



**ARCHAEOLOGICAL INVESTIGATIONS AT TOP ROAD,
WORRALL, SHEFFIELD**

ARCHAEOLOGICAL EVALUATION REPORT

Report Number 2015/40 September 2015

ARCHAEOLOGICAL INVESTIGATIONS AT TOP ROAD, WORRALL, SHEFFIELD

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KEY PROJECT INFORMATION

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NON-TECHNICAL SUMMARY

This report presents the results of a scheme of archaeological evaluation trenching at land adjacent to Top Road, Worrall, South Yorkshire. The work comprised the excavation of five trenches, each measuring 30m in length by 2m in width. At the time of fieldwork the site comprised two fields, both of which were largely overgrown with scrub vegetation and separated by a dry stone wall.

No finds or features of archaeological significance were encountered within any of the trenches.

1 INTRODUCTION

This report presents the results of a scheme of archaeological evaluation trenching at land adjacent to Top Road, Worrall, South Yorkshire. The work comprised five 30m x 2m trenches and was required by the South Yorkshire Archaeology Service (SYAS) as a planning condition to allow Linden Homes (North) to redevelop the site. The fieldwork was commissioned by AECOM and was undertaken in line with a Written Scheme of Investigation (WSI) (AECOM 2015; Appendix 4) and according to the guidance of the Chartered Institute for Archaeologists (CIfA 2014a, 2014b). The fieldwork was undertaken by ArcHeritage between 2nd and 4th September 2015, managed by Glyn Davies MfA, and supervised by Laura Strafford AlfA with assistance from George Loffman.

2 LOCATION, GEOLOGY AND TOPOGRAPHY

The Site is located within the village of Worrall, approximately 6.5km to the north-west of Sheffield and approximately 1km to the south of Oughtibridge (centred NGR: SK 30540 92076) (Figure 1). Worrall lies within the Civil Parish of Bradfield, in a rural setting on high ground, surrounded by agricultural land on all sides. The Site itself covers an area of c.0.6ha within two agricultural fields and is bounded by properties to the north, Worrall Hall to the south, Top Road to the east, and Sycamore Park recreational area to the west. The two fields that comprise the site are separated by a north-south aligned dry stone wall, the eastern field being the smaller. A dry stone wall runs along the eastern boundary flanking Top Road, with the northern and western boundaries a combination of wall and hedgerow. Prior to the commencement of fieldwork, a series of boreholes and machine-dug trial pits were excavated across the site, which have since been capped off or back-filled.

At the time of fieldwork, the ground coverage comprised rough scrub field of weeds and long grass, approximately 1.10m in height. The topography slopes gently from the south-west to north-east on contours between 224m and 230m aOD. The northern half of the proposed development site lies on bedrock geology of Crawshaw Sandstone. The southern end of the proposed development site lies on Pennine Lower Coal measures, mudstone and siltstone (BGS 2015).

3 METHODOLOGY

3.1 Aims

The principal objective of the archaeological evaluation was to establish whether archaeological remains are present within the site by excavating five evaluation trenches (Figures 2 and 3).

The specific objectives of the evaluation were:

- to determine (where possible) the nature, depth, extent, significance and date of buried archaeological remains that may be located within the proposed development area;
- to determine the condition or state of preservation of any archaeological deposits or features encountered;

- to determine the likely range, quality and quantity of artefactual and environmental evidence present;
- to inform the scope of archaeological mitigation works if required; and
- to produce a report on the findings at the site.

3.2 Methodology

The trenches were opened using a mechanical excavator, under constant archaeological supervision. The deposits were then hand cleaned and appropriately recorded. Where no archaeological features were present, a 2m representative section of the trench was drawn and recorded. A full detail of the methodology followed is outlined in the WSI (Appendix 4).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A desk-based assessment for the site was undertaken by AECOM (2014) (under the former trading name of URS) in 2014, from which the following archaeological and historical background has been summarised:

There is little evidence of early prehistoric activity on or within close proximity to the site. Mesolithic hunting camps are known around the River Don, and a single flint arrowhead was found 1.5km to the west of the site. There is no known Neolithic, Bronze Age or Iron Age activity within the vicinity, and the nearest Roman find is a collection of five coins from Middlewood Quarry, 0.6km to the north-east of the site.

Worrall is recorded as a small settlement in the Domesday Book of 1086, around the time when the Manors of Wadsley and Worrall passed to the de Wadsley family. Known medieval archaeological features within the village include the former site of a cruck barn. This lies immediately to the north of the Site, however, the barn burnt down in the 1930s.

There is no evidence for development on the site in the post-medieval to modern periods. Historic mapping dating from the late 18th century onwards shows the site as agricultural land, and the only change is the loss of field boundaries within the site, possibly walls or ditches. The majority of properties and buildings in the village lie to the east and north of the site, while Worrall Hall is located immediately to the south. A number of Grade II listed buildings lie in close proximity of the site, including the 17th century Fox House immediately to the north of the site, and properties at 64 and 66 Towngate Road, both originally dating to the 17th century.

The desk-based assessment concluded that the site has medium potential to contain previously unrecorded archaeological remains dating from the medieval to post-medieval periods.

5 EXCAVATION RESULTS

5.1 Trench 1

Trench 1 (Plates 1 and 2) was located at the north-western end of the site, and was aligned north-west to south-east. The trench measured 30m in length by 2m in width and reached a maximum overall depth of 0.52m.

The topsoil (100) in Trench 1 comprised loose, light brownish grey sandy silt with frequent roots, occasional inclusions of sub-rounded sandstone pebbles and occasional pottery

fragments (Appendix 3). The thickness of the topsoil varied from 0.22m to 0.36m. Immediately underlying the topsoil was subsoil (101), comprising soft, mid-orangey brown sandy silt with occasional inclusions of sub-angular sandstone pebbles, and a fairly uniform thickness of between 0.06m and 0.10m. The bedrock geology (102) was encountered directly beneath the subsoil, comprising loose, orange-brown silty sand with frequent inclusions of sub-angular sandstone cobbles and boulders.

No finds or features of archaeological significance were encountered within Trench 1.

5.2 Trench 2

Trench 2 (Plates 3 and 4) was located at the western end of the site and was aligned roughly north to south. The trench measured 30m in length by 2m in width and achieved a maximum overall depth of 0.65m.

The topsoil (200) in Trench 2 comprised loose, light brownish grey sandy silt with frequent roots and occasional inclusions of sub-rounded sandstone pebbles. The topsoil deposit varied in thickness, from 0.28m to 0.40m. Directly beneath the topsoil was subsoil (201), comprising friable, light greyish brown sandy silt, with occasional inclusions of sub-angular sandstone pebbles. The subsoil deposit varied in thickness, between 0.08m and 0.18m. Immediately underlying the subsoil was the bedrock geology (202), comprising loose, mid-orange brown silty sand with frequent sub-angular sandstone pebbles, cobbles and occasional boulders.

No finds or features of archaeological significance were encountered within Trench 2, however the trench did truncate a recently excavated and back-filled trial hole.

5.3 Trench 3

Trench 3 (Plates 5 and 6) was located at the north-eastern end of the site, and was aligned north-east to south-west. The trench was moved approximately 13m to the north-east from its original location in order to target features associated with the burnt-down medieval cruck barn, known to have existed just outside of the northern site boundary. The trench was re-located as close to the northern and eastern boundaries as was deemed safe and practical. The trench measured 30m in length by 2m in width, and reached a maximum overall depth of 0.55m.

The topsoil deposit (300) in Trench 3 comprised loose, light greyish brown sandy silt with frequent roots, occasional sub-angular sandstone pebbles and occasional pottery fragments (Appendix 3). The topsoil had a fairly uniform thickness of 0.35m, and immediately overlay subsoil (301). The subsoil comprised friable mid-orange brown sandy silt with occasional sub-angular sandstone pebbles, with a uniform thickness of 0.10m. Directly beneath the subsoil was the bedrock geology (302), comprising loose, mid-yellowish brown silty sand with frequent sub-angular sandstone pebbles, cobbles and boulder inclusions.

