

WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL EVALUATION

Phase 1 East, Burgess Hill Northern Arc, West Sussex

Planning Ref: DM/18/5114

Site Code: ARC22

March 2022

1.0 INTRODUCTION

- 1.1 Archaeology South-East (ASE) has been commissioned by RPS on behalf of their client Bellway Homes to undertake archaeological evaluation of three parcels of land forming Phase 1 East of the Burgess Hill Northern Arc scheme, West Sussex, hereafter 'the sites' (centred on NGR 531067 121052 & 531524 120598; Fig. 1).
- 1.2 The sites lie in a primarily agricultural landscape to the immediate north of Burgess Hill. The eastern site (P1.3) lies to the east of Freeks Lane at Lowlands Farm and comprises a number of small fields/paddocks surrounded by woodland. The western two sites (P1.5 & P1.6) lie in arable fields to the east of Isaacs Lane (A273) and are bisected by the route of the Northern Arc Link Road.
- 1.3 According to the British Geological Survey the sites lie over Weald Clay Formation (Mudstone). Superficial deposits are not mapped (BGS 2022).
- 1.4 Mid-Sussex District Council have granted planning permission for mixed-use development of the wider Burgess Hill Northern Arc site subject to conditions (DM/18/5114). Condition 11 is for archaeology:

11. No development shall take place within a reserved matters area until the applicant has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation for that reserved matters area, to be first submitted to and approved in writing by the Local Planning Authority.

Reason: To identify and to secure the appropriate level of work that is necessary before commencement of the development in respect of protecting archaeological heritage assets , and also what may be required after commencement and in some cases after the development has been completed, and to accord with Policy DP34 of the Mid Sussex District Plan 2014 - 2031.

- 1.5 This document represents a Written Scheme of Investigation (WSI) for subsequent archaeological mitigation of the site. It has been prepared in accordance with relevant Standards and Guidance of the Chartered Institute for Archaeologists (CIfA 2014a-c). All work will be reported upon in line with guidelines set out in Management of Research Projects in the Historic Environment (MoRPHE; Historic England 2015). It will be submitted to all parties for approval prior to the commencement of work at the site.
- 1.6 All work will be carried out in accordance with the Sussex Archaeological Standards (2019) which outlines the methodology to be used in the field, and in reporting and archiving of the results. The project will be managed by Paul Mason (Project Manager) and by Jim Stevenson (Post-Excavation Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 Recent archaeological fieldwork has taken place in close proximity to all three of the Phase 1 East areas. What follows is a summary of the pertinent findings.
- 2.2 Recent evaluation at Freek Farm, to the immediate north and west of the P1.3 site recorded archaeology in ten of the trenches and in no apparent concentration. Six undated linear features, 1 undated posthole, 3 undated pits and one, possibly prehistoric pit were recorded (ASE 2020). Subsequent test pitting included a gridded array lying some 120m north-west of the site. Small numbers of struck flint were recovered from the overburden, suggesting only low intensity use of the site during the Mesolithic and late prehistoric periods. Assemblages of pottery, CBM, glass, metalwork, leather and stone were recovered from the overburden, but in no considerable concentration. This was indicative of manuring being undertaken during the 19th and 20th centuries (ASE 2021a)
- 2.2 Trial trench evaluation on land at the Northern Arc Eastern Bridge and Link Road identified a number of undated fire pits, post-holes and pits, probable post-medieval field boundary ditches, a deposit of colluvium and a palaeochannel. In addition, early prehistoric flintwork was recovered from the topsoil and subsoil horizons. Subsequently, two areas totalling c.2.04ha were mechanically stripped including the link road where it passes between the P1.5 & P1.6 areas (ASE 2021b).
- 2.3 The earliest evidence of activity consisted of a background scatter of flintwork and a shallow spread, both of Mesolithic date. Neolithic flintwork, including an unfinished arrowhead, demonstrated exploitation of the resources of this part of the Weald. However, the first clear alterations to the landscape dated from the Middle Iron Age. Pits containing burnt clay, and clusters of post-holes suggest slightly more intensive occupation than in previous periods, although with no evidence of agricultural activity. The most interesting features encountered consisted of a thin scatter of remarkably similar pits/hearths showing evidence of *in situ* burning and primary fills rich in oak charcoal. These somewhat enigmatic features were spread across both examined mitigation areas. Limited pottery finds and radiocarbon dating suggest these were created in the Romano-British era. Although their function remains unproven, it is suggested they represent the scant remains of woodland clearance although alternative interpretations, such as charcoal production are also considered.
- 2.4 Evidence for medieval activity consisted of abraded pottery recovered from the overburden, and possible field boundaries close to Isaacs Lane, although their date remains unconfirmed. Post-medieval activity was more clearly represented in a varied assemblage of artefacts from the topsoil, and clear land division in the form of substantial ditches corresponding to field boundaries shown on cartographic sources.

