

# WRITTEN SCHEME OF INVESTIGATION FOR STRIP, MAP AND SAMPLE/ARCHAEOLOGICAL WATCHING BRIEF

Land at Kilnwood Vale Park, Horsham, West Sussex

Site Code: KIL17

February 2020

## **1.0 Introduction**

- 1.1 Archaeology South-East (ASE), the contracting division of The Centre for Applied Archaeology at the Institute of Archaeology, University College London, have been commissioned by RPS to undertake an archaeological strip, map and sample exercise and watching brief on land at Kilnwood Vale Park, Horsham, West Sussex (Figure 1; centred on NGR 522991 134723).
- 1.2 The site is located north of the A264 on the western edge of Crawley. It adjoins an area of recent housing development, with open fields to the west.
- 1.3 According to the British Geological Survey the underlying bedrock at the site consists of Weald Clay. There are no recorded superficial deposits (BGS 2017).
- 1.4 Archaeological evaluation of the adjoining housing development site recorded linear features and a small scatter of pits and postholes. Dating, where present, suggested these belong to the post-medieval period (ASE 2013).
- 1.5 RPS consultation with Place Services (Essex County Council), the archaeological advisor to Horsham District Council, has established that a Strip, Map and Sample (SMS) and watching brief is required.
- 1.6 This document is a Written Scheme of Investigation (WSI) for an archaeological SMS and watching brief and has been submitted to RPS for onward submission to Horsham District Council, and their Archaeological Advisor for approval prior to commencement of fieldwork.
- 1.7 All work will be carried out in accordance with this document (unless otherwise specified below), and the relevant *Standards and Guidance* of the Chartered Institute for Archaeologists (CIfA 2014), as well as with reference to the Sussex Archaeological Standards (2019).

## **2.0 Archaeological Background**

- 2.1 Prehistoric occupation has been identified nearby. Of particular note is concentration of Mesolithic flintwork, found to the south of the A264 (Clark 1934).
- 2.2 One possible barrow mound is located nearby at Two Trees Hill. A small investigation within this area by proved inconclusive (SLR 2011).
- 2.3 In the medieval and post-medieval periods the Bewbush area lay in a landscape dominated by forest and woodland. The heathland was

reclaimed and dispersed cottage buildings constructed during the early 19th century.

- 2.4 During the late 16th – early 17th century mining for iron ore, smelting and iron-working became a significant activity, as part of the wider Wealden industry. This involved substantial remodelling of the landscape with large millpond reservoirs being created for two hammer (later corn) mills, at Bewbush and further downstream at Ifield. Building stone was another local quarrying industry intermittently practised, and brickworks are recorded in the vicinity.
- 2.5 Recent evaluation ahead of development to the east of the site revealed a scatter of archaeological features, predominantly ditches. Where these could be dated, either by finds or by correlation with historic maps, they appear to belong to the post-medieval period. A number of features remained undated. The lack of finds or of any dense concentrations of features suggests that the archaeology relates to agricultural landuse.

### **3.0 Aims and objectives**

- 3.1 The general objective of the archaeological work is to ensure that any deposits, features, artefacts or ecofacts of archaeological interest exposed and affected by the excavations are recorded, interpreted and reported on to appropriate standards.

### **4.0 Archaeological Methodology**

- 4.1 In the first instance an archaeological strip, map and sample exercise will be undertaken along the route of the proposed development's spine road (Figure 2). Subject to the results of this the SMS will either be expanded as required or replaced by watching brief across the remainder of the site.
- 4.2 All machine excavation will be undertaken using a suitable back-acting mechanical excavator provided by the client or their contractor and fitted with a flat-bladed ditching bucket where practicable. The machine excavation will be excavated through undifferentiated topsoil and modern made ground in spits of no more than 0.25m until archaeological deposits are encountered or the top of the underlying natural sediments reached. Care will be taken that archaeological deposits are not damaged due to over machining. All machining will stop if significant archaeological deposits are encountered.
- 4.3 While a watching brief is designed to cause minimal disruption to a development, the client/contractor will ensure that sufficient time will be granted to the archaeologist(s) on site to properly excavate and record any archaeological features and/or deposits if they arise.

