

WRITTEN SCHEME OF INVESTIGATION FOR A ARCHAEOLOGICAL EVALUATION

**Land west of Westergate,
West Sussex**

NGR: 493580 104670

January 2017

Planning • Heritage

Specialist & Independent Advisors to the Property Industry

**Land West of Westergate,
West Sussex**

Centred at NGR 493580 104670

Archaeological Excavation

Written Scheme of Investigation

Site Code: LWW16

Planning Reference APP/C3810/A/14/2220943

December 2016

1.0 Introduction

- 1.1 This document represents a Written Scheme of Investigation (WSI) for archaeological excavation of land west of Westergate, West Sussex, hereafter referred to as 'the site'. The site is centred at National Grid Reference (NGR) 493580 104670 and its location is shown on Figure 1.
- 1.2 The site consists of a sub-rectangular field of approximately 3.2 hectares, currently in use as rough pasture. The site is bounded to the south by paddocks, to the north by arable fields, to the east by Aldingbourne Primary School, the rear gardens of properties fronting on to Lamorna Gardens, and to the west by the rear gardens of properties fronting on to Hook Lane. The site lies at around 10m OD. According to the British Geological Survey (BGS 2015) the bedrock geology of the site comprises London Clay Formation – clay, silt and sand overlain by river terrace deposits of sand silt and clay.
- 1.3 Outline consent has been granted by Arun District Council for the residential development of the site (Planning reference: APP/C3810/A/14/2220943), consisting of the construction of 79 dwellings with associated access roads, services and landscaping. Condition number 23 attached to the consent states:

23) An archaeological investigation of the site shall be carried out at the expense of the developer in accordance with a specification (written scheme of investigation) to be submitted to, and agreed in writing by, the Local Planning Authority before the commencement of building works.
- 1.4 Previous archaeological works undertaken at the site include a Desk Based Assessment (CgMs 2013) and evaluation trenching (ASE, 2015). Having considered the results of both the Desk Based Assessment and the trenching work it has been agreed between the archaeology adviser to the Local Planning Authority and CgMs Consulting that a programme of mitigation work (archaeological excavation and additional trenching) be undertaken.
- 1.5 This document is a Written Scheme of Investigation (WSI) as per the wording of the planning condition and outlines the scope of the mitigation. This document will be submitted by CgMs Consulting to the archaeology adviser to the Local Planning Authority, for approval prior to the commencement of fieldwork. It has been prepared with reference to the relevant *Standards and Guidance* of the Institute for Archaeologists (IfA). All work will be carried out in accordance with these documents (unless otherwise specified below).

2.0 Historical and Archaeological Background

- 2.1 The following summary is drawn from the Desk Based Assessment of the site (CgMs 2013) and the evaluation trenching (ASE, 2015). For a complete background, please refer to that document.

Prehistoric

- 2.2 An assemblage of Mesolithic flint artefacts including scrapers, cores, core rejuvenation flakes, waste flakes and blades has been recorded 400m to the north of the site (MWS6802). The assemblage has been interpreted as representing a flint working site.
- 2.3 An assemblage of Neolithic flints including three scrapers and 26 waste flint flakes have been recorded c. 500m to the north of the site (MWS7795). An undated, but probable Mesolithic or Neolithic flint artefact scatter, has also been recorded in close proximity (MWS6803).

Roman

- 2.4 A single cremation burial and Roman pottery has been recorded c. 700m to the north of the site, immediately to the south of Nyton (MWS1283). At least two further graves, Roman pottery and a wall have also been recorded in a back garden of a house c. 1km to the north west of the site (MWS7081). Little is known about the context of these finds but it is a clear indication that there could be Roman occupation and burial activity to the north of the site.

Early medieval and medieval

- 2.5 No mention is made in the HER of any excavated evidence for Saxon or early medieval occupation in proximity to the site and it must be assumed that the site was part of the local agricultural regime throughout the Saxon and medieval periods.