The excavation of Trench 3 required part of the existing north to south aligned dry stone wall to be demolished. No evidence of an earlier field boundary pre-dating this wall was observed following its removal. No finds or features of archaeological significance were encountered within Trench 3.

5.4 Trench 4

Trench 4 (Plates 7 and 8) was located at the southern end of the site and was aligned approximately east to west. The trench measured 30m in length by 2m in width and reached a maximum overall depth of 0.52m.

The topsoil (400) in Trench 4 comprised loose, light brownish grey sandy silt with frequent roots, occasional sub-angular sandstone pebbles and occasional pottery fragments (Appendix 3). The topsoil had a fairly uniform thickness of 0.30m and directly overlay subsoil (401), comprising friable, mid-orange brown sandy silt. The subsoil measured 0.25-0.30m in thickness and contained occasional sub-angular sandstone pebbles. Directly underlying subsoil (401) was the bedrock geology (402), which comprised friable, mid-orangey brown silty sand with frequent inclusions of sandstone pebbles, cobbles and boulders.

No finds or features of archaeological significance were encountered within Trench 4.

5.5 Trench 5

Trench 5 (Plates 9 and 10) was located at the south-eastern end of the site and was aligned roughly north to south. The trench measured 30m in length by 2m in width, and reached a maximum overall depth of 0.45m.

The topsoil (500) in Trench 5 comprised loose, mid grey-brown sandy silt with frequent roots and occasional inclusions of sub-angular sandstone pebbles. The topsoil had a fairly uniform thickness of between 0.25-0.30m, and contained occasional pottery fragments (Appendix 3) and one clay pipe stem fragment. Immediately underlying the topsoil deposit was subsoil (501), comprising loose, mid-orange brown sandy silt with occasional roots and sub-angular sandstone pebbles. The subsoil measured between 0.10 and 0.15m in thickness, and directly overlay the bedrock geology of loose, orange-brown silty sand with occasional pockets of gravel and frequent sub-angular sandstone pebbles, cobbles and boulders.

No finds or features of archaeological significance were encountered within Trench 5.

6 DISCUSSION

No archaeologically significant finds or features were observed within any of the trenches. The ground surface was fairly uneven across the site, and the undulating nature of the deposits, particularly the varied depth of the topsoil, may be indicative of post-medieval farming activity. The pottery (Appendix 3) recovered from topsoil deposits in four of the five trenches is residual and was not recovered from secure features, hence is of limited value in interpreting the past use of the site.

Little ground disturbance was noted, with the exception of the back-filled trial pit within Trench 2. Little variation in geology was noted, with sandstone in a silt matrix comprising the geological deposits in all five trenches. This deposit is likely to be the weathered and degraded top of sandstone bedrock, and corresponds with the BGS (2015) description of the bedrock geology for the site, which comprises a mix of Crawshaw Sandstone and Pennine Lower Coal measures of mudstone and siltstone.

7 CONCLUSIONS

No features or finds of archaeological significance were encountered within any of the trenches during the evaluation. It is possible that post-medieval agricultural activity has removed any evidence of earlier farming or activity within the site. The trenches were spread evenly across the site and no limitations were encountered which are believed to have had a detrimental effect on the fieldwork.

The project archive will be held by Sheffield Museums (Appendix 1).

8 ACKNOWLEDGEMENTS

ArchHeritage would like to thank Annie Calder of AECOM, Mark Whittaker of Linden Homes, and Jim McNeil of SYAS.

9 BIBLIOGRAPHY

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390000



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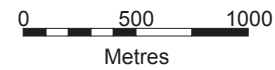


Figure 1: Site location

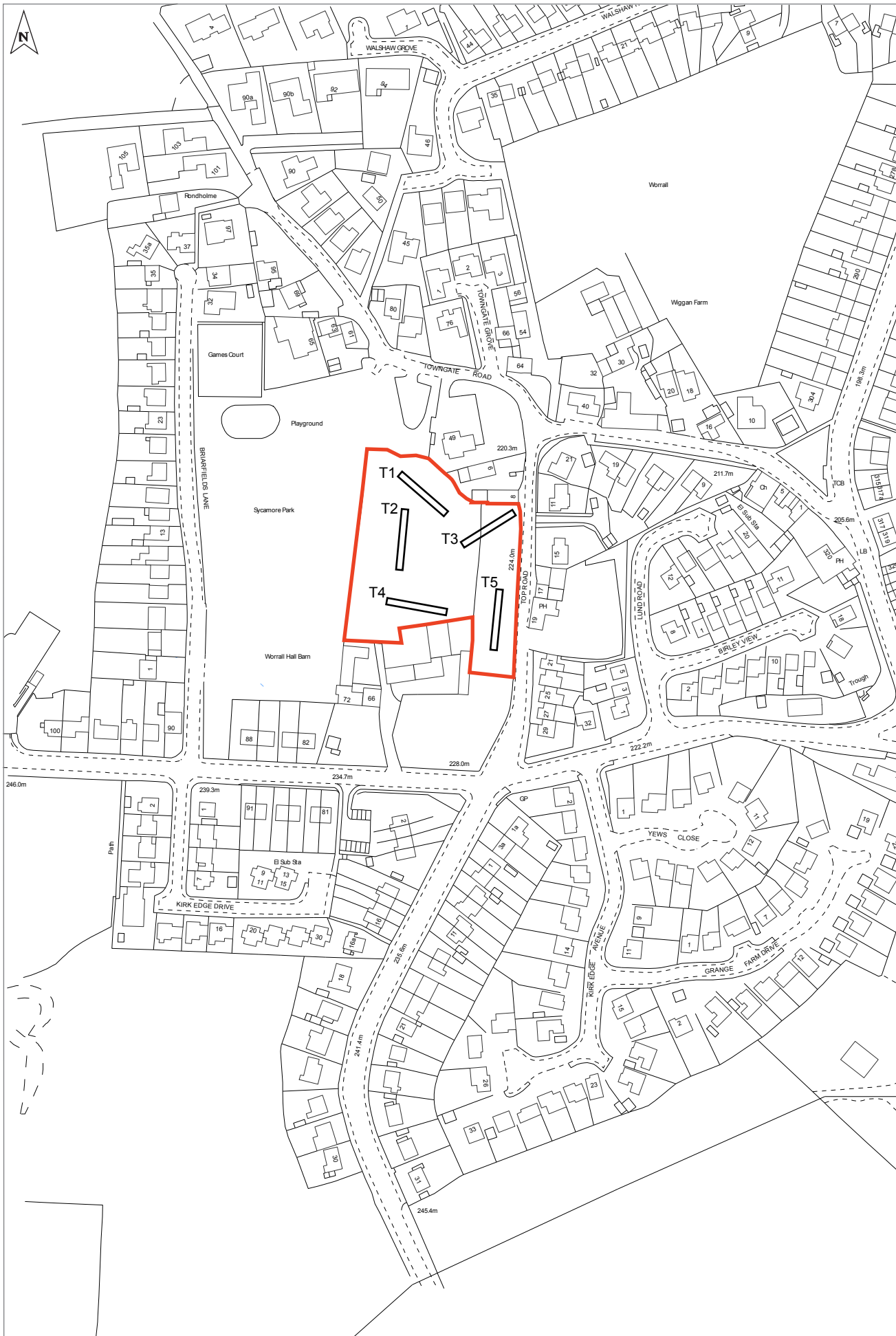
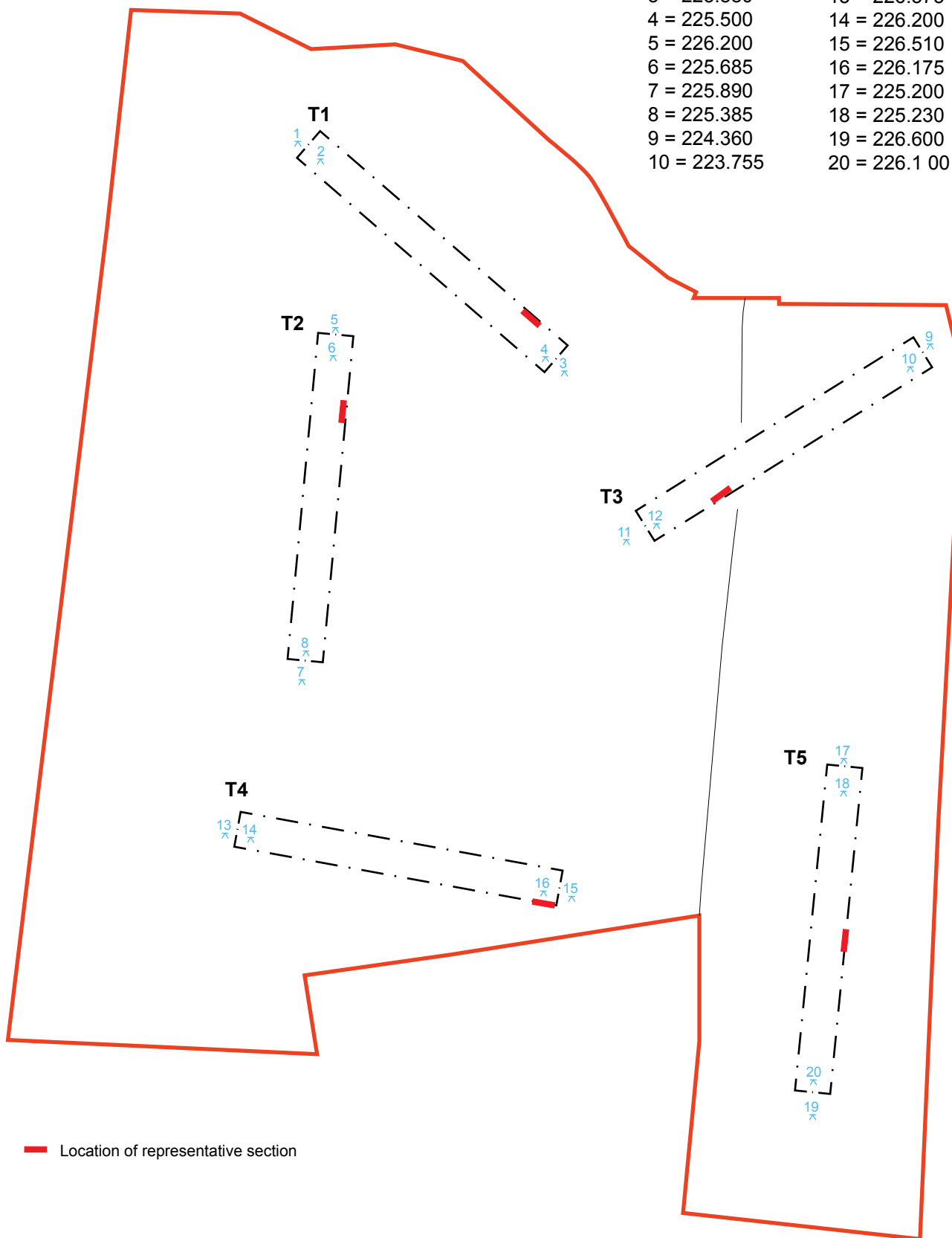


