Archaeological Watching Brief
Written Scheme of Investigation

4th February 2009
Quintana, Papcastle
Written Scheme of Investigation

On Behalf of: Andrew McNeil
Highfield
40 High Brigham
Cockermouth
Cumbria
CA13 0TE

National Grid Reference (NGR): NY 110 314

AOC Project No: 55017

Prepared by: David Lakin

Date of Report: 4th February 2009

This document has been prepared in accordance with AOC standard operating procedures.

Author: David Lakin
Approved: Date:

Enquiries to: AOC Archaeology Group
Raylor Centre
James Street
York
YO10 3DW

Tel. 01904 413404
Fax. 01904 430303
e-mail. york@aocarchaeology.com
Contents

1 Introduction ......................................................... 1
2 Objective of the Investigation .................................. 1
3 Programme of Works ............................................ 1
  3.1 Site Works ................................................... 1
  3.2 Reporting .................................................... 2
  3.3 Archive Deposition ........................................... 2
  3.4 Operational Factors ........................................... 2
  3.5 Conditions and Clarifications ................................ 3
4 References ........................................................... 3
APPENDIX 7 ............................................................... 5
APPENDIX 21 ............................................................. 6
APPENDIX 22 ............................................................. 7
APPENDIX 23 ............................................................. 8
1 Introduction

1.1 An archaeological watching brief is required by Highfield (Cumbria) Ltd on behalf of their client in respect to the proposed construction of a garage at Quintana, Papcastle, Cumbria. The proposed development site lies within the administrative area of Allerdale Borough Council which is advised on archaeological matters by the Cumbria County Council Historic Environment Service (CCHES).

1.2 The site of the proposed garage lies in the centre of Papcastle to the south of Castle Gardens at NGR NY 110 314 (see Figure 1). The site is currently open fringed by trees. A brief for archaeological works has been issued by CCHES (brief dated 16 January 2009) and the following Written Scheme of Investigation (WSI) will propose a detailed methodology for undertaking the archaeological works to be approved by CCHES prior to the commencement of on-site works.

1.3 The site lies within the enceinte of the Roman fort of Derwentio. Excavation has demonstrated the presence of two superimposed forts the earlier dating to the Hadrianic period and the later to the late 2nd century, remaining in use into the 4th century. Part of the fort and its adjacent civil settlement are scheduled, however the site to be investigated lies outside of the scheduled area. Excavations on the site of Quintana House in 2005 revealed a 4th century barrack block and two timber structures. Roman features were exposed at depths of 200-600mm below current ground level – it was noted that features tended to be exposed at shallower depths in the northern part of the excavated area.

2 Objective of the Investigation

2.1 The objective of the watching brief is to identify, investigate and record any archaeological remains encountered during the course of ground works. Specific research objectives can only be limited in an investigation of this nature however the watching brief will seek to establish:

- The nature, date and extent of any surviving archaeological remains within the footprint of the groundworks
- The presence or absence of features associated with the later fort – in particular whether similar barracks blocks and timber features to those noted at Quintana House are present
- The relationship of the site to the defences of the later fort (the southern and eastern extent of which is not clearly defined).

3 Programme of Works

3.1 Site Works

3.1.1 The area of proposed groundworks are detailed in Figure 1. The works proposed comprise the following:

- Ground reduction across the footprint of the proposed garage to a depth of c 250mm
- Excavation of foundation trenches to a depth of 600-750mm.
The duration of attendance on site is dependant on the groundwork contractor’s programme however it is not expected that archaeological attendance will be required for more than 1-2 days. At present site works are expected to commence on 6 February 2009. The works will normally be monitored by one archaeologist supported by further archaeologists and specialists should significant remains be encountered.

3.1.2 Any archaeological remains encountered during the watching brief will be recorded using the standard methodology laid out at Appendix 21.

