Two modern ceramic field drains were present – the first in the centre of the trench and the second at the south-east end of the trench. Both were NE-SW aligned.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.87
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
100	Layer	-	0-0.3	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent small stone inclusions.	-	n/a
101	Layer	-	0.3-0.55	Subsoil. Mid greyish brown. Silty clay. Moderately compact. Infrequent small stone inclusions.	-	n/a
102	Layer	-	0.55-0.87	Colluvium. Mid orangey brown. Silty clay. Compact. Highly infrequent stone inclusions.	-	n/a
103	Layer	-	>0.87	Natural. Mid blueish grey with orange mottling. Silty clay. Compact. Highly infrequent stone inclusions with infrequent chalk inclusions.	-	n/a

Code 1 - Accepted

Trench 2						
General description					Orientation	N-S
Plough soil covered the subsoil which in turn overlain the natural geology. No archaeology was revealed.					Length (m)	29
					Width (m)	1.52
					Avg. depth (m)	0.45
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
200	Layer	-	0-0.32	Ploughsoil. Mid greyish brown. Silty clay. Friable.	-	n/a
201	Layer	-	>0.32	Subsoil. Mid yellowish brown. Silty clay. Compact. Infrequent chalk inclusions.	-	n/a

Trench 3						
General description					Orientation	NE-SW
Topsoil and subsoil overlaid the natural geology which was a mid-blueish grey with greyish orange mottling. The silty clay was compact with infrequent inclusions of chalk. 1 ditch (NW-SE aligned) was revealed and recorded at the Southern end of the trench.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.83
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
300	Layer	-	0-0.27	Tops soil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
301	Layer	-	0.27-0.63	Subsoil. Dark greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
302	Layer	-	>0.63	Natural. Mid blueish grey with greyish orange mottling. Compact. Infrequent chalk inclusions.	-	n/a
303	Cut	1.1	0.58	Ditch. NW-SE orientated. Steep sloping sides with V-shaped profile. Symmetrical.	-	Modern
304	Fill	1.1	0.58	Fill of 303. Mid brownish grey. Silty clay	CBM	Modern

Trench 4						
General description					Orientation	NW-SE
Topsoil and subsoil overlaid a Colluvium layer which covered the natural geology which was compact silty clay; mid-bluish grey with orangey mottling. No archaeology was revealed.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.54
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
400	Layer	-	0.54	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions	-	n/a
401	Layer	-	0.3-0.54	Subsoil. Mid greyish brown. Silty clay. Compact. Highly infrequent stone inclusions.	-	n/a
402	Layer	-	>0.92	Natural. Mid blueish grey with orange mottling. Silty clay. Compact. Highly infrequent stones.	-	n/a
403	Layer	-	0.54-0.92	Colluvium. Mid orangey brown. Silty clay. Compact.	-	n/a

Trench 5						
General description					Orientation	NE-SW
Topsoil and subsoil overlaid the natural geology which was mid-orangey grey sandy clay. No archaeology was revealed.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.63
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
500	Layer	-	0-0.33	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
501	Layer	-	0.33-1.13	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
502	Layer	-	>1.13	Natural. Mid orangey grey with orange	-	n/a

				mottling. Sandy clay. Compact. Highly infrequent stone inclusions.		
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Trench 6						
General description					Orientation	E-W
Topsoil and subsoil overlaid the natural which was mid-greyish brown silty clay with a blueish grey mottling. 3 furrows were revealed at the East, Central and westerly extents of the trench. All 3 furrows were orientated NW-SE.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.61
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
600	Layer	-	0-0.28	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
601	Layer	-	0.28-0.48	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
602	Layer	-	>0.48	Natural. Mid greyish orange with blueish grey mottling. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
603	Cut	2.95	0.2	Furrow. NW-SE aligned. Straight shallow sides, flat base.	-	n/a
604	Fill	2.95	0.2	Fill of 603. Mid yellowish brown. Silty clay. Compact.	-	n/a
605	Cut	2.67	0.12	Furrow. NW-SE aligned. Straight shallow sides, flat base.	-	n/a
606	Fill	2.67	0.12	Fill of 605. Mid yellowish brown. Silty clay. Compact.	-	n/a
607	Cut	2.2	-	Furrow. NW-SE aligned. Not Excavated.	-	n/a
608	Fill	2.2	-	Fill of 607. Mid yellowish brown. Silty	-	n/a

