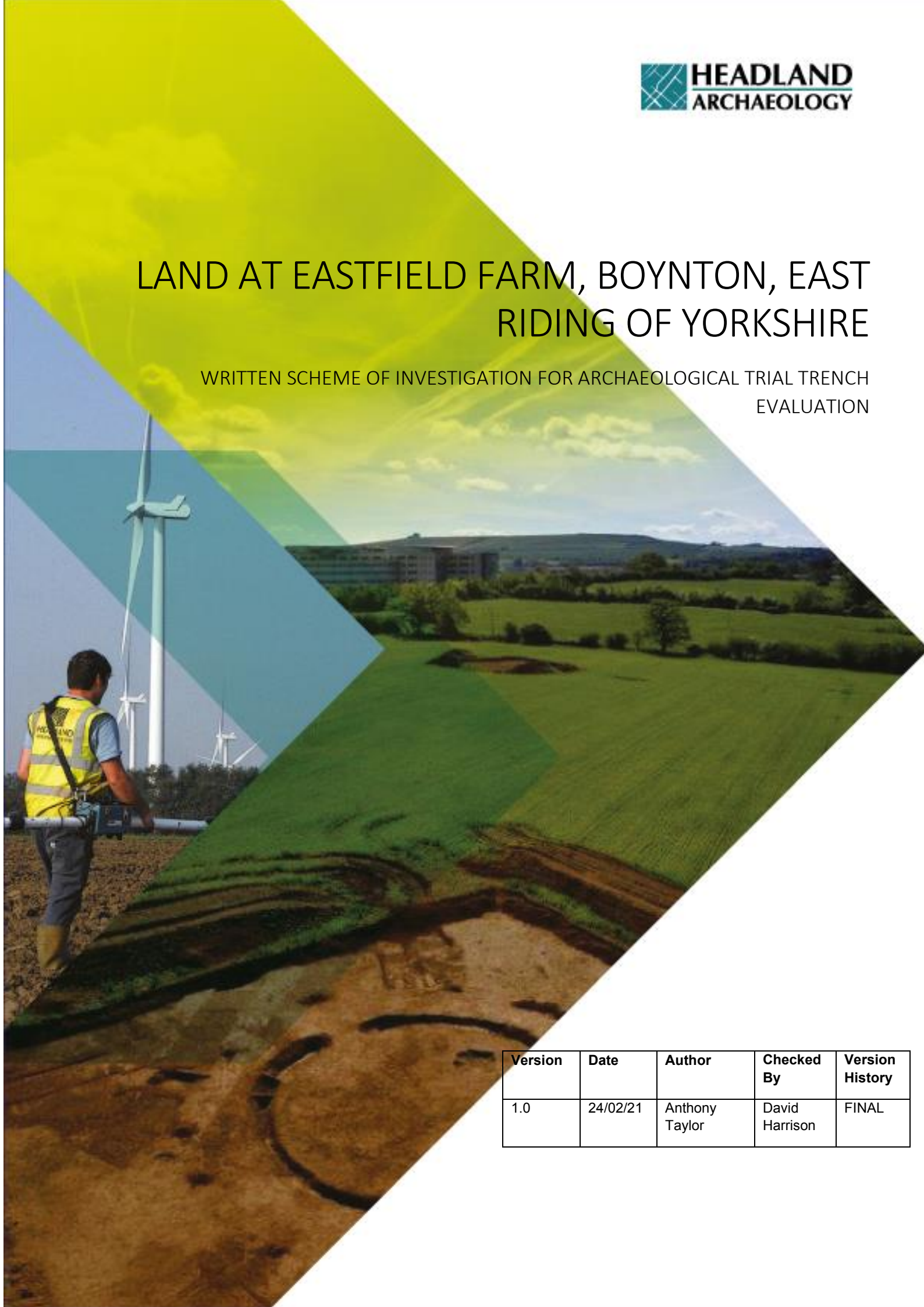


LAND AT EASTFIELD FARM, BOYNTON, EAST RIDING OF YORKSHIRE

WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL TRIAL TRENCH EVALUATION



Version	Date	Author	Checked By	Version History
1.0	24/02/21	Anthony Taylor	David Harrison	FINAL