3.2 Reporting

3.2.1 An Archaeological Watching Brief Report will be prepared upon completion of all on-site work, prepared in accordance with current standard procedural requirements and AOC Archaeology standard procedures (Appendix 21). Specifically the report will contain the following:

i) a non technical summary describing briefly the work undertaken and a brief outline of the results;
ii) an introduction explaining the site location and background,
iii) an historical background section detailing the historical and archaeological context of the site,
iv) a full descriptive text detailing the features identified and an interpretation of their date and function;
v) a selection of digital photographs to illustrate the written report
vi) a references section detailing all bibliographic, cartographic and internet sources used;
vii) Photographic print and slide registers included as an Appendix.

3.2.2 A hard copy of the report will be supplied to the client in the first instance and, once approved, four hard copies will be provided, in addition to a PDF of the finalised report.

3.3 Archive Deposition

3.3.1 Three copies of the report should be deposited with the County Historic Environment Record within six months of completion of the fieldwork.

3.3.2 The report will be filed with the Online Access to Index of Archaeological Investigations (OASIS).

3.3.3 A copy of the final reports and the print and slide photographs will be archived with the National Monuments Record and the local authority’s Sites & Monuments Record. A PDF copy of the final reports will also be lodged with the Cumbria County Council Sites and Monuments Record (SMR).

3.4 Operational Factors

3.4.1 AOC Archaeology will liaise with Mr Jeremy Parsons of CCHES at all times to ensure he is aware of fieldwork dates and can schedule monitoring visits if necessary. Mr. Parsons will be given the maximum possible notice prior to the initiation of the fieldwork.
3.4.2 AOC Archaeology has always maintained high standards on-site and a copy of our Health & Safety policy can be supplied on request. With specific regard to site contamination the client will be responsible for ensuring that all works are conducted in a safe manner with appropriate precautions. AOC Archaeology must be notified of the nature and extent of the contamination and be given guidance to the appropriate health and safety precautions required.

3.4.3 The programme of works can be undertaken within a minimum of notice once this Written Scheme of Investigation has been agreed in principle with CCHES, who will be acting on behalf of the planning authority.

3.4.4 The project will be managed by David Lakin, Senior Project Officer. The watching brief will be undertaken by Mr Stephen Potten, Project Supervisor for AOC’s Fieldwork team based in the North of England.

3.5 Conditions and Clarifications

3.5.1 The normal standards, conditions, and exclusions apply (Appendix 22).

3.5.2 Where AOC Archaeology is not the Main Contractor we expect the Main Contractor to induct AOC Archaeology team members into their H&S Scheme if relevant.

3.5.3 AOC Archaeology reserves the right to discuss the archaeological works directly with the curator where appropriate, but will inform the client of this in advance.

3.5.4 The client is solely responsible for all aspects of site security.

3.5.5 AOC Archaeology will not accept liability for any damage caused by vandalism or theft. This includes all hired equipment, plant stores etc and any property or equipment owned or hired by the client.

3.5.6 AOC require full and unhindered access to the site at all times during the on site works. Specifically, it is assumed that AOC Archaeology will have full access to the interior and exterior areas of the buildings and that no major obstructions are present in front or within the buildings which would impair the historical record of the building. It is also assumed that there are no areas of the building which require additional investment to gain access to areas (such as scaffolding, cherry pickers, etc). AOC is also under the assumption that there will be adequate lighting in the building which is a requirement for the photographic record and for minimum health and safety standards.

4 References

Cumbria Sites and Monuments Record, Record entry 872 Derwentio/Papcastle Roman Fort and Vicus.
APPENDIX 7

Machine excavated trenches

Excavation

7.1 The entire site will be visually inspected before the commencement of any machine excavation. This will include the examination of any available exposures (eg recently cut ditches and geotechnical test pits).

7.2 Normally trench positions will be accurately surveyed prior to excavation and related to the National Grid. It may be necessary to survey the positions after excavation in some instances.

7.3 All machining will be carried out by plant of an appropriate size. Normally, this will be a JCB 3CX (or similar) or 360° tracked excavator with a 1.4 or 1.8m wide toothless bucket. Where access or working space is restricted a mini excavator such as a Kubota KH 90 will be used.