				clay. Compact.		
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Trench 7						
General description					Orientation	NW-SE
Topsoil and subsoil overlaid the natural geology which was mid-greyish orange silty clay with blueish grey mottling. 1 sub-circular feature present extending beyond the limit of excavation- not excavated (possibly tree bowl or irregular pit).					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.48
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
700	Layer	-	0-0.28	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
701	Layer	-	0.28-0.48	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
702	Layer	-	>0.48	Natural. Mid greyish orange with blueish grey mottling. Silty clay. Compact. Infrequent stone inclusions.	-	n/a

Trench 8						
General description					Orientation	NW-SE
Topsoil and subsoil overlaid the natural geology which was mid-orangey brown silty clay with orange sandy clay inclusions. 1 modern field drain present. No archaeology had been revealed.					Length (m)	30
					Width (m)	1.6
					Avg. depth (m)	0.5
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
800	Layer	-	0-0.3	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
801	Layer	-	0.3-0.5	Subsoil. Mid greyish brown. Silty clay. Infrequent stone inclusions.	-	n/a
802	Layer	-	>0.5	Natural. Mid orangey brown. Silty clay with orange sandy silt	-	n/a

				inclusions. Compact. Infrequent stone inclusions.		

Pond 1						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a mid-greyish orange with blueish grey mottling silty clay. No archaeology was revealed.					Length (m)	27.3
					Width (m)	21
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
1000	Layer	-	0-0.3	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
1001	Layer	-	0.3-0.55	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
1002	Layer	-	>0.55	Natural. Mid greyish orange with blueish grey mottling. Silty clay. Compact. Infrequent stone	-	n/a

Pond 2						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a mid-greyish blue clayey sand. No archaeology was revealed.					Length (m)	23
					Width (m)	18
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
2000	Layer	-	0-0.3	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
2001	Layer	-	0.3-0.95	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
2002	Layer	-	>0.95	Natural. Mid greyish	-	n/a

				blue. Clayey sand. Compact.		

Pond 3						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a light yellowish brown silty clay with frequent limestone inclusions. Bedrock was present at 1.5m depth. No archaeology was revealed.					Length (m)	24
					Width (m)	19.5
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
3000	Layer	-	0-0.1	Topsoil. Dark brownish grey. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
3001	Layer	-	0.1-0.3	Subsoil. Light brownish grey. Silty clay. Moderately compact. Occasional stone inclusions.	-	n/a
3002	Layer	-	>0.3	Natural. Light yellowish brown. Silty clay. Frequent limestone inclusions.	-	n/a

Pond 4						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology. The pond was not excavated down to the natural geology. No archaeology was revealed.					Length (m)	24.5
					Width (m)	22
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
4000	Layer	-	0-0.31	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
4001	Layer	-	>0.31	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a

Code 1 - Accepted

Pond 5						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology. The pond was not excavated down to the natural geology. No archaeology was revealed.					Length (m)	28
					Width (m)	19
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
5000	Layer	-	0-0.35	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
5001	Layer	-	>0.35	Subsoil. Mid brownish yellow. Silty clay. Moderately compact.	-	n/a

Pond 6						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a mid-brownish orange clay. No archaeology was revealed.					Length (m)	24.3
					Width (m)	19.5
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
6000	Layer	-	0-0.3	Topsoil. Mid greyish brown. Clay. Moderately compact.	-	n/a
6001	Layer	-	0.3-0.8	Subsoil. Mid yellowish brown. Silty clay. Moderately compact.	-	n/a
6003	Layer	-	>0.08	Natural. Mid brownish orange with mid blueish grey inclusions. Clay.	-	n/a

