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MAP Archaeological Practice

Land at Swineherd Lane
Kirkbymoorside
North Yorkshire

19/00772/MOUT

MAP 5-12-2020

Archaeological Evaluation by Trial Trenching

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MAP 5-12-2020
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Summary

An Archaeological Evaluation by Trial Trenching was carried out by MAP Archaeological Practice Ltd., on land south of Swineherd Lane, Kirkbymoorside, North Yorkshire, prior to the erection of a residential development with associated infrastructure.

The evaluation by Trial Trenching, which followed a Geophysical Survey, identified two archaeological ditches, likely connected to field boundaries or enclosure ditches which pre-date the Medieval strip fields. Pottery dating to the 2nd and 3rd centuries AD was recovered from the features along with a small assemblage of animal bone.

1. Introduction

1.1 This report sets out the results of an Archaeological Evaluation by Trial Trenching, carried out by MAP Archaeological Practice Ltd. on land at Swineheard Lane, Kirkbymoorside North Yorkshire in December 2020.

1.2 An application for the erection of up to 45 dwellings with associated infrastructure has been submitted to Ryedale District Council (19/00772/MOUT). At the time of writing a final decision regarding the application had not been made however it was recommended that a Geophysical Survey and Evaluation by Trial Trenching take place across the site in order to assess the archaeological potential.

1.3 In accordance with the recommendations of the National Planning Policy Framework (February 2019) on 'Archaeology and Planning' a staged scheme of archaeological work is proposed. The results of the Trial Trenching, which follows a Geophysical Survey, will be summarised and an appropriate mitigation strategy will be formulated if necessary

1.4 The work was carried out in accordance a Written Scheme of Investigation which was prepared by MAP Archaeological Practice (appendix 5).

1.5 MAP adhered to the general principles of both the CIfA (2014) '*Code of Conduct*' and '*Standard and Guidance for Archaeological Field Evaluation*' (2020) throughout the project.

1.6 The site code for the project was MAP 5.12.20.

1.7 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, Licence No. AL 50453A.

1.8 All work was funded by Thornton Le Dale Homes.

2. Site Description

2.1 The site, which measures approximately 1.5ha, is located off Swineherd Lane, on the eastern side of Kirkbymoorside (SE 70210 86375). The site currently consists of a single pasture field.

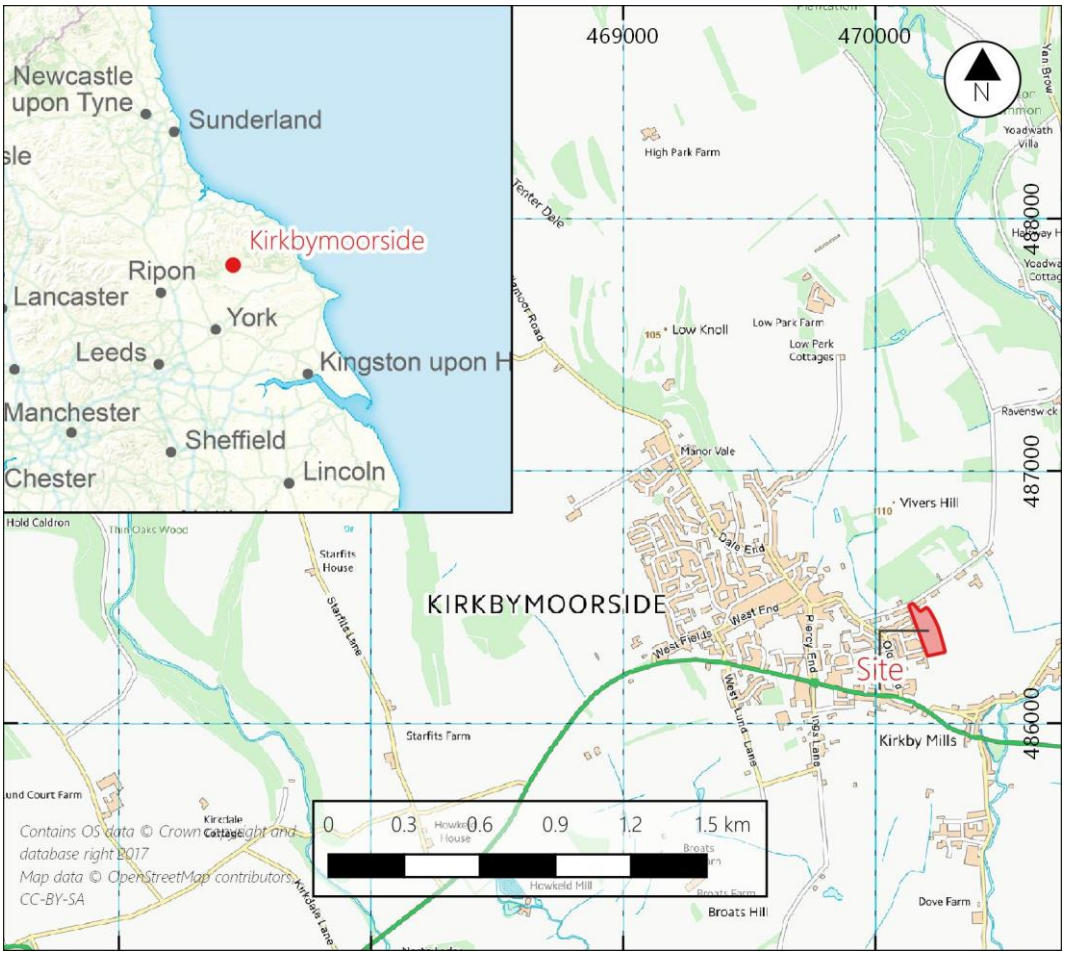

Figure 1. Site Location

2.2 The site is bounded by fencing with areas of dense vegetation around the perimeter of the field.

2.3 The geology of the majority of the site consists of deposits of Upper Calcarious Grit Formation

3. Archaeological and Historical Background

3.1 The site lays in an area of Medieval strip fields, some of the last remaining examples associated with Kirkbymoorside.

3.2 Recent work in the village has highlighted the potential for earlier remains to survive beneath ridge and furrow. Work at Kirkbymoorside Primary School identified probable Iron Age settlement.

3.3 Prehistoric activity in the area has also been identified through the discovery of the Keldholm Hoard (HER ID MNY3117) which contained at least eight socketed axes, a bell and brass hammer, which have been assigned to the late Bronze Age.

3.4 The site of a moated manor house lays some 340m north of the site and is designated as a Scheduled Monument (1015811, HER ID MNY1222). The site was inhabited by the early 13th century and is believed to have been abandoned in favour of a new site, to the north of the village, by the 15th century.

3.5 A Geophysical Survey was carried out across the site in March 2020 (Phase Site Investigations. 2020). The results of the survey highlighted that it is

highly likely that archaeological deposits are present on the site, likely relating to field or enclosure systems.

4. Aims and Objectives

4.1 The aim of the Archaeological Trial Trenching was to determine the presence/absence, nature, date, quality of survival and importance of archaeological deposits to enable an assessment of the potential and significance of the archaeology to be made.

5. Methodology

5.1 Excavation

5.1.1 Five trial trenches were excavated, three trenches measure 2m x 50m and two measure 2m x 30m. The trenches were positioned across the site to investigate geophysical anomalies but also areas which appear void of archaeology in the results of the survey.

5.1.2 Topsoil and any subsoil was removed by a tracked excavator fitted with a toothless bucket, operating under close archaeological supervision. Machining ceased at the top of either archaeological or naturally formed deposits, depending upon which was located first. The exposed surfaces were cleaned appropriately, and all subsequent excavation was carried out by hand.

5.1.3 All work was carried out in line with both the Chartered Institute of Field Archaeologists Code of Conduct (2019) and Standard and Guidance for Archaeological Field Evaluation (CIfA 2020).

5.2 On-site Recording

5.2.1 All five trenches were recorded on MAP's *pro forma* trench sheets. A total of six contexts (appendix 1) were recorded on the site which were also recorded using MAP's *Pro forma* context sheets.