Figure 2: 1: 2500 site location and trench plan



1 = 226.035	11 = 226.255
2 = 225.270	12 = 225.490
3 = 225.880	13 = 226.575
4 = 225.500	14 = 226.200
5 = 226.200	15 = 226.510
6 = 225.685	16 = 226.175
7 = 225.890	17 = 225.200
8 = 225.385	18 = 225.230
9 = 224.360	19 = 226.600
10 = 223.755	20 = 226.100

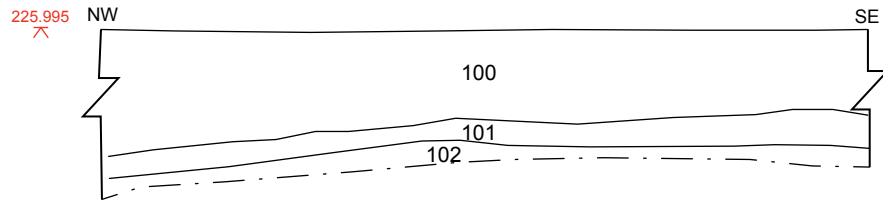


— Location of representative section

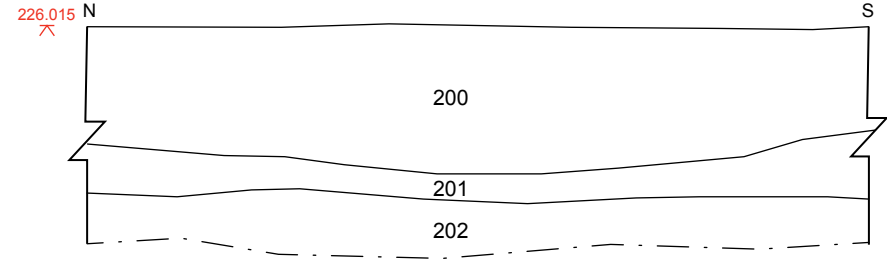
0 25 50
Metres



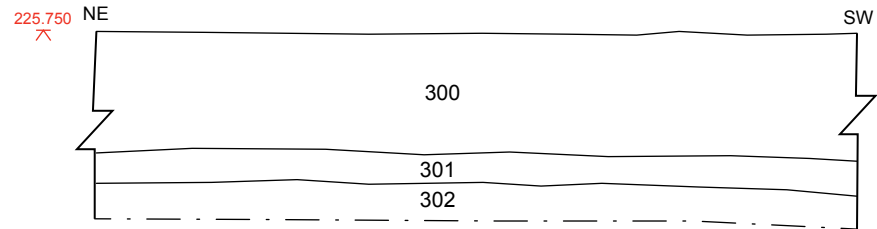
Trench 1



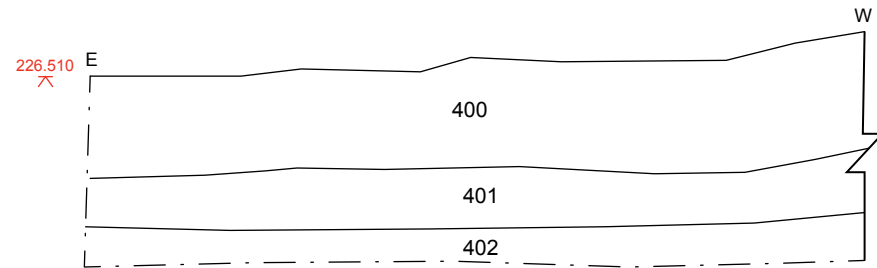
Trench 2



Trench 3



Trench 4



Trench 5

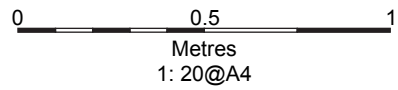
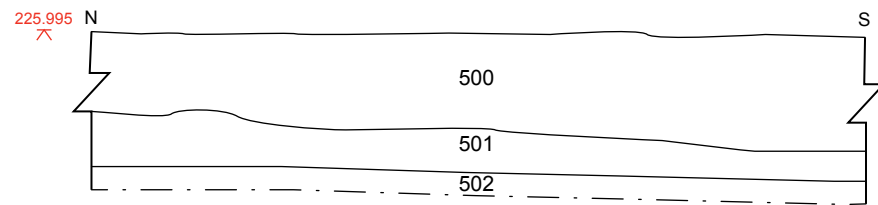


Figure 4: Two metre representative sections of the trenches

PLATES



Plate 1: Trench 1, looking north-west. Scale 1m.



Plate 2: Representative section of Trench 1. Scale 0.5m.



Plate 3: Trench 2, looking south. Scale 1m.



Plate 4: Representative section of Trench 2. Scale 0.5m.



Plate 5: Trench 3, looking north-east. Scale 1m.



Plate 6: Representative section of Trench 3. Scale 0.5m.



Plate 7: Trench 4, looking west. Scale 1m.



Plate 8: Representative section of Trench 4. Scale 0.5m.



Plate 9: Trench 5, looking south. Scale 1m.



Plate 10: Representative section of Trench 5. Scale 0.5m.

