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Advice on Archaeology & Planning

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Interpretation, Design & Display

Pioneer Way, Normanton

Archaeological Evaluation

Report No. Y045/12

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Commissioned by	Prospect Archaeology Ltd
Date issued	February 2012
Version	1
OASIS Reference	
Planning Application No	
Grid Ref	SE 40526 23866 (centred)

This document has been prepared in accordance with CFA Archaeology Ltd standard procedures.

Pioneer Way, Normanton

Archaeological Evaluation

Report No. Y045/12

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Summary

An archaeological evaluation was carried out on land at Pioneer Way, Whitwood Common, Normanton, West Yorkshire between 6 and 9 February 2012. Fourteen trenches were excavated. For the majority of the site, previous soil stripping and the impact of previous construction on the site had removed archaeological remains identified from crop marks plotted from aerial photographs. A single ditch corresponding to a linear ditch identified as a crop mark was recorded in one trench. In the wooded eastern area of the site, other than agricultural furrows of likely post-medieval date, no archaeological remains were recorded and no pre-modern finds were recovered.

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) on behalf of Prospect Archaeology between 6 and 9 of February 2012. The CFA code and number for the project is PION/2048.

The development proposals are for a new Haribo factory consisting of a production facility, warehousing, offices and ancillary buildings (Rosenberg 2011).

The work was undertaken in accordance with a Written Scheme of Investigation issued by the West Yorkshire Archaeology Advisory Service (WYAAS) in December 2011 (Appendix 4) at the request of Prospect Archaeology.

1.2 Site Location and Description

The proposed development area consists of 1.3ha of land at the now demolished Pioneer Factory, Whitwood Common, Normanton, within Featherstone parish West Yorkshire (Fig. 1, NGR SE 40526 23866). The site is bounded to the south by the M62 Motorway, Whitwood Common Lane to the west, Pioneer Way to the North and industrial warehousing to the east. The majority of the site is flat at between 22 and 24m above the Ordnance Datum, with a relatively steep slope running up to the east rising to c. 31m AOD.

The solid geology of the area consists of Pennine Middle Coal Measures (BGS 2012), with the soils of the area described as ‘slowly permeable, seasonally wet acid loamy and clayey soils’ land use as ‘seasonally wet pastures and woodlands, grassland with some arable and forestry’ (Landis 2012).

1.3 Historical and Archaeological Background

The site lies in the Historic Township of Whitwood. Whitwood possibly derives from Witewudde meaning ‘The white bright wood’ (Smith 1961).

There is little evidence for early prehistoric activity in the area, with only stray finds and a possible Neolithic cursus near Whitwood (Roberts *et al.* 2010, 17), though there

is more extensive evidence of Iron Age and Romano-British settlement and agriculture, with extensive crop mark evidence for enclosures and associated field systems, some of which have been excavated (e.g. Burgess & Roberts 2004 and Lightfoot 2008).

The area around Castleford was probably open land for much of the later Iron Age and Roman-British Period, with the important Roman fort and *Vicus* at Castleford (*Lagentium*).

The site falls within the townships of Ackton and Whitwood and both are recorded in the 1086 Domesday Survey, and 'Whitwood Common' as the name suggests would have been used by the local people as common land.

Whitwood Common was enclosed in 1806 and there was some development of industry in the area, with potteries, collieries and a glassworks. There are two mineshafts recorded within the area of the site which were capped c. 1982 (Rosenberg 2011). The Pioneer factory was constructed in 1990, opened in 1991 and closed in 2009.

1.4 Previous Archaeological work

Geophysical survey undertaken in 1996 over parts of the site indicated there had been ridge and furrow in places, indicating arable use during the medieval and/or post-medieval periods (Nicholas and Webb 1996).

A cultural heritage assessment was undertaken by Prospect Archaeology during October 2011 on behalf of Haribo UK (Rosenberg 2011). The findings are summarised below:

The evidence of cropmarks seen on aerial photographs indicates that the site lies in an area of widespread Iron Age and Romano-British rural settlement.

Excavation immediately to the north of the site confirmed the presence of a small defended settlement comprising a single round house surrounded by a substantial ditch that was in use from the 1st century BC to the 2nd century AD. Following a period of abandonment, a new enclosure was dug in the 4th century AD, reusing some of the earlier ditches. Within the application site a further group of enclosures indicate there may have been a comparable settlement but this was destroyed without record when the Pioneer factory was constructed in 1990.

The site was in agricultural use throughout the medieval and post-medieval periods, followed by a brief period of coal mining in the second half of the 19th century as part of the Whitwood Colliery.

Use of the site as a colliery and subsequently for the Pioneer factory are likely to have truncated or removed much if not all of the features seen as cropmarks on aerial photographs. There remains the potential, however, for other elements of the Iron Age / Romano-British landscape to survive in undisturbed parts of the site.

1.5 Aims

The aims of the evaluation were as specified in the WSI were:

‘to gather sufficient information to establish the extent, condition, character, condition, and date (as far as circumstances permit) of any archaeological features and deposits within the area of interest’ (Appendix 4).

2. WORKING METHODS

2.1 General

All work was undertaken according to the Institute for Archaeologists' Code of Conduct, and relevant Standards and Guidance documents (IfA 1996, 2001), and CFA's standard procedures and the WSI.

2.2 Evaluation

All machining was undertaken by a mechanical excavator using a toothless ditching bucket under constant archaeological supervision. In the absence of archaeological remains the trenches were excavated to the top of natural geological deposits.

Trench positions were agreed between Prospect Archaeology and WYAAS, taking into account the evidence of crop marks and areas of disturbed ground. The positions were modified in the field to take into account services, heavily wooded areas and other constraints. One trench was not excavated (Trench 7) as it was apparent the area had been severely truncated. The excavated position of trenches are shown on Figure 1. Trenches intended to cross the parish boundary (trenches 8 and 9) were re-orientated as a water main follows this boundary through the site.

Trench positions were surveyed using industry-standard electronic surveying equipment and all trenches were backfilled on completion of the fieldwork.

2.3 Standards and Guidance

CFA Archaeology is a registered organisation (RO) with the Institute for Archaeologists (IfA). All work was conducted in accordance with relevant IfA Standards and Guidance documents (IfA 1996, 2001), English Heritage guidance (EH 2005, 2006, 2008a, 2008b and 2008c), and CFA's standard methodology.