3.0 RESEARCH AIMS AND OBJECTIVES

- 3.1 The aims of the archaeological investigation are to ascertain:

- Whether archaeological remains are present on the site and if so to assess their nature, date, survival and significance;
 - How they might be impacted by the development of the site;
 - To enable the County Council Archaeology Officer to make an informed decision as to the requirement for any further archaeological work either in advance of, or during, the development.
- 3.2 The project also has the potential to inform on the following areas of research from the South-Eastern Research Framework (SERF);
- The use of the Weald in later prehistory (SERF Middle Bronze Age – Iron Age Periods)
 - Agricultural economy – structural aspects; animal and plant remains (SERF Roman Period)
 - To what extent and in what ways have developments in agricultural technology and demand influenced historic landscape development? (SERF Historic Landscapes)
 - To what extent and in what ways can past landscapes and their components (prehistoric onwards) be understood in the present landscape? (SERF Historic Landscapes)
 - An understanding of the multifaceted landscape (SERF: Post-medieval and modern period)

4.0 METHODOLOGY

- 4.1 Fifty-three trenches measuring 30m long by 2m wide will be excavated across the three areas as shown in Figure 2.
- 4.2 The trenches will be accurately laid out using a GPS survey system or total station and tied in to the National Grid. Some modification to the suggested trench positions may be necessary due to obstructions. Significant variations to the trench layout will be discussed with The Client and the SCC Archaeological Officer.
- 4.3 The trenches will be scanned prior to excavation using a CAT scanner. The trenches will be excavated using a suitable mechanical excavator (360° excavator) equipped with a toothless ditching bucket.
- 4.4 Only undifferentiated topsoil, subsoil and overburden of recent origin will be removed by machine and will be kept separately. The excavation will be taken down to the top of the first significant archaeological horizon or the top of the underlying 'natural', whichever is uppermost. Due to Health and Safety considerations the trench will not be excavated beyond a safe working depth (generally c. 1.2m) unless suitable precautions (i.e. stepping or battering of trench edges, and /or shoring) have been implemented; the indicative depth of 1.2m may be reduced if the trench sides appear to be particularly unstable. All machining will be undertaken under the supervision of a suitably qualified archaeologist.
- 4.5 On conclusion of the excavation, the spoil will be backfilled by ASE's plant. No formal reinstatement to previous condition (i.e. re-turfing) will be undertaken.

- 4.6 A Risk Assessment will be produced and agreed with the client prior to the commencement of the work.