Pond 7						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a light greyish blue clay with mid brownish orange inclusions. No archaeology was revealed.					Length (m)	25.5
					Width (m)	22.5
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
7000	Layer	-	0-0.25	Topsoil. Dark greyish brown. Silty clay.	-	n/a

				Moderately compact. Infrequent stone inclusions.		
7001	Layer	-	0.25-0.55	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
7002	Layer	-	>0.55	Natural. Light greyish blue with mid brownish orange inclusions. Clay. Moderately compact.	-	n/a

Pond 9						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a mid-greyish orange with blueish grey mottling silty clay. No archaeology was revealed.					Length (m)	23
					Width (m)	21
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
9000	Layer	-	0-0.3	Topsoil. Dark greyish brown. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
9001	Layer	-	0.3-0.8	Subsoil. Mid greyish brown. Silty clay. Compact. Infrequent stone inclusions.	-	n/a
9002	Layer	-	>0.8	Natural. Mid greyish orange with blueish grey mottling. Silty clay. Compact. Infrequent stone	-	n/a

Pond 10						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a light yellowish brown silty clay with limestone inclusions. No archaeology was revealed.					Length (m)	23
					Width (m)	20
					Avg. depth (m)	1.7
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
10000	Layer	-	0-0.12	Topsoil. Dark brownish grey. Silty	-	n/a

				clay. Moderately compact. Infrequent stone inclusions.		
10001	Layer	-	0.12-0.42	Subsoil. Light brownish grey. Silty clay. Moderately compact. Occasional stone inclusions.	-	n/a
10002	Layer	-	>0.42	Natural. Light yellowish brown. Silty clay. Frequent limestone inclusions.	-	n/a

Pond 11						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a light yellowish brown silty clay with limestone inclusions. No archaeology was revealed.					Length (m)	27
					Width (m)	17.5
					Avg. depth (m)	1.55
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
11000	Layer	-	0-0.15	Topsoil. Dark brownish grey. Silty clay. Moderately compact. Infrequent stone inclusions.	-	n/a
11001	Layer	-	0.15-0.35	Subsoil. Light brownish grey. Silty clay. Moderately compact. Occasional stone inclusions.	-	n/a
11002	Layer	-	>0.35	Natural. Light yellowish brown. Silty clay. Frequent limestone inclusions.	-	n/a