7.4 All machining will be carried out under direct control of an experienced archaeologist.

7.5 Undifferentiated topsoil or overburden of recent origin will be removed in successive level spits (approximately <0.5m) down to the first significant archaeological horizon.

7.6 Excavated material will be examined in order to retrieve artefacts to assist in the analysis of the spatial distribution of artefacts.

7.7 On completion of machine excavation, all faces of the trench that require examination or recording will be cleaned using appropriate hand tools.

7.8 All investigation of archaeological horizons will be by hand, with cleaning, inspection, and recording both in plan and section.

7.9 Within each significant archaeological horizon a minimum number of features required to meet the aims of the project will be hand excavated. Pits and postholes normally will be sampled by half-sectioning although some features may require complete excavation. Linear features will be sectioned as appropriate. Features not suited to excavation within the confines of narrow trenches will not be sampled. No deposits will be entirely removed unless this is unavoidable. As the objective is to define remains it will not necessarily be the intention to fully excavate all trenches to natural stratigraphy. However, the full depth of archaeological deposits across the entire site will be assessed. Even in the case where no remains have been located the stratigraphy of all evaluation trenches will be recorded.

7.10 Any excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features or deposits which appear to be demonstrably worthy of preservation in situ.

7.11 For palaeoenvironmental research different sampling strategies will be employed according to established research targets and the perceived importance of the strata under investigation. AOC Archaeology conventionally recovers three main categories of sample;

- Routine Soil Samples; a representative 500g sample from every excavated soil context on site. This sample is used in the characterisation of the sediment, potentially through pollen analysis, particle size analysis, pH analysis, phosphate analysis and loss-on-ignition;

- Standard Bulk Samples; a representative 10 litre sample from every excavated soil context on site. This sample is used, through floatation sieving, to recover a sub-sample of charred macroplant material, faunal remains and artefacts;

- Purposive or Special Samples; a sample from a sediment which is determined, in field, to either have the potential for dating (wood charcoal for radiocarbon dating or in situ hearths for magnetic susceptibility dating) or for the recovery of enhanced palaeoenvironmental information (waterlogged sediments, peat columns, etc).

7.12 Any finds of human remains will be left in situ, covered and protected. In Scotland the local police will be informed. If removal is essential this will only take place with police approval, and in compliance with Historic Scotland's Operational Policy Paper 'The Treatment of Human Remains in Archaeology'. In England and Wales the coroner's office will be informed. If removal
is essential it will only take place under the relevant Home Office licence and local authority environmental health regulations.

7.13 All finds of gold and silver will be moved to a safe place. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the artefacts from theft or damage. In Scotland the recovery of such material, along with all other finds, will be reported to the Queen’s and Lord Treasurer’s Remembrancer. In England and Wales the recovery of such material will be reported to the coroner’s office according to the procedures relating to Treasure Trove.

7.14 After recording, the trenches will be backfilled with excavated material.

Recording

7.15 For each trench, a block of numbers in a continuous sequence will be allocated.

7.16 Written descriptions, comprising both factual data and interpretative elements, will be recorded on standardised sheets.

7.17 Where stratified deposits are encountered a ‘Harris’-type matrix will be compiled during the course of the excavation.

7.18 The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.

7.19 Plans will normally be drawn at a scale of 1:100, but on urban or deeply stratified sites a scale of 1:50 or 1:20 will be used. Burials will be drawn at 1:10. Other detailed plans will be drawn at an appropriate scale.

7.20 Long sections of trenches showing layers and any cut features will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20.

7.21 Generally all sections will be accurately related to Ordnance Datum. There may, occasionally, be instances where this is unnecessary when it will be agreed with the local authority’s archaeological representative in advance.