5.0 EXCAVATION AND RECORDING TECHNIQUES

- 5.1 All exposed archaeological features and deposits will be cleaned by hand, planned and recorded. All discrete cut features will be sampled as a minimum by half section (i.e. 50% of feature excavated). At least 25% of any linear feature will be sectioned to produce a vertical section where practicable. A minimum 50% of structural features (beamslots, ring ditches) - actual surviving structural elements (walls, collapse/debris fields) will be exposed, cleaned and preserved for excavation in more appropriate circumstances. 50-100% domestic/industrial working features (hearths, ovens) - unless large & structural, in which case see above. All features will be planned at the scale of 1:20 in relation to the trench outline. Further plans at the scale of 1:20 and sections at the scale of 1:10 will be drawn as necessary. Plans will be drawn on plastic film. Comparative site levels will be recorded for each feature or important context with reference to an OS bench mark, or if unfeasible to an arbitrary on-site datum.
- 5.2 All archaeological features and deposits will be recorded using the standard context record sheets used by Archaeology South-East, UCL. A metal detector will be used to scan all excavated material.
- 5.3 The Client and the SCC Archaeological Officer will be informed immediately of any archaeological features or deposits worthy of preservation *in situ*, and generally of any high quality archaeological remains in order that this written scheme of investigation can be reviewed if necessary.
- 5.4 The strategy for sampling archaeological and environmental deposits and structures encountered during any stage of archaeological fieldwork (which can include soils, timbers, animal bone and human burials) will be developed with reference to English Heritage guidelines for environmental archaeology (English Heritage 2011) and waterlogged wood (English Heritage 2010) and in consultation with the English Heritage 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.
- 5.5 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.

- 5.6 In the event that human remains are discovered the SCC Archaeological Officer will be informed. No human remains will be lifted at evaluation stage unless it is unavoidable and only with the appropriate licence from the Ministry of Justice.
- 5.7 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 local Finds Liaison Officer. Should the find's status as treasure be confirmed the Coroner, the landowner and the County Archaeologist will also be informed. A record shall be provided to the Coroner and to the County 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).

6.0 PROCESSING AND IDENTIFICATION OF RECOVERED MATERIAL

- 6.1 All pottery, bone and worked flint recovered from the excavation will be washed and marked with an appropriate code to identify the site and context. Most ceramic and other building material (not including significant diagnostic 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 stabilized using passive conservation techniques where appropriate before being deposited with the receiving museum.
- 6.3 Environmental 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 REPORTING

- 7.1 Within six weeks of the completion of the fieldwork a full report on the results of the field evaluation will be submitted. It will include the local geology and archaeological evidence. It will describe the work undertaken and results of elements described above. It will include a description of archaeological features and tabulated details of finds from each context. A list of environmental samples and any samples taken for future dating will also be

included. The report will include a plan showing the trench locations. Further plans, sections and photographs of features located and excavated will be included as necessary. The report will also include a timetable of works carried out, a consideration of the project strategy with a confidence rating and all other data required by the Brief.

- 7.2 Following internal review the report will be submitted to The Client and the SCC Archaeologist for comment/approval. Once any necessary amendments have been made by ASE the requisite number of bound and digital copies (PDF format) will be distributed to The Client, SCC and other interested parties.

8.0 PREPARATION AND DEPOSITION OF THE FINDS AND ARCHIVE

- 8.1 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).
- 8.2 Permission will be sought from the landowner to deposit finds and paper archive in an appropriate local museum.

9.0 HEALTH AND SAFETY

- 9.1 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.

10.0 INSURANCE

- 10.1 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 £15,000,000 in the aggregate; professional indemnity to the value of £15,000,000 any one occurrence and in the aggregate.

11.0 SPECIALISTS TO BE USED AS NECESSARY:

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|------|-----------------------------|------------------------------|
| 11.1 | Prehistoric & Roman pottery | Anna Doherty (ASE) |
| | Medieval/post-med pottery | Luke Barber |
| | Human remains | Lucy Sibun (ASE) |
| | Human remains (cremated) | Lucy Sibun (ASE) |
| | Environmental samples | Lucy Allott (ASE) |
| | Flint | Karine Le Hegarat |
| | Metalwork | Luke Barber |
| | Conservation | UCL Institute of Archaeology |

- 11.2 These are the most commonly required specialisms. Should other specialists be required they will be appointed as necessary to the satisfaction of ASE Quality Assurance procedures and those of SCC.