2.4 Monitoring

The trial trenching was monitored by Rebecca Remmer, a Senior Archaeological Officer for West Yorkshire Archaeology Advisory Service, who was informed in advance of the works taking place and visited the site on 7 February 2012.

2.5 Archiving

The site archive currently consists of a single folder of recording forms along with digital photographs and AutoCAD files. The site archive will be ordered and stored according to national guidelines (Brown 2007, Ferguson and Murry 1997, IfA 2001, MGC 1994, SMA 1995 and UKIC 1990) at Leeds Museum and Galleries. A summary of the results of archaeological works will be submitted for inclusion in OASIS.

3. RESULTS

Fourteen trenches were excavated; the location of each trench is shown on Figure 1 which also shows the position of the trenches in relation to the field system and enclosures in the area identified by cropmarks, geophysics and excavation. Of the 14 trenches excavated, only Trench 4 contained archaeological remains relating to the previously identified ditches, though furrows were recorded in trenches on the higher ground in the east of the site (Plates 1c – 1d). No pre-modern finds were recorded. A summary of the results from all trenches forms Appendix 3.

3.1 Trench 4

Ditch 402 was a northeast to southwest orientated ditch and corresponds closely with a ditch identified as a crop mark from aerial photographs (Fig. 1). The ditch was 0.50m deep and 1.55m wide, filled with sterile, light-grey clay (401), overlain by silty-brown clay (400), possibly denuded bank material from the ditch (Fig. 2 and Plate 4). The ditch was truncated by a land drain, the fill of which contained clay pipe and modern pottery. No other finds were recovered from Trench 4 and no other archaeological features were recorded.

3.2 Trenches 12 - 15

The trenches excavated on the high ground in the east of the site produced no significant archaeological remains and no finds were recovered from any of them. However, evenly spaced furrows were recorded in four trenches on the plateaux of the hill (trenches 12 – 14). These furrows all had a clear northwest to southeast and northeast to southwest orientation.

4. DISCUSSION

The only archaeological feature, other than furrows on the higher ground in the east of the site, was Ditch 402. This seems likely to be a remnant of the Late Iron-Age/Romano-British field system recorded in the wider area, and as crop marks running through the site. It is clear, however, that across the majority of the site, previous development has removed all trace of the field system. It is possible that the ditch in Trench 4 survived because it was cut deeper here and/or the soil was not stripped to so great a depth. It may be that the ditch was cut deeper because here the natural geology was clay and easier to excavate than the siltstone over much of the rest of the lower area of the site. No prehistoric or Romano-British finds were recovered from the ditch, or throughout the site, though finds are rare within in rural contexts for the late Iron Age and Romano-British periods in West Yorkshire as a whole (e.g. Lightfoot 2008).

The furrows identified on the higher ground in the east of the site seemed to form a herring-bone pattern, probably placing them in the 17th to 19th-century period (Taylor 1975, 148).

5. CONCLUSION

It is highly likely that there has been activity on the site dating to at least the Late Iron Age, with field systems connecting with those in the wider area. The evaluation has confirmed the suggestion from the cultural heritage assessment that almost all the evidence of this has been truncated by previous development (Rosenberg 2011), the ditch in Trench 4 probably being the only remnant to have survived.

The recording of furrows in the eastern area of the site confirms the conclusion from the geophysics (Nicholas and Webb 1996) of agricultural activity on the site, placing this activity in the post-medieval period.

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APPENDICES

Appendix 1: Context Summary

Context	Description
100	Topsoil, brown humic silty clay, rarely present
101	Natural subsoil, orange-grey silty clay with some pebbles, orange-brown silty clay (trenches 8-15)
102	Natural dark-grey siltstone, firm orange-grey clay with some mottling (trenches 8-15)
400	Mid-brown, firm silty clay overlying ditch fill 401, possibly denuded bank material
401	Sterile grey clay fill of Ditch 402, no finds
402	Cut of northeast to southwest running ditch filled by 401

Appendix 2: Photographic Register

No	Contexts/description	Facing	Conditions
1	Trench 1, post-excavation	Southeast	Sunny
2	Trench 1, post-excavation	Northeast	Sunny
3	Trench 2, post-excavation	Southeast	Sunny
4	Trench 2, post-excavation	Northeast	Sunny
5	General working shot (JCB)	West	Sunny
6	General working shot (horses)	Northwest	Sunny
7	Trench 3, post-excavation	South	Sunny
8	Trench 3, post-excavation	North	Sunny
9	General Shot	North	Sunny
10	General working shot (JCB)	East	Sunny
11	General working shot (JCB)	Northeast	Sunny
12	Modern backfilled pit/void (Trench 3)		Sunny
13	General shot of woodland	North	Twilight
14	M62 (east bound)	West	Twilight
15	Normanton Industrial Estate	South	Twilight
16	Trench 4, post-excavation	Southeast	Twilight
17	Trench 4, post-excavation	Northwest	Twilight
18	Trench 5, post-excavation	South	Overcast
19	Trench 5, post-excavation	North	Overcast
20	General Site shot	Northeast	Overcast
21	Trench 4, Ditch 402	Southwest	Overcast
22	Trench 4, Ditch 402 (Close up)	Southwest	Overcast
23	Trench 6, post-excavation	Northeast	Overcast
24	Trench 6, post-excavation	Southwest	Overcast
25	Trench 8, post-excavation	Northeast	Overcast
26	Trench 8, post-excavation	Southwest	Overcast
27	Trench 9, post-excavation	Northeast	Overcast
28	Trench 9, post-excavation	Southwest	Overcast
29	General shot	Southwest	Overcast
30	General shot	North	Overcast
31	Working shot (Trench 13)	East	Overcast
32	Trench 13, post-excavation	Northwest	Overcast
33	Trench 13, post-excavation	Southeast	Overcast
34	Furrow in Trench 13	Northeast	Overcast
35	Trench 13, post-excavation	South	Overcast
36	Trench 13, post-excavation	North	Overcast
37	Trench 15, post-excavation	West	Overcast
38	Trench 15, post-excavation	East	Overcast
39	General site shot	West	Overcast
40	General site shot	Northwest	Overcast
41	Trench 12, post-excavation	West	Overcast

