



**Glyn Derw High School
Cardiff, Glamorgan**

**Written Scheme of Investigation
for Archaeological Watching Brief**

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December 2016

**WA ref 115380.01
Accession Code: tbc
Planning Application: tbc**



Quality Assurance

Project Code	115380	Accession Code		Client Ref.	
Planning Application Ref.		Ordnance Survey (OS) national grid reference (NGR)	14465,75805		

Version	Status*	Prepared by	Checked and Approved By	Approver's Signature	Date
v01	E	Author MWW	AK		21/12/2016
File:	S:\PROJECTS\115380_Project Design\115380_WSI_MW_2122016				
File:					
File:					
File:					
File:					

* I = Internal Draft; E = External Draft; F = Final

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Figure 1: Site location plan



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1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) has been commissioned by Atkins (hereafter the Client) to carry out a watching brief on the excavation of six geotechnical trial pits at Glyn Derw High School, Cardiff, hereafter referred to as 'The Site'.

1.2 Scope of Document

1.2.1 This specification sets out the initial strategy and methodology by which WA will implement the programme of archaeological works.

1.2.2 In format and content this document conforms with current best practice and to the guidance outlined in *Management of Research Projects in the Historic Environment* (MoRPHE, EH 2009) and the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance: archaeological watching brief* (CIfA 2014b). It will be submitted to the Client and to the Planning Archaeologist at Glamorgan Gwent Archaeological Trust (GGAT) for approval, prior to fieldwork commencing.

2 SITE DESCRIPTION

2.1 Location, topography and geology

2.1.1 The Site is located in the district of Caerau on the west side of Cardiff; it is bounded to the west by Penally Road, to the north and east by a playing field, and to the south by the A4232. The NGR is ST14465,75805.

2.1.2 The Site is located on level ground, at approximately 15m above Ordnance Datum, at the eastern edge of the suburb of Caerau. The River Ely is 800m to the east. The land drops steeply to the south on the south side of the A4232.

2.1.3 The bedrock is sedimentary Triassic sedimentary Mudstone, Siltstone and Sandstone. There are no recorded superficial deposits (BGS 2016).

2.2 Archaeological and historical background

2.2.1 The Iron Age fort from which the district takes its name lies 1km to the south-west. The fort is the third largest in Glamorgan and one of the best-preserved in South Wales. Within the fort are the remains of a medieval defensive ringwork and the ruins of the church of St Mary, which was the parish church of the medieval settlement of Caerau.

2.2.2 The site is 300m south-west of the Trelai Roman villa. The villa was discovered in 1894 and excavated in 1922 by Sir Mortimer-Wheeler (Cardiff Parks 2016). He concluded that the original structure was built in the mid-2nd century and gradually expanded until falling out



of use at the beginning of the 4th century. It appeared to have been constructed on a small island formed by a branching stream (Cardiff Parks 2016).

2.2.3 The Site is most likely to have been under pasture until construction of the extensive, adjacent housing estate and Glyn Derw school in the post-war years.

3 AIMS AND OBJECTIVES

3.1 Project Aim

3.1.1 With due regard to the ClfA *Standard and guidance: archaeological watching brief* (ClfA 2014b), the principle aim of an archaeological watching brief is to record the archaeological resource during development within a specified area using appropriate methods and practices, and in compliance with the *Code of conduct* and other relevant by-laws of ClfA.

3.2 Project Objectives

3.2.1 In furtherance of the project aim, the following objectives are defined:

- *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works; including*
- *To ensure their preservation by record to the highest possible standard;*
- *To confirm the approximate date or date range of the remains, by means of artefactual or other evidence;*
- *To determine or confirm the approximate extent of any remains;*
- *To determine the condition and state of preservation of the remains; and*
- *To determine the degree of complexity of the horizontal and/or vertical stratigraphy present;*
- *to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard; and*
- *To prepare a report on the results of the watching brief.*

4 METHODOLOGY

4.1 Health and Safety

4.1.1 Health and Safety considerations will be of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times.

4.1.2 All work will be carried out in accordance with the *Health and Safety at Work etc. Act 1974* and the *Management of Health and Safety Regulations 1992*, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time.



4.1.3 WA will supply a copy of their Health and Safety Policy and a Risk Assessment to the Client before the commencement of any fieldwork. The Risk Assessment will have been read and understood by all staff attending the Site before any groundwork commences.

4.1.4 WA staff will comply with the standard PPE requirements for working on construction sites (hard hat, steel toe capped boots, high visibility clothing) and any specific requirements of the Principal Contractor.

