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Advice on Archaeology & Planning

Environmental Impact Assessment

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Interpretation, Design & Display

**The Chestnuts,
Pontefract, West Yorkshire**

Archaeological Evaluation

Report No. Y165/14

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Summary

An archaeological evaluation was undertaken by CFA Archaeology Ltd on land off The Chestnuts, Pontefract, West Yorkshire during June 2014. Three trenches were excavated, with the probable remains of former field boundaries recorded within two of the trenches. No finds were recovered from any of the features or deposits excavated.

1. INTRODUCTION

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) on behalf of D. Noble Ltd during June 2014. The CFA code and number for the project is FERP2/2194. The proposed development is for 15 new homes. All work was undertaken in accordance with a Specification (Appendix 4) issued by West Yorkshire Archaeology Advisory Service (WYAAS) on behalf of Wakefield District Council.

1.2 Site Location and Description

The site is on land off Ferrybridge Road, Pontefract, at the end of The Chestnuts cul-de-sac (SE 4721 2350, Fig. 1). It is bounded to the north and east by open agricultural land, to the south by the cul-de-sac, and to the west by residential housing. The site lies between 39.2 and 41.3m above the Ordnance Datum (AOD), and at the time of fieldwork the ground cover was overgrown scrubland with some large spoil heaps of topsoil in some areas.

The underlying geology is Cadeby Formation – Dolostone and no superficial deposits are recorded in this area (BGS 2014). The soils are described as ‘light-medium loam to silty’ (UKSO 2014).

1.3 Previous Archaeological work and Historical Background

The site lies 500m south-west of the scheduled site of Ferrybridge Henge (54454) which dates to the Neolithic period. To the west and south of the Henge, is a ritual landscape of prehistoric burial monuments and pit alignments, and Iron Age/Romano British field systems, enclosures, lanes, ditches and pits.

Between 2001 and 2002, the land now occupied by the Holmfield Interchange, 250m north-east of the site, was subject to archaeological excavation (Roberts, 2005), which uncovered extensive features of an early to late prehistoric date. Three Bronze-Age ring ditches were excavated, along with Iron Age structures, an enclosure, pit alignments and a trackway. Romano British enclosures, structures and a cereal drier were also excavated.

A geophysical survey of the site was also undertaken during November of 2013 (GSB 2013). The area available for survey on The Chestnuts site was limited by surface obstructions, and a small sample block of geophysics was dominated by magnetic disturbance from ferrous and other modern debris. No anomalies of possible archaeological interest were identified.

1.4 Aims

In accordance with the specification (Appendix 4), the aims of the evaluation were 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. The information gained will allow the Planning Authority to make a reasonable and informed decision on the planning application as to whether archaeological deposits should be preserved in-situ, or more appropriately, be recorded prior to destruction (whether this be a summary record from a salvage excavation or watching brief, or a detailed record from full open area excavation).’

2. WORKING METHODS

2.1 Trial Trenching

All machine excavation was undertaken using a toothless ditching bucket under constant archaeological supervision. Trenches were positioned in accordance with the specification (Appendix 4).

Linear features (ditches and gullies) were sample excavated at a minimum of 10% of their length and a minimum of 1m per section at regular intervals. Intersections were investigated to establish relationships between features. Pits and post holes were sampled at a minimum of 50%.

Archaeological remains were recorded by means of photographs, drawings and written records conforming to IfA standards (IfA 1994) and CFA’s quality manuals. All features were planned and drawn in section at an appropriate scale.

Modern finds were recorded and then discarded. All finds were treated in accordance with relevant guidance (UKIC 2001 and IFA 2001).

A summary of the results of archaeological works will be submitted for inclusion in OASIS and the OASIS reference will appear in the final report.

2.2 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 1994 and 2001), the specification (Appendix 4), and CFA’s standard methodology.

2.3 Archiving

The project archive, comprising all CFA record sheets, finds, plans and reports, will be deposited at Pontefract Museum and will conform to current national guidelines (Brown 2011) and the museum’s requirements.

2.4 Monitoring

The project was monitored on behalf of Wakefield District Council by David Hunter of the West Yorkshire Archaeological Advisory Service (WYAAS) who was informed in advance of the works taking place and of initial results during fieldwork.

3. RESULTS

Three trenches were excavated; The results are presented with a summary forming Appendix 1. Appendix 2 consists of a summary of contexts, Appendix 3 a list of photographs in the archive and Appendix 4 is the specification. Figure 1 shows the locations of trenches with archaeological remains plotted, Figure 2 shows plans and sections of excavated features and representative photographs are presented as Plates 1 to 4.

Topsoil (100) was mid brown sandy silt, between 0.3m and 0.5m thick and contained modern pottery and glass. The topsoil sealed light-brown silty sand subsoil (101) in most trenches. The natural geology consisted of a mix of orange-yellow sand and orange sand and gravels (102).

3.1 Trench 1

The natural geology in Trench 1 was recorded at a depth of 40.05m AOD at the western end and at 38.76m AOD at the eastern end. Three small north to south orientated ditches were recorded within the trench (Fig. 2, Plates 1 and 2; 104, 106, and 108). These ditches were 0.8-1.2m in width with moderate to steep sloping sides and a 'u'-shaped profile, and 0.2m in depth, except for Ditch 104 which was 0.5m deep in places. No finds were recovered from any of these features.