No	Contexts/description	Facing	Conditions
42	Trench 12, post-excavation	East	Overcast
43	Trench 11, post-excavation	West	Overcast
44	Trench 11, post-excavation	East	Overcast
45	Trench 10, post-excavation	Northeast	Overcast
46	Trench 10, post-excavation	Southwest	Overcast

Appendix 3: Trench Summary

Trench	Trench Depth (m)	Comments
1	0.15-0.30	Trench running northwest to southeast. Little topsoil (100), no subsoil (101), patches of natural clay over degraded sandstone bedrock (102). Northeast to southwest running ditch not present. No archaeological remains and no finds.
2	0.25-0.40	Trench running northwest to southeast. Stratigraphy as Trench 1. Northeast to southwest running ditch not present. No archaeological remains and no finds.
3	0.30-0.40	Trench running north to south. No ditches, made ground with one large pit c. 2m diameter running into the trench section filled with modern debris, CBM and rope and had a significant void, possibly a backfilled quarry or borrow pit
4	0.30-0.60	Trench running northwest to southeast. Made ground over subsoil (101), tarmac and builder's stone along 20m of the southeast end of the trench. The linear ditch (402) passing northeast to southwest through the trench.
5	0.30-0.40	Trench running north to south. No topsoil, made ground over subsoil (101) No archaeological remains and no finds.
6	0.50	Trench running northeast to southwest. No topsoil, made ground over subsoil (101) No archaeological remains and no finds.
7	-	Not excavated
8	0.25-0.50	Trench running northeast to southwest, 51m long. Topsoil (100) 0.20m deep, some development of subsoil (101) over clay natural (102).
9	0.30	Trench running northeast to southwest, 46m long. Topsoil (100) 0.25m deep, some development of subsoil (101) over clay natural (102).
10	0.40-0.60	Trench running east to west, 30m long. Topsoil (100) 0.25m deep, some development of subsoil (101) over clay natural (102).
11	0.30	Trench running east to west, 36m long. Topsoil (100) 0.30m deep, some development of subsoil (101) over clay natural (102).
12	0.40	Trench running east to west, 48m long. Topsoil (100) 0.40m deep, some development of subsoil (101) over clay natural (102). Furrows running west to east, 1 – 2m wide, spaced at intervals of c. 2.5m
13	0.40-0.60	Trench running northwest to southeast, 38m long. No appreciable topsoil made ground to 0.40 – 0.60m including builder's rubble, clay natural (102). Furrows running northwest to southeast, 1 – 2m wide, spaced at intervals of c. 2.5m, one excavated c. 0.05m deep.
14	0.40-0.60	Trench running north to south, 49m. No appreciable topsoil made ground to 0.40 – 0.60m including builder's rubble, clay natural (102). Furrows running northwest to southeast, 1 – 2m wide, spaced at intervals of c. 2.5m
15	0.30-0.40	Trench running east to west, 32m long. No appreciable topsoil made ground to 0.30 – 0.40m including builder's rubble, clay natural (102). Furrows running northeast to southwest, 1 – 2m wide, spaced at intervals of c. 2.5m

All trenches are 50m long unless otherwise stated

Appendix 4: Specification

**WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE:
SPECIFICATION FOR AN ARCHAEOLOGICAL EVALUATION BY TRIAL
TRENCHING AT PIONEER WAY, WHITWOOD.**

**Specification prepared on behalf of Wakefield Metropolitan District Council at
the request of Nansi Rosenberg of Prospect Archaeology**

1. Summary

1.1 A limited amount of archaeological work consisting of trial trenching is proposed to help establish the archaeological significance of the above site. Any work arising from the results of the evaluation will be covered by a further specification.

1.2 This specification has been prepared by the West Yorkshire Archaeology Advisory Service, the holders of the WY Historic Environment Record

NOTE: The requirements detailed in paragraphs 6.3, 6.4, 6.5, 6.6 and 8.1 are to be met by the archaeological contractor **prior** to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

2. Site Location & Description

Grid Reference: centred on SE 4052 2389

2.1 The site consists of is a roughly triangular piece of land which measures approximately 1.3 hecatres, located north of the M62 in Whitwood, Castleford. It is bounded to the south by the M62, to the north by Pioneer Way, to the west by Whitwood Common Lane and to the east by further industrial development. The geology of the area consists of Pennine Middle Coal Measures. The soils have not been mapped. The area currently consists of rough ground and lies at 30m AOD. The old Pioneer factory which formerly stood on the site has already been demolished and the majority of hard standing has been removed.

2.2 The site is located in the Wakefield district, historically within the township of Whitwood.

3. Background

3.1 Haribo UK are proposing to construct a new factory at the former Pioneer factory site on Pioneer Way, Whitwood. Planning permission has not yet been sought for this site,

3.2 The developers have been advised by the WYAAS that there is reason to believe that important archaeological remains may be affected by the proposed development and that an archaeological evaluation is required to establish the degree of archaeological recording that is necessary.

3.3 This specification has been prepared by the WYAAS at the request of Nansi Rosenberg of Prospect Archaeology, acting on behalf of the developers.

4. Archaeological Interest

4.1 The development site lies in an area of archaeological interest. An Archaeological Desk Based Assessment of the site has already been carried out by Prospect Archaeology. Evidence from aerial photographs indicates that the site lies in an area of small late Iron Age and Romano British period rural settlement.

4.2 Excavation immediately north of the site between 1995 and 1997 confirmed the presence of a small defended settlement comprising a single round house surrounded by a substantial ditch that was in use from the 1st century BC to the 2nd century AD. Following a period of abandonment, a new enclosure was dug in the 4th century AD, re-using some of the earlier ditches.

4.3 Within the development site are cropmarks of similar features, although most of these have subsequently been destroyed by the construction of the now demolished Pioneer factory in 1990. Further truncation has occurred to the west of the site, where part of the site was mined in the second half of the 19th century when it was part of Whitwood Colliery. Geotechnical work has confirmed that much of the west part of the site has been deeply disturbed and it therefore not suitable for trial trenching (this area is marked on the attached plan).

5. Aim of the Evaluation

5.1 The aim of the evaluation is to gather sufficient information to establish the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the area of interest.

6. General Instructions

6.1 Health and Safety

6.1.1 The archaeologist on site will naturally operate with due regard for Health and Safety regulations. Where archaeological work is carried out at the same time as the work of other contractors, regard should also be taken of any reasonable additional constraints that these contractors may impose. This work may require the preparation of a Risk Assessment of the site, in accordance with the Health and Safety at Work Regulations. The West Yorkshire Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries that may occur to outside contractors while attempting to conform to this specification.