APPENDIX 1: INDEX TO ARCHIVE

Item	Number of items
Context register	5
Context sheets	15
Levels register	1
Photographic register	1
Drawing register	1
Original drawings	5
B/W photographs (films/contact sheets)	1 film (11 shots)
Digital photographs	14
Written Scheme of Investigation	1
Report	2

Table 1: List of archive contents

APPENDIX 2 – CONTEXT LIST

Trench no	Context no	Description
1	100	Topsoil Trench 1
1	101	Subsoil Trench 1
1	102	Bedrock geology Trench 1
2	200	Topsoil Trench 2
2	201	Subsoil Trench 2
2	202	Bedrock geology Trench 2
3	300	Topsoil Trench 3
3	301	Subsoil Trench 3
3	302	Bedrock geology Trench 3
4	400	Topsoil Trench 4
4	401	Subsoil Trench 4
4	402	Bedrock geology Trench 4
5	500	Topsoil Trench 5
5	501	Subsoil Trench 5
5	502	Bedrock geology Trench 5

Table 2: List of contexts

APPENDIX 3: FINDS REPORT

Laura Strafford and Rowan May

The only artefacts recovered from the trial trenching came from the topsoil in Trenches 1, 3, 4 and 5, and comprised 21 fragments of pottery and one clay pipe stem. A catalogue of the artefacts recovered is provided in Table 3, below. All of the pottery recovered was post-medieval in date, primarily 19th or 20th century, but a few sherds were or could be 18th century, such as the two small slipware sherds in Trenches 3 and 4. Based on the date, distribution and context (topsoil) of the pottery, this assemblage would all appear to be a residual background scatter of debris that would be typical of any field within a village setting. There is no evidence of temporal or spatial concentrations that would be suggestive of a specific dump of material.

Based on their context, date and type, none of the artefacts are recommended for retention.

Context no	Context description	Material type	Material description	Count	Date
100	Topsoil	Pottery	Moulded white bodied earthenware rim, white glaze	1	19 th /20 th
100	Topsoil	Pottery	White bodied earthenware body sherd, blue and white transfer printed decoration	1	19 th /20 th
300	Topsoil	Pottery	White bodied earthenware body sherd, white glazed body shed	1	19 th /20 th
300	Topsoil	Pottery	White bodied earthenware body sherd white glazed with blue stripes	1	19 th /20 th
300	Topsoil	Pottery	Red earthenware body sherd, red brown glaze	1	post med
300	Topsoil	Pottery	Red earthenware handle, dark brown glaze	1	19 th /20 th
300	Topsoil	Pottery	Coarse red earthenware rim, yellow brown glaze	1	18 th ?
300	Topsoil	Pottery	Buff earthenware fabric, base, sherd, cracked buff yellow glaze	1	18 th /19 th
300	Topsoil	Pottery	Slipware, red earthenware fabric, body sherd, dark brown, light brown and cream decoration	1	18 th
300	Topsoil	Pottery	White ceramic sphere, possibly a knurr	1	late 18 th /19 th
400	Topsoil	Pottery	Buff earthenware body sherd, cream glazed with white banding	1	late 18 th /19 th
400	Topsoil	Pottery	Banded slipware, white earthenware fabric, body sherd, white glazed with dark brown and red brown stripes	1	18 th /19 th
400	Topsoil	Pottery	White earthenware body sherd, blue and	1	19 th /20 th

			white transfer printed decoration		
400	Topsoil	Pottery	Tile, white body, white glaze with a wavy green stripe	1	20 th
500	Topsoil	Pottery	Red earthenware body sherd, with dark brown glaze	1	18 th /19 th
500	Topsoil	Pottery	Stoneware, grey fabric rim sherd, red brown glaze	1	19 th /20 th
500	Topsoil	Pottery	White bodied earthenware, blue and white transfer printed decoration, one plate rim and one body sherd	2	19 th /20 th
500	Topsoil	Pottery	Red earthenware body sherd, brown glaze, possibly shaped into a pot disc	1	19 th ?
500	Topsoil	Pottery	Cream bodied earthenware body sherd, cream glaze	1	19 th ?
500	Topsoil	Pottery	White earthenware base sherd, white glaze	1	19 th /20 th
500	Topsoil	Clay pipe	Clay pipe stem fragment, no decoration	1	

Table 3: List of finds





Top Road, Worrall, South Yorkshire Archaeological Evaluation Trenching

Written Scheme of Investigation

August 2015

Prepared for:

Linden Homes (North)

REVISION RECORD					
Rev	Date	Details	Prepared by	Reviewed by	Approved by
1	July 2015	Written Scheme of Investigation	Charlie Morris Assistant Consultant - Heritage	Laura Garcia Senior Heritage Consultant 	Annie Calder Principal Archaeological Consultant 
2	August 2015	Written Scheme of Investigation – Following comment from South Yorkshire Archaeology Services	Nick Finch Principal Consultant - Heritage	Laura Garcia Senior Heritage Consultant 	Annie Calder Principal Archaeological Consultant 

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FIGURES

Figure 1 Trench Location

1. INTRODUCTION

1.1 Background

This Written Scheme of Investigation (WSI) for archaeological evaluation trenching has been prepared by AECOM on behalf of Linden Homes (North) as part of the conditions applied to the grant of planning permission for residential development on a 0.6 hectare site at Top Road, Worrall, South Yorkshire (Figure 1). The desk-based assessment carried out by AECOM (formerly URS) in 2014 in support of the application recommended a programme of archaeological evaluation be undertaken prior to construction of the proposed development.

In 2015 the Planning Application (14/04117/FUL) was approved with an archaeological condition attached requested a programme of archaeological investigation and reporting.

The development comprises a residential development of 14 properties with associated soft and hard landscaping, and insertion of services.

1.2 Purpose of this Report

This Written Scheme of Investigation (WSI) sets out the methodology for the excavation and recording of four evaluation trenches (Trenches 1 – 4) prior to commencement of the development.

The WSI has been prepared in consultation with South Yorkshire Archaeology Service (SYAS) and has been prepared in line with the Code of Conduct of the Chartered Institute for Archaeologists (CIfA 2014) and other best practice guidelines.

The works specified in this document will be undertaken by a suitably qualified contractor (the Archaeological Contractor), under the supervision of AECOM (the Archaeological Consultant).

All works, operations and visits are to be undertaken subject to the Health and Safety requirements of Linden Homes (North).

1.3 Site Location and Geology

The proposed development site is located within the village of Worrall, approximately 6.5km to the north-west of Sheffield and approximately 1km to the south of Oughtibridge centred at (NGR) 430533E 392065N (Figure 1). Worrall lies within the Civil Parish of Bradfield, and in a rural setting on high ground surrounded by agricultural land on all sides. The site covers an area of c.0.6ha within two agricultural fields and is bounded by properties to the north, Worrall Hall to the south, Top Road to the east, and Sycamore Park recreational area to the west. The two fields that comprise the site are separated by a north-south aligned dry stone wall, the eastern field being the smaller. A dry stone walls runs along the eastern boundary flanking Top Road and the northern and western boundaries are a combination of wall and hedgerow. The ground coverage on the site is a rough scrub field of weeds and long grass.

The site's topography slopes gently from the south-west to north-east on contours between 224m and 230m AOD.

The northern half of the proposed development site lies on bedrock geology of Crawshaw Sandstone. The southern end of the proposed development site lies on Pennine Lower Coal measures, mudstone and siltstone. Superficial deposits are freely draining slightly acid loamy soils (www.bgs.ac.uk).

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Desk Based Study

The archaeological evaluation follows a desk-based assessment that was undertaken by AECOM (under the former trading name of URS) in 2014 and the archaeological and historical background is summarised below.

The proposed development site lies on land close to the historic core of the village of Worrall and a review of cartographic sources indicates the site has remained relatively unchanged.

There is little evidence of early prehistoric activity on in close proximity to the site. Mesolithic hunting camps are known around the River Don and a single flint arrowhead was found 1.5km to the west of the site. There is no known Bronze Age or Iron Age activity and the nearest Roman finds was a findspot of five coins from Middlewood Quarry 0.6km to the north-east of the site.