3.2 Trench 2

Natural geology in Trench 2 was recorded at a depth of 39.53m AOD at the northern end and at 40.16m AOD at the southern end. Towards the northern end of the trench the butt-end of a shallow north-south orientated ditch was recorded (Fig. 2, 110). It had shallow sides, a flat base, and was the likely continuation of a shallow ditch (106) recorded in Trench 1 to the north.

Towards the southern end of the trench was a small east to west orientated ditch (Fig. 2, Plate 3, 112), a feature with steep sides and an irregular 'u'-shaped profile.

3.3 Trench 3

Natural geology in Trench 3 was recorded at a depth of 40.56m AOD at the western end and at 39.61m AOD at the eastern end. The trench showed signs of previous construction work in this area, with a large north-east to south-west orientated ditch near the centre, filled with modern plastics, bricks and other demolition rubble (Plate 4).

The eastern end of the trench appeared to have been previously stripped of topsoil and a compact layer of rolled stone hardcore had been deposited, perhaps a remnant of construction works to the immediate south. The topsoil in this area was full of modern

refuse and construction debris and is likely to been deposited on the site from elsewhere, perhaps during the construction of nearby housing.

4. CONCLUSION

The evaluation recorded few convincing archaeological features and no finds; there was nothing on the site to suggest any connection with the significant and extensive prehistoric and Romano-British landscape nearby. Those ditches recorded most probably relate to former field boundaries or parts of field systems of post medieval date or later. However, the possibility that some of these ditches relate to earlier activity cannot entirely be discounted.

5. BIBLIOGRAPHY

- BGS, 2014, <http://www.bgs.ac.uk> *British Geological Survey* (Accessed 25/06/2014)
- Brown, DH, 2011, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Institute for Archaeologists
- IfA, 1994, *Standards and Guidance for Archaeological Field Evaluation*, Institute for Archaeologists, Revised October 2008
- IfA, 2001, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*, Institute for Archaeologists, Revised October 2008
- Roberts, I., (ed.), 2005, *Ferrybridge Henge: The Ritual Landscape*, Yorkshire Archaeology 10
- UKSO, 2014, <http://www.ukso.org/home.html>, UK Soil Observatory (Accessed 25/06/2014)

Appendix 1: Trench Summary

No.	Length (m)	Depth of Topsoil (m)	Description
1	42.7	0.3	Natural substrate yellow sand with patches of gravel. Trench fairly flat. Three north-south orientated ditches recorded within the trench. No finds recovered.
2	42	0.3	Natural substrate as per Trench 1. Trench had a slight slope from south-north. Two small ditches recorded within the trench. No finds recovered.
3	38.5	0.3 – 0.5	Natural substrate as per Trench 1. Trench showed signs of having been previously landscaped. Large amounts of modern building and construction debris within trench stratigraphy. One large north-east to south-west orientated ditch filled with modern plastics, bricks, and concrete waste noted towards the centre of the trench.

Appendix 2: Context Register

Context	Trench	Width (m)	Depth (m)	Fill of	Description
100	All	-	0.3 – 0.5	-	Topsoil - mid brown sandy silt. Some fragments of modern 19th-20th Century pottery recorded within.
101	All	-	0.1 - 0.3	-	Subsoil - light brown, silty sand.
102	All	-	-	-	Natural - a mixture of orange-yellow sand and gravels.
103	1	1.0	0.5	104	Reddish brown sandy-silt with some small sub angular limestone inclusions.
104	1	1.0	0.2 -0.5	-	North to south orientated shallow ditch. Consisted of steep sloping sides with a 'u'-shaped profile. Southern edge deeper than northern edge, with the presence of possible termination of similar feature within.
105	1	1.1	0.18	106	Reddish-grey sandy silt with some sub-angular limestone inclusions.
106	1	1.1	0.18	-	North to south orientated shallow ditch. Consisted of steep sloping sides with a flat profile.
107	1	0.9	0.19	108	Mid reddish brown sandy silt with some sub angular limestone inclusions. Fill of 108.
108	1	0.9	0.19	-	North to south orientated shallow ditch. Consisted of shallow sloping sides with a rounded profile.
109	2	0.65	0.05	110	Mid greyish-brown sandy silt with some sub angular limestone inclusions. Firm. Fill of 110.
110	2	0.65	0.05	-	Cut of a north-south orientated ditch. Consisted of moderate sloping sides with a flat base. Represents probable butt end of the feature. Continuation of Ditch 106 within Trench 1.
111	2	1.0	0.47	112	Mid reddish-brown clay with some sub angular limestone inclusions. Firm. Fill of 112.
112	2	1.0	0.47	-	Steep sided ditch on an east to west orientation. Rounded profile. No finds recovered.