Post-medieval

- 2.6 The earliest map to depict the site at a reliable and reasonable scale is Gardener and Green's Map of Sussex dated 1795. This depicts Westergate as being no more than a collection of houses strung out along the A29 (as it became later) with what may be a small green at the junction of the A29 and the road from Eastergate. A small enclosed landscape park labelled as 'Knighton Park') is shown centred on Nyton. C & J Greenwoods map of 1825 depicts the site as an essentially unchanged landscape with the obvious exception of the Arundel and Portsmouth Canal which lies to the south of Westergate.
- 2.7 The Aldingbourne Tithe Map (1840) shows the site in more detail than on the earlier maps at which time it formed part of a larger field. The

first edition Ordnance Survey map (1887) depicts the site as unchanged. The site was split into smaller fields sometime before 1912. It took on its current form by 1937, since which time it has remained unchanged.

Results of the evaluation trenching

- 2.8 Previous archaeological work on the site comprised the excavation of seventeen evaluation trenches. A small quantity of residual struck flint suggests some activity of Neolithic to Late Bronze Age date in the vicinity of the site. The majority of the archaeological activity recorded consisted of pits, ditches, gullies and postholes of probable Middle-Late Iron Age date. A possible enclosure was also observed.
- 2.9 Medieval activity is limited to a single pit of possible 13th-14th century date. Post-medieval features comprise field boundary ditches, some of which are present on some century Ordnance Survey maps.

3.0 Research aims and objectives

3.1 Site specific aims:

- Do the ditches identified in evaluation trenches, 2, 7, 8, 11 and 16 form an enclosure? Can this possible enclosure be identified in the mitigation trenches and the excavation area?
- Are there any indications as to the nature of the ancient activity associated with the possible; enclosure (agricultural, domestic, industrial);

3.2 Research Aims

The site has the potential to address the following research aims from the South-East Research Framework (SERF):

- P113 How was the Sussex Coastal Plain utilised during the Early and Middle Neolithic?
- P10 How does the evidence inform on the relationship between enclosures and settlements?
- P10. The site has archaeological remains of multiple periods; how does evidence inform on the nature of the Middle Iron Age – Late Iron Age transition?
- P13 What are the origins of the Late Iron Age settlements on the coastal plain and what was their nature and extent?

4.0 Methodology

- 4.1 The work comprises the mechanical excavation of an area measuring c.0.5ha along with an additional five 30m trenches to the north and west of the main excavation area to further investigate the possible enclosure (Fig. 2, Trenches 18-22). The area will be accurately located by means of a Digital Global Positioning System (DGPS) and Total Station (Leica 1205 R100 Total Station, Leica System 1200 GPS or similar).
- 4.2 It is possible that significant archaeological features may extend beyond the limit of the excavation area. In this event, a contingency will be employed and the features will be exposed by machine either in their entirety or until their form and function is clarified to the satisfaction of CgMs Consulting and the archaeology adviser to the Local Planning Authority'.
- 4.3 Prior to excavation the area will be scanned prior to excavation using a Cable Avoidance Tool (CAT) operated by accredited ASE personnel.
- 4.4 Machine stripping will be undertaken using a tracked excavator fitted with a toothless ditching bucket under the supervision of an experienced archaeologist. Overburden deposits will be removed in spits of no more than 0.25m in thickness. Machine excavation will be carried down on to the top of archaeological deposits or the surface of natural deposits, whichever is uppermost. Care will be taken not to machine off seemingly homogenous layers that may include the upper parts of archaeological features. The resultant surfaces will be cleaned as necessary and planned.
- 4.5 Once the machine strip of the areas is complete a fixed site grid will be established relative to Ordnance Datum using a Total Station and/or survey grade Global Positioning System (GPS). A full pre-excavation plan will be prepared as the stripping progresses using Global Positioning System (GPS) planning technology in combination with Total Station surveying. This will be available to the Project Manager, the Supervisor and the archaeology adviser to the Local Planning Authority 'immediately, or at the latest the day after the recording has taken place. This pre-excavation plan will be available in Autocad or PDF format and will be printed at a suitable scale (1:20 or 1:50) for on-site use. The plan will be updated by regular visits to site by the Archaeology South-East Surveyor who will plot excavated features and record levels in close consultation with the Supervisor and/or the excavators. Where it is deemed necessary (for example detailed structural features or burials) features will be hand planned at a scale of 1:20 from the grid and then digitised to be included on the overall plan.