5.3 Drawn Record

5.3.1 The drawn record comprised of three drawings, including two section drawings at a scale of 1:20 and one feature plan at a scale of 1:50 (appendix 2)

5.4 Photographic Record

5.4.1 The photographic record comprised of twelve digital photographs, taken on site. The photographic record included a film register, shot number, location of shot, direction of shot and brief description (Appendix 3).

6. Results.

6.1 The total depths and elevations of all twenty-eight trial trenches are displayed in the below table.

Trench	*Elevation*	*Depth of Excavation*	*Depth of Topsoil*
Tr.1	North- 56.98m AOD South- 53.94m AOD	0.27m- 0.32m	0.27m- 0.32m
Tr.2	North-West-57.54m AOD South-East-56.27m AOD	0.25m- 0.3m	0.25m- 0.3m
Tr.3	North-West- 54.29m AOD South-East- 52.07m AOD	0.24m- 0.37m	0.24m- 0.37m
Tr.4	North-West- 51.81m AOD South-East- 49.18m AOD	0.25m- 0.36m	0.25m- 0.36m

Tr. 5	North-East- 50.00m AOD South-East- 48.63m AOD	0.28m- 0.34m	0.28m- 0.34m

6.2 Four of the Trial Trenches (1, 2,4 and 5) contained no archaeological finds, features or deposits. Potential anomalies in the results of the Geophysical Survey were found to have been caused by natural geological variations.

6.3 Trench 3 was located centrally on the site, close to the eastern boundary. The trench was positioned in order to examine the most prominent geophysical anomalies. Two ditches were identified which, according to the Geophysical Survey, are likely converge to the north of the trench. Ditch [303] ran on a north-east to south-west orientation and measured 1.60m wide and 0.39m deep. The 'U' shaped feature contained a single fill, a mid-yellowish grey silty clay. A single sherd of 2nd century AD mortaria was recovered from the feature. Ditch [307] was located approximately 6.3m south-east of ditch [303]. The 'U' shaped feature measured approximately 2m wide and 0.7m deep. Three fills were identified within the ditch, with the basal fill consisting of a mid-grey-brown clay containing occasional small stones which represented a natural weathered deposit of the surrounding matrix. The deposit contained a small amount of animal bone including part of a pig mandible. A mid reddish-brown clay was present against the western edge of the ditch which contained a small amount of charcoal. The upper fill of the ditch consisted of a mid-grey-brown silty clay which contained occasional small to medium stones and a small amount of charcoal. Four sherds of 2nd or 3rd century AD pottery was also recovered. Environmental samples taken from both features failed to produce any identifiable remains.

7. Conclusion

7.1 The Archaeological Evaluation was successful in confirming the presence of archaeological features which largely correlate to the most pronounced anomalies identified in the results of the Geophysical Survey.

7.2 Fragmented linear anomalies in the Geophysical Data were found to have been caused by natural changes in the underlying geology.

7.3 The ditches identified in Trench 3 are shown, in the Geophysical Data, to converge to the north of the trench, with a possible third ditch being present to the east. The features are likely to represent field boundaries or a ditched enclosure system pre-dating the Medieval strip field in which the site is located. It is possible that further targeted work on the site may allow for more information to be gained about the purpose of the features and may identify discrete features within the interior of the possible enclosed areas.

7.4 Pottery recovered from the excavated features dates to the 2nd and 3rd centuries AD and consist of Calcite Gritted Ware, Grey Ware and a single sherd of Mancetter-Hartshill White Ware mortaria. Although the assemblage is too small to offer a full assessment at this stage, the presence of fine wares on a rural site may indicate a Romanised domestic settlement in the vicinity.

7.5 All archaeological featured encountered during the evaluation were located withing Trench 3, close to the eastern boundary of the site. The orientation of the excavated ditches and a potential third trench to the east of the

trench, suggest that archaeological activity restricted to the eastern and possible central part of the site.

7.6 The evaluation has allowed the nature, potential date and quality of survival of archaeological features and material to be assessed. This will allow a reasoned decision to be made by the Principal Archaeologist regarding the archaeological potential of the site, and the nature and extent of any required mitigation.

8. Bibliography

British Geological Society. Geology of Britain Viewer. Available at; http://mapapps.bgs.ac.uk/geologyofbritain/home.html

CIfA, 2019, Code of Conduct.

CIfA, 2020, Standards and Guidance for Archaeological Field Evaluation.

Mackney, D. et al. 1984. Soils of England and Wales. Sheet 1. Northern England. Soil Survey of England and Wales.

Phase Site Investigations. 2020. Land at Swineherd Lane, Kirkbymoorside, North Yorkshire. Archaeological Geophysical Survey

9. List of Contributors

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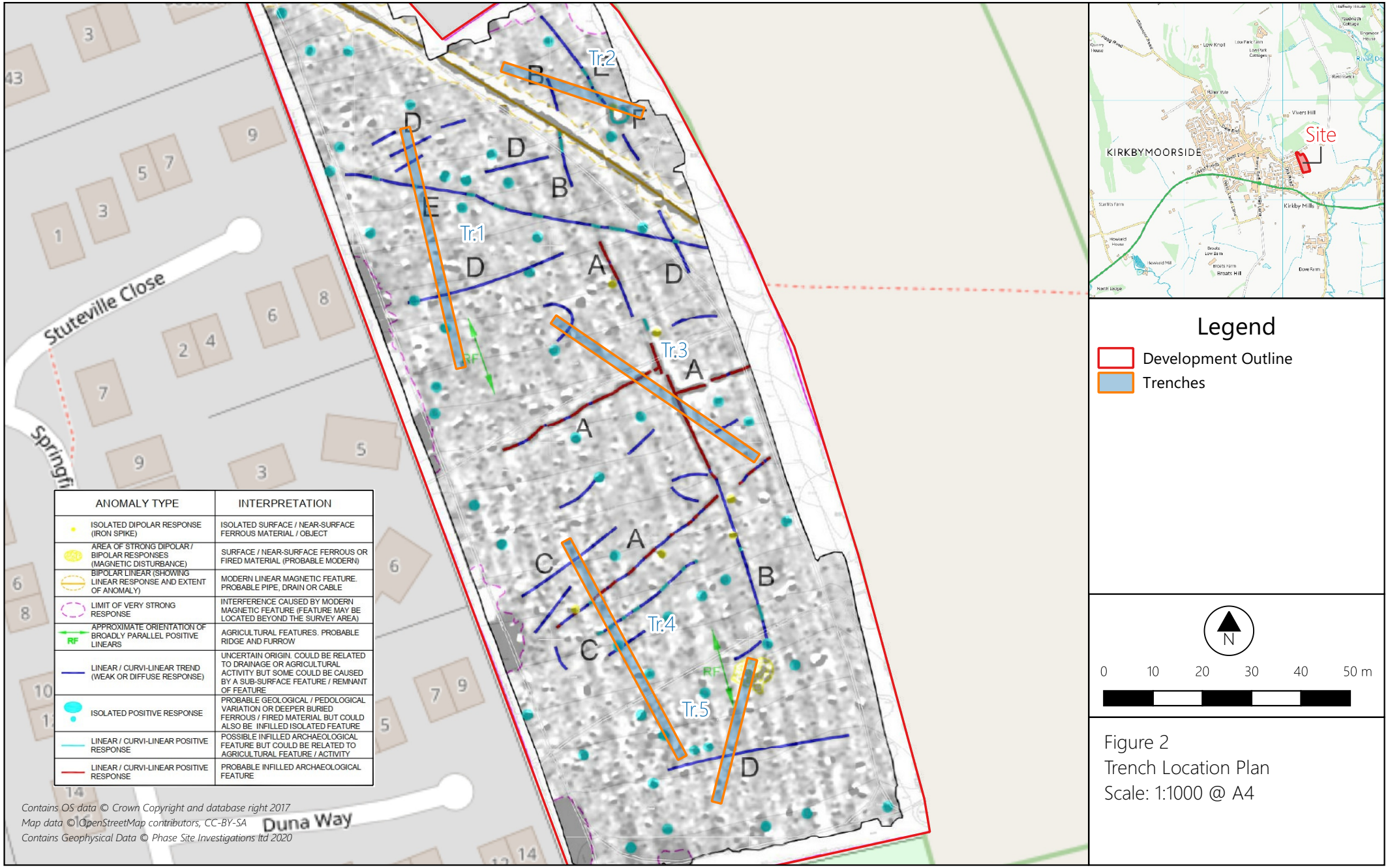