Appendix 3: Photographic Register

Number	Contexts/description	Facing	Conditions
1	Trench 1, general shot	E	Sunny
2	Ditch 104, Trench 1. North facing section	S	Sunny
3	Ditch 104, Trench 1. North facing section, close up	S	Sunny
4	Ditch 104, Trench 1. Oblique plan shot	NW	Sunny
5	Ditch 104, Trench 1. North facing section	S	Sunny
6	Ditch 104, Trench 1. South facing section	N	Sunny
7	Trench 1, Section through spread of subsoil	SW	Sunny
8	Ditch 106, Trench 1. North facing section, oblique shot	SW	Sunny
9	Ditch 106, Trench 1. South facing section	N	Sunny
10	Trench 1, Ditch 108, North facing section	N	Sunny
11	Trench 1, Ditch 108, South facing section	N	Sunny
12	Trench 1, Ditch 108, South facing section, oblique shot	N	Sunny
13	Trench 1, general shot	W	Sunny
14	Ditch 112, Trench 2. East facing section	W	Sunny
15	Ditch 112, Trench 2. East facing section, close up	W	Sunny
16	Trench 2, general shot	N	Sunny
17	Trench 2, general shot	S	Sunny
18	Ditch 110, Trench 2. South facing section	N	Sunny
19	Ditch 110, Trench 2. South facing section, close up	N	Sunny
20	Trench 3, general shot	W	Sunny
21	Trench 3, general shot, showing modern ditch	E	Sunny
22	Trench 3, general shot, showing modern ditch	E	Sunny

Appendix 4

WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE (WYAAS): SPECIFICATION FOR GEOPHYSICAL SURVEY AND TRIAL TRENCHING TO EVALUATE ARCHAEOLOGICAL REMAINS IN ADVANCE OF DEVELOPMENT AT THE CHESTNUTS AND LIMETREES, FERRYBRIDGE ROAD, PONTEFRACT

Specification prepared for Martin Lightfoot of CFA Archaeology on behalf of D. Noble Ltd.

1.0 Summary

1.1 A limited amount of archaeological work consisting of trial trenching and geophysical survey 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 9.1 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.

2.0 Site Location & Description

Grid Reference (centred): SE 4721 2350

2.1 The proposed site is split between two parcels of land, one small (c.0.5 ha) site located off a residential street called The Chestnuts, and a larger (9.5 ha) site off a residential street called Limetrees. Both of these sites are located off Ferrybridge Road, Pontefract. The Chestnuts site is currently an area of open ground which is grassed but overgrown, there are no overhead powerlines. Limetrees is made up of a number of arable fields which are divided by hedgerows, no overhead powerline cross these fields.

2.2 The geology of the sites is mapped as dolomite and dolomitised Limestone of the Zechstein Group, the soils are recorded as freely draining lime-rich loams.

3.0 Planning Background

3.1 Planning permission has not yet been sought for this development. The developers intend to submit a planning application for residential development on these two parcels of land in the near future.

3.2 The developers have been advised by the West Yorkshire Archaeology Advisory Service that there is reason to believe that important archaeological remains may be affected by the proposed development. This specification is for a pre-determination archaeological evaluation. Depending upon the results obtained, additional archaeological work governed by separate specifications of work, may be required.

3.3 This specification has been prepared by the West Yorkshire Archaeology Advisory Service at the request of Martin Lightfoot of CFA Archaeology (mlightfoot@cfa-archaeology.co.uk . 01274 864245), to detail what is required for the evaluation and to allow an archaeological contractor to provide a quotation.

4.0 Archaeological Interest

4.1 The sites lie 500m south west of the scheduled site of Ferrybridge Henge which dates to the Neolithic period. To the west and south of the Henge, and extending down to the two proposed sites, is a landscape of early prehistoric burial monuments and pit alignments, and Iron Age/Romano British field systems of enclosures, lanes, ditches and pits. These features are visible on aerial photographs and plotted in the West Yorkshire HER.

4.2 Between 2001 and 2002, the land now occupied by the Holmfield Interchange, c.250m northeast of both sites, was excavated by Archaeological Services WYAS. This excavation uncovered extensive features of an early to late prehistoric date. In total 3 Bronze Age ring ditches were excavated, along with Iron Age structures, an enclosure, pit alignments and a trackway. Romano British enclosures, structures and a cereal drier were also excavated. This area is an extremely important archaeological landscape, and crop marks evidence suggests the presence of associated features within both of the proposed sites. The Limestrees site contains some interesting enclosures, lanes and possible pits.

4.3 A site 30m to the east of Limestrees was excavated in 2013. Ditches and a sherd of pottery dating to the Iron Age/Romano British period were located.

5. Aim of the Specified Work

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. The information gained will allow the Planning Authority to make a reasonable and informed decision on the planning application as to whether archaeological deposits should be preserved in-situ, or more appropriately, be recorded prior to destruction (whether this be a summary record from a salvage excavation or watching brief, or a detailed record from full open area excavation).

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. This work may require the preparation of a Risk Assessment of the site, in accordance with the Health and Safety at Work Regulations. The WYAAS 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. Any Health and Safety issues which may hinder compliance with this specification should be discussed with WYAAS at the earliest possible opportunity (see section 13.2).

6.2 Location of Services, etc.

6.2.1 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.

6.3 Confirmation of Adherence to Specification

6.3.1 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 West Yorkshire Archaeology Advisory Service 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*.

6.4 Confirmation of Timetable and Contractors' Qualifications

6.4.1 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.*),

6.4.2 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.

6.5 Notification

6.5.1 WYAAS should be provided with **as much notice as possible in writing** (and certainly not less than one week) of the intention to start work. A copy of the archaeological contractor's risk assessment of the site should accompany the notification.

6.5.2 The museums officer named in paragraph 9.1 should be notified in writing of the commencement of fieldwork at the same time as WYAAS.