CLIENT

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PROJECT NAME	LAND AT EASTFIELD FARM, BOYNTON, EAST RIDING OF YORKSHIRE		
PLANNING REF	20/20617/PLF	HEADLAND REF	EFFB21
NGR	TA 15185 68098		
WORK STAGE	Written Scheme of Investigation for Archaeological Trial Trench Evaluation		
PURPOSE OF WORK	To undertake the archaeological evaluation of 3 trial trenches (2m x 25m) and present the results in a report in order to provide archaeological information to support a planning application for the erection of a livestock building and associated feed bins.		
AUTHOR	Anthony Taylor		
PROJECT MANAGER	David Harrison		

1 INTRODUCTION

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by Headland Archaeology (UK) Ltd on behalf of Ian Pick Associates ('the agent') Ltd for J Stephenson and Partners ('the client').
- 1.2 Headland Archaeology have been commissioned to agree the scope of works, prepare the Written Scheme of Investigation (WSI – this document) and carry out the investigations. The evaluative approach has been agreed following discussions with James Goodyear (Archaeological Advisor to the East Riding of Yorkshire Council). The WSI has been prepared in accordance with Condition 5 of Planning Application No: 20/02617/PLF.

Condition 5 states

No development shall commence until a written scheme of investigation has been submitted to and approved by the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and:

- 1. The programme and methodology of site investigation and recording*
- 2. Provision to be made for analysis of the site investigation and recording.*
- 3. The programme for post investigation assessment.*
- 4. Proposals for the preservation in situ, or for the investigation, recording and recovery of archaeological remains and the publishing of the findings, it being understood that there shall be a presumption in favour of their preservation in situ wherever feasible*
- 5. Provision to be made for publication and dissemination of the analysis and records of the site investigation and a timetable for publication.*
- 6. Provision to be made for archive deposition of the analysis and records of the site investigation.*
- 7. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.*

No development shall take place other than in accordance with the Written Scheme of Investigation as required above or any subsequent written scheme of investigation to secure a programme of archaeological mitigation. The archaeological programme shall be carried out as approved.

- 1.3 The works will consist of 3 trial trenches (2m x 25m), representing a 2.3% sample of the proposed building footprint.
- 1.4 The WSI is designed to conform to the outline contained in Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (HE 2006) and will be submitted to the archaeological advisor for agreement before the project commences.
- 1.5 All work specified in this brief will be carried out in the context of the National Planning Policy Framework (MHCLG 2019) which states that, in circumstances where heritage assets will be damaged or lost as a result of development, Local Planning Authorities should require developers to record and advance the understanding of the asset to be lost in a manner appropriate to the significance of the asset. The evidence (and any archive) generated during the works should be made publicly accessible; copies of the evidence generated should be deposited with the relevant Historic Environment Record and archives with the relevant Museum.
- 1.6 The scope of the works takes into account relevant standards and guidance by the Chartered Institute for Archaeologists (CIfA 2014a & 2014b).

2 DESCRIPTION OF THE SITE

- 2.1 The Proposed Development Area (PDA) comprises an irregularly-shaped parcel of land in a single field to the south-east of Eastfield Farm located 2.5km west of the town of Bridlington centred at TA 15185 68098. The field is bounded to the north by the B1253 Easton Road, to the south by the Gypsey Race and by arable farmland to the east and west.
- 2.2 The bedrock geology comprises Flamborough Chalk Formation and is overlain by alluvial silt, sand and gravel formed in the Quaternary Period (NERC 2020).
- 2.3 The soils are classified in the Soilscape 20 Association, characterised as loam and clay floodplain soils with naturally high groundwater (Cranfield University 2020).

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 James Goodyear, Development Management Archaeologist for Humber Historic Environment Record (Archaeological Advisor to the East Riding of Yorkshire Council) has advised that:

The proposed development lies in an archaeological landscape that has seen intensive occupation since the prehistoric period onwards. The remains of settlement and funerary monuments of prehistoric date have been recorded on aerial photographs and through archaeological fieldwork across the area. The Gypsey stream which lies directly to the south of the application site has been identified as an important focus for settlement during the prehistoric period. The application site also lies adjacent to the course of the Roman Road that ran from Bridlington to Fridaythorpe (Humber HER ref HER/PA/CONS/28221).