6.2 Confirmation of Adherence to Specification

6.2.1 Prior to the commencement of *any work*, the archaeological contractor must confirm adherence to this specification in writing to the WYAAS, or state (with reasons) any proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WYAAS to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor. **Modifications presented in the form of a re-written specification/project design will not be considered by the WYAAS.** Any technical queries arising from the specification detailed below should be addressed to the WYAAS *without delay*.

6.3 Confirmation of Timetable and Contractors' Qualifications

6.3.1 Prior to the commencement of *any work*, the archaeological contractor **must** provide WYAAS **in writing** with:

- a projected timetable for the site work;
- details of the staff structure and numbers;
- names and CVs of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors *etc.*),

6.3.2 All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

6.4 Notification

6.4.1 The project will be monitored as necessary and practicable by the WYAAS, in its role as “curator” of the region’s archaeology. The WYAAS should receive as much notice as possible, and certainly one week, of the intention to start fieldwork. This notification is to be supplied **in writing**, and copied to the relevant District Museum (see para. 9.1 below). As a courtesy, English Heritage’s Science Adviser Dr Andy Hammon should also be notified of the intention to commence fieldwork (contact : tel. 01904 601983; email andy.hammon@english-heritage.org.uk). A copy of the contractor’s risk assessment should accompany notification of intention to commence work.

6.5 Documentary Research

6.5.1 Prior to the commencement of *fieldwork*, the WY HER should be visited by either the project manager or the site supervisor, in order to gain an overview of the archaeological/historical background of the site and environs. In addition to providing a knowledge base for the work in hand, the results of this assessment may be incorporated into the contractor’s report where they are considered to contribute to that report, but any extraneous material should be omitted. Please note that the WY HER makes a charge for consultations of a commercial nature. The results of this exercise should be used to inform the whole project. Please note, however, that a formal desk-based report is not required and the results of this stage of work should be incorporated in the final report.

7. Fieldwork Methodology

7.1 Trench Size and Placement (Fig. 1)

7.1.1 The work will involve the excavation of fifteen 50x2m trenches, which can be machine-opened. The contractor should also allow for a contingency amount of 200 square metres. The use of the contingency will depend upon the results obtained in the initial trial trenching. The use of the contingency will be at the decision of the WYAAS, whose decision will be issued in writing, if necessary in retrospect after site discussions.

Total site area: **135,100m² (the majority of the site is heavily disturbed)**

Total area of trenching: **1500m²**

Contingency trenching: **200m²**

7.2 Method of Excavation

7.2.1 The trial trenches may be opened and the topsoil and recent overburden removed down to the first significant archaeological horizon in successive level spits of a **maximum** 0.2m. thickness, by the use of an appropriate machine using a wide toothless ditching blade. **Under no circumstances should the machine be used to cut arbitrary trenches down to natural deposits.** All machine work must be carried out under direct archaeological supervision and the machine halted if significant archaeological deposits are encountered. The top of the first significant archaeological horizon may be exposed by the machine, but must then be cleaned by hand and inspected for features and then dug by hand.

7.2.2 No archaeological deposits should be entirely removed unless this is unavoidable in achieving the objectives of this evaluation, although **all** features identified are expected to be half-sectioned and the **full** depth of archaeological deposits must be assessed. All trenches are to be the stated dimensions at their base.

7.2.3 All artefacts are to be retained for processing and analysis except for unstratified 20th-century material, which may be noted and discarded. Finds will be stored in secure, appropriate conditions following the guidelines in First Aid for Finds (3rd edition).

7.3 Method of Recording

7.3.1 The trenches are to be recorded according to the normal principles of stratigraphic excavation. The stratigraphy of each trial trench is to be recorded even where no archaeological deposits have been identified.

7.3.2 The actual areas of trenching and any features of possible archaeological concern noted within the trenches should be accurately located on a site plan and recorded by photographs, summary scale drawings and written descriptions sufficient to permit the preparation of a report on the material. The site grid is to be accurately tied into the National Grid and located on the largest scale map available of the area (either 1:2500 or 1:1250).

7.3.3 Digital photography: as an alternative to colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 4 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file). The contractor must include metadata embedded in the DNG file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. Images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.

7.4 Use of Metal Detectors on Site

7.4.1 Spoil heaps are to be scanned for both ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by an experienced metal detector user (if necessary, operating under the supervision of the contracting archaeologist). Modern artefacts are to be noted but not retained (19th-century material and earlier should be retained.)

7.4.2 If a non-professional archaeologist is to be used to carry out the metal-detecting, a formal agreement of their position as a sub-contractor working under direction must be agreed in advance of their use on site. This formal agreement will apply whether they are paid or not. To avoid financial claims under the Treasure Act a suggested wording for this formal agreement with the metal detectorist is: "In the process of working on the archaeological investigation at [*location of site*] between the dates of [*insert dates*], [*name of person contributing to project*] is working under direction or permission of [*name of archaeological organisation*] and hereby waives all rights to rewards for objects discovered that could otherwise be payable under the Treasure Act 1996."

7.5 Environmental Sampling Strategy

7.5.1 All securely stratified deposits should be considered for sampling (regardless of whether artefacts / ecofacts are readily apparent). A sampling strategy commensurate with the project's aims and objectives should be devised in conjunction with the project specialists prior to fieldwork and be outlined in the report. The strategy should be regularly reviewed during the course of fieldwork and be modified as necessary to ensure it continues to be 'fit for purpose'. The techniques and methods employed should adhere to those outlined in the English Heritage (2011) 'Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (Second Edition)' guidance

7.5.2 Samples for specialist environmental analysis and scientific dating (soil profiles, archaeomagnetic dating, dendrochronology etc.) should be taken if suitable material is encountered during the excavation. The English Heritage Science Advisor should be consulted (Dr Andy Hammon, tel.: 01904 601983, email: andy.hammon@english-heritage.org.uk) and provision should be made for an appropriate specialist(s) to visit the site, take samples and discuss the sampling strategy, if necessary.