4.2 Service Location

4.2.1 The groundwork contractor will be responsible for the identification and protection of any above- and below-ground services within the groundwork area.

4.3 Watching brief

4.3.1 The following methodology proposed in order to meet the aims and objectives of the watching brief at the Site. All works will be carried out in accordance with the ClfA's *Standard and guidance: archaeological watching brief* (ClfA 2014b), except where superseded by statements made below.

4.3.2 The fieldwork will consist of the monitoring of the excavation of geotechnical test pits and boreholes.

4.3.3 The watching brief will be undertaken by at least one experienced archaeologist subject to the number of site operations being undertaken at any one time. The mechanical excavation will, where possible, be undertaken using a toothless ditching bucket and under constant supervision by WA. Machine excavation will proceed to the required construction levels or the top of archaeological levels whichever is the higher. Where practicable and without causing unreasonable delay to the groundwork programme, groundwork may be temporarily halted whilst WA staff carry out investigations.

4.3.4 In the event that complex archaeological deposits and features, including human remains (see below) are revealed, these will be identified and made clear to GGAT, the Client and their groundwork contractor, who will allow reasonable access to WA staff, facilitating the excavation and recording of the archaeology present. Areas of archaeological interest will be marked up and suitably protected in advance of their investigation and clearance.

4.3.5 The watching brief will be maintained throughout initial excavations and will be concluded when it is clear that the potential for archaeological remains to be exposed has been exhausted.

4.3.6 WA staff will investigate archaeological deposits and features by excavation and recording commensurate with the scale of work and using WA's pro forma recording system. Where practical, and towards meeting the aims of the watching brief, excavation will include sampling of features and deposits in order to recover artefacts, ecofacts and dating evidence, and in order to determine stratigraphic relationships. Recording will include written, drawn, and photographic elements as conditions allow.

4.3.7 Archaeological features and deposits will be surveyed using a Total Station/GPS and related to Ordnance Survey Datum. If required, arrangements will be put in place with the Client in order for GGAT to monitor progress of the watching brief in site visits.

4.3.8 Should extensive and well-preserved remains be found requiring a contingent excavation it will be necessary to agree with the Client and GGAT a programme for this, potentially



extending the scope of archaeological works, whilst ensuring no unreasonable delay is caused to the groundwork programme.

4.4 Human remains

- 4.4.1 In the event of discovery of any human remains (articulated or disarticulated, cremated or unburnt), a Ministry of Justice Licence will be obtained by Wessex Archaeology prior to any further disturbance (including where remains are to be left *in situ*).
- 4.4.2 Should human remains require removal, all excavation and post-excavation will be in accordance with WA protocols, and undertaken in-line with current guidance documents (e.g. McKinley 2013) and the standards set out in ClfA Technical Paper 13 *Excavation and post-excavation treatment of cremated and inhumed remains*. Appropriate specialist
- 4.4.3 The final deposition of human remains subsequent to the appropriate level of osteological analysis and other specialist sampling/examinations will follow the requirements set out in the Ministry of Justice Licence.

4.5 Treasure

- 4.5.1 Artefacts covered by the *Treasure Act* 1996 (amended 2003) will be reported to the coroner within 14 days of discovery.

5 FINDS AND ENVIRONMENTAL

5.1 Finds

- 5.1.1 Finds will be treated in accordance with the relevant guidance given in the ClfA *Standard and guidance: archaeological excavation* (2014a), the UK Institute of Conservators Guidelines *Conservation Guideline No 2* and the Museums and Galleries Commissions *Standards in the Museum Care of Archaeological Collections* (1991), except where they are superseded by statements made below.
- 5.1.2 All artefacts from excavated contexts will be retained, except those from features or deposits of obviously modern date. No finds will, however, be discarded without the prior approval of GGAT and the designated museum repository. In such circumstances, sufficient artefacts will be retained in order to elucidate the date and/or function of the feature or deposit.
- 5.1.3 Specialist advice and conservation needs should unexpected, unusual or extremely fragile and delicate objects be recovered, will be sought. Costs will be agreed with the Client on discovery. Advice on dealing with conservation aspects of the archive will be sought from WA's in-house conservator based at Portway House, Salisbury, as appropriate.
- 5.1.4 All retained artefacts will, as a minimum, be washed, weighed, counted and identified. Any artefacts requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson & Neal 1998) and in consultation with the designated conservator. Ironwork from stratified contexts will be X-rayed and stored in a stable environment along with other fragile and delicate material. The X-raying of objects and other conservation needs will be undertaken by WA's in-house staff or other appropriate approved conservation centre.
- 5.1.5 Information will be obtained from the designated museum repository concerning conditions and arrangements for the deposition of finds.