- 4.6 All excavation work will be carried out in line with the Recommended Standards Archaeological Conditions (WSCC 2015).
- 4.7 After the cleaning and planning of the excavation area the following sampling strategy will be employed:
- All structures and all zones of specialised activity (e.g. funerary, ceremonial, industrial, agricultural processing) will be fully excavated and all relationships recorded.
 - Ditches and gullies will have all relationships defined, investigated and recorded. All terminals will be excavated. Sufficient of the feature lengths will be excavated to determine the character of the feature over its entire course.
 - Discrete features will be 50% sampled (half sectioned/quadrated as appropriate). The remaining 50% will be removed if the feature is manifestly rich in ancient palaeoenvironmental remains.
 - For complex/ very significant features/ deposits/ artefact assemblages/ artefacts, the excavation feature sampling policy is to be subject to further discussion. If of exceptional nature, the advice of English Heritage may be sought.
 - Highly/nationally significant features (e.g. high status burials) strategy for excavation/scientific investigation/conservation etc. to be agreed between ASE, CgMs and archaeology adviser to the Local Planning Authority before work resumes.
 - For layers a decision on-site will be made between ASE, CgMs and the archaeology adviser to the Local Planning Authority as to the extent that they will be excavated. The factors governing the judgement will include the possibility that they mask earlier remains, the need to understand function and depositional processes, and the necessity to recover sufficient artefacts to date the deposit and to meet the project aims.
- 4.8 All excavated deposits and features will be recorded according to current professional standards using the standard context record sheets used by ASE employing a single context recording system.
- 4.9 A photographic record will be maintained. This will illustrate the principal features and finds both in detail and in a general context. The photographic record will also include working shots to represent more generally the nature of the fieldwork.
- 4.10 All finds recovered from excavated deposits will be collected and retained in line with the ASE artefacts collection policy.
-

- 4.11 All finds that are covered by the Treasure Act will be moved to a safe place and reported to the coroner's office according to the procedures of this Act. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the artefacts from theft or damage.
- 4.12 Any finds of human remains will be left in situ, covered and protected. The coroner's office will be informed. Excavation, recording and removal will only take place under the relevant Ministry of Justice licence and local authority environmental health regulations.

5.0 Environmental Sampling Strategy

- 5.1 On-site sampling methodology, processing and recording will be undertaken within the guidelines laid out by English Heritage (2011) and WSCC Recommended Standard Conditions (WSCC 2015) and in close consultation with the ASE environmental specialist (Dr Lucy Allott).
- 5.2 Samples will be collected from suitable excavated contexts, including dated/datable buried soils, well-sealed slowly silted features, sealed hearths, sealed features containing evident carbonised remains, peats, water-logged or cess deposits. In all instances deposits with clear residual or intrusive material will be avoided.
- 5.3 The sampling will aim to recover spatial and temporal information concerning the occupation of the site. This will be best achieved by sampling a range of feature types (e.g. pits, ditches, post-holes, cess pits) from across the site, the fills of which can be compared and contrasted. Where clearly defined fills are evident within features or in large features with superficially homogenous fills, stratified data will be obtained by taking multiple samples spread through the deposits.
- 5.4 A standard bulk sample size of 40litres (or 100% of small features) will be taken from dated/datable sealed contexts to recover environmental remains such as fish, small mammals, molluscs and botanicals. Larger samples of 80-100litres will be taken wholesale from some contexts, rich in large mammal bones and shell.
- 5.5 Sub-samples of up to 10 litres will be kept aside from the bulk samples for specialist processing and analysis to target retrieval of insects, fish bone and parasites for example. Where appropriate deposits are encountered column samples will be taken to assess pollen, ostracods and sediment profiles. Waterlogged wood samples will be recorded in situ if possible, sampled if large or removed for further analysis and identification.