Worrall is recorded as a small settlement in the Domesday Book of 1086 and after the conquest the Manors of Wadsley and Worrall passed to the De Wadsley family. The site of a medieval cruck barn that burnt down in the 1930s lies immediately to the north of the site and buried remains of this structure may survive. It is possible that the buried remains of buildings and associated features dating to the medieval period could be present on the site but seems more likely that features associated with farming or agriculture may survive on the site. These features could include ridge and furrow and former field boundaries.

There is little change on the site into the post-medieval to modern periods with the majority of properties and buildings in the village to the east and north of the site and Worrall Hall immediately to the south. Historic mapping dating from the late 18th century onwards shows the site as agricultural land and the only change is the loss of field boundaries within the site, possibly walls or ditches. A number of Grade II listed buildings lie in close proximity of the site including the 17th century Fox House immediately to the north and properties at 64 and 66 Towngate Road both originally date to the 17th century. There is no indication of any change to the site from 20th century Ordnance Survey mapping or from any other documentary sources with the site remaining as farmland.

3. PROJECT OBJECTIVES

The principal objective of the archaeological evaluation is to establish if archaeological remains are present within the site by excavating four evaluation trenches (Trenches 1-4) – (Figure 2).

The specific objectives of the evaluation are:

- to determine (where possible) the nature, depth, extent, significance and date of buried archaeological remains that may be located within the proposed development area;
- to determine the condition or state of preservation of any archaeological deposits or features encountered;
- to determine the likely range, quality and quantity of artefactual and environmental evidence present;
- to inform the scope of archaeological mitigation works if required; and
- To produce a report on the findings at the site.

4. FIELDWORK METHODOLOGY

4.1 Specific Works

All archaeological works will be carried out in accordance with this WSI (and any further instructions from the Archaeological Consultant), and with guidance in the Standard and Guidance for Field Evaluation issued by the Chartered Institute for Archaeologists (CIfA 2014), the CIfA Code of Conduct (CIfA 2014) and other current and relevant good practice and standards and guidance (refer to Appendix 1: References).

The definition of an archaeological field evaluation is '*a limited programme of non-intrusive and / or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts with a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their significance in a local, regional, national or international context as appropriate*' (CIfA 2014).

The evaluation will comprise a total of four 30 x 2m trenches. The location and the size of the trenches are shown on Figure 2. The trenches should be located using metric-survey equipment to an accuracy of $\pm 100\text{mm}$ of the specified trench location.

4.2 Access

Access to the site has been arranged between the client, Linden Homes (North) and AECOM.

4.3 Methodology

The Archaeological Contractor shall prepare and submit a Risk Assessment for the works prior to the commencement of fieldwork for approval by the Archaeological Consultant.

During the archaeological works archaeological remains will be identified and investigated (sample excavation) by the Archaeological Contractor, as defined by the Archaeological Consultant in consultation with SYAS. It will involve the systematic examination and accurate recording of a sample of all archaeological features, horizons and artefacts identified.

During the excavation of the evaluation trenches topsoil/ subsoil/ overburden shall be removed under archaeological supervision. This will be done in order to control the levels to which machine excavation is undertaken, to ensure that the extent and character of the archaeological remains are identified, and to excavate, record and to preserve by record those archaeological remains that will be impacted by the Scheme.

Archaeological Evaluation Trenches

Four evaluation trenches (Trenches 1-4) will be excavated at the locations shown on Figure 2. The trenches are not targeting known archaeological remains and the trench positions should be measured using survey grade GPS or equivalent metric survey equipment.

The excavator will be fitted with a toothless bucket, and the mechanical excavation will be carried out under archaeological supervision. Although utility service plans show no services on the site, the trench locations will be scanned using a CAT scan or similar to check for unknown services prior to machining.

The arisings from the archaeological works will be stored adjacent to the trench (within a safe working distance but not less than 1m) and will be separated according to material, so that topsoil will be separated from subsoil and made ground separated from topsoil.

The arisings from the trenches shall be subject to a rapid metal detector scan, in order to recover metal artefacts not recovered during mechanical excavation of the trench. The excavation will proceed under direct archaeological supervision, in level spits, until either the top of the first archaeological horizon or undisturbed natural deposits are encountered.

Particular attention should be paid to achieving a clean and well-defined horizon with the machine. Under no circumstances should the machine be used to cut arbitrary sondage trenches down to natural deposits. The surface achieved through machine excavation will be inspected for archaeological remains. The mechanical excavator will not traverse any stripped areas.

If important concentrations of artefacts are uncovered during machining, suggestive of significant activity, these should be left in situ in the first instance. The machined surface will be cleaned by hand, where required, for the acceptable definition of archaeological remains. Following cleaning, all archaeological remains will be planned, to enable the selection of features and deposits for sample excavation by the Archaeological Contractor.

If, in the opinion of the Archaeological Contractor, extensive or significant archaeological remains are discovered, they will notify the Archaeological Consultant immediately. It may be appropriate to extend the area of investigation so that all archaeological remains in the area can be recorded. If a revised project design is required, then a modification to the works specification will be prepared by the Archaeological Consultant. It will set out the work that is required to enable detailed recording to take place. No plant will be permitted to traverse the areas until the archaeological excavations have been completed and formally signed-off with a formal Archaeological Works Completion Statement in consultation with SYAS.

The trial trenches will be clearly demarcated with netlon fencing, supplied by the Archaeological Contractor, to ensure that persons or plant cannot inadvertently traverse across the area of investigation whilst archaeological works are in progress. The netlon fencing will be regularly inspected and maintained until works in the area have been completed, inspected and approved by the Archaeological Consultant and the trenches backfilled.

The trial trenches shall only be backfilled by machine under appropriate conditions and with direct archaeological supervision. Arisings will be returned strictly in the correct order.

Any land drains encountered during the archaeological works will be left in situ and upon completion of the works they will be carefully backfilled and covered over to avoid damage. A buffer of 0.5m will be left either side of a land drain and excavation will proceed either side of it. Any damage to land drains must be rectified immediately and notified to the Archaeological Consultant.

Illustrated notices will be displayed around the site (with the client's agreement), explaining what work is in progress and why, to keep members of the public informed. The notice will be a minimum of A3 size, with font at a minimum size of 16 point.

4.4 Hand Excavation

Sample excavation shall be restricted to that required to meet the key objectives of the evaluation.

Archaeological deposits/ features selected for sample excavation will be hand excavated in an archaeologically controlled and stratigraphic manner in order to meet the objectives of the evaluation. Machine-assisted excavation may be permissible if large deposits are encountered but only after consultation with the Archaeological Consultant and SYAS. A

sufficient number of deposits / features will be investigated through sample excavation in each trench to record the horizontal and vertical extent of the stratigraphic sequence down to the level of undisturbed natural deposits. No archaeological deposit should be entirely removed unless this is unavoidable. Excavation must be undertaken with a view to avoiding damage to any features or deposits which appear to be worthy of preservation in situ.

The following sampling strategies will be employed:

Linear features: A minimum of 20% sample (each length not less than 1m long) where the depositional sequence is consistent along the length. Linear features with complex variations of fill type will be sampled sufficiently in order to understand the sequence of deposition.

Where possible one section will be located and recorded adjacent to a trench edge. If appropriate all intersections will be investigated to determine the relationships between features. All termini will be investigated.

Discrete features: Pits, post-holes and other isolated features will normally be half-sectioned. A minimum requirement to meet the project objectives will be agreed in consultation with AECOM. It is not anticipated that all of these features will be half-sectioned. If large pits or deposits (over 1.5m diameter) are encountered then the sample excavated should be sufficient to define the extent and maximum depth of the feature and to achieve the objectives of the evaluation, but should not be less than 25%.

Structures: Each structure will be sampled sufficiently to define the extent, form, stratigraphic complexity and depth of the component features and its associated deposits to achieve the objectives of the evaluation. All intersections will be investigated to determine the relationship(s) between the component features.

4.5 Recording

The perimeter of each trench and all archaeological remains within the trenches will be recorded in plan using metric survey-grade equipment (or its equivalent).