4 OBJECTIVES

- 4.1 In general, the purpose of the investigation is to identify and assess the significance of any element of the historic environment that may be affected by the relevant proposal (including by development affecting the setting of a heritage asset). This will be achieved by determining and understanding the nature, function and character of any remains on the site, in their cultural and environmental setting.
- 4.2 Specifically, the aims of the evaluation are to provide information on:
 - the location, extent, nature, and date of any archaeological features or deposits that may be present; and
 - the integrity and state of preservation of any archaeological features or deposits that may be present.
- 4.3 The resulting archive (finds and records) will be prepared in accordance with the Archaeological Archive Deposition Policy for Museums in Yorkshire and the Humber (Turnpenny 2012) and organised and deposited with the local museum to facilitate access for future research and interpretation for public benefit.

5 SCHEDULE

- 5.1 The trial trenching is currently scheduled to take place on Monday 17 May 2020.

6 PROJECT TEAM

- 6.1 The programme of archaeological work and reporting will be undertaken by Headland Archaeology (UK) Ltd. The work will be managed for Headland Archaeology by David Harrison BA MSc MCIfA. The field team will consist of experienced archaeologists; CVs of key personnel can be supplied upon request. The project team will familiarise themselves with the background to the site and will be aware of the project's aims and methodologies.
- 6.2 Specialist artefact analyses will be managed by Julie Franklin (MCIfA) who is Headland's Finds Manager. Julie will undertake finds assessment within her areas of competence (medieval and post-

medieval metalwork, glassware, clay pipes, ceramic building material and other small finds). Further consultation (particularly ceramics) will be sub-contracted to recognised period specialists (familiar with finds from this geographical area) as appropriate.

- 6.3 Environmental analysis will be managed by Laura Bailey (MCIfA). Headland has in-house specialists who can undertake analysis of pollen, plant macrofossils, insect remains and thin sections. Headland Archaeology also has in-house specialists in human and faunal remains. These staff can be consulted as required.
- 6.4 Headland Archaeology (UK) Ltd is a Registered Archaeological Organisation and abides by the Codes of Conduct and Approved Practice and Standards of the Chartered Institute for Archaeologists (CIfA 2014a & 2014b). The company has all the necessary technical and personnel resources for the satisfactory completion of the evaluation.

7 STRATEGY

- 7.1 Excavation of 3 trial trenches (2m x 25m) is proposed and will be agreed with the Historic Environment Officer prior to works commencing. The trial trenches will target all parts of the site where invasive groundwork is proposed. The proposed Trial Trench location is laid out in Figure 1 below.