- 5.6 Suitable sampling should be considered throughout the programme of archaeological fieldwork to ensure that material suitable for radiocarbon dating can be achieved. The precise requirements will be discussed and established with the archaeology adviser to the Local Planning Authority' as fieldwork progresses.

6.0 Processing and Post-Excavation Assessment

- 6.1 During the excavation, brief weekly progress reports will be supplied, in writing (via email), to the the archaeology adviser to the Local Planning Authority'. These will include timetabled information for the on-site works.
- 6.2 A brief summary report with feature plan will be provided to the archaeology adviser to the Local Planning Authority within 3 weeks of the complete cessation of on-site investigation if required.
- 6.3 All hand-collected, bulk finds (pottery, bone, stone, worked flint, building material) will be washed, dried and bagged by material and context. The pottery will be marked with site code and context number. All bulk finds will be counted and weighed and quantification presented on a context by context basis for each material group. Ceramic building material and burnt flint may be discarded after recording and quantification in line with the Guidelines of the Society of Museum Archaeologists (1993). Samples will be retained as appropriate.
- 6.4 In carrying out post-excavation work and analysis of ceramics from the Site, the Contractor will liaise with the Research Officer of the Sussex Archaeological Society (currently Mr Luke Barber, Research Officer, Sussex Archaeological Society, Barbican House, 169 High Street, Lewes, East Sussex BN7 1YE; tel. 01273 405736/ 01273 486260) with a view to ensuring a concordance between fabric type descriptions of ceramics from this site and those employed on other recently excavated sites in the area and those commonly employed elsewhere in Sussex. The reason for such liaison is to ensure against a proliferation of different systems of ceramic fabric type descriptions and nomenclature in the area of the relevant site. **NB.** Example sherds of each identified ceramic fabric type, with context information, to be sent by post to the Research Officer (address above) for comment and return.
- 6.5 All registered finds (coins, individual objects etc.) will be washed, dried and packaged as appropriate. Requirements for remedial conservation will be ascertained and carried out in order to stabilise objects. Site specific numbers will be assigned to each registered find for identification purposes.
- 6.6 All retained environmental samples will be processed by experienced and qualified staff and recorded using pro-forma recording sheets. Bulk samples from dry (non-waterlogged) deposits will be processed using flotation. As a minimum, 50% of each sample will be processed. The flots and residues from these samples will be retained, dried and sorted for environmental and archaeological remains. Samples from waterlogged deposits will be wet sieved through nested sieves and

stored in anaerobic, wet, cool conditions or dried if considered an appropriate form of conservation. Column samples and samples extracted for analysis of insects or parasites for example will be sent to an appropriate specialist for assessment. Waterlogged wood specimens will be recorded, sampled for identification and stored in wet, cool conditions. All will be assessed and retained as appropriate.

- 6.7 A post-excavation assessment report and updated project design will be prepared within six months of completion of the site work.
- 6.8 The assessment report will be in line with guidelines set out in Management of Research Projects in the Historic Environment (MoRPHE; English Heritage 2006) and MoRPHE Project Planning Note 3: Archaeological Excavation (English Heritage 2008) and will adhere to the standards laid out in the WSCC Recommended Standard Archaeological Conditions (2007); specifically Section 6 and Annex C which apply to post-excavation reporting standards.
- 6.9 A draft copy of the report will be sent to the archaeology adviser to the Local Planning Authority in the first instance for his comments and approval. Once the report has been accepted further copies and one electronic copy in PDF format will be sent. A copy will be forward to Local Planning Authority (MSDC) by the client or by Archaeology South-East on their behalf.
- 6.10 A copy of the post-excavation assessment report will be supplied to the County SMR on the understanding that it will become a public document after an appropriate period of time not exceeding six months.
- 6.11 An Online Access to the Index of Archaeological Investigations (OASIS) form will be completed at <http://ads.ahds.ac.uk/project/oasis/> following the completion of the Assessment report and included as an appendix.