ANOMALY TYPE	INTERPRETATION
ISOLATED DIPOLAR RESPONSE (IRON SPIKE)	ISOLATED SURFACE / NEAR-SURFACE FERROUS MATERIAL / OBJECT
AREA OF STRONG DIPOLAR / BIPOLAR RESPONSES (MAGNETIC DISTURBANCE)	SURFACE / NEAR-SURFACE FERROUS OR FIRED MATERIAL (PROBABLE MODERN)
BIPOLAR LINEAR (SHOWING LINEAR RESPONSE AND EXTENT OF ANOMALY)	MODERN LINEAR MAGNETIC FEATURE. PROBABLE PIPE, DRAIN OR CABLE
LIMIT OF VERY STRONG RESPONSE	INTERFERENCE CAUSED BY MODERN MAGNETIC FEATURE (FEATURE MAY BE LOCATED BEYOND THE SURVEY AREA)
RF APPROXIMATE ORIENTATION OF BROADLY PARALLEL POSITIVE LINEARS	AGRICULTURAL FEATURES. PROBABLE RIDGE AND FURROW
LINEAR / CURVI-LINEAR TREND (WEAK OR DIFFUSE RESPONSE)	UNCERTAIN ORIGIN. COULD BE RELATED TO DRAINAGE OR AGRICULTURAL ACTIVITY BUT SOME COULD BE CAUSED BY A SUB-SURFACE FEATURE / REMNANT OF FEATURE
ISOLATED POSITIVE RESPONSE	PROBABLE GEOLOGICAL / PEDOLOGICAL VARIATION OR DEEPER BURIED FERROUS / FIRED MATERIAL BUT COULD ALSO BE INFILLED ISOLATED FEATURE
LINEAR / CURVI-LINEAR POSITIVE RESPONSE	POSSIBLE INFILLED ARCHAEOLOGICAL FEATURE BUT COULD BE RELATED TO AGRICULTURAL FEATURE / ACTIVITY
LINEAR / CURVI-LINEAR POSITIVE RESPONSE	PROBABLE INFILLED ARCHAEOLOGICAL FEATURE

Legend

- Development Outline
- Trenches

N

0 10 20 30 40 50 m

Figure 2
Trench Location Plan
Scale: 1:1000 @ A4

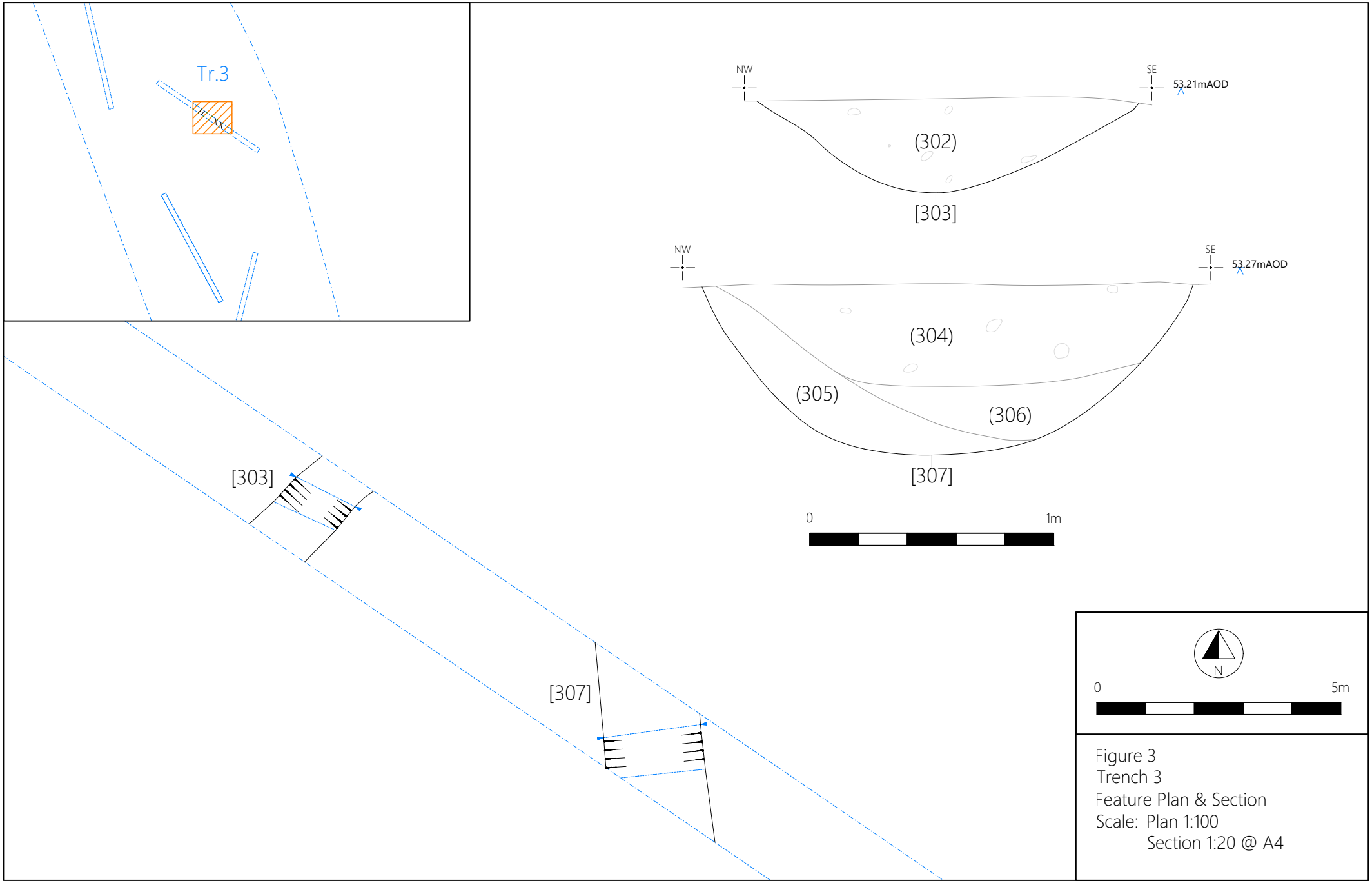

Figure 3
Trench 3
Feature Plan & Section
Scale: Plan 1:100
Section 1:20 @ A4

Plate 1. Trench 3 facing south-east.