7.6 Conservation Strategy

7.6.1 A conservation strategy must be developed in collaboration with a recognised laboratory. All finds must be assessed in order to recover information that will contribute to an understanding of their deterioration and hence preservation potential, as well as identifying potential for further investigation. Furthermore, all finds must be stabilised and packaged in accordance with the requirements of the receiving museum. As a guiding principle only artefacts of a "displayable" quality would warrant full conservation, but metalwork and coinage from stratified contexts would be expected to be X-rayed if necessary, and conservation costs should also be included as a contingency.

7.7 Location of Services, etc.

7.7.1 The archaeological contractors will be responsible for locating any drainage pipes, service pipes, cables etc. which may cross any of the trench lines, and for taking the necessary measures to avoid disturbing such services.

7.8 Human Remains

7.8.1 Any human remains that are discovered must initially be left *in-situ*, covered and protected. WYAAS will be notified at the earliest opportunity. If removal is necessary the remains must be excavated archaeologically in accordance with the *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England* published by English Heritage (2005), a valid Ministry of Justice licence and any local environmental health regulations.

7.9 Treasure Act

7.9.1 The terms of the Treasure Act 1996 must be followed with regard to any finds that might fall within its purview. 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.

8. Monitoring

8.1 The representative of the WYAAS will be afforded access to the site at any reasonable time. It is usual practice that the visit is arranged in advance, but this is not always feasible. The WYAAS' representative will be provided with a site tour and an overview of the site by the senior archaeologist present and should be afforded the opportunity to view all trenches, any finds made that are still on site, and any records not in immediate use. It is anticipated that the records of an exemplar context that has previously been fully recorded will be examined. Any observed deficiencies during the site visit are to be made good to the satisfaction of the Advisory Service's representative, by the next agreed site meeting. Access is also to be afforded at any reasonable time to English Heritage's Archaeological Science Advisor.

8.2 Please note that WYAAS now make a charge for site monitoring visits. An invoice will be raised on the archaeological contractor. Two monitoring visits will be charged for this project. Please contact us for the current charge.

9. Archive Deposition

9.1 Before commencing the project, the archaeological contractor must contact the archaeological curator of the museum to determine the museum's requirements for the deposition of an excavation archive. In this case the contact is Wakefield M.D.C. Museum and Arts, Pontefract Museum, 5 Salter Row, Pontefract, WF8 1BA. telephone 01924 305352; Museums Curatorial and Collections Officer: Mr David Evans (davidevans@wakefield.gov.uk).

9.2 It is the policy of Wakefield Museums to accept complete excavation archives, including primary site records and research archives and finds, from all excavations carried out in the District that it serves.

9.3 It is the responsibility of the archaeological contractor to endeavour to obtain consent of the landowner, in writing, to the deposition of finds with Wakefield Museum.

9.4 It is the responsibility of the archaeological contractor to meet Wakefield Museums' requirements with regard to the preparation of excavation archives for deposition

10. Unexpectedly Significant or Complex Discoveries

10.1 Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgement of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the archaeological contractor should urgently contact the WYAAS with the relevant information to enable them to resolve the matter with the developer.

11. Post-Excavation Analysis and Reporting

11.1 Finds and Samples

11.1.1 On completion of the fieldwork, any samples taken shall be processed and any finds shall be cleaned, identified, assessed/analysed, dated (if possible), marked (if appropriate) and properly packed and stored in accordance with the requirements of national guidelines.

11.1.2 Samples should be processed for the recovery of artefactual material, animal/fish/human bones, industrial residues, shell, molluscs, charcoal and mineralised plant remains as a minimum. 'Specialist' samples (e.g. monoliths, cores, plant/invertebrate macrofossils) should be processed separately as appropriate.

11.1.3 Material suitable for scientific dating (e.g. charcoal) should be identified to species and assessed for suitability by an environmental specialist prior to submission to a dating laboratory. Any human remains submitted for C14 dating should also have carbon ($\delta^{13}\text{C}$) and nitrogen isotope analysis carried out by the radiocarbon laboratory.

11.1.4 All finds and biological material must be analysed by a qualified and experienced specialist.

11.1.5 Following identification, finds of 20th-century date should be noted, quantified and summarily described, but can then be discarded if appropriate. All finds which are of 19th century or earlier date should be retained and archived.

11.2 Field Archive

11.2.1 A fully indexed field archive shall be compiled consisting of all primary written documents, plans, sections, photographic negatives and a complete set of labelled photographic prints/slides. Standards for archive compilation and transfer should conform to those outlined in Archaeological Archives – a guide to best practice in

creation, compilation, transfer and curation (Archaeological Archives Forum, 2007). An index to the field archive is to be deposited with the West Yorkshire Archaeology Advisory Service (preferably as an appendix in the report).

11.2.2 Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability. Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

11.2.3 The original archive is to accompany the deposition of any finds, providing the landowner agrees to the deposition of finds in a publicly accessible archive (see para. 8.4 above). In the absence of this agreement the field archive (less finds) is to be deposited with the West Yorkshire Archaeology Advisory Service.

11.3 Report Format and Content

11.3.1 A report should be produced, which should include background information on the need for the project, a description of the methodology employed, and a full description and interpretation of results produced. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers.

11.3.2 Location plans should be produced at a scale which enables easy site identification and which depicts the full extent of the site investigated (a scale of 1:50,000 is not regarded as appropriate unless accompanied by a more detailed plan or plans). Site plans should be at an appropriate scale showing trench layout (as dug), features located and, where possible, predicted archaeological deposits. Upon completion of each evaluation trench all sections containing archaeological features will be drawn. Section drawings (at a minimum scale of 1:20) must include heights O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features. Where no archaeological deposits are encountered at least one long section of each trench will be drawn.

11.3.3 Artefact analysis is to include the production of a descriptive catalogue, quantification by context and discussion/interpretation if warranted, with finds critical for dating and interpretation illustrated.

11.3.4 Environmental analysis is to include identification of the remains, quantification by context, discussion/interpretation if warranted, and a description of the processing methodology. Radiocarbon results must be presented in full (laboratory sample number, conventional radiocarbon age, delta C13 value, calibration programme). Copies of the laboratory-issued dating certificates must be included as an appendix to the report.

11.3.5 Details of the style and format of the report are to be determined by the archaeological contractor, but should include a full bibliography, a quantified index to the site archive, and as an appendix, a copy of this specification.

11.4 Summary for Publication

11.4.1 The attached summary sheet should be completed and submitted to the WYAAS for inclusion in the summary of archaeological work in West Yorkshire published on WYAAS' website.