- 4.4 If significant archaeological remains come to light during the course of the groundworks, additional investigation and recording may be required. The scope of such work would be agreed in consultation with the HDC Archaeological Advisor.
- 4.5 The provisions of the Treasure Act of 1996 (amended 2003) will be observed. Should finds of precious metals such as gold and silver and other finds as defined under the Act be made, they will be reported to the HDC Archaeological Advisor and the appropriate coroner's office.
- 4.6 The strategy for environmental sampling during watching briefs will normally be the same as for comprehensive archaeological excavation (see Section 5.0 below).
- 4.7 In observing ground excavations on the site the monitoring archaeologist shall inform the contractor as soon as reasonably possible where he / she believes that archaeological features, deposits or structures have been exposed during the course of ground excavations on the site, that will require identification, cleaning, investigation and recording.
- 4.8 The monitoring archaeologist shall carry out necessary identification, cleaning, recording and investigation with due consideration to the developer's work programme and with regard to their desire to proceed with ground excavations and other building works without undue delay.

## **5.0 Excavation and Recording Techniques**

- 5.1 All archaeological features and deposits will be recorded using the standard context record sheets used by ASE.
- 5.2 All archaeological features will be recorded according to standard ASE practice. Where practicable, all features will be planned at 1:20 and section drawings will be at 1:10, elevations will also be hand drawn at 1:10. Drawings will be on plastic draughting film. Features and deposits will be described on standard pro-forma recording sheets used by ASE. All archaeological remains will be levelled with respect to Ordnance Survey datum. A full photographic record will be maintained throughout the duration of the watching brief in colour slide, black & white and digital media.
- 5.3 The strategy for sampling archaeological and environmental deposits and structures (which can include soils, timbers, animal bone and human burials) will be developed with reference to Historic England guidelines for environmental archaeology (Historic England 2011) and waterlogged wood (Historic England 2010) and in consultation with the

Historic England regional advisor or relevant specialists. Samples will be collected from suitable excavated contexts, including dated/datable buried soils, well-sealed slowly silting features, sealed hearths, sealed features containing evident carbonised remains, peats, water-logged or cess deposits.

- 5.4 Bulk soil samples (of 40 litres where possible or 100% of the context if smaller) will be taken to target the recovery of plant remains (including wood charcoal and macrobotanicals), fish, bird, small mammal and amphibian bone, and small artefacts. Specialist samples may also be taken to target recovery of pollen (using monolith tins), fish and small bone, molluscs, foraminifera, parasites and insects (in small <20 litre samples) or large mammal bones and marine molluscs (in large samples of ~80-100 litres). When taken, large samples will be extracted wholesale from deposits to maximise the range of bone recovered. As a general rule waterlogged wood specimens will be photographed and recorded in detail in their original location prior to being lifted or sampled for more detailed assessment. Other scientific dating and geoarchaeological techniques will be considered and employed where appropriate. In all instances deposits with clear intrusive material shall be avoided.

- 5.5 HDC's Archaeological Advisor will be kept informed of progress so that they may monitor the work as necessary.

- 5.6 All archaeological features and the spoil heaps will be scanned with a metal detector and finds will be logged by small finds numbers tied to location.

### **6.0 Processing and identification of material recovered from excavation**

- 6.1 All pottery, bone and worked flint recovered from the excavations will be washed and marked with an appropriate code to identify the site and context. Most ceramic and other building material and burnt flint will be identified, counted, weighed and discarded. Samples will be retained as appropriate. Finds will be bagged in polythene bags according to type and context.

- 6.2 The lithic and ceramic finds will be identified by specialists within Archaeology South-East, and preliminary identification of faunal remains may be undertaken if the nature of the deposits justifies such study. All finds in an unstable condition will be stabilised using passive conservation techniques where appropriate before being deposited with the receiving museum.

- 6.3 Bulk samples will be processed using tank flotation unless considered detrimental to the samples or recovery rate (such as for waterlogged

samples). Bulk samples will target recovery of plant remains (charcoal and macrobotanicals), fish, bird, small mammal and amphibian bone, and small artefacts. Waterlogged samples will be wet sieved through nested sieves and stored in wet, cool conditions or dried if considered an appropriate form of conservation for the remains. Specialist samples may also be taken from dry or waterlogged contexts. Such samples will target recovery of pollen (using monolith tins), molluscs, foraminifera, parasites and insects. Larger samples (80-100 litres) will be extracted wholesale from deposits rich in marine molluscs and large mammal bones. As a general rule waterlogged wood specimens will be recorded in detail in their original location. If removed they will be cleaned, photographed and a thin section sample will be taken for identification. Specimens will either be stored in wet cool conditions or dried if considered appropriate for the material. In all instances deposits with clear intrusive material shall be avoided.