6.5.3 English Heritage's Science Adviser, Andy Hammon, should also be notified of the intention to commence fieldwork. (Tel.: 01904 601983; email: andy.hammon@english-heritage.org.uk).

6.6 Documentary Research

6.6.1 Prior to the commencement of *fieldwork*, the 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 HER

makes a charge for consultations of a commercial nature. The results of this exercise should be used to inform the whole project. A formal desk-based report is not required and the results of this stage of work should be incorporated in the final report.

7.0 Geophysical Survey Methodology

Geophysical survey contractors are expected to adhere to the English Heritage *Geophysical Survey in Archaeological Field Evaluation* (2008), but also see para. 7.2 below.

7.1 Data Collection

7.1.1 The area of the proposed development to be subject to a magnetic (gradiometer) survey recording data at 0.25m. intervals. Data is to be recorded at 0.25m. stations on 1.0m. spaced traverses. Data may be acquired by rapid survey measuring to (nominally) 0.1nT or better in the first instance. If during the survey, it appears that useful results might only be obtained by higher resolution measurements, and if this would add significantly to the survey time, then the client and the WYAAS should be contacted and the matter discussed and agreed before implementation.

7.1.2 The gradiometer survey is to be carried out over the total site area (as far as practically possible).

7.2 Data Presentation

The results of the gradiometer survey should be processed and the results then discussed at a meeting between the contractor and the WYAAS (the client may also wish to attend). The results of the gradiometer survey should be presented in at least two different formats at a minimum 1:500 scale, one of which must be an X/Y trace plot. There must also be an accompanying interpretation drawing at an appropriate scale. The meeting will discuss the locations of trenches (see below) and following the meeting, the contractor will submit a proposed trench plan to WYAAS for formal agreement prior to the trenching commencing.

8.0 Trenching Methodology

8.1 Trench Size and Placement

7.1.1 The work will involve the excavation of forty seven 40m x 2m trenches in the Limestrees site and three 40m x 2m trenches in the Chestnuts site, which can be machine-opened. The contractor should also allow for a contingency amount of 1000 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. Proposed trench locations are for tendering purposed only, the final layout will depend on the results of the geophysical survey.

Total site area: **The Chestnuts 5547m² and Limetrees 95970m² (total 101517m²)**

Total area of trenching: **4000m²**

Contingency trenching: **1000m²**

8.2 Method of Excavation

8.2.1 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.** Any 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.

8.2.2 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.

8.2.3 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).

8.3 Method of Recording

8.3.1 The trenches are to be recorded according to the normal principles of stratigraphic excavation. The stratigraphy of each area is to be recorded, even when no archaeological deposits have been identified.

8.3.2 Section drawings (at a minimum scale of 1:20) must include heights A.O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features. At least one section of each trench edge, showing a representative and complete sequence of deposits from the modern ground surface to the natural geology, will be drawn.

8.3.3 The actual areas of excavation and all archaeological (and possibly archaeological) features should be accurately located on a site plan and recorded by photographs, scale drawings and written descriptions sufficient to permit the preparation of a detailed archive and report on the material. The trench locations, as excavated, will be accurately surveyed, tied into the O.S. National Grid and located on an up-to-date 1:1250 O.S. map base.

8.3.4 Except where otherwise requested, black and white photography using orthodox monochrome chemical development should be used. Film should be no faster than ISO400. Slower films should be used where possible as their smaller grain size yields higher definition images. Technical Pan (ISO 25), Pan-F (ISO50), FP4 (ISO125) and HP5 (ISO400) are recommended. The use of dye-based films such as Ilford XP2 and Kodak T40CN is unacceptable due to poor archiving qualities. Black and white photography should be supplemented by colour photography; this should be in transparency format (i.e. slides or digital photography as an acceptable alternative, see paragraph 8.3.5 below).

8.3.5 Digital photography: as an alternative for colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 8 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. **Any digital images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.**

8.4 Use of Metal Detectors

8.4.1 Spoil heaps are to be scanned for 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.)

8.4.2 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."

8.5 Environmental Sampling Strategy

8.5.1 Bulk samples must be taken from **all** securely stratified deposits using a strategy which combines systematic and judgement sampling, but which also follows the methodologies 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

8.5.2 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.

8.6 Conservation Strategy

8.6.1 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.

8.7 Human Remains

8.7.1 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, if appropriate, and any local environmental health regulations.

8.8 Treasure Act

8.8.1 The terms of the Treasure Act 1996, as amended, 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.

8.9. Unexpectedly Significant or Complex Discoveries

8.9.1 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.

8.10 Access/Monitoring Arrangements

8.10.1 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 WYAAS’ representative, by the next agreed site meeting. Access is also to be afforded at any reasonable time to English Heritage’s Archaeological Science Advisor.

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

9. Excavation Archives 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 (david.evans@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. Post-Excavation Analysis and Reporting

10.1 Finds and Samples

10.1.1 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.

10.1.2 Samples should be processed for the recovery of artefactual material, animal/fish/human bones, industrial residues (including hammerscale), 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.

10.1.3 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.

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

10.1.5 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.

10.3 Field Archive

10.3.1 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). The contractor should also take account of any additional requirements imposed by the recipient museum (see section 9.1 above). An index to the field archive is to be deposited with the West Yorkshire Archaeology Advisory Service (preferably as an appendix in the report).