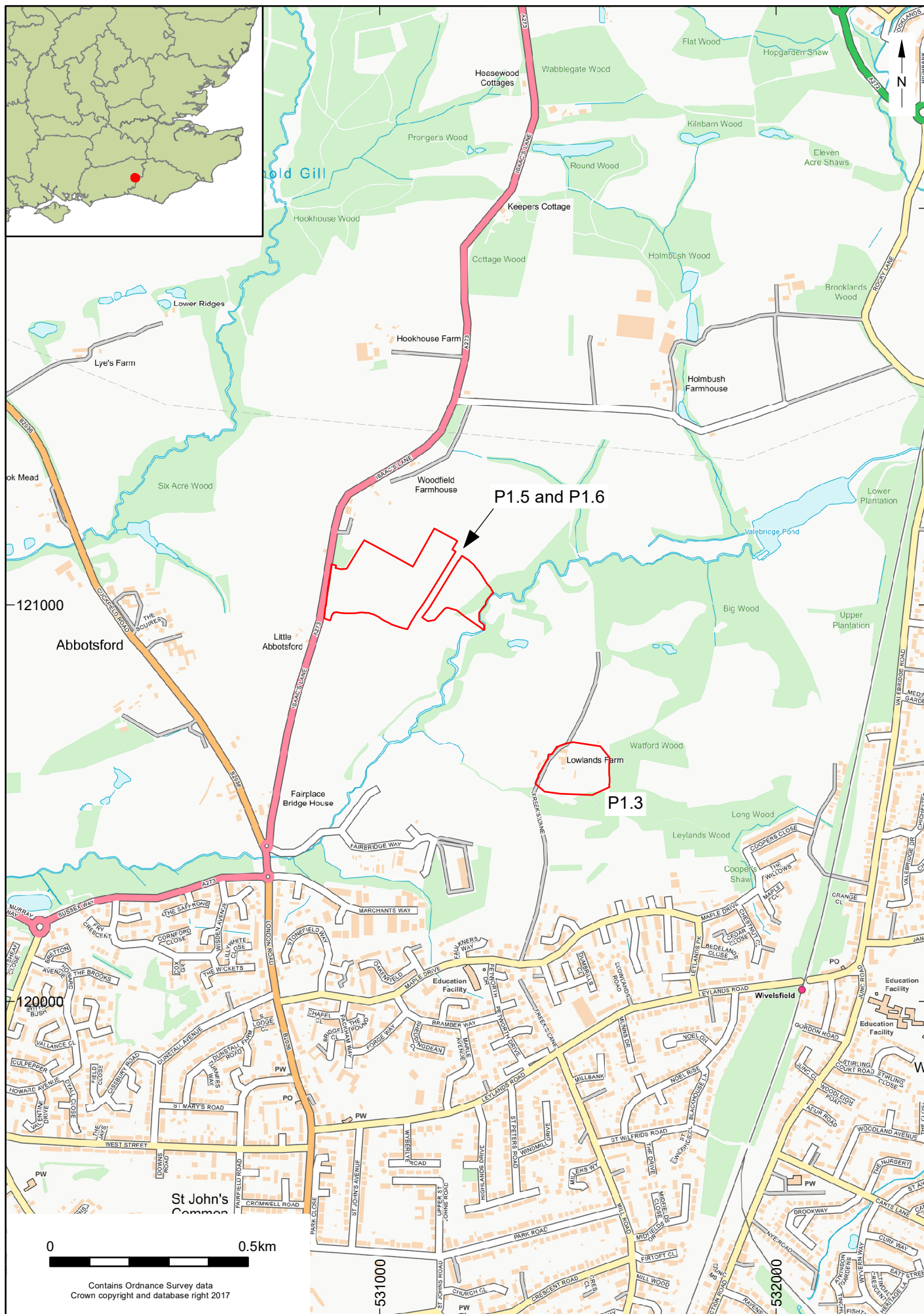
12.0 MONITORING

- 12.1 Provision will be made at all stages of the project for The Client and the SCC Archaeological Officer to monitor progress and standards. Adequate provision will be made available by ASE for the SCC Archaeological Officer to make site monitoring visits at agreed and specified times.