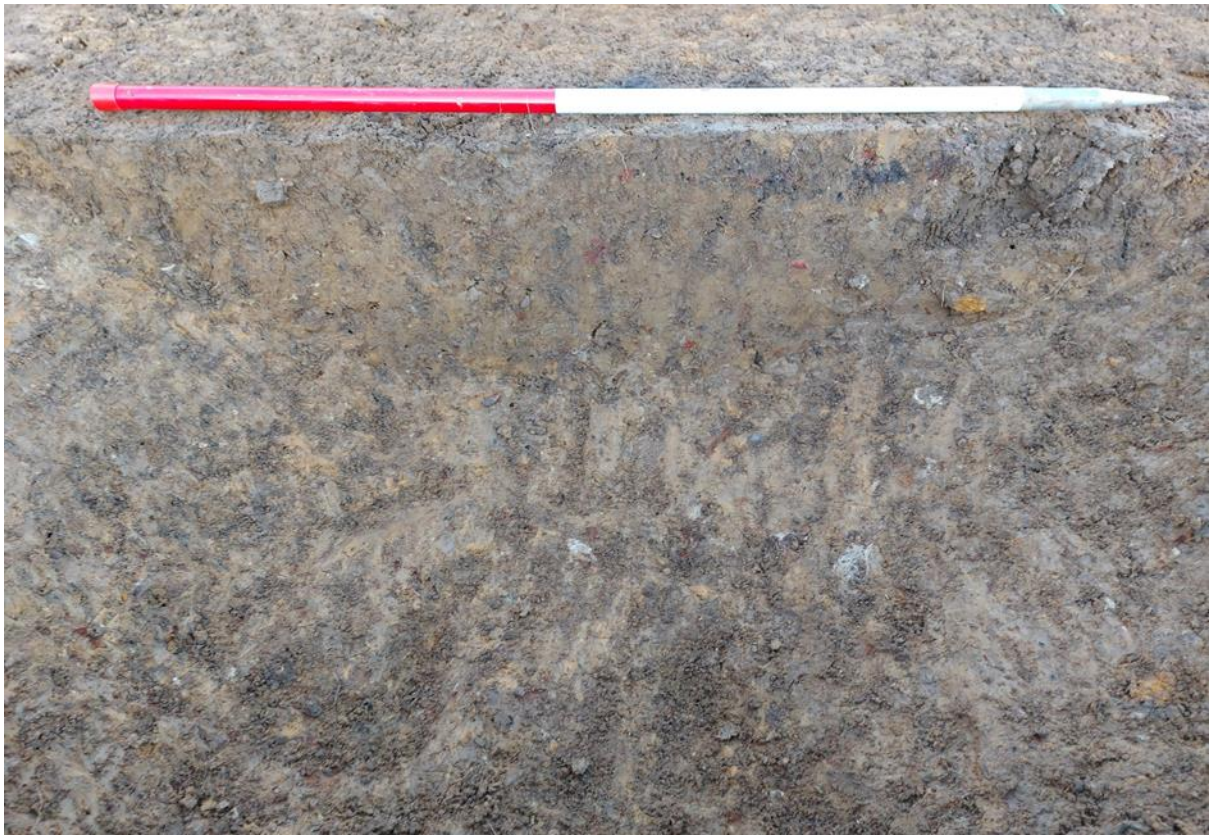

Plate 2. South-west facing section of ditch cut [303]

Plate 3. South-west facing section of ditch cut [307]

Plate 4. Trench 1 facing south.

Plate 5. Trench 2 facing north-west.

Trench 6. Trench 4 facing south-east.

Plate 7. Trench 5 facing south-west.

Plate 8. General view of site.

APPENDIX 1

Land at Swineherd Lane, Kirkbymoorside

Site Code: 05.12.2020

Context Index

Context No.	Type	Fill of	Description
301	Fill		Topsoil
302	Fill	303	Mid yellowish grey clay
303	Cut		Cut of ditch
304	Fill	307	mid grey brown silty clay. Occasional stones
305	Fill	307	Mid reddish brown clay. Occasional small stones
306	Fill	307	Mid grey brown clay. Occasional stone
307	Cut		Cut of ditch

APPENDIX 2

Land at Swineherd Lane, Kirkbymoorside

Site Code: 05.12.2020

Drawing Index

Drawing No.	Context No.	Scale	Description
001	303	1:20	SW facing section of ditch cut [303]
002	307	1:20	SW facing section of ditch cut [307]
003	303 & 307	1:50	Plan of Trench 3

APPENDIX 3

Land at Swineherd Lane, Kirkbymoorside

Site Code: 05.12.2020

Photographic Index

Frame No.	Context No.	Scale	Description
1	Trench 5	2x 1m	Trench 5 facing north-east
2	Trench 5	2x 1m	Trench 5 facing south-west
3	Trench 4	2x 1m	Trench 4 facing north-west
4	Trench 4	2x 1m	Trench 4 facing south-east
5	Trench 2	2x 1m	Trench 2 facing north-west
6	Trench 2	2x 1m	Trench 2 facing south-east
7	Trench 3	2x 1m	Trench 3 facing south-east
8	Trench 3	2x 1m	Trench 3 facing north-west
9	Trench 1	2x 1m	Trench 1 facing south
10	Trench 1	2x 1m	Trench 1 facing north
11	303	1m	SW facing section of ditch cut [303]
12	307	2m	SW facing section of ditch cut [307]

APPENDIX 4

Land at Swineherd Lane, Kirkbymoorside
Site Code: 05.12.2020

Finds Index

Context no.	Material	Total	Weight (G)	Description
302	Pottery	1	50	1 rim sherd
304	Pottery	4	66	3 body, 1 rim sherds
	Animal bone	30	62	Animal bone fragments
306	Animal bone	33	176	32 fragents, 1 pig mandable fragment

Land at Swineherd Lane
Kirkbymoorside
North Yorkshire

Written Scheme of Investigation
Archaeological Evaluation by Trial Trenching

19/00772/MOUT

Land at Swineherd Lane
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WRITTEN SCHEME OF INVESTIGATION:
Archaeological Trial Trenching

19/00772/MOUT

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Kirkbymoorside
North Yorkshire

19/00772/MOUT

Written Scheme of Investigation
Archaeological Trial Trenching

1 Summary

1.1 This document sets out the details for the archaeological work required at land at Swineherd Lane, Kirkbymoorside, North Yorkshire in order to inform the Principle Archaeologist at North Yorkshire County Council of the archaeological potential of the site, prior to the commencement of a residential development with associated infrastructure. The Written Scheme of Works has been commissioned by Thornton Le Dale Homes.

1.2 In accordance with the recommendations of the National Planning Policy Framework (2019) on 'Archaeology and Planning' a staged scheme of archaeological work is proposed. The results of the Trial Trenching, which follows a Geophysical Survey, will be summarised in a report and an appropriate mitigation strategy will be formulated if necessary.

2 Site Description and Planning Background

2.1 The site, which measures approximately 1.5ha, is located off Swineherd Lane, on the eastern side of Kirkbymoorside (SE 7.2 864). The site currently consists of a single pasture field.