7.22 Registers of sections and plans will be kept.

7.23 A full colour print and colour transparency photographic record will be maintained. This will illustrate the principal features and finds both in detail and in a general context. The photographic record will also include working shots to represent more generally the nature of the fieldwork.

7.24 A register of all photographs taken will be kept on standardised forms.

7.25 All recording will be in accordance with the standards and requirements of the Archaeological Field Manual (Museum of London Archaeology Service 3rd edition 1994).

Finds

7.26 All identified finds and artefacts will be collected and retained. Certain classes of material, ie post-medieval pottery and building material, may on occasion be discarded after recording if a representative sample is kept. No finds will be discarded without the prior approval of the archaeological representative of the local authority and the receiving museum.

7.27 Finds will be scanned to assess the date range of the assemblage with particular reference to pottery. In addition the artefacts will be used to characterise the site, and to establish the potential for all categories of finds should further archaeological work be necessary.

7.28 All finds and samples will be treated in a proper manner and to standards agreed in advance with the recipient museum. Finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in United Kingdom Institute for Conservation’s Conservation Guidelines No. 2.

7.29 In England and Wales, at the beginning of the project (prior to commencement of fieldwork) the landowner and the relevant museum will be contacted regarding the preparation, ownership and deposition of the archive and finds.

APPENDIX 21

Watching Briefs

21.1 Where the archaeologist (Watching Brief Officer) has no remit over the working methodology of the site (specification of machine or depth of excavation). The Watching Brief Officer will simply observe the works and record their nature and form. Where the Watching Brief Officer specifies the site methodology, ie type of machine and depth of excavation. AOC Archaeology’s preferred
approach is to consider the Watching Brief Area as a large evaluation trench and follows in general, Appendix 7.

21.1 It is important to stress that the client determines the area affected and unless instructed by a curator the Watching Brief Officer has no power to extend the area unless it is to fully excavate a human body that otherwise would have been truncated by the works.

21.2 In addition to the general principles outlines in Appendix 7 the following approaches will be undertaken:

21.3

i) a record will be made of all site attendances;
ii) in general a written and photographic record will be kept of the excavated sediments;
iii) where archaeological features are identified and they can be dealt with in less than two hours this work will be undertaken by the Watching Brief Officer. Recording and excavation protocols will follow Appendices 7.9 – 7.11;
iv) where archaeological remains requiring more than two hours of excavation and recording, the Watching Brief Officer will stop the works and both the curator and the client will be contacted to devise a mitigation strategy. All delays will be kept to a minimum. Any resultant excavation and recording work will be in keeping with the methods outlined in Appendix 9;
v) the extent of the watching brief area will not be recorded unless specifically required by either the client or the curator. Where such recording is required the area will be accurately recorded by total station and linked into the Ordnance Datum;
vi) Reporting of Watching Briefs will follow methods specified in Appendix 8.

APPENDIX 22

General

22.1 The requirements of the Brief will be met in full where reasonably practicable.

22.2 Any significant variations to the proposed methodology will be discussed and agreed with the local authority’s archaeological representative in advance of implementation.

22.3 The scope of fieldwork detailed in the main part of the Written Scheme of Investigation is aimed at meeting the aims of the project in a cost-effective manner. AOC Archaeology Group attempts to foresee all possible site-specific problems and make allowances for these. However there may on occasions be unusual circumstances which have not been included in the programme and costing. These can include;

i) unavoidable delays due to extreme weather, vandalism, etc;
ii) trenches requiring shoring or stepping, ground contamination, unknown services, poor ground conditions;
iii) extensions to specified trenches or feature excavation sample sizes requested by the local authority’s archaeological advisor;
iv) complex structures or objects, including those in waterlogged conditions, requiring specialist removal.

Health and Safety

22.4 All relevant health and safety legislation, regulations and codes of practice will be respected.

22.5 With the introduction of the Construction, Design and Management Regulations 1994, AOC Archaeology works with Clients, Main Contractors, and Planning Supervisors to create a Health and Safety Plan. Where CDM regulations apply, each project will have its own unique plan.