5.2 Environmental

- 5.2.1 Sampling will follow the Historic England (HE, formerly English Heritage EH) guidelines *Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation* (EH 2011, 2nd edition) and the *WA Guidelines for Environmental Sampling*. The sampling strategy has been developed with the WA environmental manager and will be undertaken under the guidance of the geoarchaeologist.
- 5.2.2 Bulk environmental soil sample sizes will be as per the HE guidelines, with the option to review this following on site discussion / preliminary processing of samples. Samples will be taken from well-sealed and dated or datable archaeological features for plant macrofossils (charred and/or waterlogged and wood charcoal), small animal bones and small artefacts.
- 5.2.3 Where appropriate monolith and/or contiguous column samples will be taken. Monoliths will be taken from key and representative sequences on the site. These will be examined in laboratory conditions by a geoarchaeologist to further elucidate the depositional history of the Site and enable sub-sampling for microfossils and radiocarbon samples as appropriate. Particular attention will be paid to stabilisation horizons and buried land surfaces, with soil micromorphology considered.
- 5.2.4 Bulk environmental soil samples will be processed by flotation and scanned to assess the environmental potential of deposits, but will not be fully analysed. The residues and sieved fractions will be recorded and retained with the project archive. The monoliths will be subject to detailed description by the geoarchaeologist and sub-samples taken as appropriate for microfossils and radiocarbon dating, should suitable material exist. Samples may include those for pollen, diatoms, foraminifera, ostracods as deemed appropriate by the geoarchaeologist. These will be assessed, but not fully analysed at WA and the pollen/diatoms by our external specialist.
- 5.2.5 Suitable samples for radiocarbon dating will be subsampled from the processed and identified plant remains in the bulk samples or well stratified remains from the monoliths as deemed appropriate.
- 5.2.6 Assessment analysis of charcoal from possible industrial contexts may provide useful data on both availability of species and their management and exploitation for fuel. This will be undertaken in tandem with assessment of slag and any other industrial by products that may be found.

6 REPORTING

6.1 Watching brief report

- 6.1.1 Within four weeks of completion of all fieldwork, a report setting out the results will be produced and sent to the Client and GGAT for comment and approval. The finalised report will be submitted to the Client for distribution to relevant parties, including the Historic Environment Record (HER) curated by GGAT.
- 6.1.2 Emphasis in the report will be given to placing the results into the context of the known archaeology of the area.
- 6.1.3 The report will include:
- *A non-technical summary;*

- *The aims and methods used in the watching brief;*
- *Site background including HER search results for the area;*
- *Plans and section drawings at appropriate scales to locate the Site and excavated and projected archaeological deposits;*
- *The tabulation of all artefacts recovered from the archaeological works, listed by context and by material type;*
- *A consideration of the archaeological and environmental potential of deposits;*
- *A consideration of the sites archaeological significance in its broader historic and landscape setting; and*
- *Where appropriate, a reconsideration of the methodology employed.*

6.1.4 A copy of the archive report and surveyed spatial digital data (.dxf or shapefile format) relating to the archaeological findings will be deposited with the local HER.

6.2 Publication

6.2.1 The results of the fieldwork will be published as one body of work, at least to summary level, within one year of completion of all phases of fieldwork. Publication will be in an appropriate local, regional or national journal.

6.2.2 Other forms of publication (e.g. 'popular publication', electronic media/Internet) may be employed where appropriate. The final nature and most appropriate form of publication media and all publication matters will be discussed and agreed in advance with the Client and GGAT.

7 THE ARCHIVE

7.1 Museum

7.1.1 The designated receiving museum is to be confirmed. The Curator of Archaeology will be contacted in advance of the fieldwork for an accession number/Site code and to obtain information regarding the appropriate archive preparation standards.

7.2 Preparation of Archive

7.2.1 The complete Site archive, which will include paper records, photographic records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the appropriate Museum, and in general following nationally recommended guidelines (SMA 1995; Brown 2011; ADS 2013; ClfA 2014c).

7.2.2 All archive elements will be marked with the Site/accession code and a full index will be prepared.

7.2.3 The site archive will be prepared for long-term storage in accordance with current guidelines (e.g. Walker 1990; MGC 1994 etc.). It is proposed in principle that, subject to the wishes of the landowner, the entire archive (including the finds) will be donated to and deposited with the designated museum repository. Provision has been made for the cost of long term storage in the post-fieldwork costs.

7.2.4 A copy of the archive index (as a minimum) will be forwarded to the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW).