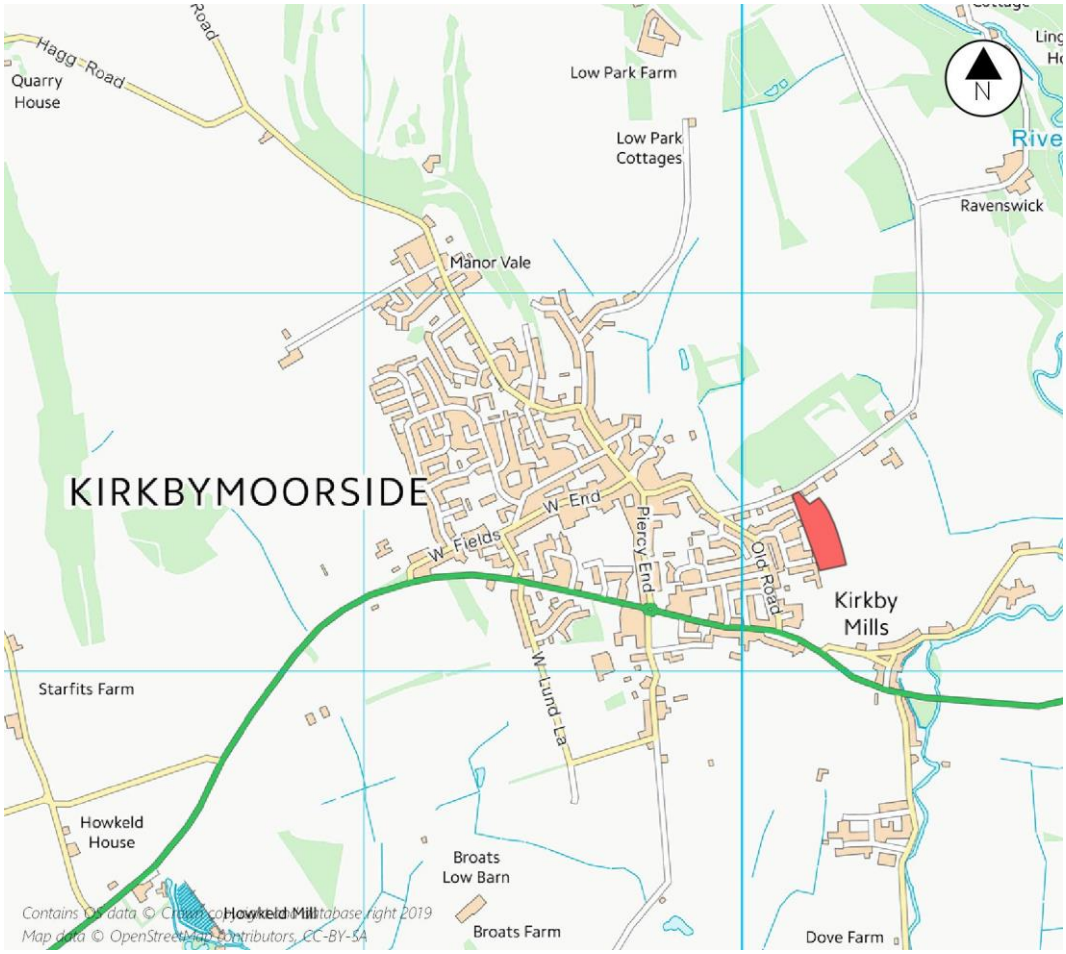

Figure 1. Site Location.

2.2 The site is bounded by fencing with areas of dense vegetation around the perimeter of the field.

2.3 The geology of the majority of the site consists of deposits of Upper Calcarious Grid Formation

2.4 An application for the erection of up to 45 dwellings with associated infrastructure has been submitted to Ryedale District Council (19/00772/MOUT). At the time of writing a final decision regarding the application had not been made however it was recommended that a Geophysical Survey and Evaluation by Trial Trenching take place across the site in order to assess the archaeological potential.

3. Archaeological and Historical Background

3.1 The site lays in an area of Medieval strip fields, some of the last remaining examples associated with Kirkbymoorside and also contains ridge and furrow earthworks.

3.2 Recent work in the village has highlighted the potential for earlier remains to survive beneath ridge and furrow. Work at Kirkbymoorside Primary School identified probable Iron Age settlement.

3.3 Prehistoric activity in the area has also been identified through the discovery of the Keldholm Hoard (HER ID MNY3117) which contained at east eight socketed axes, a bell and brass hammer, which have been assigned to the late Bronze Age.

3.4 The site of a moated manor house lays some 340m north of the site and is designated as a Scheduled Monument (1015811, HER ID MNY1222). The site was inhabited by the early 13th century and is believed to have been abandoned in favour of a new site, to the north of the village, by the 15th century.

3.4 A Geophysical Survey was carried out across the site in March 2020 (Phase Site Investigations. 2020). The results of the survey highlighted that it is highly likely that archaeological deposits are present on the site, likely relating to field or enclosure systems.

4. Aims and Objectives

4.1 The aim of the Archaeological Trial Trenching is to determine the presence/absence, nature, date, quality of survival and importance of archaeological deposits to enable an assessment of the potential and significance of the archaeology to be made.

5 Compliance

5.1 MAP will adhere to the general principles of the CIfA Code of Conduct (CIfA 2019) throughout the project and to the CIfA 'Standards and Guidance for Archaeological Field Evaluations' (CIFA 2014b).

5.2 All work will be carried out in accordance with chapter 16 of the National Planning Policy Framework (February 2019) on 'Archaeology and Planning'.

5.3 The work will be monitored under the auspices of the Principle Archaeologist at North Yorkshire County Council who should be consulted before the commencement of site works.

5.4 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office,

Crown Copyright. License No. AL 50453A and also data derived from Open Street Map (https://www.opennstreetmap.org/copyright).

5.5 If human remains are encountered during the course of this evaluation it is considered best practice to not remove the remains at this stage, however, this should be considered at a site-specific level. If it is deemed necessary to remove human remains, this will be carried out under the conditions of licences for the removal of human remains (issued by the Ministry of Justice) and in accordance with the Burial Act (1857) and 'Guidelines to the Standards for Recording Human Remains' (Brickley & McKinley. 2004) to ensure that they are treated with due dignity.

5.6 MAP Archaeological Practice is an ISO 9001 accredited organisation (certificate number GB2005425). The award of the ISO 9001 certificate, independently audited by the British Standards Institution (BSI), demonstrates MAP's commitment to providing a quality service to our clients. ISO (the International Organisation for Standardisation) is the most recognised standards body in the world, helping to drive excellence and continuous improvement within businesses.

6 Fieldwork Methodology

6.1 Excavation and Recording

6.1.1 Five Trial Trenches are proposed, positioned across the site to investigate geophysical anomalies but also areas which appear void of archaeology in the results of the survey. Three trenches measure 2m x 50m and two measure 2m x 30m.

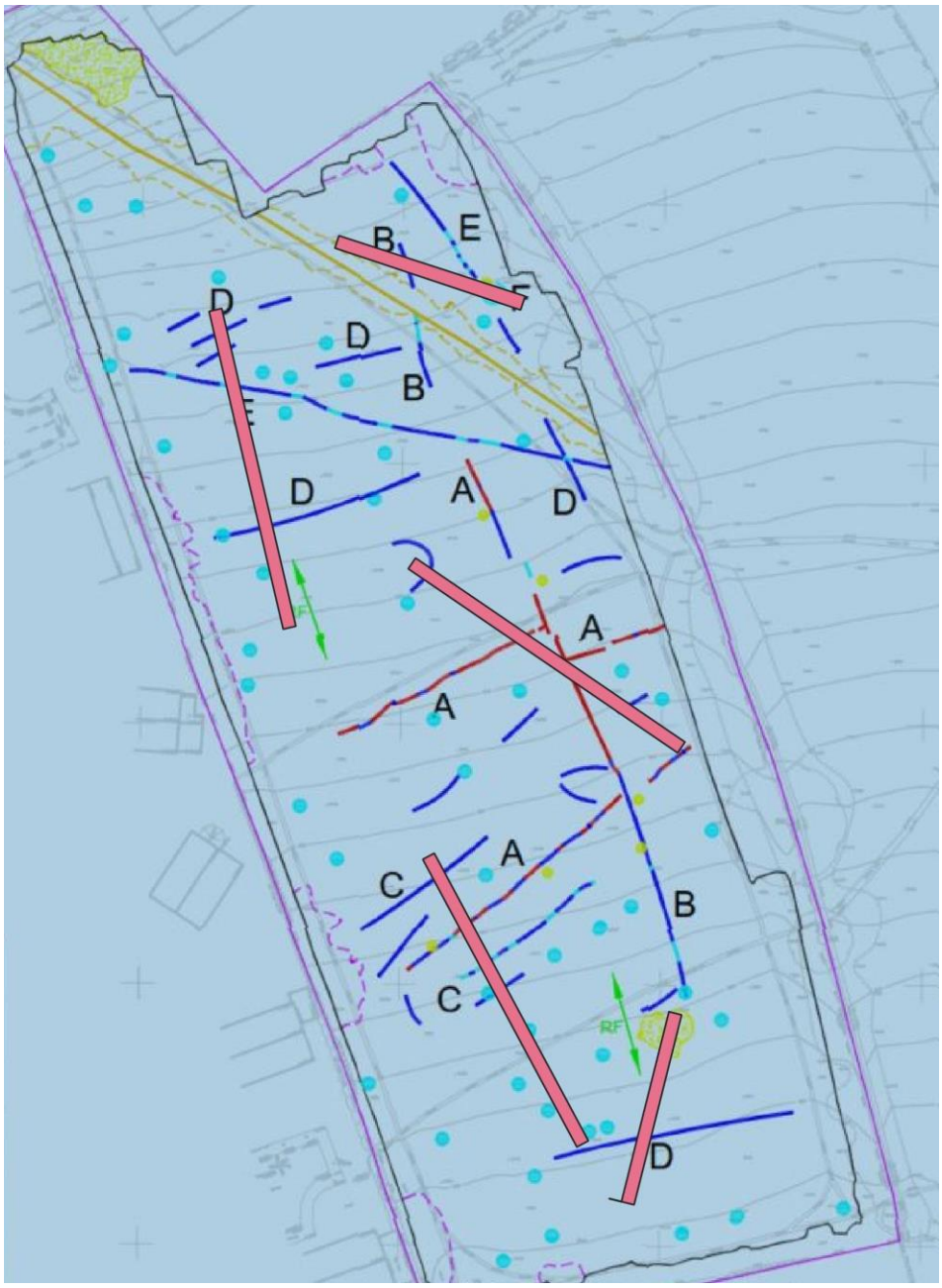

Figure 2. Proposed Trench Location.