Insurances

22.6 AOC Archaeology holds Employers Liability Insurance, Public Liability Insurance and Professional Indemnity Insurance. Details can be supplied on request.

22.7 AOC Archaeology will not be liable to indemnify the client against any compensation or damages for or with respect to;

i) damage to crops being on the Area or Areas of Work (save in so far as possession has not been given to the Archaeological Contractor);
the use or occupation of land (which has been provided by the Client) by the Project or for the purposes of completing the Project (including consequent loss of crops) or interference whether temporary or permanent with any right of way light air or other easement or quasi easement which are the unavoidable result of the Project in accordance with the Agreement;

iii) any other damage which is the unavoidable result of the Project in accordance with the Agreement;

iv) injuries or damage to persons or property resulting from any act or neglect or breach of statutory duty done or committed by the client or his agents servants or their contractors (not being employed by AOC Archaeology) or for or in respect of any claims demands proceedings damages costs charges and expenses in respect thereof or in relation thereto.

22.8 Where excavation has taken place evaluation trenches will be backfilled with excavated material but will otherwise not be reinstated unless other arrangements have previously been agreed. Open area excavations normally will not be backfilled but left in a secure manner unless otherwise agreed.

Copyright and confidentiality

22.9 AOC Archaeology will retain full copyright of any commissioned reports, tender documents or other project documents under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide an exclusive licence to the Client in all matters directly relating to the project as described in the Written Scheme of Investigation.

22.10 AOC Archaeology will assign copyright to the client upon written request but retains the right to be identified as the author of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988.

22.11 AOC Archaeology will advise the Client of any such materials supplied in the course of projects which are not AOC Archaeology's copyright.

22.12 AOC Archaeology undertake to respect all requirements for confidentiality about the Client's proposals provided that these are clearly stated. In addition AOC Archaeology further undertakes to keep confidential any conclusions about the likely implications of such proposals for the historic environment. It is expected that Clients respect AOC Archaeology's and the Institute of Field Archaeologists' general ethical obligations not to suppress significant archaeological data for an unreasonable period.

Standards

22.13 AOC Archaeology conforms to the standards of professional conduct outlined in the Institute of Field Archaeologists' Code of Conduct, the IFA Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, the IFA Standards and Guidance for Desk Based Assessments, Field Evaluations etc., and the British Archaeologists and Developers Liaison Group Code of Practice.

22.14 Project Directors normally will be recognised in an appropriate Area of Competence by the Institute of Field Archaeologists.

22.15 Where practicable AOC Archaeology will liaise with local archaeological bodies (both professional and amateur) in order that information about particular sites is disseminated both ways (subject to client confidentiality).

APPENDIX 23

Specialist staff

The following specialist staff may be used on this project depending on the type of artefacts and soil samples recovered during the course of the fieldwork.
### AOC Archaeology Staff:
- Dr. Anne Crone: Dendrochronology, charcoal and timber analysis
- Dr. Coralie Mills: Pollen analysis, dendrochronology
- Dr. Ciara Clarke: Pollen analysis
- Mr. Rob Engl: Lithics & coarse stone
- Mr. Murray Cook: Mammal bone
- Dr. Lindsey Thompson: Stone condition survey
- Ms. Melissa Melikian: Human bone
- Ms Alys Vaughan-Williams: Macroplant specialist
- Mr. Robin Ingles: Soil analysis
- Mr. Alan Duffy: Charcoal identification
- Ms. Amanda Clydesdale: Artefact conservation; plaster, paint and wallpaper analysis

### Sub-contractors:
- Dr. Clare Ellis: Soils and sediments analysis
- Mr. Bob Clark: Industrial archaeology & coal-mining
- Ms. Marta McGlynn: Historic designed landscapes
- Dr. Ruby Ceron-Carasco: Marine shell and fish bone
- Dr. Ann MacSween: Prehistoric pottery
- Ms. Naomi Crowley: Building material, medieval and post-medieval pottery