A full written, drawn and photographic record will be made of each trench even where no archaeological features are identified. Hand drawn plans and sections of features will be produced at an appropriate scale (normally 1:20 for plans and 1:10 for sections). One long section of each trench will be drawn at a scale of not less than 1:50. All plans and sections will include spot heights relative to Ordnance Datum in metres, correct to two decimal places.

The photographic record should comprise digital format. Digital photography should use cameras with a minimum resolution of 10 megapixels. Note that conventional black and white print (including negatives) photography is still required and constitutes the permanent record. Any digital images are to be supplied on CDs by the archaeological contractor accompanying the hard copy of the report. These will then be sent to SYAS.

4.6 Artefact Recovery

All artefacts will be collected, stored and processed in accordance with standard methodologies and national guidelines (refer to Appendix 1). Except for modern artefacts all finds will be collected and retained. Each 'significant find' will be recorded three dimensionally. Similarly if artefact scatters are encountered these should be also recorded three dimensionally. Bulk finds will be collected and recorded by context.

Where necessary the artefacts will be stabilised, conserved and stored in accordance with the current conservation guidelines and standards (see Appendix 1). Artefacts will be properly conserved after excavation and will be stabilised for storage. If necessary, a conservator will visit the site to undertake 'first aid' conservation treatment.

Artefacts will be stored in appropriate materials and conditions, and monitored to minimise further deterioration.

4.7 Environmental Sampling

The Historic England Regional Science Advisor will be notified of the commencement of the project and will be consulted regarding the sampling strategy proposed. Provision will also be made for the recovery of material suitable for scientific dating. Recommended volumes for environmental samples is 100 litres from basal ditch fills (for wet sieving on c.5-10mm mesh).

Any samples taken must come from appropriately cleaned surfaces, be collected with clean tools and be placed in clean containers. They will be adequately recorded and labelled and a register of all samples will be kept. Once the samples have been obtained they should be stored appropriately in a secure location prior to being sent to the appropriate specialist for processing.

4.8 Human Remains

Should human remains be discovered during the course of the trial trenching the remains will be covered and protected and left in situ in the first instance. The removal of human remains will only take place in accordance with a licence obtained from the Ministry of Justice and under the appropriate Environmental Health regulations and the Burial Act 1857. In the event of the discovery of human remains the Archaeological Contractor will notify the Archaeological Consultant and the Ministry of Justice immediately.

4.9 Treasure Trove

Any artefacts which are recovered that fall within the scope of the Treasure Act 2002 will be reported to the Archaeological Consultant and to H. M. Coroner by the Archaeological Contractor. Any finds must be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the 'Code of Practice'. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

4.10 Unexpectedly Significant or Complex Discoveries

Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgment of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the Archaeological Contractor should contact Archaeological Consultant with the relevant information to enable them to resolve the matter with SYAS.

4.11 Completion of Fieldwork

The Archaeological Contractor shall prepare and submit a Completion Statement to the Archaeological Consultant within one working day of completing the trial trenching. The site will be left in a tidy and workman-like condition and the Archaeological Contractor will ensure that all materials brought onto site are removed.

5. ARRANGEMENTS FOR IMMEDIATE CONSERVATION OF ARTEFACTS

All artefacts will be retained, cleaned, labelled and stored as detailed in the guidelines of the UKIC (United Kingdom Institute of Conservators), set out in Appendix 1.

Finds will be stored in controlled conditions where appropriate.

6. POST-FIELDWORK ASSESSMENT AND ANALYSIS OF PROJECT DATA

All assessment and analytical work will be carried out by suitably qualified and experienced staff, who will be appraised of the project design before commencing work, and who will understand the work required of them.

Artefacts and ecofacts will be assessed in accordance with ClfA Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (ClfA, 2014). The level of recording and analysis will be appropriate to the aims and purpose of the project and will take account of the potential of artefacts and ecofacts to contribute to the understanding of the archaeological resources.

All data generated as a result of assessment and/or analysis will be included in the project archive.

All reports will address the aims and purposes of the WSI.

7. REPORTING

A fieldwork report will be submitted in draft within 3 weeks of the completion of fieldwork. The reporting of the Archaeological Evaluation Trenching will be commensurate with the results, but as a minimum must stand as a sufficiently detailed report on the archaeological fieldwork to serve both future research and to inform future planning decisions. The preparation of the survey archive and fieldwork report will be undertaken in accordance with this WSI and relevant archaeological standards and national guidelines (see Appendix 1). The report will include the following:

- **Non-technical summary**
- **Contents list**
- **Introductory statements**
 - an account of the background and circumstances of the work;
 - the scope and date of the fieldwork, the personnel involved and who commissioned it; and,
 - the nature of potential impacts arising from the works.
- **Aims and objectives**
- **Full detailed methodology** (including any variation to the WSI) describing the methodology employed, work undertaken and the results.
- **Site location** including National Grid Reference and describing locations monitored and linked to illustrations.
- **Archaeological and historical background**
 - geology, soils and topography;
 - any known existing disturbances on the site;
 - background archaeological potential of the site; and,
 - any constraints on the archaeological monitoring.
- **Results** will include:
 - a full description, assessment of condition, quality and significance of the results;
 - descriptive material will be clearly separated from interpretative statements;
 - a list of, and spot dates for, any finds recovered and a description;
 - a description of any environmental or any other specialist work undertaken and the results obtained; and,
 - a table summarising the deposits, features, classes and numbers of artefacts encountered and any spot dating of significant finds, and recommendations for further analysis if applicable.
- **Discussion and assessment of significance**, including interpretation of the deposits identified and a thorough appraisal of the recorded evidence within its local, regional and national context.
 - Interpretation of the archaeology, including its location, extent, date, condition, significance and importance; and,

- Even if no archaeology is identified as present on the site, include a description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate.
- **Conclusions**, including:
 - a confidence rating on the techniques used, or on limitations imposed by particular factors (e.g. weather or problems of access);
 - assessment of the research value of the results, in terms of their potential to address both the original research aims and objectives of the project and any further research objectives identified during the course of the onsite and post-excavation works;
 - an assessment of potential of project records, artefact and environmental assemblages to achieve the research potential identified in the assessment;
 - a description of the effects of the Scheme on any archaeological remains;
 - information about any areas of significant archaeological deposits that remain preserved within the Scheme area, noting any variations in the depth of overburden covering any archaeological deposits revealed; and,
 - an indication of the final destination of the project archives, their conservation status and a cross-referenced quantification and index of the project archive.
- **Appendices** containing essential technical and supporting data, including for example lists of artefacts and context or details of measurements etc. It may also be appropriate to include the WSI for ease of reference.
- **Illustrations**, including:
 - general and detailed plans and sections showing the location of the results and identifying any areas unsuitable for recording, accurately positioned on an OS base map (to a known scale commensurate with the objectives of the fieldwork) and related to the National Grid; and,
 - photographs to illustrate any identified features and finds, and general shots showing the Archaeological Evaluation in progress.
- **References and bibliography**

The description of the results of the Archaeological Evaluation will include the dimensions of the areas observed; the nature and depth of overburden soils encountered; a description of all archaeological features and finds encountered in each area observed, their dimensions, states of preservation and interpretation; and a description of the geological subsoil encountered across the site. Heights related to Ordnance Datum should be provided for each feature and deposit. For complex remains, a Harris Matrix diagram should be provided.

Finds recovered during the course of the Archaeological Evaluation will be described, quantified and assessed by artefact type within the report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate, local reference collections will be referred to for descriptive and analytical consistency. Any implications for future archive, conservation or discard of the artefacts should also be detailed. The report will include a table showing the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.

The report will include an assessment of the environmental potential of the site. Details should be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the sampling should be described. Implications for future archive, conservation or discard of environmental samples or remains should be detailed. The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.

Any results from the Archaeological Evaluation involving the application of archaeological scientific techniques e.g. specialist dating should be included in the Archaeological Evaluation report.