61.2 All overburden will be carefully removed by mechanical excavator using a wide toothless blade, under archaeological supervision, to the top of archaeological features or layers. Excavated topsoil will be redeposited in bunds around the edge of the site, or at an alternative location, to be determined in agreement with the client. Topsoil and subsoils will be stored separately, and all spoil will be stored and managed in line with the

standards of the Construction Code of Practice for Sustainable Use of Soils on Construction Sites (DEFRA 2009).

6.1.3 All excavation of archaeological features and deposits carried out will be by hand. Areas of intensive modern disturbance will be given a low priority in excavation. Where practicable, the fills of these features will be removed by mechanical excavator.

6.1.4 Context recording methodologies and systems will be used. All archaeological deposits will be recorded according to principles of stratigraphic excavation on MAP's *pro forma* sheets, which are compatible with the MoLAS recording system. The MoLAS recording manual will be used on site where necessary. The stratigraphy of trenches will be recorded even if no archaeology is found.

6.1.5 The excavation sampling policy is :

a. A 100% sample of stakeholes

b. An initial 50% sample should be taken of all postholes, but where they are part of a building these should be 100% excavated

c. A 50% sample of pits with a diameter up to 1.5m (where justified, these should be 100% excavated,

d. A minimum 25% sample of all pits over 1.5m in diameter, but this should include a complete section across the pit to record a full profile (where justified, these should be 100% excavated)

e. All junctions/intersections and corners of linear features will be investigated and their stratigraphic relationships determined – if necessary, using box sections and all ditch terminals will be examined,

f. All funerary contexts, all buildings and all industrial features will be subject to 100% excavation. As noted above, postholes and the enclosing

ditches around barrows and roundhouses would be first subject to sample excavation, sectioning and recording, but then should be fully excavated

6.1.6 In certain cases, the use of mechanical excavation equipment may also be appropriate for removing deep intrusions (e.g modern brick and concrete floors or footings), or for putting sections through major features after partial excavation (e.g ditches), or through deposits to check that they are of natural origin

6.1.7 A full written, drawn and photographic record will be made of all material revealed during the course of the Trial Trenching. Plans should be completed at a scale of 1:50 or 1:20 (as appropriate), whilst section drawings should be at a scale of 1:10. High resolution digital photographs should form the basis of the photographic archive.

6.1.8 A sampling strategy for the recovery for environmental remains has been formulated in accordance with an Environmental Strategy written by an Environmental Consultant (Diane Aldritt, appendix 1) and also follows the guidance of the Association for Environmental Archaeology (1995) and Historic England (2011).

6.1.9 Samples will be collected from primary and secondary contexts, where applicable, from a range of representative features, including pit and ditch fills, postholes, floor deposits, ring gullies and other negative features. Where features allow between 40 and 60 litres will be taken although entire contexts will be sampled if the volume is low, and specialist samples, such as for General Biological Analysis (GBA) or column samples, will be of the order of 20 litres. Positive features will also be sampled; retention of

structural material such as bricks will be implemented where necessary. Sampling will also be considered for those features where dating by other methods (for example pottery and artefacts) is uncertain. Animal bones will be hand collected, and bulk samples collected from contexts containing a high density of bones. Spot finds of other material will be recovered where applicable. Flotation samples and samples taken for coarse-mesh sieving from dry deposits will be processed at the time of the fieldwork wherever possible, partly to permit variation of sampling strategies if necessary, but also because processing at a later stage could cause delays.

6.1.10 If human remains are encountered during the course of this evaluation and it is deemed necessary to remove the remains, this will take place under the conditions of licences for the removal of human remains (issued by the Ministry of Justice, to ensure that they are treated with due dignity). The preferred option would be for them to be adequately recorded before lifting, and then carefully removed for scientific study, and long-term storage with an appropriate museum; however, the burial licence may specify reburial or cremation as a requirement.

6.1.11 A finds recovery and conservation strategy will be discussed with the Archaeology Manager and recipient museum in advance of the project commencing, and a policy for finds recording should be agreed and submitted to the Archaeology Manager, before commencement of site works. Any recording, marking and storage, materials will be of archive quality, and recording forms and manuals will be submitted to the Archaeology Manager, prior to the commencement of on-site works, if these have not been supplied previously. Allowance will be made for preliminary conservation and stabilisation of all objects and an assessment

of long-term conservation and storage needs We have made an allowance for a minimum four boxes in calculating estimates for museums storage grant.

6.1.12 All finds (artefacts and ecofacts) visible during excavation will be collected and processed, unless variations in this principle are agreed with the Local Authority. Finds will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds. In accordance with the procedures outlined in MoRPHE, all iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy will be X-radiographed before assessment.

6.1.13 We will make provision within our excavation strategies, where necessary, for use of shoring, pumps or artificial lighting. Such strategies will also follow for sampling for radiocarbon, archaeomagnetic and/or dendrochronological determinations, as appropriate: where in situ timbers are found to survive in good condition, samples should be taken for dendrochronological assay.

6.1.14 Arrangements for site access and reinstatement are to be agreed with the commissioning body.

6.1.15 Health and safety will take priority over archaeological matters. All archaeologists undertaking fieldwork must comply with all Health and Safety Legislation, this includes the preparation of a Risk Assessment.

6.1.16 All archaeological staff and visitors to the site will comply with current government guidance regarding COVID-19. All precautions, including those

concerning social distancing will be outlined in MAP's risk and method statement. A remote site visit by the Principal Archaeologist may be required.

6.1.17 Necessary precautions should be taken over underground services and overhead lines.

6.1.18 All on site staff hold valid CSCS cards. All Project Officers and Project Managers hold a valid First Aid at Work Certificate and Site Supervisor Safety Training qualifications.

6.1.19 MAP will provide evidence of all necessary insurances, including Employer's Liability, Professional Liability and Public Liability Cover.

7. Post Excavation Analysis and reporting

7.1 Upon completion of the evaluation, the artefacts, soil samples and stratigraphic information will be assessed as to their potential and significance for further analysis.

7.2 A report will be prepared to include the following:

a) A non-technical summary of the results of the work, Introduction and aims and objectives.

b) An introduction which should include

- the site code/project number
- planning reference number and HER Casework number
- dates when fieldwork took place
- grid reference

c) An account of the methods and results of the evaluation, describing structural data and associated finds and/or environmental data recovered.

d) Interpretation, including phasing of the site sequence and spot-dating of ceramics (Descriptive material should be clearly separated from interpretive statements). This shall be supported by the use of photographs and drawings, to include an overall plan of the site accurately identifying the location of trenches; individual trench plans as excavated indicating the location of archaeological features, with at least one section detailing the stratigraphic sequence of deposits within each trench.

e) A specialist assessment of the artefacts recovered with a view to their potential for further study. Allowance should be made for preliminary conservation and stabilisation of all objects and an assessment of long-term conservation and storage needs.