### **7.0 Treatment of Human Remains and Treasure Trove**

- 7.1 In the event that articulated human remains are uncovered environmental health and HE will be informed immediately. If removal is unavoidable the excavation, recording and removal will only take place under the relevant Ministry of Justice licence and local authority environmental health regulations. All non-articulated human bone will be bagged collectively. All articulated human remains that will be unavoidably disturbed by the ground works will be excavated to archaeological standards and recorded appropriately within the limitations of the watching brief. Any human remains that continue beyond the limitations of the main contractor's groundworks may be left *in situ* unless otherwise directed by the Ministry of Justice licence and/or local authority environmental health officers. The remains of each internment will be bagged separately and clearly labelled.
- 7.2 Any finds believed to fall potentially within the statutory definition of Treasure, as defined by the Treasure Act 1996 (amended 2003), shall be reported to the Finds Liaison Officer (based at Barbican House Museum, Lewes). Should the find's status as treasure be confirmed the Coroner, the landowner and the WYG Archaeologist will also be informed. A record shall be provided to the Coroner and to the WYG Archaeologist of the date and circumstances of discovery, the identity of the finder, and the exact location of the find(s) (OS map reference to within 1 metre, and find spot(s) marked onto the site plan).

### **8.0 Post-Excavation Analysis, Reporting and Archive**

- 8.1 In general, the report will present the results of the archaeological fieldwork and will as a minimum standard contain sufficient detail to serve both future research and inform future planning decisions/scheduled monument consents.

8.2 The report will include as a minimum:

8.3 An Abstract summarising the scope and results of the archaeological fieldwork.

8.3.1 An Introduction including:

- the location of the site including National Grid Reference;
- an account of the background and circumstances of the work;
- a description of the development proposals, planning history and planning/SMC reference together with the planning condition (where appropriate);
- the scope and date of the fieldwork, the personnel involved and who commissioned it;
- the nature of potential impacts arising from the proposals;

8.3.2 An account of the Archaeological Background of the development site including:

- geology, soils and topography;
- any known existing disturbances on the site;
- archaeological and historical background of the site.
- summary of any previous phases of archaeological investigation at the development site;
- any constraints on the archaeological monitoring.

8.3.3 The Methodology employed during the fieldwork will be detailed in the report. Any aims and objectives will be included as will any further objectives identified during the course of the watching brief. Any constraints experienced while carrying out the fieldwork will be detailed.

8.3.4 The report will include a quantification of the archive contents, their state and future location.

8.3.5 A description of the Results of the archaeological fieldwork. This description will include for each area observed:

- the dimensions of the area observed;
- the nature and depth of overburden soils encountered;
- description of all archaeological features and finds encountered in each area observed, their dimensions, states of preservation and interpretation;
- a description of the geological subsoil encountered across the site;
- heights related to Ordnance Datum (where practicable) will be provided for each feature and deposit.
- for complex remains a Harris Matrix diagram will be provided.

- 8.3.6 The Finds recovered during the course of the fieldwork will be described, quantified and assessed by artefact type within the report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate, local reference collections will be referred to for descriptive and analytical consistency. Any implications for future archive, conservation or discard of the artefacts will also be detailed.
- 8.3.7 The report will include a table showing the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.
- 8.3.8 The report will include an assessment of the Environmental potential of the site. Details will be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the fieldwork will be described. Implications for future archive, conservation or discard of environmental samples or remains will be detailed.
- 8.3.9 The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.
- 8.3.10 Any results from the fieldwork involving the application of archaeological scientific techniques e.g. specialist dating will be included in the report.
- 8.3.11 An Interpretation and Discussion of the archaeology of the site, including its location, extent, date, condition, significance and importance. This will include, even if no archaeology is identified as present on the site, description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate.
- 8.3.12 A Conclusion with a summary of the archaeological results and how any archaeology observed relates to the development site. The effects of the development works on the archaeological remains will also be described. The report will highlight any areas of significant archaeological deposits that remain preserved within the development site. Particular note shall be made of any variations in the depth of overburden covering any archaeological deposits revealed.