10.3.2 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, including those presented in the report, 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.

10.3.3 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.

10.4 Report Format and Content

10.4.1 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.

10.4.2 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.

10.4.3 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.

10.4.4 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.

10.4.5 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.

10.5 Summary for Publication

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

10.6 Publicity

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.

10.6 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. Report Submission and Deposition with the HER

11.1 A hard copy of the report (plus a digital copy on gold disk) is to be supplied directly to the WYAAS, in a timely manner to allow further work, if necessary, to be scheduled and the planning application to be determined in an informed manner, and certainly within a period of two months following completion of fieldwork so as not to delay a planning decision to be made, 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.

11.2 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 unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposition.

11.3 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.

11.4 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).

11.5 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 recording as detailed above, and/or
- ii) an alternative approach may be more appropriate or likely to produce more informative results, and/or

then it is expected that the archaeologist will contact 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, 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 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 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

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

12.4 Valid Period of Specification

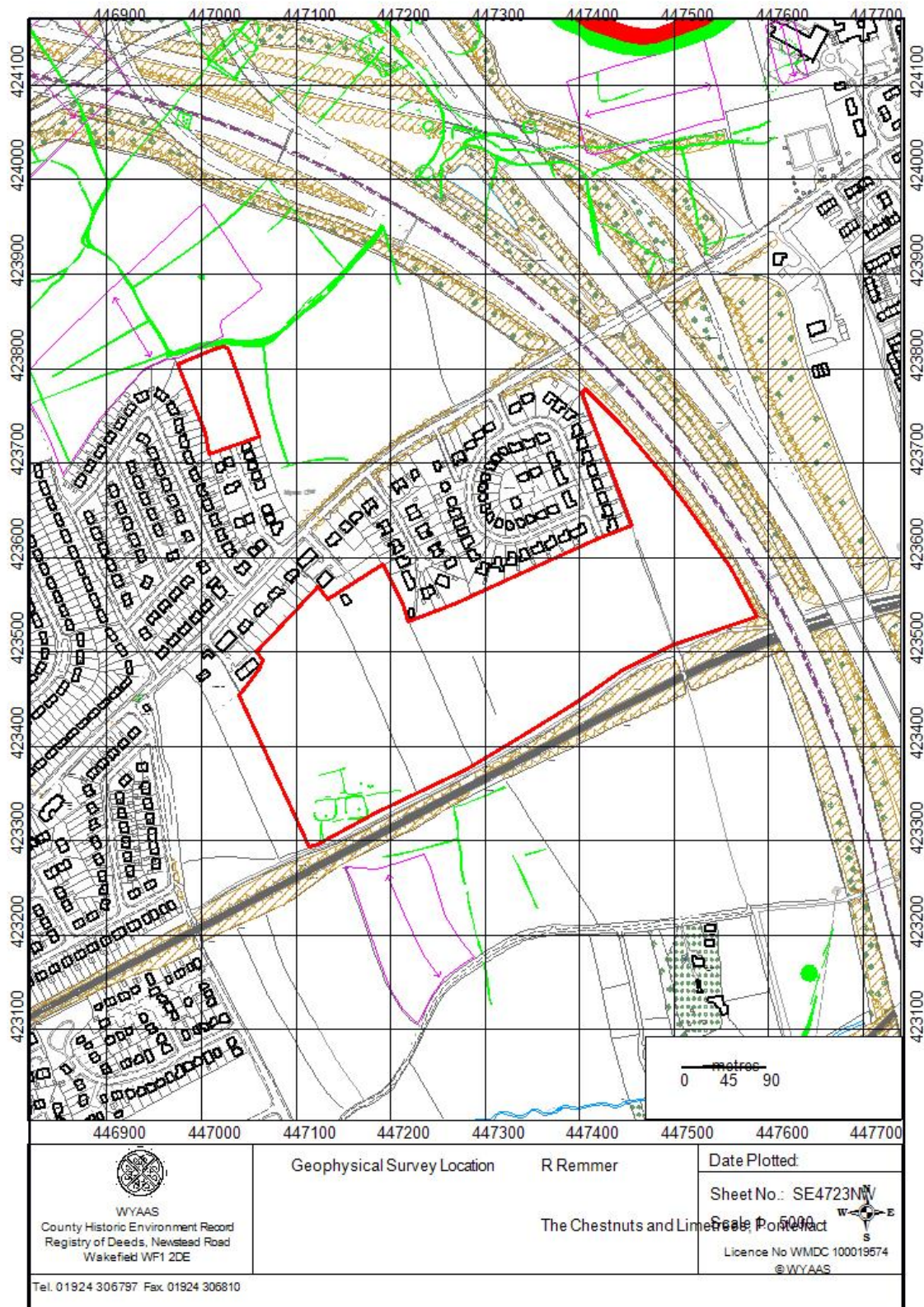
This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