Assessment of artefacts must include inspection of X-radiographs of all iron objects, a selection of non-ferrous artefacts (including coins), and a sample of any industrial debris relating to metallurgy. A rapid scan of all excavated material should be undertaken by conservators and finds researchers in collaboration. Material considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration will be given to possible investigative procedures (e.g glass composition studies, residues in or on pottery, and mineral preserved organic material). Once assessed, all material will be packed and stored in optimum conditions, as described in First Aid For Finds. Waterlogged organic materials should be dealt with, following Historic England documents, Guidelines for the care of waterlogged archaeological leather, and guidelines on the recording, sampling, conservation and curation of waterlogged wood.

f) A specialist assessment of environmental samples taken, with a view to their potential for subsequent study.

Processing of all samples collected for biological assessment, or sub-samples of them, will be completed. Bulk and site-riddled samples from dry deposits should have been processed during excavation, where possible. The preservation state, density and significance of material retrieved must be assessed, following methods presented in Environmental Archaeology and archaeological evaluations, or existing local guidelines, until national guidelines are available. Unprocessed sub-samples must be stored in conditions specified by the appropriate specialists.

Assessments for any technological residues will be undertaken. Samples for dating must be submitted to laboratories promptly, so as to ensure that results are available to aid development of specifications for subsequent mitigation strategies.

g) The results from investigations in archaeological sciences will be included in the Site Archive and presented in the Evaluation Report. Reports must include sufficient detail to permit assessment of potential analysis. They will include tabulation of data in relation to site phasing and contexts, and must include non-technical summaries. The objective presentation of data must be clearly separated from interpretation. Recommendation for further investigation (both on samples already collected, and at future excavations) must be clearly separated from the results and interpretation.

h) An assessment of the archaeological significance of the deposits identified, in relation to other sites in the region.

i) A conclusion with recommendations for further post-excavation work, if required.

j) Detailed archive location and destination.

k) Appendices and figures, as appropriate, including a copy of the specification and/or project design.

l) References and bibliography of all sources used

7.3 Copies of the report will be submitted to the commissioning body, the Local Planning Authority and the North Yorkshire Historic Environment Record within an agreed timetable and subject to any contractual requirements on confidentiality (see 8.1 below).

7.4 We will provide a digital copy of the report in PDF format to the North Yorkshire Historic Environment Record Office.

7.5 A Brief, interim report may be required shortly after the completion of fieldwork.

7.6 The following Specialists have been contacted as are available to work on the project:

Pottery - T G Manby (Prehistoric),
M R Stephens (medieval and Post-medieval)
P A Ware (Roman)
Flint - P Makey
Animal Bone – Jane Richardson
Environmental Sampling – Diane Alldritt
Conservation – York Archaeological Trust
Human Remains – York Osteology
Ceramic Building Material – Dr Phil Mills
Clay Tobacco Pipe - M R Stephens

8. Copyright, Confidentiality and Publicity

8.1 Unless the individual/organisation commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic records and reports rests with MAP.

9. Archive Preparation and Dissemination

9.1 The requirements for archive preparation and deposition must be addressed and undertaken in a manner agreed with the recipient museum: in this instance, the Yorkshire Museum is recommended. The recipient museum will be contacted at an early stage, before submission of the project design and before commencement of fieldwork.

9.2 A site archive should be prepared in accordance with the specification outlined in *Management of Archaeological Projects* (MoRPHE (Lee, E, 2006). See also *Towards an Accessible Archaeological Archive, the Transfer of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales* Society of Museum Archaeologists 1995.

9.3 The site archive, including finds and environmental material, subject to the permission of the relevant landowners, will be labelled, conserved and stored according to the United Kingdom Institute for Conservation (UKIC)'s. Provision will be made for the stable storage of paper records and their long term storage on a suitable medium, such as microfilm, a copy of which should be deposited with the NMR (Historic England). An index to the contents of the archive together with details of its date and place of deposition should be lodged with the SMR.

9.4 Archive deposition must be arranged in consultation with the recipient museum and the Principle Archaeologist at North Yorkshire County Council and must take account of the requirements of the recipient museum and the relevant guidelines (see above) relating to the preparation and transfer of archives. The timetable for deposition shall be agreed on completion of the site archive and narrative.

10. Bibliography

Phase Site Investigations. 2020. Land at Swineherd Lane, Kirkbymoorside, North Yorkshire. Archaeological Geophysical Survey

11. Best Practice and Guidelines

Association for Environmental Archaeology. 1995. Environmental archaeology and Archaeological Evaluations, Recommendations Concerning the Component of Archaeological Evaluations in England. Working Papers of the Association for Environmental Archaeology, Number 2. http://www.envarch.net/publications/papers/evaluations.html

Brown, D.H. 2011. Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation. Institute for Archaeologists and the Archaeological Archives Forum. 2nd Edition. http://www.archaeologyuk.org/archives/aaf_archaeological_archives_2011.pdf

Brickley, M. and McKinley, J.I. (2004) Guidelines to the Standards for Recording Human Remains. Reading: Institute for Archaeologists, Technical Paper 7

Burial Act. 1857

Chartered Institute for Archaeologists. (2014) Code of Conduct. https://www.archaeologists.net/sites/default/files/CodesofConduct.pdf

Chartered Institute for Archaeologists. (2014b) Standard and Guidance for Archaeological Field Evaluation. https://www.archaeologists.net/sites/default/files/CIfAS&GFieldevaluation_1.pdf

DEFRA. 2009. Construction Code of Practice for Sustainable Use of Soils on Construction Sites.

English Heritage 2006. Archaeomagnetic Dating. English Heritage, Swindon. https://historicengland.org.uk/images-books/publications/archaeomagnetic-dating-guidelines/

English Heritage 2010. Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood. Swindon, English Heritage. https://historicengland.org.uk/images-books/publications/waterlogged-wood/

English Heritage 2011 Environmental Archaeology A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition) . English Heritage, Swindon. 2nd edition. https://historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/

English Heritage 2012. Waterlogged Organic Artefacts: Guidelines on their recovery, analysis and conservation. Swindon, English Heritage. https://historicengland.org.uk/images-books/publications/waterlogged-organic-artefacts/

English Heritage 2014. Animal Bones and Archaeology: Guidelines for Best Practice
https://historicengland.org.uk/images-books/publications/animal-bones-and-archaeology/

English Heritage 2006. Guidelines on the X-radiography of archaeological metalwork. English Heritage, Swindon.
https://historicengland.org.uk/images-books/publications/x-radiography-of-archaeological-metalwork/

Gaffney, C., Gater, J. and Ovenden, S. 2002. The Use of Geophysical Techniques in Archaeological Evaluations. Reading: Institute for Archaeologists, Technical Paper 6

Historic England. 2015a. Archaeological and Historical Pottery Production Sites. Historic England, Swindon.
https://historicengland.org.uk/images-books/publications/archaeological-and-historic-pottery-production-sites/

Historic England. 2015b. Geoarchaeology Using earth sciences to understand the archaeological record. Historic England, Swindon.
https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/

Historic England. 2015c. Archaeometallurgy: Guidelines for best practice. Historic England, Swindon.

https://historicengland.org.uk/images-books/publications/archaeometallurgy-guidelines-best-practice/

Historic England. 2015d. Management of Research Project in the Historic Environment: The MoRPHE Project Managers' Guide. Swindon: English Heritage. https://historicengland.org.uk/images-books/publications/morphe-project-managers-guide/heag024-morphe-managers-guide/

Historic England. 2016. Preserving Archaeological Remains. Decision taking for Sites under Development. www.HistoricEngland.org.uk/advice/technical-advice/archaeological-science/preservation-in-situ/

Historic England. 2017 Organic Residue Analysis and Archaeology, Guidance for Good Practice. www.HistoricEngland.org.uk/advice/technical-advice/archaeological-science/

Institute for Archaeologists. 2008. Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Reading: Institute for Archaeologists. http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_materials.pdf

Institute for Archaeologists. 2009. Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives. Reading: Institute for Archaeologists.