8.3.13 The report will include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.

8.3.14 Figures / illustrations – The report shall include sufficient illustrations to support descriptions and interpretations within the report text. Figures will be fully cross-referenced within the document text. As a minimum the report shall include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1250 or in the case of larger sites at 1:2500. The plan will also include at least two National Grid points and show the site boundary;
- a plan at 1:100 or 1:200 showing the layout of the development groundworks clearly indicating the areas observed. The plan will show significant archaeological features, coloured by phases or period as related to the development site. Where possible, projection of archaeological features outside of the areas observed shall be included on the plan. This plan will also include two National grid points;
- plans of the features and elevations revealed in each of the excavation areas at a larger scale e.g. 1:20 or 1:50; such plans will also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken will also be indicated;
- relevant section drawings and soil trench profiles as appropriate;
- illustrations and/or photographs of significant finds shall be included where appropriate.

8.3.15 All report illustrations will be fully captioned and scale drawings will include a bar scale. Standard archaeological drawing conventions shall be used. Plan and section illustrations will include the numbers of all contexts illustrated. North will be included on all plans and shall be consistent. Sections will indicate the orientation of the section and the Ordnance Datum height of the section datum.

8.3.16 Black & White or Colour photographs shall be included where appropriate to illustrate the archaeology of the site, the development operations or the range of soil profiles encountered. All photographs shall be appropriately captioned.

8.4 Following internal review a draft report will be submitted to the LPA's Archaeological Advisor for approval. Once any necessary changes have been made, the approved final report will be submitted in digital and bound format to the client and LPA Advisor with a further copy submitted to WSCC so that the results may be added to the Historic Environment Record. A short summary of the work will be prepared for the relevant local archaeological journal if appropriate.

8.5 The written and drawn archive will be deposited in an appropriate museum. Artefacts and ecofacts recovered during excavation form an important part of an archaeological site archive. Permission will be sought from the landowners to donate the finds from this project to the appropriate museum for deposition with the rest of the archive. The archive will be prepared according to the principles of Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2015) and the requirements of the recipient museum.

8.6 Upon completion of the fieldwork an OASIS (Online Access to the Index of Archaeological Investigations) form will be completed for the project. A print-out of the form will be included as an appendix to the final report.

### **9.0 Preparation and deposition of the finds and archive**

9.1 The local museum have been consulted regarding deposition of the site archive (awaiting response). Permission will be sought from the landowner to deposit the finds and paper archive at the local museum.

### **10.0 Project Management**

10.1 The project will be managed by Paul Mason (fieldwork) and Jim Stevenson (post-excavation).

### **11.0 Health and Safety**

11.1 A risk assessment for the project will be prepared prior to the commencement of work. All relevant health and safety regulations will be adhered to.