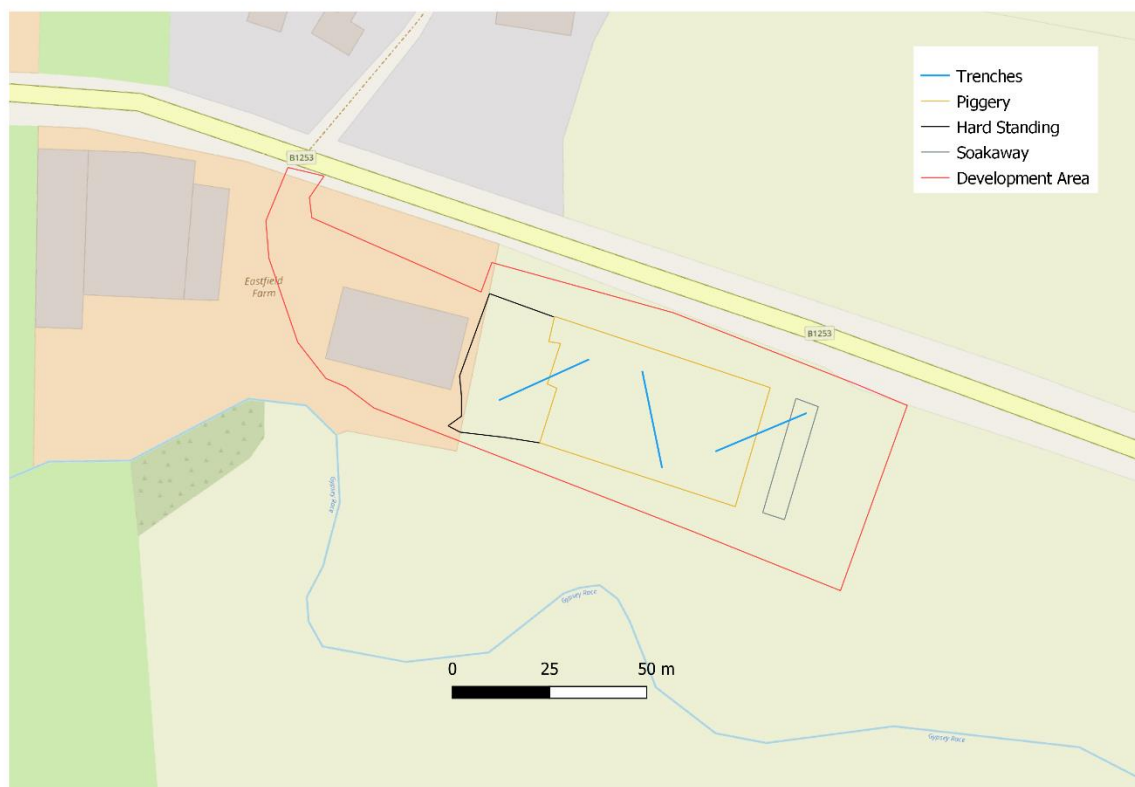


FIGURE 1 PROPOSED TRENCH PLAN

- 7.2 Post-excavation analysis, assessment, reporting and inclusion in the publication will be required at the completion of the fieldwork.
- 7.3 Prior to work commencing on site, a short project briefing will be held for all staff (including plant contractors) to ensure they are clear on the requirements of the brief and the objectives of the work. Regular updates on progress, discoveries and resulting interpretations and any alterations to methodologies will be provided throughout the course of the works.

8 METHODOLOGY

- 8.1 All trenches will be set-out using either differential GPS or Total Station EDM. A cable avoidance tool (CAT Scanner) will be used to scan trenches in advance of opening. The position of any overhead cables will be noted on site and an appropriate stand-off will be used to ensure that no trenches are excavated in unsuitable locations.
- 8.2 Works will be conducted with a 14-ton tracked excavator (or similar), suitably equipped with a 2m wide toothless ditching bucket. All trenches will be excavated by machine under direct archaeological supervision to remove topsoil and deposits of modern make-up and will be excavated in controlled spits. Machine excavation will terminate at the top of the natural geology or the first significant archaeological horizon, whichever is encountered first. Any further excavation required to satisfy the objectives of the evaluation will continue by hand. On completion of machine excavation, all faces of the trench that require examination or recording will be cleaned using appropriate hand tools. The stratigraphic sequence will be recorded in full in each of the trenches, even where no archaeological deposits have been identified. All excavation by machine and hand will be undertaken with a view to avoid damage to archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than for the purposes of evaluation. Where structures, features or finds appear to merit preservation in situ they will be adequately protected from deterioration.
- 8.3 A sufficient quantity (to adequately evaluate the site) of identified features will be investigated and recorded. This will typically involve excavation of 50% of discrete features, and 10% (or a percentage sufficient to achieve information on the character, function and dating) of linear and/or very large and deep features. Slots excavated in linear features or large features (e.g. a spread of material) should be 1m wide. Where features form a definite arrangement a sample of features within the arrangement will be sample excavated. Features not suited to excavation in evaluation trenches will be investigated in plan only. This would typically apply to areas of complex, intercutting features such as structures with in-situ floor surfaces, kilns and other 'special' features, all of which benefit from open area investigation and suffer when excavated during trial trench evaluations. No features will be wholly excavated; similarly, structures and features worthy of preservation will not be unduly excavated. Sondages will be excavated through alluvial sequences to identify any buried archaeological/palaeo deposits. All other features exposed will be sample excavated. A metal detector will be to be used on archaeological features at the pre-excavation stage and on spoil arising from sectioning of archaeological features.
- 8.4 Due to Health and Safety considerations, excavations will be limited to a maximum depth of 1.2m below existing ground level. Should archaeological deposits extend to a depth in excess of 1.2m below the existing ground surface, the trenches may be widened in order to facilitate investigation. This will be decided on a site-by-site basis in line with the project risk assessment.
- 8.5 An auger may be used to verify depths and to inform the appropriate evaluation of paleoenvironmental remains should deep alluvial deposits or paleochannels be present- advice will be sought from the Natural England Regional Science Advisor as required.
- 8.6 In the event that hearths, kilns or ovens (of whatever period, date or function) are identified during the evaluation, the Conservation Team will be contacted to discuss the appropriate response. This may include consultation with the appropriate Scientific Officer of Historic England.
- 8.7 The curator dealing with this application will be informed on the start date and timetable for the evaluation in advance of work commencing. Access to the site will be afforded to the curator to monitor the progress of the work. Any significant discoveries or unexpected conditions will be communicated immediately to the client's representative and the planning authority.