7.0 Final Reporting and Archive Deposition

- 7.1 In line with the recommendations of the Post-excavation Assessment and Updated Project Design report, agreement shall be reached with the archaeology adviser to the Local Planning Authority regarding the format and destination of subsequent publication(s) arising from all investigations (evaluation, excavation, watching brief etc).
- 7.2 Upon completion of the final report for publication, the archive will be prepared for deposition in accordance with the Guidelines for the Preparation of Excavation Archives for Long-term Storage (United Kingdom Institute for Conservation 1990) and Standards in the Museum Care of Archaeological Collections (Museums and Galleries Commission 1994).

- 7.3 Permission will be sought for the deposition of the site archive and finds in Littlehampton museum as soon as a start date for the field work is confirmed. An accession number will be obtained as necessary.
- 7.4 In the event that there is important archaeology on the site, a wider, community and educational approach to communicating the heritage of the site will be implemented in consultation with the archaeology adviser to the Local Planning Authority' and the client.

8.0 Project Management

- 8.1 This project will be managed by Matthew Smith (Overall), Darryl Palmer (Fieldwork) and Jim Stevenson (Post-Excavation).

9.0 Health and Safety

- 9.1 Health and Safety must take priority over archaeological requirements. It is essential that all projects be carried out in accordance with safe working practices and under a defined Health and Safety Policy. A Risk Assessment for the project will be prepared prior to the commencement of work and all relevant health and safety regulations will be adhered to.

10.0 Preparation and deposition of the finds and archive

- 10.1 The site archive will be assembled in accordance with the guidelines set out in English Heritage's Management of Archaeological Projects 2 and in accordance with the guidelines published in *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission, 1994).
- 10.2 Permission will be sought to deposit the archive with Littlehampton Museum, who have been notified of the project and agreed to accept the archive. The archive will be prepared according the principles of Management of Archaeological Projects (English Heritage, 1991) and the requirements of the recipient museum.

11.0 Public Communication

- 11.1 The scale of public communication will be dependent on the quality of the results of the archaeology and will be agreed between CgMs, ASE and the archaeology adviser to the Local Planning Authority'. However, it is noted that the site lies within Worthing Archaeological Society's area of interest.

12.0 Insurance

- 12.1 Archaeology South-East is insured against claims for: employer's liability to the value of £50,000,000 each and every loss, any one occurrence; primary public/products liability to the value of £50,000,000 any one occurrence and in the aggregate for products liability, with an extension for no-fault compensation up to £50,000,000 in the aggregate; professional indemnity to the value of £50,000,000 any one occurrence and in the aggregate.

Archaeology South East
December 2016

References

ASE 2015 *An Archaeological Evaluation on Land west of Westergate, West Sussex*. Report no: 2015258

Archaeology South-East, 2007 *Post-Excavation Manual 1: Finds and Environmental Deposition and Processing Guidelines*

BGS 2014 <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 14th December 2016

ClfA, 2014 *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*

CgMs Consulting, 2013 *Archaeological Desk-based Assessment: Land West of Westergate, West Sussex*

English Heritage, 1991 *Management of Archaeological Projects 2*

English Heritage, 2008 *Management of Research Projects in the Historic Environment*