### **12.0 Insurance**

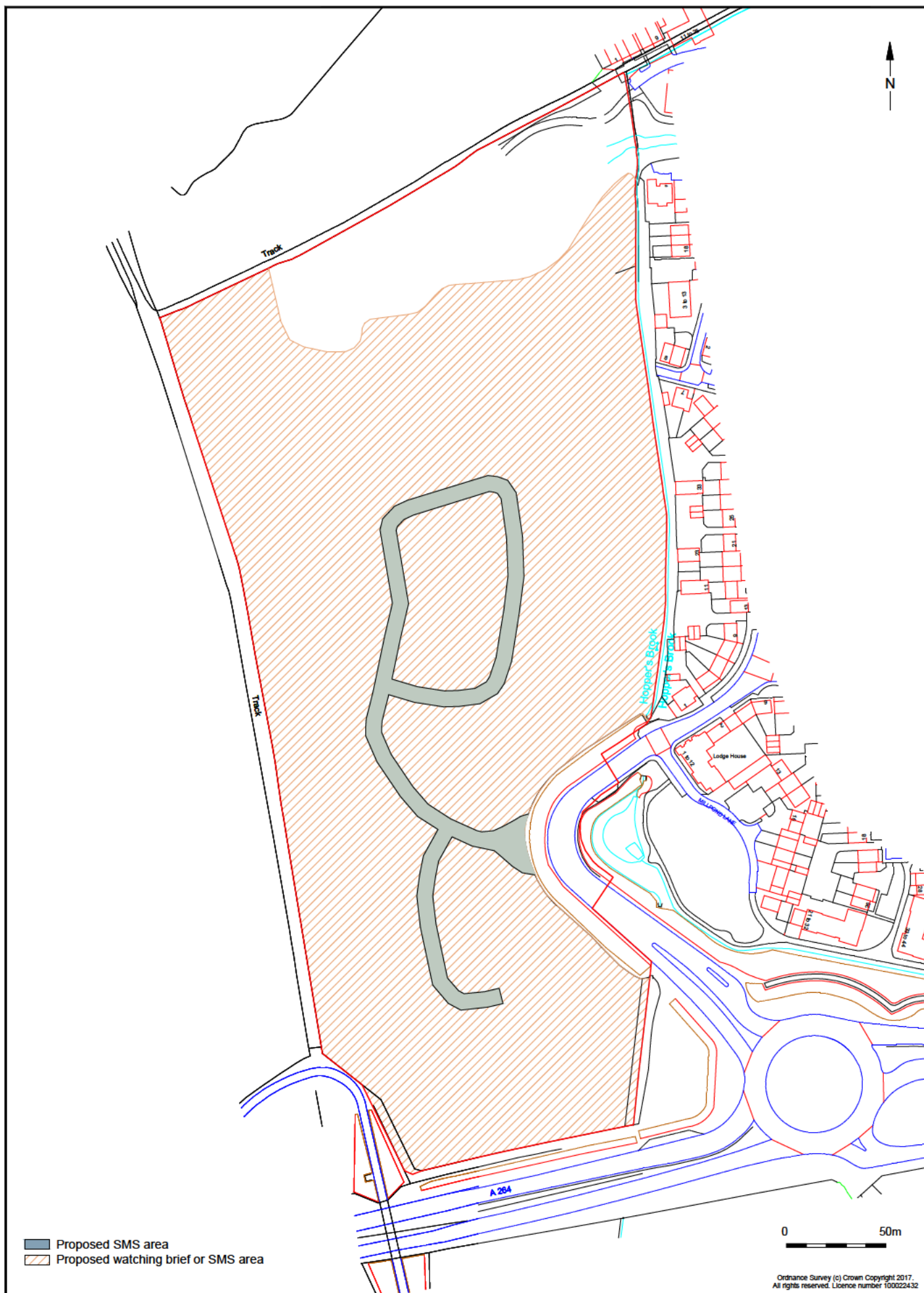
12.1 Archaeology South-East is insured against claims for: employer's liability to the value of [REDACTED] each and every loss, any one occurrence; primary public/products liability to the value of [REDACTED] any one occurrence and in the aggregate for products liability, with an extension for no-fault compensation up to [REDACTED] in the aggregate; professional indemnity to the value of [REDACTED] any one occurrence and in the aggregate.

### References

- Archaeology South-East, 2007. *Post-Excavation Manual 1: Finds and Environmental Deposition and Processing Guidelines*
- Archaeology South-East 2013, *Archaeological Evaluation Report, Kilnwood Vale, Bewbush, Crawley, West Sussex. Phases 2 and 3*
- British Geological Survey online viewer:  
<http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>
- Clark, J. G. D. 1934. The classification of a microlithic culture: The Tardenoisian of Horsham, *The Archaeological Journal* XC, 52–77
- CIfA 2014. *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*
- CIfA 2014. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*
- CIfA 2014 Standard and guidance for an archaeological watching brief.  
[http://www.archaeologists.net/sites/default/files/node-files/ifa\\_standards\\_watching.pdf](http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_watching.pdf)
- Department of Communities and Local Government, 2012, *National Planning Policy Framework*
- Historic England 2010 *Guidelines on the recording, sampling, conservation and curation of waterlogged wood*
- Historic England 2011: *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (second ed.)*. English Heritage
- Historic England 2015: *Management of Research Projects in the Historic Environment*
- Horsham District, 2007. *Local Development Framework: General Development Control Policies*
- SLR 2011. *Kilnwood Vale; Archaeological Written Scheme of Investigation, Phases 2 &3 Unpublished Document*
- WSCC, ESCC 2015, *Sussex Archaeological Standards*



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|---------------------|---------------|------------------------|--------|
|                     |               | Kilnwood Vale, Crawley | Fig. 1 |
| Project Ref: 200119 | Fen 2020      | Site location          |        |
| Report Ref:         | Drawn by: JLR |                        |        |



|                     |               |                                          |        |
|---------------------|---------------|------------------------------------------|--------|
|                     |               | Kilnwood Vale, Crawley                   | Fig. 2 |
| Project Ref: 200119 | Feb 2020      | Location of SMS and watching brief areas |        |
| Report Ref:         | Drawn by: JLR |                                          |        |



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