9 HUMAN REMAINS

- 9.1 All finds of human remains will be reported to the client, the coroner and the HET. None will be excavated during the course of the present program of work unless circumstances (e.g. security) require their removal. If human remains are to be excavated during subsequent work, a license will

be gained from the Home Office in accordance with Section 25 of the 1857 Burial Act. All excavation and treatment of cremated and inhumed human remains will be undertaken in cognisance of IFA Technical Paper Number 13 (Brickley & McKinley & 2004) and relevant English Heritage guidelines (2005).

10 REINSTATEMENT

- 10.1 Upon completion of fieldwork, and after any monitoring visit by the archaeological advisor (if required), all trenches will be backfilled by machine and tamped down as tidily as practicable.

11 RECORDING AND QUALITY

- 11.1 All recording will follow ClfA Standards and Guidance (2014b). All contexts, small finds and environmental samples will be given unique numbers. All recording will be undertaken on pro forma record cards.
- 11.2 A photographic record of all contexts will be taken using digital photography; a graduated metric scale will be clearly visible. The digital photographs will be submitted to the Archaeological Data Service (ADS) for long-term archive storage.
- 11.3 A site plan including all identified features, areas of excavation and other pertinent information will be recorded digitally. The site plan will be accurately linked to the National Grid and heights to OD. Where appropriate, sections and stratigraphic sequences will be recorded digitally. Digital recording will be undertaken using a differential GPS or an EDM linked to a hand-held computer in order to allow data checking while in the field. If additional detailed recording of features and sections is required (i.e. where their complexity means that archaeological information could be lost if recorded digitally) then plans and sections will be hand-drawn on matt coated drafting film at an appropriate scale (normally 1:20 or 1:50 for plans and 1:10 for sections).
- 11.4 Where stratified deposits are encountered, a 'Harris' matrix will be compiled.
- 11.5 Headland maintains a digitally-based library of guidance documents that includes information on field excavation and recording. Relevant parts can be forwarded on request.

12 FINDS AND ENVIRONMENTAL SAMPLES

- 12.1 Finds will be routinely recorded by context and recorded 3-dimensionally where appropriate (i.e. where their position within a context can provide further significant information or the find is of particular significance). Any artefacts retrieved during the works will be cleaned using appropriate techniques and packaged and stored in accordance with First Aid for Finds (Watkinson & Neal 1998). All artefacts recovered during the evaluation will be cleaned, marked and catalogued. Headland's in-house finds specialists will be available to provide advice remotely or on site if necessary. Conservation will be undertaken by Scottish Conservation Studio (for metalwork) and AOC Ltd (for organics).
- 12.2 Deposits identified as archaeologically significant will be sampled for environmental material and other finds (e.g. bone, pottery etc.). Bulk samples will be taken from selected deposits for wet sieving and floatation in order to recover any environmental material. A bulk sample will typically be 40 litres. Small deposits such as the fill of postholes may contain less than 10 litres of sediment and will be fully sampled. A representative proportion of samples taken on site will be processed and assessed with the results and recommendations for any further work included in the evaluation report.
- 12.3 Where waterlogged deposits are encountered (such as peat) appropriate sampling techniques will be employed so as to maximise the environmental information gained from such deposits. This may include the taking of monolith or core samples for pollen and non-pollen palynomorphs (e.g. testates

and fungal spores) and large specialist samples for plant macrofossil, wood (including waterlogged wood) and insect analyses.

12.4 The artefacts will be deposited with an appropriate local museum.

13 REPORTING AND ARCHIVE

13.1 Within 2 months from completion of the programme of archaeological work, Headland will produce a report that includes all the information necessary to make decisions about the future direction of the project in line with Historic England's Management of Research Projects in the Historic Environment.

13.2 The archive will be prepared and deposited in line with appropriate professional guidelines (e.g. UKIC and ADS guidelines for the preparation of archaeological archives for long-term storage and Standards and Guidance for the creation, compilation, transfer and deposition of Archaeological Archives (ClfA 2014b).

13.3 The archaeological fieldwork will be followed by a period of post-excavation analysis and reporting. This will include the cataloguing and analysis of any finds, samples and the preparation of the archive for the site report and its subsequent deposition. Where artefacts are recovered from identified features they shall be quantified by date, class and type (e.g. 5 sherds, Late Roman grey ware pottery); in other circumstances, as a minimum, they should be quantified by period and class (e.g. 5 sherds, Roman pottery).