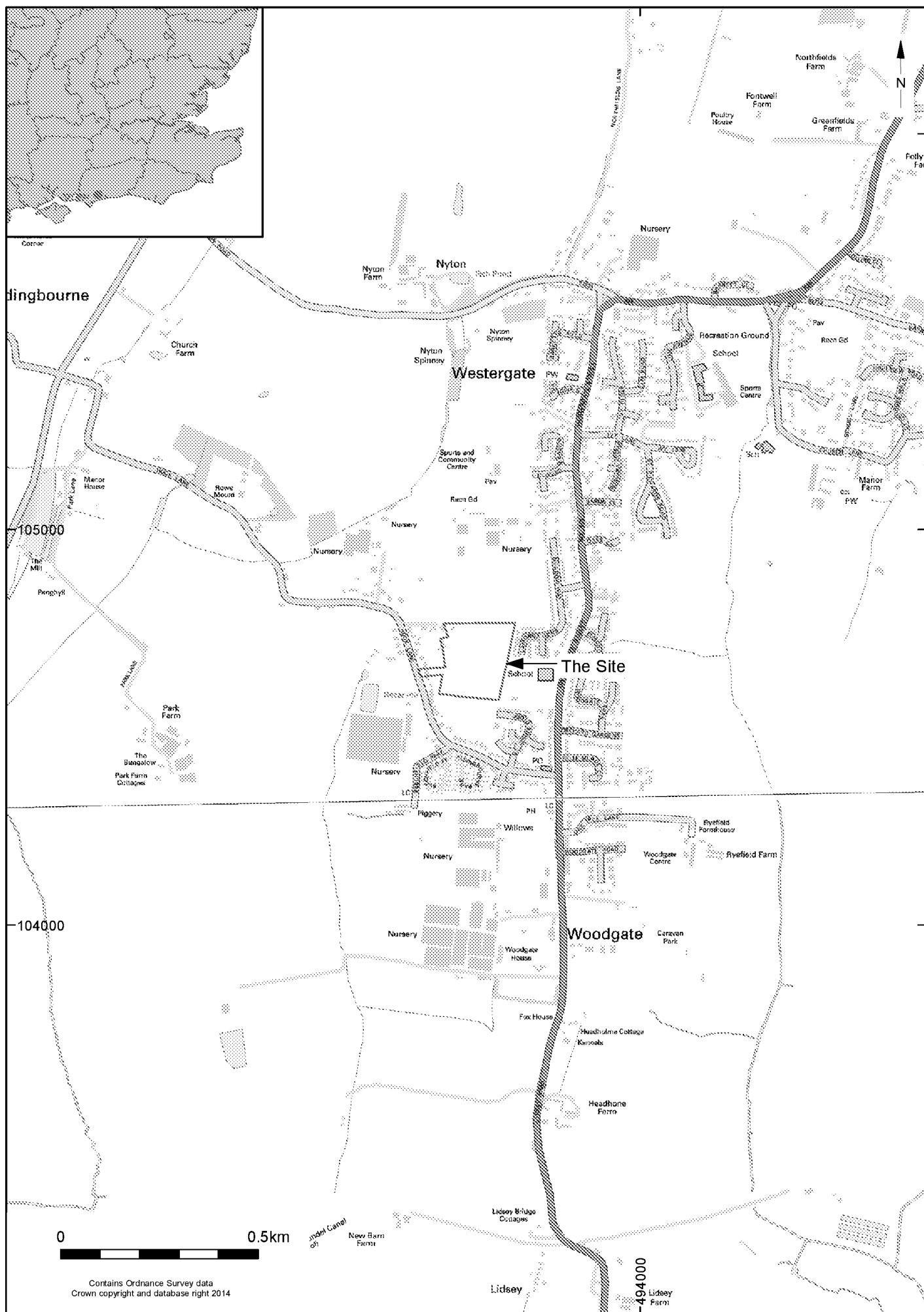
English Heritage, 2011 *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

Museums and Galleries Commission, 1994 *Standards in the Museum Care of Archaeological Collections*

Society of Museum Archaeologists, 1993 *Selection, Retention and Dispersal of Archaeological Collections, Guidelines for use in England, Wales and Northern Ireland*, (1st ed.)