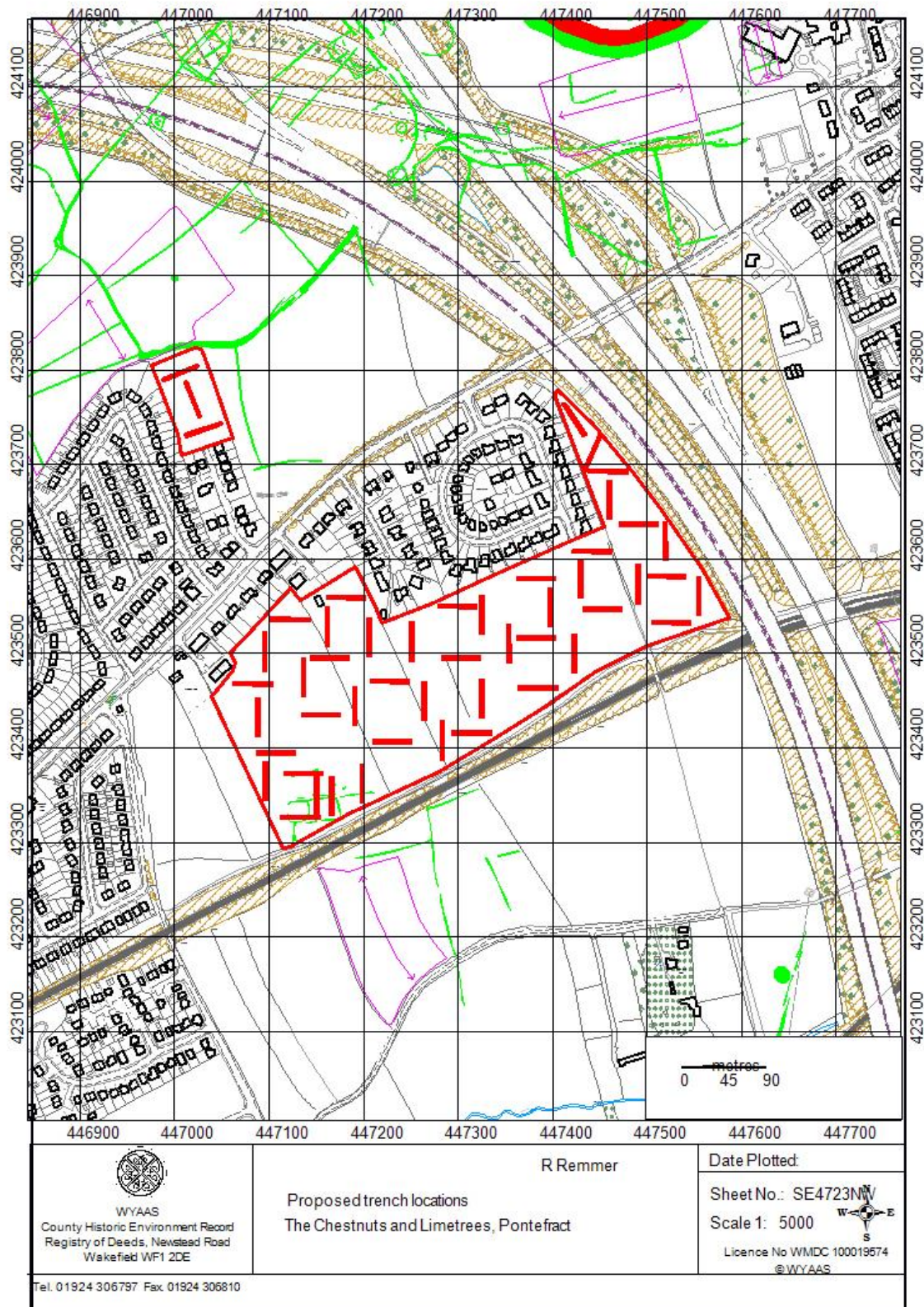
**West Yorkshire Archaeology Advisory Service
Rebecca Remmer**