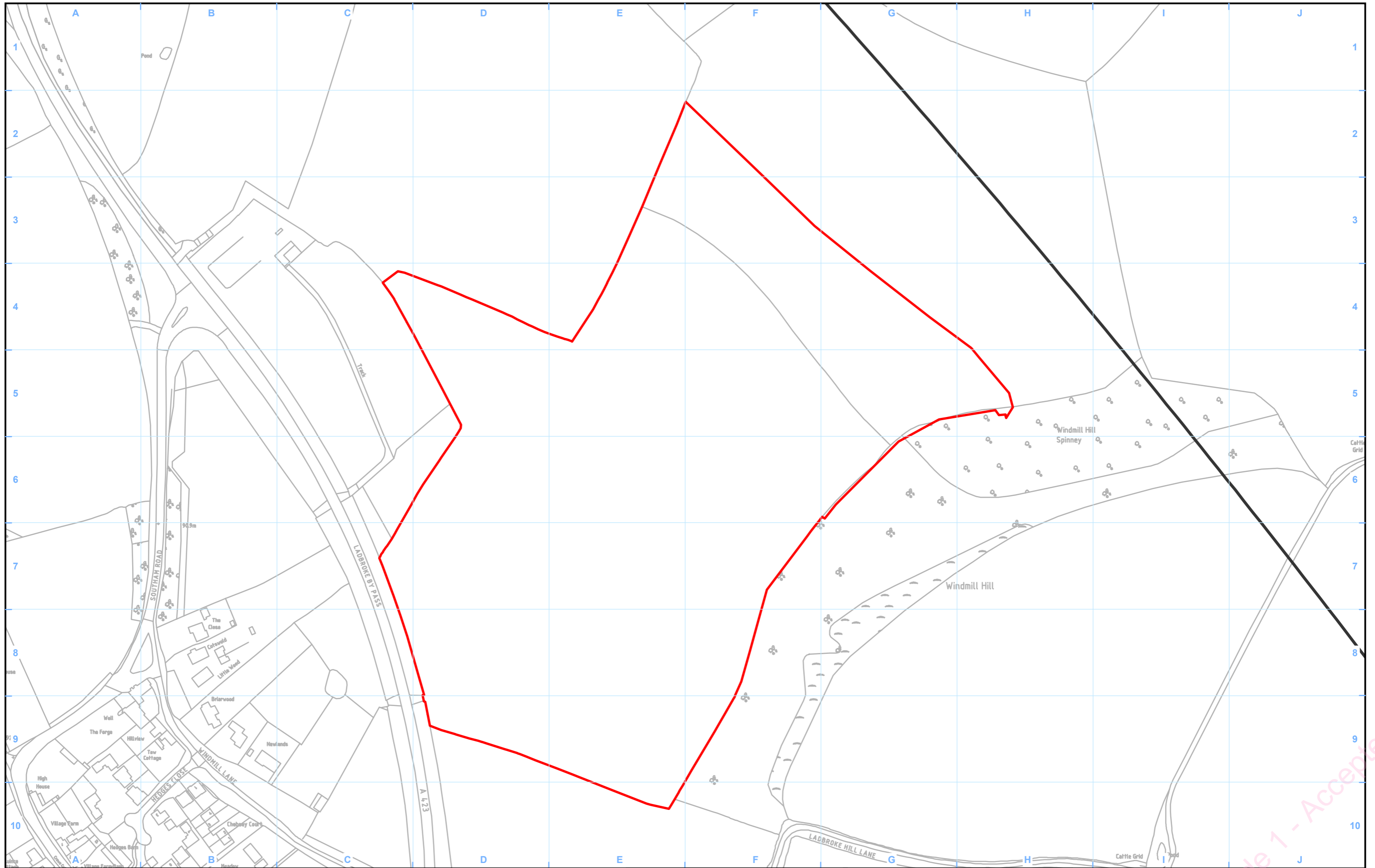
Pond 12						
General description					Orientation	-
Topsoil and subsoil overlaid the natural geology which was a light yellowish brown silty clay with limestone inclusions. No archaeology was revealed.					Length (m)	24
					Width (m)	21
					Avg. depth (m)	1.75
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
12000	Layer	-	0-0.15	Topsoil. Dark brownish grey. Silty	-	n/a

				clay. Moderately compact. Infrequent stone inclusions.		
12001	Layer	-	0.15-0.3	Subsoil. Light brownish grey. Silty clay. Moderately compact. Occasional stone inclusions.	-	n/a
12002	Layer	-	>0.3	Natural. Light yellowish brown. Silty clay. Frequent limestone inclusions.	-	n/a

Code 1 - Accepted

## 21.2 Appendix 2 – Figures


Code 1 - Accepted




**Legend**  
 — HS2 route  
 □ Site Boundary



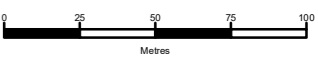
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 Map Name: Windmill Hill LS093/94, Ladbroke, Warwickshire - Site Location Plan  
 Community Forum Area 16  
 Ladbroke and Southam