The report should include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to be fully cross-referenced within the document text. As a minimum the report should include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1,250 scale or in the case of larger sites at 1:2,500 scale. The plan should also include at least two National Grid Reference points and show the site boundary;
- a plan at 1:100 or 1:200 scale showing the layout of the groundworks clearly indicating the areas observed. The plan should show significant archaeological features, coloured by phases or period as related to the Scheme area. Where possible, projection of archaeological features outside of the areas observed should be included on the plan. This plan should also include two National Grid Reference points;
- plans of the features revealed in each of the excavation areas at a larger scale e.g. 1:20 or 1:50; such plans are to also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken should also be indicated;
- relevant section drawings and soil trench profiles as appropriate;
- illustrations and/or photographs of significant finds should be included where appropriate.

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

Photographs should be included where appropriate to illustrate the archaeology of the site, the Scheme operations or the range of soil profiles encountered. All photographs should be appropriately captioned.

All reports will be written in a clear, concise and logical style; technical terms, including dating and period references, will be explained and a glossary and list of abbreviations/acronyms provided.

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

Two bound hard copies, a digital editable copy and a .pdf copy (complete with illustrations and plates) of the completed report will be submitted to the Archaeological Consultant as a draft for

comment. When the report is of a sufficient standard, the Archaeological Consultant will submit a copy of the report to the Client, and following internal Client review, will forward to SYAS for comment.

In finalising the report the comments of the Archaeological Consultant, SYAS and the Client will be taken into account.

Six bound copies, one unbound master-copy and a digital version of the finalised report will be submitted to the Archaeological Consultant within 1 week of the receipt of comments on the draft report. Copies will be circulated to SYAS and the Client. A copy of the final report will be submitted to the project archive.

A project PC CD-ROM shall be submitted containing all images, plans and maps in .bmp, .tiff or .jpg format, digital text files shall be submitted in MS Word format and illustrations in AutoCAD format or ArcView shapefile format. A fully collated version of the report shall be included in PDF format. The digital copy will be supplied for preference in .pdf format or alternatively in .rtf format accompanied by digital copies of images, plans and maps in .bmp, .tiff or .jpg format. Whichever software is used the digital files must be supplied in a PC readable format.

8. PUBLICATION AND DISSEMINATION PROPOSALS

The Archaeological Contractor must complete an Online Access to Index of Archaeological Investigations (OASIS) form at <http://ads.ahds.ac.uk/project/oasis/>.

Depending on the results, the survey may be followed by an assessment of the character and significance of all categories of the recorded evidence. The assessment will be undertaken by suitably qualified specialists in accordance with MoRPHE (English Heritage, 2014)..

If significant results are obtained and it is likely that further stages of archaeological work will be required, publication shall be deferred until such time as the project works are substantially complete. Publication proposals will only be put forward where these are warranted. At this stage publication is not envisaged for this project.

The format of any publication shall be commensurate with the importance of the results and be agreed in advance with SYAS and the Client. An assessment review will be held with SYAS in order to agree any proposals for further analysis and publication.

A summary report of an appropriate length, accompanied by illustrations (at 300dpi resolution), must be prepared and submitted in digital format, for publication in the appropriate volume of *Archaeology in South Yorkshire*.

Provision will be made for publicising the results of the work locally, e.g. by presenting a paper at South Yorkshire Archaeology Day and talking to local societies.

9. COPYRIGHT

The Archaeological Contractor shall assign copyright in all reports, documentation and images produced as part of this project to the client. The Archaeological Contractor shall retain the right to be identified as the author /originator of the material. This applies to all aspects of the project. It is the responsibility of the Archaeological Contractor to obtain such rights from sub-contracted specialists.

Material copied or cited in reports will be duly acknowledged; all copyright conditions (such as those for Ordnance Survey maps or the National Grid) will be observed.

The Archaeological Contractor may apply in writing to use/disseminate any of the project archive or documentation (including images). Such permission will not be unreasonably withheld.

The Archaeological Consultant will submit the results of the archaeological works to the Client. The Archaeological Consultant will submit the results, on behalf of the Client, to SYAS and if required, to Historic England. The results will ultimately be made available for public access via the OASIS database (see Section 7 Reporting).

10. ARCHIVE DEPOSITION

Archaeological material recovered from fieldwork is irreplaceable and data recorded in the course of fieldwork can and should be copied and additionally held securely in a separate location in line with current good practice (English Heritage, 2008).

The site records (list of fieldwork interventions, notebooks /diaries, site geometry (drawings), photographs and films, and associated data files) will constitute the primary Site Archive. This is the key archive of the fieldwork project and the raw data upon which all subsequent assessment and analysis and future interpretation will be based. The archive will therefore not be altered or compromised – it remains the original record of the fieldwork. The site archive should be quantified, ordered, indexed and made internally consistent. The archive will also contain a summary of key findings, including summary processing and analysis of all features, finds or palaeoenvironmental data recovered during fieldwork. Arrangements should be made for the proper cataloguing and storage of the archive during the project life-cycle.

Separately the Project Archive will include full details of the project history, administration, risk register, documentation issue log, and where appropriate a Project Proposal, Project Design and list of specialist contributors (this list is not exhaustive).

Archiving of data associated will follow the advice provided in *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Brown, 2007).

The archive of records generated during the fieldwork will be removed from the site at the end of each day and kept secure at all stages of the project.

The Archaeological Contractor will ensure that the digital data is backed-up at regular intervals (at least daily) to ensure that there is a back-up of the data.

Arrangements for the deposition of the finds and site archive will be made with Museums Sheffield **in advance of commencement of fieldwork**. The relevant service can be found via the '*Archaeological Collections Areas Database and Map*' on the ADS website.

"Archaeological Archive Deposition Policy for Museums in Yorkshire and the Humber", produced by Renaissance Yorkshire, created a uniform region-wide approach to the preparation and deposition of archaeological archives. The resulting formal process requires the completion and submission of forms to the relevant museum service at the project initiation, mid-point review and completion stages (template forms are available for download from the 'Technical Documents' page of the SYAS website).

The archaeological contractor will contact the museum's archaeological curator or collections manager to discuss archaeological archiving requirements at the initial stage of preparation of the project design. Following agreement with the client, details of archiving arrangements will be incorporated into the project design. This will include confirmation that a budget to cover the museum's deposition charge has been allowed for.

The South Yorkshire museum services do not accept digital archives; digital archiving will need to be discussed with ADS (or equivalent service) and appropriate costs allowed for.

Archiving is expected to be carried out as specified, in a timely manner, unless further fieldwork is undertaken and it is agreed that the archives from the separate phases can be amalgamated. On completion of archiving, confirmation of deposition will be supplied to SYAS.

On completion of the archaeological post-excavation programme the Archaeological Contractor will arrange for the site archive to be deposited. Artefacts are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, Conservation Guidelines (UKIC 1983, 1984, 1990, 2001). The archive will be prepared for long term storage to the requirements of the museum. If alternative arrangements for storage are agreed, the archive should be prepared to the requirements of MoRPHE (English Heritage, 2014) and to the ClfA Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives (ClfA, 2014), Selection, Retention and Dispersal of Archaeological Collections 1993 (Society of Museum Archaeologists, 1993), and Standards in the Museum Care of Archaeological Collections 1992 (Museums and Galleries Commission, 1992).

11. TIMETABLE

The Archaeological Contractor must ensure that they have adequate and appropriate management procedures in place to ensure that risks to the programme timetable (e.g. limitations on site access, adverse weather conditions etc.) can be identified at an early stage. These risks will be kept under constant review by the Archaeological Contractor to ensure that the aims and objectives are met within the agreed budget. The Archaeological Consultant will be notified at the earliest opportunity of any changes to the methodology or programme of work that arise from review. Changes and variation to the programme will only be accepted after they have been agreed in writing with the Archaeological Consultant. The Archaeological Contractor shall give immediate warning to the Archaeological Consultant should any agreed programme date not be achievable.

The fieldwork is programmed to be implemented at the earliest available opportunity (subject to approved access and an approved Risk Assessment). The Archaeological Consultant will inform the Archaeological Contractor of the start date for the works. The Archaeological Consultant shall notify SYAS of the start date prior to the commencement of the works.