October 2013

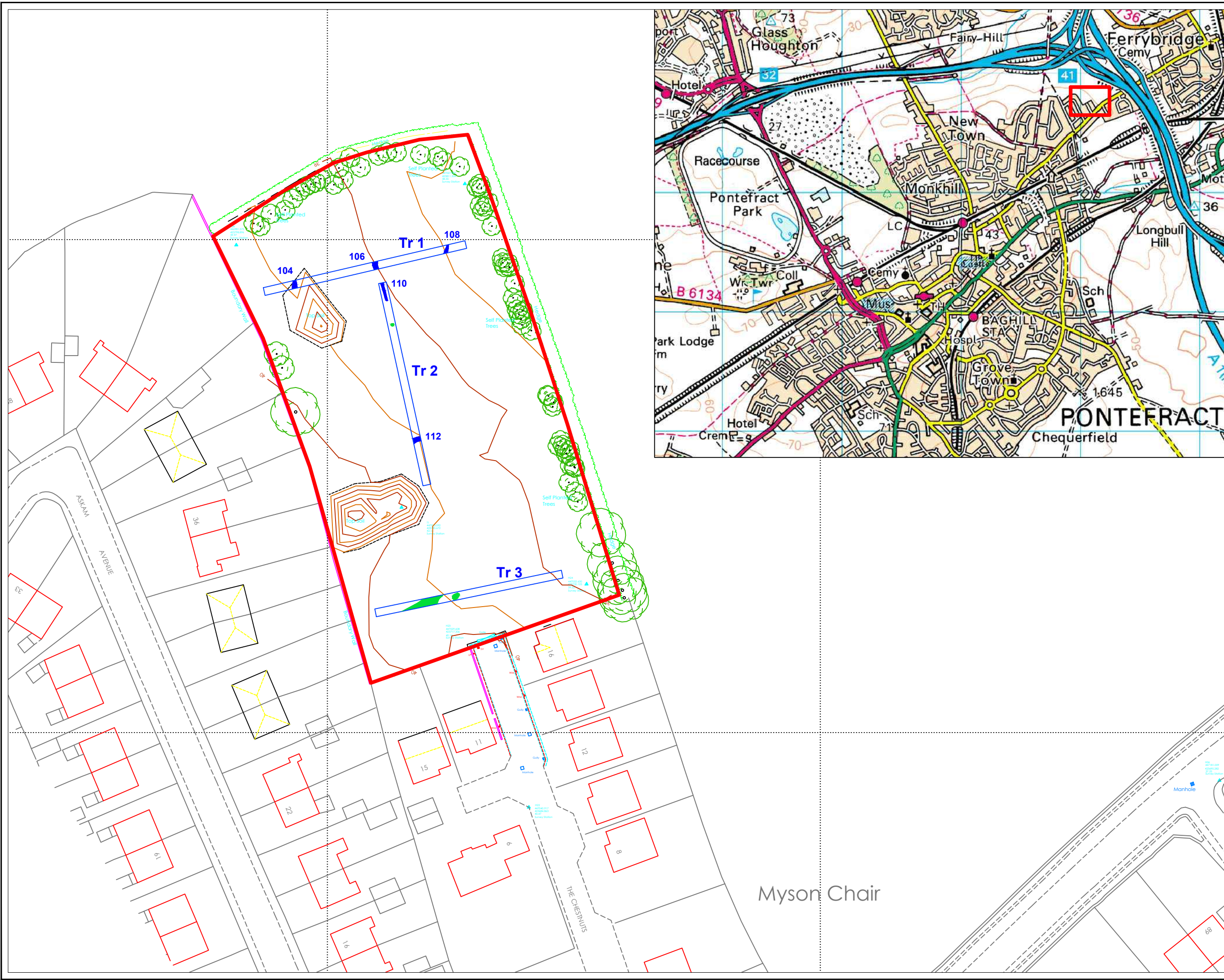
**Historic Environment Record
West Yorkshire Archaeology Advisory Service
Registry of Deeds
Newstead Road
Wakefield
WF1 2DE**

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





FIGURES 1 – 2



Key:

- Development Area
- Trenches
- Archaeological Features
- Modern Features

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www.cfa-archaeology.co.uk

Fig. No: 1 Report No: Y165/14

Title:
Site location and trench layout

Project:
The Chestnuts, Pontefract,
West Yorkshire:
Archaeological Evaluation

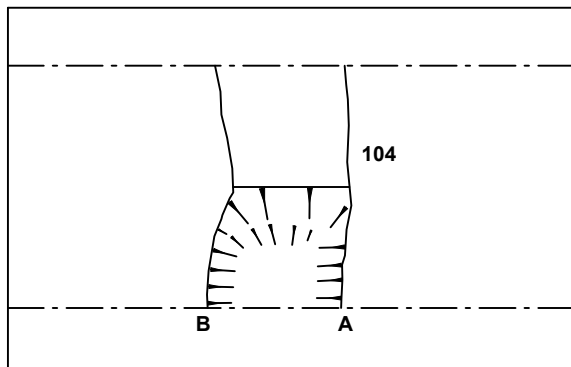
Client:
D Noble Ltd

Scale at A3:
1:700

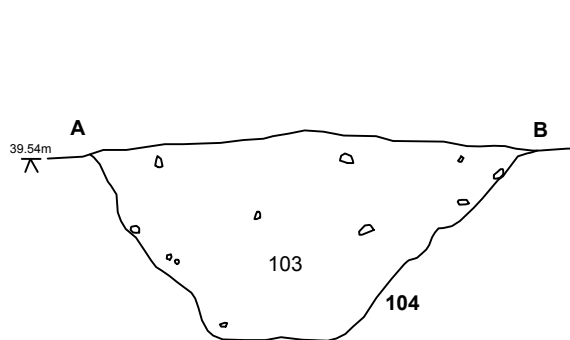
Drawn by: LW Checked: LW Date: 30/06/14

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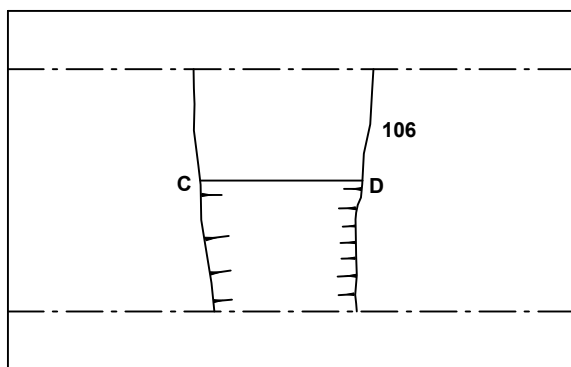
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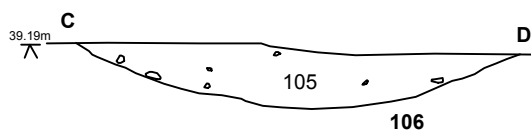
Trench 1, Feature 104