11.5 Publicity

11.5.1 If the project is to be publicised in any way (including media releases, publications etc.), then it is expected that the WYAAS will be given the opportunity to consider whether it wishes its collaborative role to be acknowledged, and if so, the form of words used will be at the WYAAS' discretion.

11.6 Consideration of Appropriate Mitigation Strategy

11.6.1 The report should not give a judgement on whether preservation or further investigation is considered appropriate, but should provide an interpretation of results, placing them in a local and regional, and if appropriate, national context. However, a client may wish to separately commission the contractor's view as to an appropriate treatment of the resource identified.

11.7 Report Submission and Deposition with the WY HER

11.7.1 A copy of the report is to be supplied **directly** to the WYAAS within a period of **two months** following completion of fieldwork, unless specialist reports are awaited. In the latter case a revised date should be agreed with the WYAAS. Completion of this project and advice from WYAAS on an appropriate mitigation strategy are dependant upon receipt by WYAAS of a satisfactory report which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.

11.7.2 The report will be supplied on the understanding that it will be added to the West Yorkshire Historic Environment Record where it will be publicly accessible once deposited with the WYAAS unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposition.

11.7.3 A copy of the final report (in .pdf format) shall also be supplied to English Heritage's Science Advisor (Andy Hammon, English Heritage, 37 Tanner Row, York YO1 6WP).

11.7.4 Copyright - Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act 1988* (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

11.7.5 The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. Contractors are advised to contact the West Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer at the West Yorkshire HER.

12. General Considerations

12.1 Authorised Alterations to Specification by Contractor

12.1.1 It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the WYAAS. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that:

- i) a part or the whole of the site is not amenable to evaluation as detailed above, and/or
- ii) an alternative approach may be more appropriate or likely to produce more informative results,

then it is expected that the archaeologist will contact the WYAAS as a matter of urgency. If contractors have not yet been appointed, any variations which the WYAAS considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WYAAS will resolve the matter in liaison with the developer and the Local Planning Authority.

12.2 Unauthorised Alterations to Specification by Contractor

12.2.1 It is the archaeological contractor's responsibility to ensure that they have obtained the WYAAS' consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WYAAS being unable to recommend determination of the planning application to the Local Planning Officer based on the archaeological information available and are therefore made solely at the risk of the contractor.

12.3 Technical Queries

12.3.1 Similarly, any technical queries arising from the specification detailed above, should be addressed to the WYAAS without delay.

12.4 Valid Period of Specification

12.4.1 This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

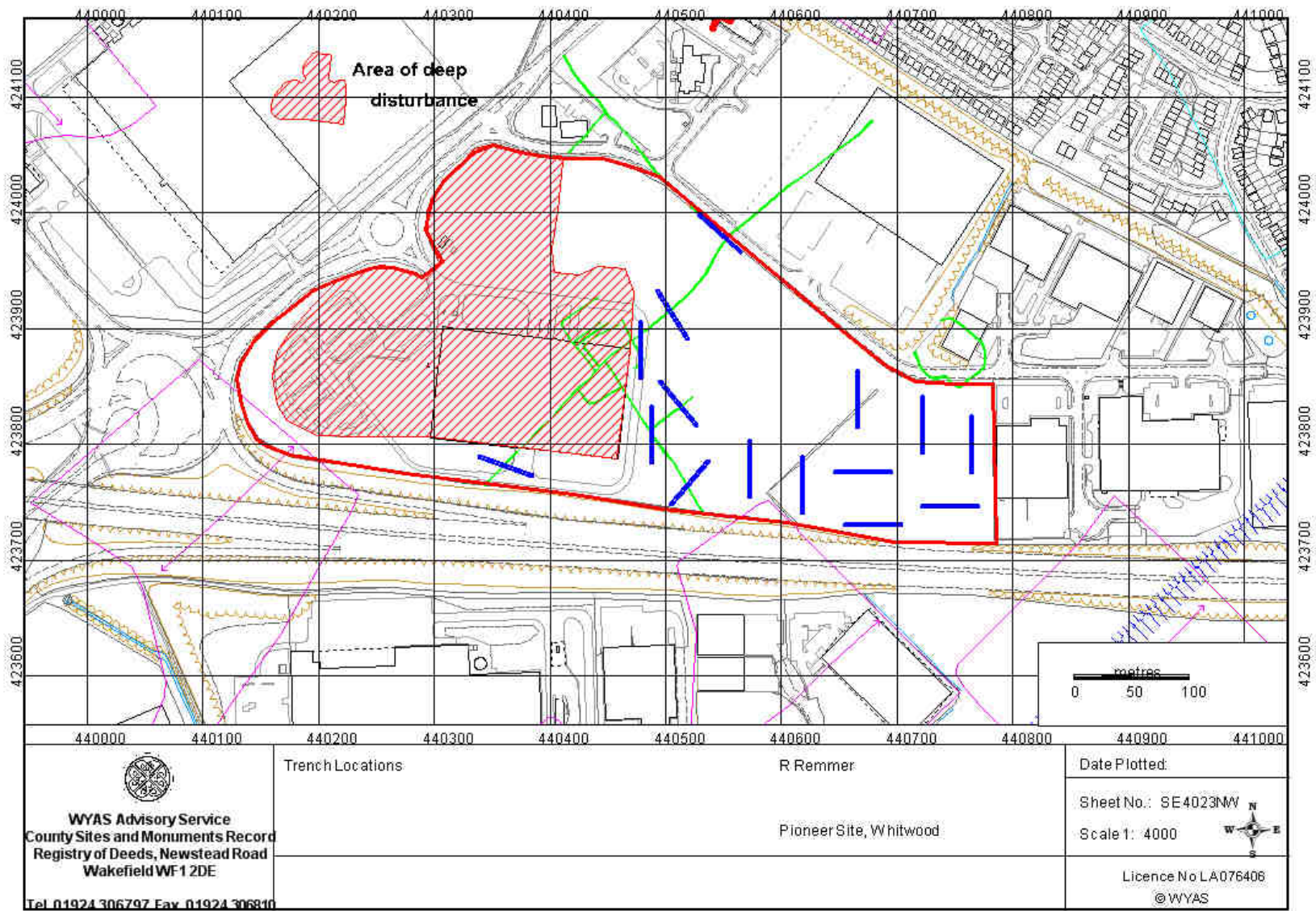
Rebecca Remmer
West Yorkshire Archaeology Advisory Service