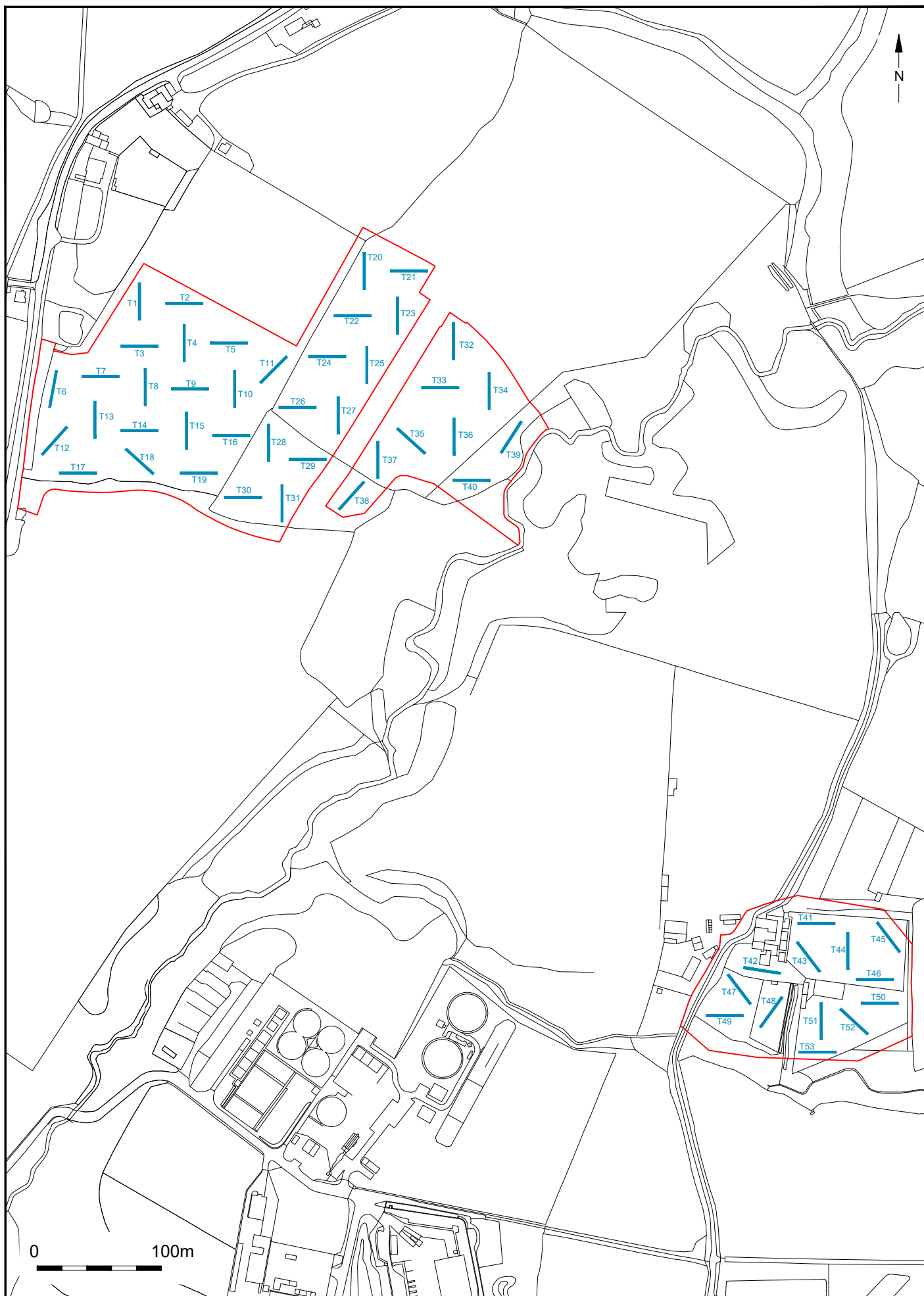
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***Archaeology South-East
February 2022***



		Northern Arc Phase 1, Burgess Hill		Fig. 1
		Site Location		



	Northern Arc Phase 1, Burgess Hill	Fig.2
	Proposed Trench Location	



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