13.4 Artefacts, biological samples and soils will be assessed for evidence of site and deposit formation processes and taphonomy, and especially for evidence of recent changes that may have been caused by alterations in the site environment. Assessment will include x-radiography of all iron objects, (after initial screening to exclude obviously recent debris), and a selection of non-ferrous artefacts (including all coins). Where necessary, active stabilisation or consolidation will be carried out, to ensure long-term survival of the material, but with due consideration to possible future investigations. Once assessed, all material should be packed and stored in optimum conditions, as described in First Aid for Finds. Waterlogged organic materials should be dealt with in accordance with the relevant guidelines.

13.5 Assessment of any technological residues will be undertaken, any samples for dating submitted to promptly with prior agreement with the laboratory on turn-around time and report production, to ensure that results are available to aid development of Specifications for subsequent mitigation strategies.

13.6 Processing of all soil samples collected for biological assessment, or sub-samples of them, will be completed. The preservation state, density and significance of material retrieved will be assessed by recognised specialists. Special consideration will be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment. Unprocessed sub-samples will be stored in conditions specified by the appropriate specialists.

13.7 Samples collected for geoarchaeological assessment will be processed as deemed necessary by a recognised specialist, particularly where storage of unprocessed samples is thought likely to result in deterioration. Appropriate assessment will be undertaken. Where preservation in situ is a viable option, consideration will be given to the possible effects of compression on the physical integrity of the site and to any hydrological impacts of development.

13.8 Animal bone assemblages, or sub-samples of them, will be assessed by a recognised specialist.

13.9 Assessment of human remains will have been based partly on in situ observation, but where skeletal remains have been lifted assessment will be undertaken by a recognised specialist.

13.10 Final report contents and format will be in line with the ClfA standard for Field Evaluation. Copies of the report will be sent to the client for onward transmission to the local planning authority; On

completion of the work a digital copy of the report in PDF/A format will be provided to the archaeological advisor for inclusion in the regional HER.

13.11 The final report will also assess:

- The archaeological significance of the development site and any archaeological deposits encountered during the fieldwork. To do this, it is expected that environmental sampling and processing and the application of archaeological science will be employed, and the results incorporated into an assessment of the site
- The evidence in its local, regional and national context, as appropriate, also aiming to highlight any research priorities where applicable
- The results from any archaeological science investigations.

13.12 Reports will include sufficient detail to enable assessment of potential for further analysis and also tabulations of data in relation to site phasing and contexts and include non-technical summaries. The objective presentation of data will be clearly separated from interpretation. Recommendations for further investigations (both on samples already collected and during future excavations) will be identified and separated from the results and interpretation.

13.13 The finds and archive will be stored in house, as per standard conditions, and arrangements have been put in place. Provision has been made for storage costs.

13.14 Results of the project, even if negative, may be submitted for publication in appropriate academic journals. Where wider dissemination is appropriate and the significance of the results warrant, a full copy of the report in an appropriate format shall be submitted for publication in relevant academic journals.

14 HEALTH & SAFETY

14.1 All of Headland's work is undertaken in accordance with current Health & Safety legislation. A risk assessment and method statement will be prepared prior to the commencement of fieldwork. All staff will wear appropriate PPE and this will include high-visibility clothing, hard hats and safety footwear. Suitable site welfare facilities will be provided.

14.2 This WSI is submitted on the understanding that there will be machine-access to all relevant areas of the site. A plan of any services within the proposed development area will also be provided by the client or their agents where appropriate.

15 INSURANCE & COPYRIGHT

15.1 Headland Archaeology (UK) Ltd is fully indemnified and all necessary insurances can be presented on request.

15.2 Copyright will be retained by Headland Archaeology (UK) Ltd. Headland will licence the client, HET and other bodies as necessary for use in matters relating to the project and for use of the project archive by the relevant museum. This licence will also extend to non-commercial use by the HET.

16 PUBLICITY

16.1 No press releases or publicity material will be issued without prior approval of the client. The HET will be offered the opportunity to be acknowledged in any press release etc

17 REFERENCES

Archaeological Archives Forum (AAF) 2011 Archaeological Archives A guide to best practice in creation, compilation, transfer and curation (2nd edn) [online document] Institute for Archaeologists: Reading,

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