December 2011

WY Historic Environment record
West Yorkshire Archaeology Advisory Service
Registry of Deeds
Newstead Road
Wakefield
WF1 2DE

Telephone: (01924) 305992
Fax: (01924) 306810
E-mail: rmann@wyjs.org.uk

Figures 1-3



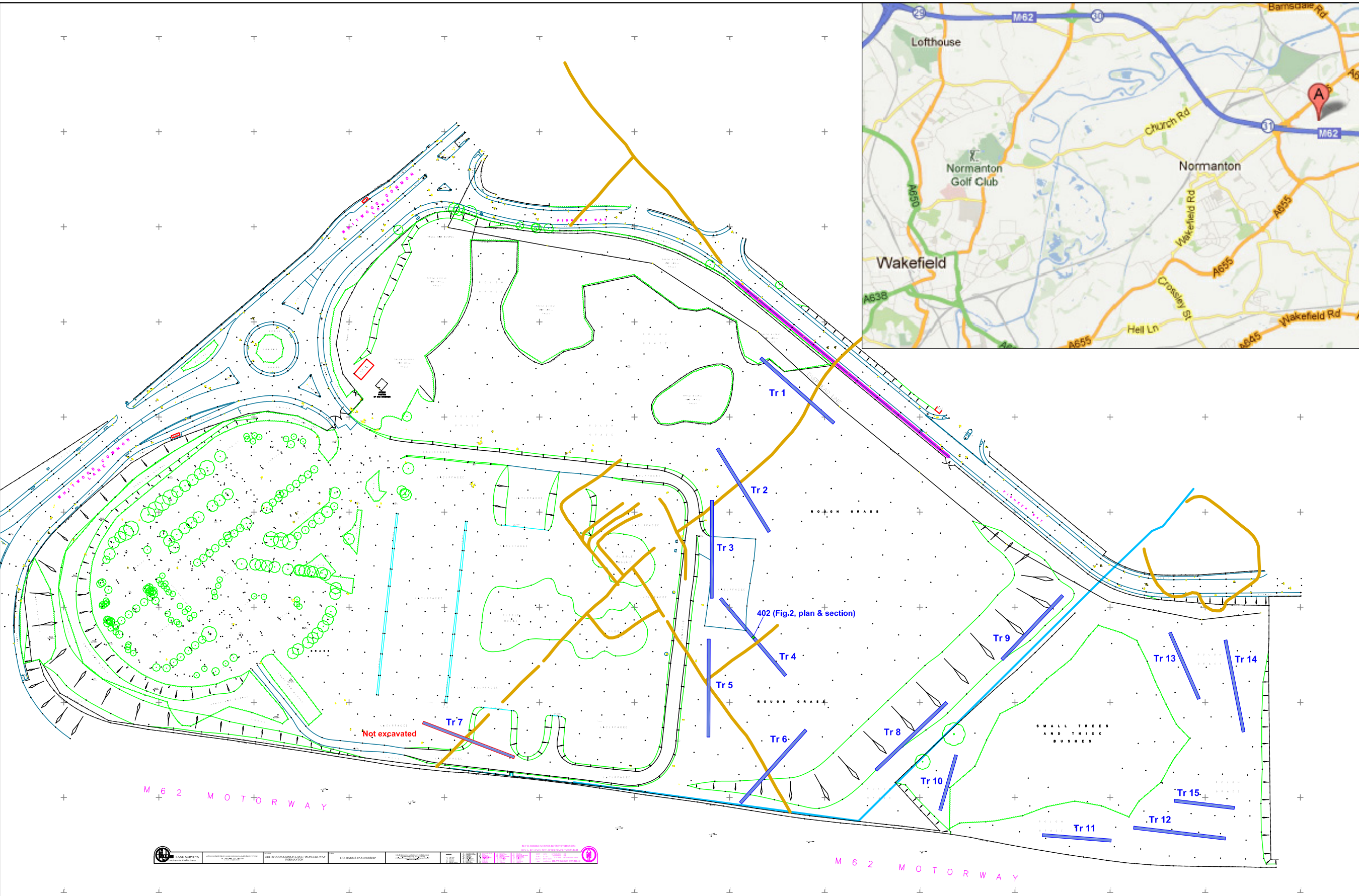
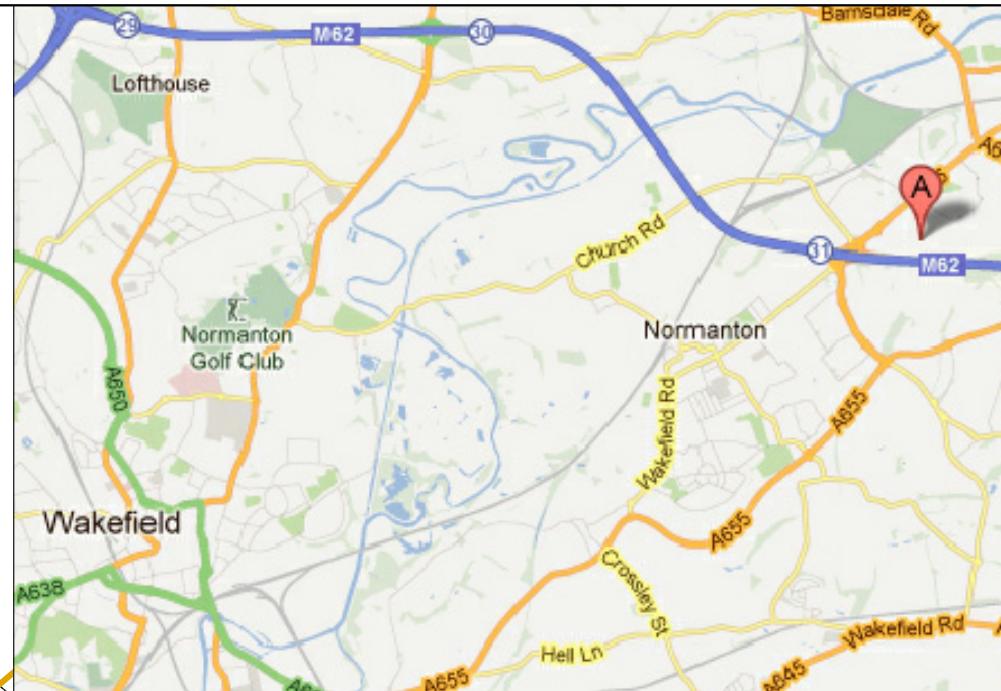