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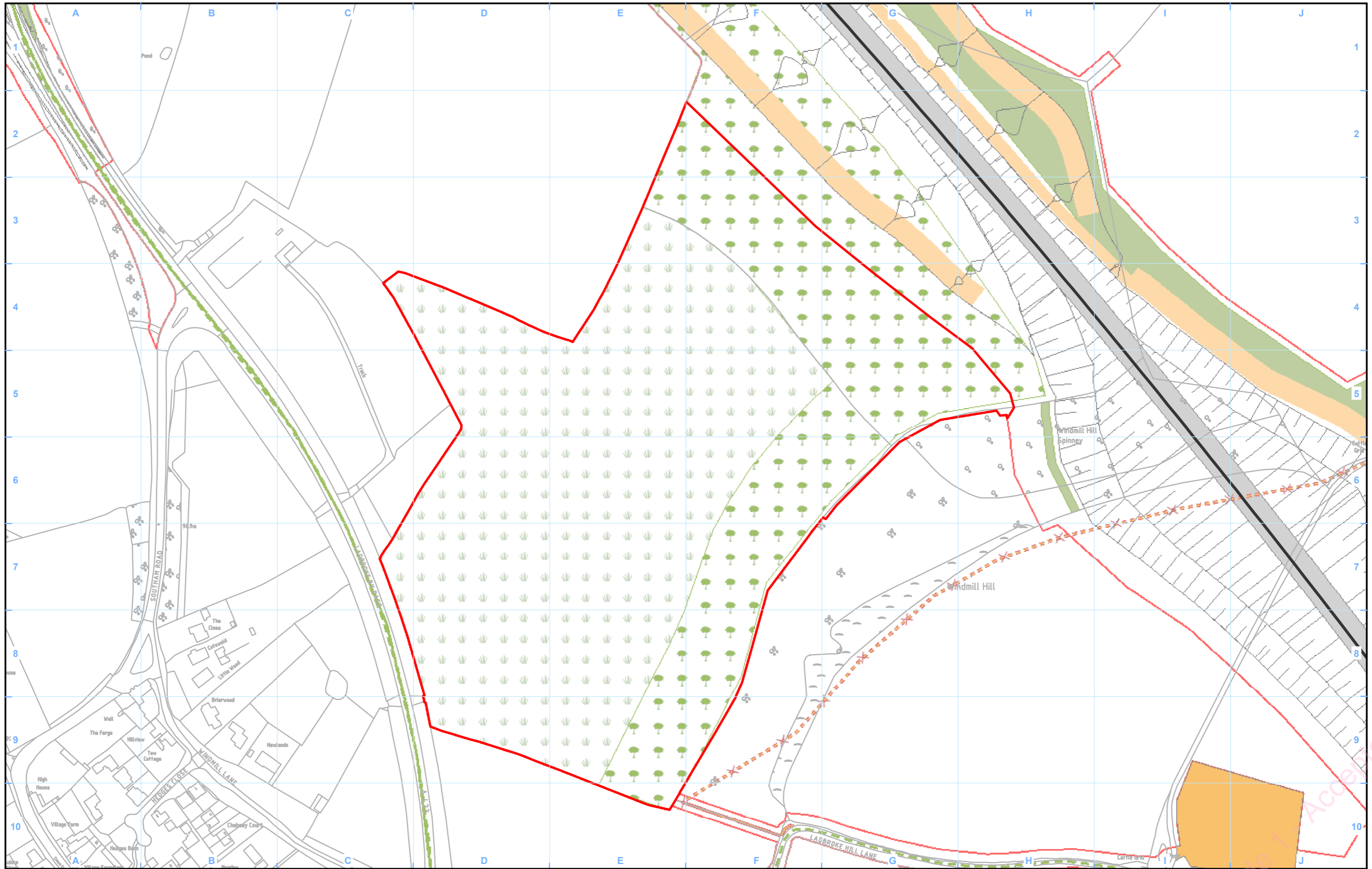


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Doc Number: Figure 1  
 Date: 26/03/18



**Legend**  
 — HS2 route  
 □ Site Boundary

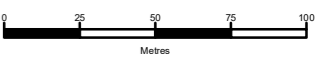


Map Number: 1C17WMHTT\_2  
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 Community Forum Area 16  
 Ladbroke and Southam