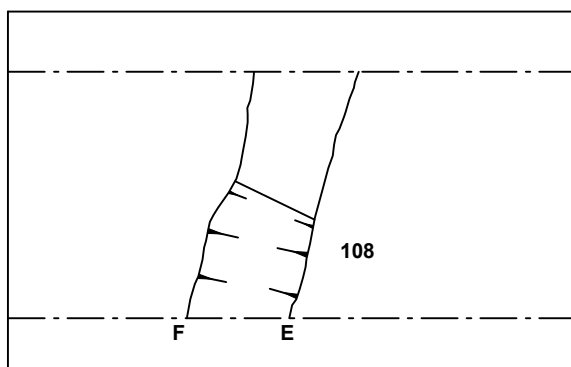
North-facing section of feature 104



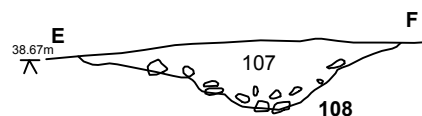
Trench 1, Feature 106



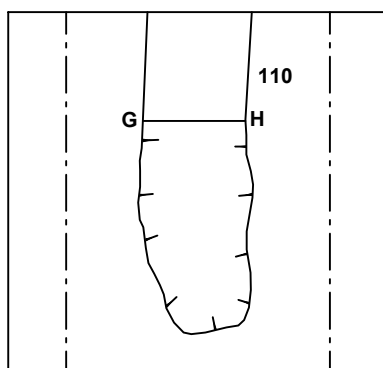
South-facing section of feature 106



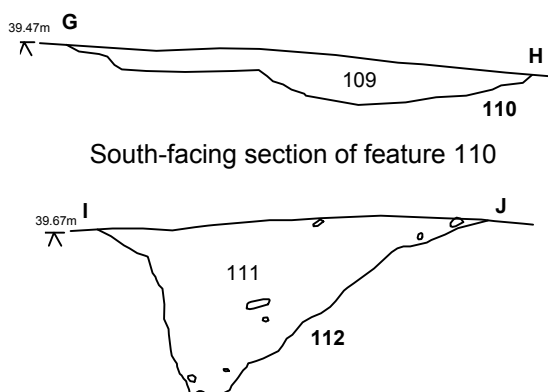
Trench 1, Feature 108



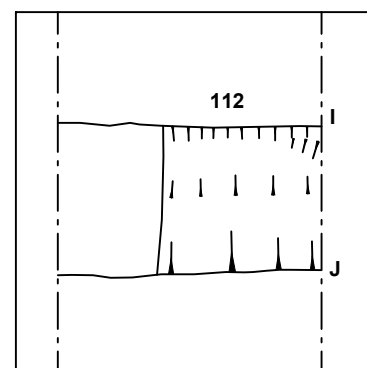
North-facing section of feature 108



Trench 2, Feature 110



West-facing section of feature 112



Trench 2, Feature 112



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Title:
Trench 1 & 2 Plans and Sections
Project:
The Chestnuts, Pontefract, West Yorkshire: Archaeological Evaluation

Fig No: **2** Report: **Y165/14** Drawn by: **LW** CKD: **LW** Date: **30/06/14**
Client:
D Noble Ltd
Scale:
Plans 1:50 Sections 1:20



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PLATES 1-4



Plate 1: Ditch 104, Trench 1, north facing section



Plate 2: Ditch 106, Trench 1, south facing section

Plates: 1-2		Revision: A		Project: The Chestnuts, Pontefract, West Yorkshire			 <div>CFA ARCHAEOLOGY LTD Offices C1 & C2 Clayton Business Centre Midlands Road Leeds, LS10 2RJ T: 0113 271 6060 F: 0113 271 3197 yorkshire@cfa-archaeology.co.uk www.cfa-archaeology.co.uk</div>
Drawn by: PM	Checked: ML	Report No: Y165/14	Client: D. Noble Ltd				

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Plate 3: Ditch 112, Trench 2, east facing section



Plate 4: Trench 3, general shot looking to the east

Plates: 3-4		Revision: A	Project: The Chestnuts, Pontefract, West Yorkshire		 <div>CFA ARCHAEOLOGY LTD Offices C1 & C2 Clayton Business Centre Midlands Road Leeds, LS10 2RJ T: 0113 271 6060 F: 0113 271 3197 yorkshire@cfa-archaeology.co.uk www.cfa-archaeology.co.uk</div>
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***WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE SUMMARY SHEET
ARCHAEOLOGICAL FIELDWORK IN WEST YORKSHIRE***

Site name/ Address: The Chestnuts, Ferrybridge Road	
Township: Pontefract	District: West Yorkshire
National Grid Reference: SE 4721 2350	
Contractor: CFA Archaeology	
Date of Work: June 2014	
Title of Report: The Chestnuts, Pontefract, West Yorkshire: Archaeological Evaluation	
Date of Report: 25/06/14	
SUMMARY OF FIELDWORK RESULTS: An archaeological evaluation was undertaken by CFA Archaeology Ltd on land off The Chestnuts, Pontefract, West Yorkshire during June 2014. Three trenches were excavated, with the probable remains of former field boundaries recorded within two of the trenches. No finds were recovered from any of the features or deposits excavated. .	
Author of summary: Phil Mann	Date of summary: 25/06/2014