Key:

- Trenches
- Crop Marks

Services

- High Voltage Supply
- Mains Cold Water



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Fig. No: 1 Revision: A

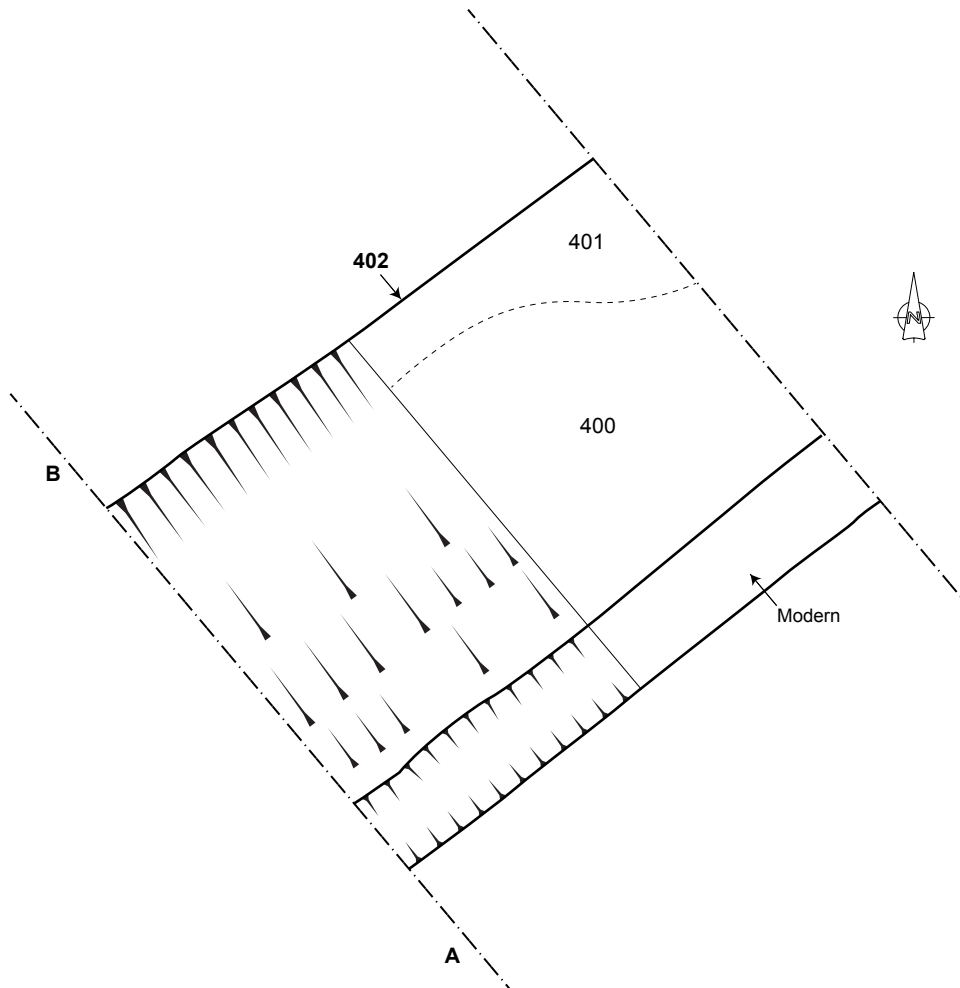
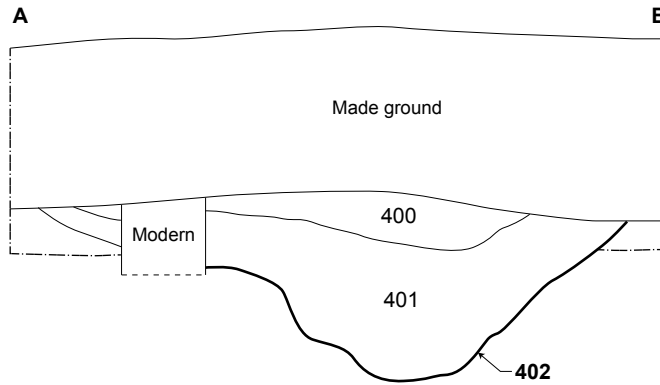
Title:
Site and Trench Location

Project:
**Pioneer Way, Normanton,
 Archaeological Evaluation**

Client:
Prospect Archaeology

Scale at A3:
1:2000

Drawn by: LW Checked: LW Report No: Y045/12



Key:

Scale at A4: 1:20

Fig. No: 2 Revision: A Client: Prospect Archaeology

Title: Plan and Section of Ditch 402

Project: Pioneer Way, Normanton. Archaeological Evaluation



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Plates 1-4



Plate 1a: Trench 1, Looking Southeast



Plate 1b: Trench 6, Looking Southwest



Plate 1c: Trench 13, Looking Northwest



Plate 1d: Trench 14, Looking South



Plate 2: General Site Shot, Looking Northeast



Plate 2: General Site Shot, Looking Northwest



Plate 3: Working Shot during the Excavation of Trench 2



Plate 4: North-east-facing Section of Ditch 402, Trench 4

*WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE SUMMARY SHEET
ARCHAEOLOGICAL FIELDWORK IN WEST YORKSHIRE*

Site name/ Address: Pioneer Way, Normanton	
Township: Whitwood	District: Wakefield
National Grid Reference: SE 40526 23866 (centred)	
Contractor: CFA Archaeology	
Date of Work: February 2012	
Title of Report: Pioneer Way, Normanton Archaeological Evaluation	
Date of Report: 16/02/2012	
SUMMARY OF FIELDWORK RESULTS: An archaeological evaluation was carried out on land at Pioneer Way, Whitwood Common, Normanton, West Yorkshire between 6 and 9 February 2012. Fourteen trenches were excavated. For the majority of the site, previous soil stripping and the impact of previous construction on the site had removed archaeological remains identified from crop marks plotted from aerial photographs. A single ditch corresponding to a linear ditch identified as a crop mark was recorded in one trench. In the wooded eastern area of the site, other than agricultural furrows of likely post-medieval date no archaeological remains were recorded and no pre-modern finds were recovered.	
Author of summary: Martin Lightfoot	Date of summary: 15/02/2012