The timetable and programme for the investigations will be agreed in advance with the Client.

12. STAFFING

All archaeological personnel involved in the project should be appropriately accredited and competent persons, suitably qualified and experienced for their project roles, and employed in line with relevant legislation and ClfA by-laws (ClfA, 2014). The Archaeological Contractor shall provide the Archaeological Consultant with staff CVs of the Project Manager, Site Supervisor and any proposed specialists. Site assistants' CVs will not be required, but all site assistants should have an appropriate understanding of fieldwork and recording procedures. All staff involved in the fieldwork should be CSCS qualified to a minimum standard of 'Archaeologist Technician'.

All staff will be fully briefed and aware of the work required under this WSI and will understand the objectives of the investigation and the methodologies to be employed.

Sufficient and appropriate resources (staff, equipment, accommodation etc.) will be used by the Archaeological Contractor to enable the project to achieve its aims, the desired quality and timetable, and to comply with all statutory requirements.

13. PROFESSIONAL AND ETHICAL STANDARDS

All aspects of the Project, including employment practices, Health & Safety, welfare, field research and analysis, reporting, dissemination and archiving will comply with relevant ethical and technical standards noted in Appendix 1 to ensure that the Project is carried out to appropriate ethical and professional standards.

Particular attention will be paid to ensuring the integrity of data, access to data and the appropriate storage and retention of data. Any interference with or impediments to research and reporting should be declared, and any errors or omissions corrected in an open and collaborative manner. Potential and actual conflicts of interest will be declared, and authorship shall be attributed appropriately. The eventual accessibility of reporting and publications is important.

14. INSURANCES AND HEALTH AND SAFETY

The Archaeological Contractor will provide the Archaeological Consultant with details of their public and professional indemnity insurance cover prior to the commencement of the fieldwork for approval by the Archaeological Consultant.

The Archaeological Contractor will have their own Health and Safety policies compiled using national guidelines, which conforms to all relevant Health and Safety legislation and good practice. A copy of the Archaeological Contractor's Health and Safety policy will be submitted to the Archaeological Consultant with their tender.

The Archaeological Contractor shall prepare a project specific Risk Assessment and submit this to the Archaeological Consultant for approval prior to the commencement of the fieldwork. If amendments are required to the Risk Assessment during the works the Archaeological Consultant must be provided with the revised document at the earliest opportunity.

All staff involved in the fieldwork should be CSCS qualified to a minimum standard of 'Archaeologist Technician'. Staff CVs will include CSCS qualifications.

Archaeological Contractors undertaking fieldwork must observe safe working practices and comply with specific site rules.

All site personnel will familiarise themselves with the following:

- site emergency and evacuation procedures;
- the site's health and safety coordinator;
- the first aider; and
- the location of the nearest hospital and doctor's surgery.

The Archaeological Contractor will maintain a record of site attendance for each day that there is a team in the field.

All site personnel will wear appropriate personal protective equipment (PPE) at all times. The Archaeological Contractor will ensure that any visitors to the investigations are equipped with suitable PPE prior to entry to the site.

The Archaeological Contractor will adhere to all relevant Health & Safety guidance.

All equipment that is used in the course of the fieldwork must be 'fit for purpose' and be maintained in a sound working condition that complies with all relevant Health and Safety regulations and recommendations.

The ground where the evaluation trenches are to be positioned should be checked for buried services using a CAT scan or similar prior to machining.

All archaeological work should be undertaken in accordance with current Health and Safety legislation. Health and Safety will take priority over archaeological matters.

The Archaeological Contractor will assure that all staff are provided with adequate, suitable, sufficient and maintained welfare and sanitary facilities at appropriate locations for the duration of the works. The locations for temporary site welfare facilities will be agreed with the Client prior to the start of the works.

15. ENVIRONMENTAL PROTECTION

Construction activities, and archaeological mitigation fieldwork, have the potential to affect the surrounding environment including neighbours as well as the wider environment. Good environmental practice enables these effects to be managed positively. They can take many forms, for example effects on surrounding flora and fauna, watercourses, noise or pollution. Clients, their professional advisers, contractors and the whole construction supply chain have responsibilities for environmental management and resource efficiency.

All work will be carried out in accordance with the relevant statutory provisions and should seek to exceed them where possible. All reasonably practicable measures will be taken to avoid and/or ameliorate potential damage or nuisance to people and impact on the environment (ClfA 2014).

The Archaeological Contractor shall seek to avoid, control and minimise the environmental impacts of their operations in accordance with the Construction Industry Research and Information Association's Environmental Good Practice on Site (CIRIA 2015), ClfA's Policy statement on environmental protection (ClfA 2014), and any other environmental briefings and policies issued by the Client.

16. MONITORING PROCEDURES

The Archaeological Evaluation may be subject to monitoring visits by the Archaeological Consultant, the commissioning body or their nominated representatives, who will have unrestricted access to the site, fieldwork records and any other information. The work will be inspected to ensure that it is being carried out to the required standards and that it will achieve the stated objectives.

The Archaeological Consultant will give SYAS seven days' notice of when work is due to commence. Access to the site for monitoring purposes will be accorded to SYAS who may monitor the implementation of the programme of works and evaluate the work being undertaken on site against the methodology detailed in this WSI.

Verbal progress reports will be provided to the Archaeological Consultant upon request and weekly written progress reports will be provided to the Archaeological Consultant if requested.

Progress meetings between the Archaeological Consultant, SYAS and the Archaeological Contractor may be held on site during the course of the fieldwork.

The Archaeological Contractor will only accept instruction from the Archaeological Consultant.

17. CONFIDENTIALITY AND PUBLICITY

The archaeological survey works may attract interest.

All communication regarding this project is to be directed through the Archaeological Consultant. The Archaeological Contractor will refer all inquiries to the Archaeological Consultant without making any unauthorised statements or comments.

The Archaeological Contractor will not disseminate information or images associated with the project for publicity or information purposes without the prior written consent of the Archaeological Consultant.

18. ACCESS ARRANGEMENTS AND SITE INFORMATION

Access to the site is restricted to authorised personnel only.

Access will be arranged and organised on behalf of the Client by the Archaeological Consultant. Approved routes into and out of the site will be clearly identified and adhered to at all times. The location of welfare facilities and site offices will be agreed between the Archaeological Consultant and the Client.

Should the Archaeological Contractor require an adjustment to the location of the works areas due to local conditions, these shall be agreed with the Archaeological Consultant prior to implementation.

The Archaeological Contractor will notify the Archaeological Consultant immediately if any of the proposed trench locations cannot be investigated and will provide a clear explanation for the situation.

The Archaeological Contractor will record photographically (digital photographs) ground conditions in the area of the proposed trenches and will record any damage caused by the works that may result in a claim for compensation. Photographs will be taken prior to the start of the evaluation, during works, and upon completion and backfilling of the trenches.

19. ADHERENCE TO PROJECT DESIGN

The Archaeological Contractor will undertake the works according to this WSI and any subsequent written variations. No variation from or changes to the WSI will occur except by prior agreement with the Archaeological Consultant.

20. GENERAL PROVISIONS

The Archaeological Contractor will supply all plant, welfare facilities and fencing, as required.

The Archaeological Contractor will provide day rates, a lump sum for reporting, plus any contingencies (e.g. excavation of human remains, scientific dating, specialist finds and conservation work etc.), with a cost breakdown, detailed where applicable.

All communications on archaeological matters will be directed through the Archaeological Consultant.

The Archaeological Contractor shall make the minimum of disturbance during the survey and will avoid any unnecessary damage.

The Archaeological Contractor will immediately notify the Archaeological Consultant of any evidence of or damage to the integrity of the survey caused by any third party.

Any technical queries arising from the specification detailed above will be addressed to the Archaeological Consultant without delay.

21. VALID PERIOD OF WSI

This WSI is valid for a period of 6 months from date of issue, after which it will be reviewed by the Archaeological Consultant and may need to be revised, updated or amended in order to take account of new discoveries and to accommodate changes to policy, legislation, standards and guidance, good practice, the introduction of new working practices or techniques or changes in design associated with the project.

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FIGURES



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