7.2.5 Until final deposition with the museum the archive will be stored at the offices of WA West in Bristol.

7.3 Discard policy

7.3.1 WA follows the guidelines set out in *Selection, Retention and Dispersal of Archaeological Collections* (SMA 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. Any discard of artefacts will be fully documented in the project archive.

7.3.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993 and 1995; EH 2011).

7.4 Security copy

7.4.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

7.5 Copyright

7.5.1 The full copyright of the written/illustrative archive relating to the site will be retained by WA Ltd under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The Museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms to the *Copyright and Related Rights Regulations 2003*.

8 WA PROCESSES AND PROCEDURES

8.1 Personnel

8.1.1 The fieldwork will be directed and supervised by an experienced archaeologist from WA's core staff, who will be on Site at all times for the length of archaeological watching brief. The overall responsibility for the conduct and management of the project will be held by one of WA's Project Managers, who will visit the fieldwork as appropriate to monitor progress and to ensure that the scope of works is adhered to. The appointed Project Manager and experienced archaeologist will be involved in all phases of the evaluation through to its completion.

8.1.2 The analysis of the finds and environmental data will be undertaken by WA core staff or external specialists, using WA's standard pro forma recording system. The work will be carried out under the supervision of the following departmental managers under the overall direction of the Project Manager. The following staff are proposed:

- *Project Manager* *Matthew Williams*
- *Project Officer* *tbc*
- *Land snails* *Ines Lopez Doriga, MA PhD*
- *Charcoal* *Ines Lopez Doriga, MA PhD*
- *Charred Plant Remains* *Ines Lopez Doriga, MA PhD*
- *Soils and sediments* *Dave Norcott BA, MSc, MCIFA*
- *Animal Bone* *Lorrain Higbee, BSc, MSc, MCIFA*

- *Human Bone* Jackie McKinley, BTech., MCIFA
- *Flint/Worked Stone* Matt Leivers, BA, PhD
- *Prehistoric Pottery* Matt Leivers, BA, PhD
Rachel Seager Smith BA, MCIFA
- *Roman Pottery* Rachel Seager Smith BA, MCIFA
- *Medieval Pottery* Lorraine Mepham, BA, MCIFA
- *Finds Manager* Alistair Barclay, PhD, MCIFA
- *Environmental Manager* Dave Norcott BA, MSc, MCIFA
- *Reports Manager* Pippa Barclay, BA, MPhil, MCIFA

8.1.3 WA reserves the right, due to unforeseen circumstances (e.g. annual leave, sick leave, maternity, retirement etc.) to replace nominated personnel with alternative members of staff of comparable expertise and experience.

8.2 Quality and Code of Practice

8.2.1 WA is *Registered Organisation* with the ClfA. WA endorses the *Code of Practice* and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* of the ClfA.

8.2.2 All core staff would be of a standard approved by WA, be employed in line with the ClfA *Codes of Practice*, and be members of the ClfA or a similar appropriate institute.

8.2.3 WA operates a Project Management System. All projects are undertaken under the direction of the Project Manager who is responsible to a Section Head, who ensures the maintenance of quality standards within the organisation. The Chief Executive has ultimate responsibility for all of WA's work.

9 REFERENCES

Archaeology Data Service [ADS], 2013, *Caring for Digital Data in Archaeology: a guide to good practice*, Archaeology Data Service & Digital Antiquity Guides to Good Practice

Brickley, M and McKinley, J I (eds), 2004, *Guidelines to the Standards for Recording Human Remains*, ClfA Pap 7 and BABAO

Brown, D H, 2011, *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum (revised)

Cardiff Parks 2016 <http://www.cardiffparks.org.uk/otheropenspaces/trelaipark/info/romanvilla.shtml> accessed 21/12/2016