http://www.archaeologists.net/sites/default/files/node-files/Archives2009.pdf

Institute for Archaeologists. 2010 Draft Standard and Guidance for Archaeological Geophysical Survey. Reading: Institute for Archaeologists. http://www.archaeologists.net/sites/default/files/node-files/geophysicsSG.pdf

Mays, S., Brickley, M. and Dodwell, N. 2004. Human Bones from Archaeological Sites: Guidelines for Producing Assessment Documents and Analytical Reports. Swindon: English Heritage. http://www.english-heritage.org.uk/publications/human-bones-from-archaeological-sites/humanbones2004.pdf

McKinley, J.I. and Roberts, C. 1993. Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains. Reading: Institute for Archaeologists, Technical Paper 13

SYAS. 2001. Yorkshire, the Humber and the North- East: A Regional Statement of Good Practice for Archaeology in the Development Process. https://www.sheffield.gov.uk/content/dam/sheffield/docs/planning-and-development/archaeology/The-regional-statement-for-good-practice-in-archaeology-within-Planning--pdf--24KB-.pdf

Watkinson, D. and Neal, V. 2001. First Aid for Finds: A Practical Guide for Archaeologists [Third Edition]. Hertford: RESCUE – The British Archaeological Trust

APPENDIX 1

Conservation Strategy By Ian Panter of York Archaeological Trust

Artefacts from all categories and all periods will be recovered as a matter of routine during the excavation. When retrieved from the ground finds will be kept in a finds tray or appropriate bags in accordance with First Aid for Finds. Where necessary, a conservator may be required to recover fragile finds from the ground depending upon circumstances.

If waterlogged conditions are encountered a wide range of organic materials may be recovered, including wood, leather and textiles. Advice will be sought from a conservator to discuss optimum storage requirements before any attempt is made to retrieve organic finds and structural timbers from the ground.

After the completion of the fieldwork stage, a conservation assessment will be undertaken which will include the X-radiography of all the ironwork (after initial screening to separate obviously modern debris), and a selection of the non-ferrous finds (including all coins). A sample of slag may also be X-rayed to assist with identification and interpretation. Wet-packed material, including glass, bone and leather will be stabilised and consolidated to ensure their long-term preservation. All finds will be stored in optimum conditions in accordance with First Aid for Finds and Guidelines for the Preparation of Excavation Archives for Long-Term Storage (Walker, 1990).

Waterlogged wood, including structural elements will be assessed following the English Heritage guidelines, Waterlogged wood: sampling, conservation and curation of structural wood (Brunning 1996). The assessment will include species identification, technological examination and potential for dating.

The conservation assessment report will include statements on condition, stability and potential for further investigation (with conservation costs) for all material groups. The conservation report will be included in the updated project design prepared for the analysis stage of the project.

References

Brunning, R. and Watson, J. *Guidelines on Recording, Sampling, Conversation and Curation of Waterlogged Wood*. Swindon: English Heritage (2010).

http://www.english-heritage.org.uk/publications/waterlogged-wood/waterlogged-wood.pdf

Karsten, A., Graham, K., Jones, J., Mould, Q. and Walton Rogers, P. (2012) *Waterlogged Organic Artefacts: Guidelines on Their Recovery, Analysis and Conservation*. Swindon: English Heritage. http://www.english-heritage.org.uk/publications/waterlogged-organic-artefacts/woa-guidelines.pdf

Walker, K. 1990 *Guidelines for the preparation of excavation archives for long-term storage*, Archaeology Section of the United Kingdom Institute for Conservation.

Watson, J., Fell, V. and Jones, J. (2008) *Investigative Conservation: Guidelines on How the Detailed Examination of Artefacts from Archaeological Sites can Shed Light on their Manufacture and Use*. Swindon: English Heritage. http://www.english-heritage.org.uk/publications/investigative-conservation/investigative-conservation.pdf

Watkinson, D. and Neal, V. 1998 First Aid for Finds *(3rd edition), RESCUE and the Archaeology Section of the United Kingdom Institute for Conservation.*

Institute for Archaeologists. (2008) *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Reading: Institute for Archaeologists. http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_materials.pdf

APPENDIX 2

Environmental Strategy By Diane Alldrit

The on-site environmental sampling strategy will systematically seek to recover a representative sample of botanical, molluscan (both terrestrial and aquatic), avian and mammalian evidence from the full range of contexts encountered during the excavation. This will enable, at the assessment stage, the possibility for radiocarbon dating material to be obtained, and for an initial analysis of the economic and environmental potential of the site. In order to achieve this, a bulk sample (BS, Dobney *et al* 1992) comprising an optimum size of 40litre of sediment (where possible) should be taken from every stratigraphically secure and archaeologically significant context. In practice it may not always be possible to obtain 28l of sediment from certain features during the assessment stage, for instance from partially excavated pits or post-holes, in which case a single bucket sample, c.10 to 14litre should be taken at the site supervisors discretion. Deposits of mixed origin, for instance topsoil, wall fills and obvious areas of modern contamination, should be avoided where possible, as these will contain intrusive material and not provide secure radiocarbon dates.

All buckets and other sampling equipment must be clean and free of adherent soil in order to prevent cross-contamination between samples. If dry soil is to be stored for any length of time it should be kept in cool, dry conditions, and away from strong light sources. However, it is preferable to process samples as soon as possible after excavation.

Bulk soil samples shall be processed using an Ankara-type water flotation machine (French 1971) for the recovery of carbonised plant remains and charcoal. The

flotation tank should contain a >1mm mesh for collection of the retent or 'residue' portion of the sample (which may contain pottery, lithics and animal / bird bone, in addition to the heavier fragments of charcoal which do not float). The 'flot' portion of the sample, which may include carbonised seeds, cereal grain, charcoal and sometimes mollusc shell, should be captured using a nest of >1mm and >300micron Endicot sieves. Flotation equipment, including sieves, meshes, brushes and so forth must be meticulously cleaned between samples in order to prevent contamination of potential radiocarbon dating material. All material resulting from flotation will be dried prior to microscopic examination. Flotation is not suitable for the recovery of pollen or for processing waterlogged samples, which shall be discussed below.

Where there is potential for waterlogged preservation, shown for instance by the presence of wood and other organic or wet material, then a 5 to 10litre size sample should be taken (GBA sample, Dobney *et al* 1992). This material is to be retained for later processing using laboratory methods to enable the recovery of waterlogged plant material and insects. For assessment purposes a 1litre sub-sample of the organic sediment from each potential waterlogged sample shall be processed using laboratory wash-over methods, and once processed kept wet. All waterlogged samples awaiting processing should be kept damp, preferably stored in plastic sealable tubs, and in cool conditions. Where large waterlogged timbers are recovered these should be stored under refrigerated conditions and an appropriate conservator consulted.

There is the possibility that the waterlogged deposits may require parasite egg analysis. It is proposed that the 'squash' technique is adapted, this would require small lumps of raw sediment approximately 3mm in diameter taken from three separate points from within the sample and homogenised in a little water by

shaking. After allowing coarse particles to settle for a few moments, a drop of the supernatant was removed. This work would be undertaken by either John Carrott or Harry Kenwood if necessary.

If sediment suitable for pollen analysis is encountered, for instance rich organic peaty deposits, or deep ditch sections with organic preservation, the archaeobotanical specialist is to be consulted prior to any sampling taking place. These deposits would require sampling with large kubiena tins and require the specialist to be on-site. Pollen analysis, even at assessment level, would subsequently impose a considerable cost implication should it be carried out.

The specialist is available to provide consultation and advice on the environmental sampling strategy throughout the course of the excavation and during post-excavation processing if required.

References

Dobney, K. D., Hall, A. R., Kenward, H. K. and Milles, A. 1992 A working classification of sample types for environmental archaeology. *Circaea* 9 24-26.

French, D. H. 1971 An Experiment in Water Sieving. *Anatolian Studies 21* 59-64.