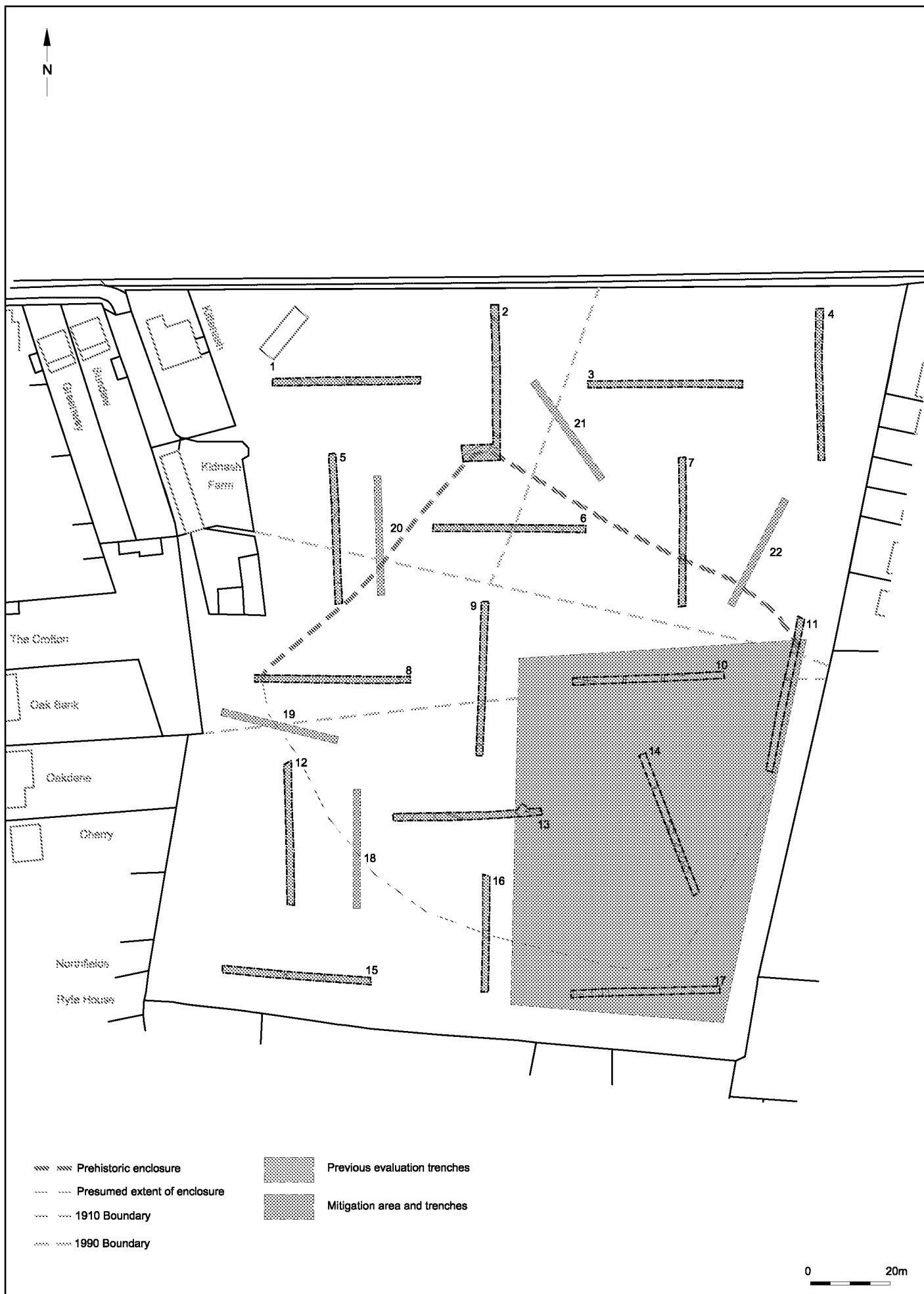
United Kingdom Institute for Conservation, 1990 *Guidelines for the Preparation of Excavation Archives for Long-term Storage*

WSCC, ESCC & CDC, 2015. *Sussex Archaeological Standards*



Contains Ordnance Survey data
Crown copyright and database right 2014

© Archaeology South-East		Land West of Westergate	Fig. 1
Project Ref: 7934	December 2016	Site location	
Report Ref:	Drawn by: LG		



© Archaeology South-East

Project Ref: 7934

Report Ref:

December 2016

Drawn by: LG

Land West of Westergate

Trench Location

Fig. 2

Cgms

www.cgms.co.uk