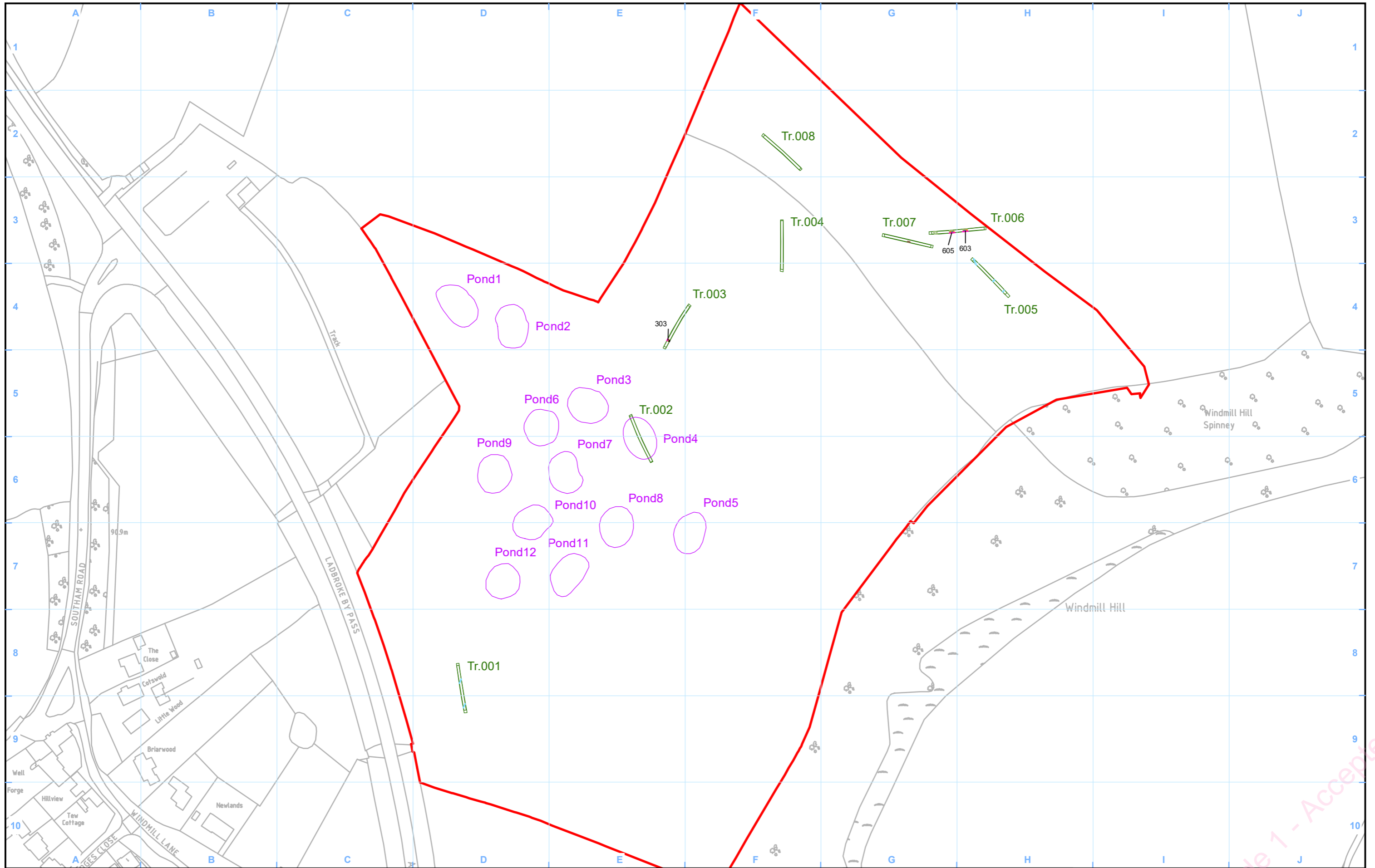

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**Legend**

- Site Boundary
- Evaluation
- Watching Brief
- Section line
- Excavated intervention
- Cut feature
- Furrow



Map Number: 1C17WMHTT\_3  
 Map Name: Windmill Hill LS093/94, Ladbroke, Warwickshire – Evaluation Trench  
 Community Forum Area 16  
 Ladbroke and Southam

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Doc Number: Figure 3

Scale at A3: 1:2,000

0 20 40 60 80  
 Metres

Date: 26/03/18