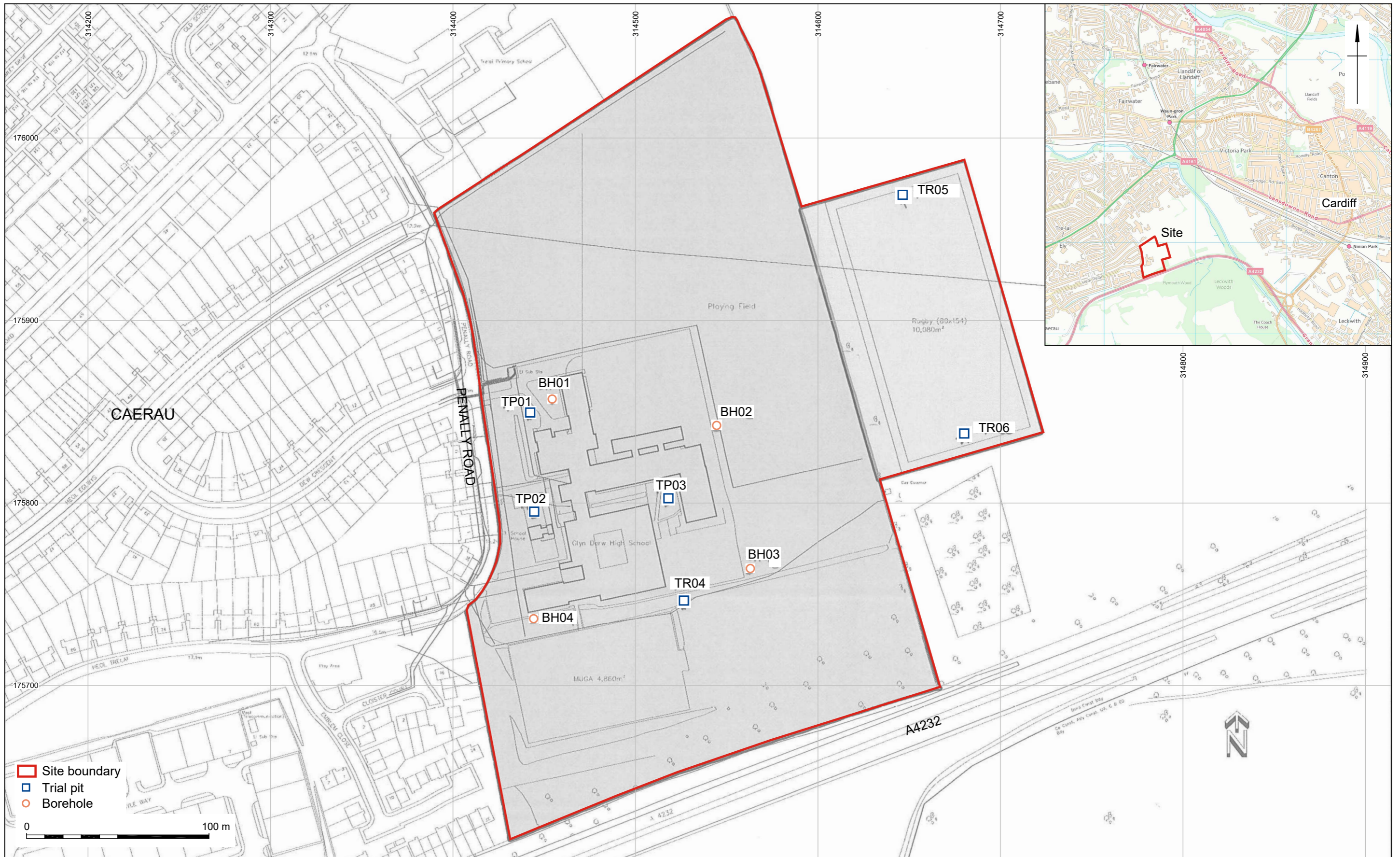
Chartered Institute for Archaeologists [ClfA], 2014a, *Standard and guidance: archaeological excavation*, Chartered Institute for Archaeologists


-- 2014b, *Standard and guidance: archaeological watching brief*, Chartered Institute for Archaeologists

-- 2014c, *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, Chartered Institute for Archaeologists



- English Heritage [EH], 1991, *Management of Archaeological Projects*
- 2009, *Management of Research Projects in the Historic Environment: The MoRPHE Project Manager's Guide*, English Heritage, Kemble (version 1.1)
 - 2011, *Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation*, Swindon, Centre for Archaeology Guidelines 2nd edition
- British Geological Survey 2016 <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>
accessed 21/12/2016
- McKinley, J.I. 2013, 'Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts' in S. Tarlow and L. Nilsson Stutz (eds.) *The Oxford Handbook of the Archaeology of Death and Burial*, Oxford University Press 147-171
- McKinley, J I and Roberts, C A, 1993, *Excavation and post-excavation treatment of cremated and inhumed human remains*, IfA Technical Paper **13**, Birmingham
- Society for Museum Archaeologists [SMA], 1993, *Selection, Retention and Dispersal of Archaeological Collections*, Society of Museum Archaeologists
- 1995, *Towards an Accessible Archaeological Archive*, Society of Museum Archaeologists
- Walker, K, 1990, *Guidelines for the Preparation of Excavation Archives for Long-Term Storage*, UK Inst Conserv Archaeol Sect
- Watkinson, D and Neal, V, 1998, *First Aid for Finds*, Rescue and United Kingdom Institute for Conservation Archaeology Section, 3rd Edition



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Site location and trial pit locations

Figure 1