

WRITTEN SCHEME OF INVESTIGATION
FOR AN ARCHAEOLOGICAL
WATCHING BRIEF
ON PLOT D7A, LANGDON ROAD, SWANSEA

Prepared for:

Davies Homes

Planning Application Number: 2017/0146/FUL

Project No: 2556

September 2017



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Figure 1. Site location

Figure 2. Detailed plan of the site, showing areas of proposed investigation

Summary

This Written Scheme of Investigation (WSI) details a programme of archaeological mitigation to be undertaken by Archaeology Wales at the request of Davies Homes.

The archaeological mitigation will consist of a watching brief, and will be undertaken during ground works associated with the proposed development of 19 new dwellings with associated works at Plot D7A, Langdon Road, Swansea centred on SS 67057 93046. The associated Planning Application No. is 2017/0146/FUL.

This site lies in an area of important industrial development associated with the 19th century Prince of Wales Dock to the south. Earlier industrial development at the head of the Tennant Canal is also noted to the south, along with the potential for palaeo-environmental evidence in this former coastal area. Adjacent archaeological investigations have apparently uncovered structural remains associated with former land use.

Consequently Glamorgan-Gwent Archaeological Trust-Curatorial Division, in its capacity as archaeological advisors to the Local Planning Authority, recommended a programme of archaeological mitigation on the proposed development.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

1. Introduction and planning background

This WSI details the methodology for a programme of archaeological mitigation (watching brief) to be undertaken in association with the proposed development of 19 new dwellings with associated works at Plot D7A, Langdon Road, Swansea centred on SS 67057 93046. (Figure 1 and 2). The associated Planning Application No. is 2017/0146/FUL.

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This WSI has been prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd (henceforth - AW) at the request of Davies Homes.

The methodology set out in this WSI has been agreed with Glamorgan-Gwent Archaeological Trust – Curatorial Division (GGAT-CD) in its capacity as archaeological advisors to the local planning authority (The City and County of Swansea). GGAT-CD has recommended that a programme of archaeological mitigation of the development area is undertaken prior during ground works associated with the

development to mitigate the impact of the proposed development on the archaeological resource.

The recommendations made by GGAT-CD are set out in a letter to the local planning authority dated 19th April 2017. As a result a Condition has been attached to the planning permission for the development, which reads:

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority.

Reason: To identify and record any features of archaeological interest discovered during the works, in order to mitigate the impact of the works on the archaeological resource.

The purpose of the archaeological mitigation (watching brief) is to provide the local planning authority with sufficient information regarding the nature of archaeological remains on the site of the development, the requirements for which are set out in Planning Policy (revised edition 9, 2016), Section 6.5 and Technical Advice Note (TAN) 24: The Historic Environment (2017). The work is to ensure that all buried artefacts and deposits are fully investigated and recorded if they are disturbed or revealed as a result of activities associated with the development.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIfA.

2. Site Description

The site lies on Landon Road, within the SA1 area on the eastern side of Swansea, South Wales. The site currently comprises an area of levelled ground bounded by Langdon Road to the south, a local road to the east, The Village Hotel and car park to the north, and further development land to the west.

The surrounding area is one of largely modern development in the SA1 area, including new residential areas, as well as commercial and office space, with some industrial, warehouse and storage areas surrounding Prince of Wales Dock, which lies a short distance to the south. The Prince of Wales Dock forms a series of docks on the eastern side of the mouth of the River Tawe as it opens out into Swansea Bay and the Bristol Channel to the south. To the north lies the residential areas of Port Tennant and St Thomas, with the area bisected by the A483.

The underlying geology of the area comprises a mix of mudstone, siltstone and sandstone of the South Wales Middle Coal Measures Formation. This is overlain by raised storm beach deposits of sand and gravel (BGS 2017).

3. Archaeological background

The site lies on the edge of an area examined as part of an archaeological desk-based assessment undertaken on the Prince of Wales Dock Area (Bowen 2011), which contains a detailed historical background to the development of the area.

19th century maps of the area would suggest that this site lay within enclosed agricultural land on the coastal fringes, with the mudflats of Fabians Bay to the southwest. To the south lay a small tidal inlet, and in 1824 the Tennant Canal, which ran from Aberdulais and Neath, was also completed alongside this inlet, accessing Fabians Bay and the mouth of the Tawe beyond. These waterways attracted industrial activity to the south of the site, largely in the form of coal wharves and the Port Tennant Copper Works between canal and coast beyond. This activity led to the gradual development of Port Tennant at the head of the tidal inlet, to the east of the site, otherwise the main settlement in the area was in St Thomas, to the northwest.

In the 1860s the Vale of Neath Railway was constructed through this area to access Swansea Docks. This would appear to have run in the immediate vicinity of the site. This area was transformed with the construction of the Prince of Wales Dock, incorporated in the Swansea Harbour Act of 1874. Works began in 1879, with the Docks officially opened in 1881, and opened to shipping the following year. This saw an explosion of industrial activity throughout the area, as a consequence of which the rail access to the area increased significantly. Ordnance Survey mapping from the late 19th century through to the mid 20th century show the development area being covered in multiple railway lines and embankments access the Dock and Swansea beyond.

These railway lines continued to access the docks until the 1960s and 1970s. In the early to mid-1970s some of these routes began to be cleared and by the late 1970s Langdon Road had been laid out, and warehouses and sheds had been laid out along the north side, across the development site. These modern warehouses and sheds were subsequently cleared and site levelled within the last 6 years.

Archaeological investigations in an adjacent plot did however uncover some structural remains relating to the previous land-use of the area, and deeper excavations to the east have also uncovered peat deposits of palaeo-environmental interest. There is considered therefore to be the potential for some archaeological remains to exist within the development site.

4. Objectives

This WSI sets out a program of works to ensure that the mitigation (watching brief) will meet the standard required by The Chartered **Institute for Archaeologist's Standard and Guidance for Archaeological Watching Briefs (2014)**.

The objective of the watching brief will be:

- to allow a rapid investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
- to provide the 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 are not sufficient to support the treatment to a satisfactory or proper standard.

A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted and reported.

The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

4.1. Site Specific Research Aims

It is important to recognize that whilst primarily designed to mitigate impacts, developer-led archaeology is also regarded as research activity with an academic basis, the aim of which is to add to the sum of human knowledge. Curators recognize the desirability of incorporating agreed research priorities as a means of enhancing the credibility of the development control process, ensuring cost-effectiveness and legitimately maximizing intellectual return.

A research framework for the archaeology of Wales has been produced, which has been under review since 2009. The main archaeological potential of this area could contribute to the themes laid out in *A Research Framework for the Archaeology of Wales Version 01, Final Paper: Industrial and Modern Wales (2007)*. For example, in the theme of 'Wales and the Wider World' the archaeological potential of this area could contribute to a better understanding of the significance coal and copper industries, and how these shaped the present landscape. Similarly in 'Transport Corridors' the potential for remains of the extensive railway infrastructure in this area could contribute to an understanding of the significance of the railways, and the development of the major engineered ports at Swansea. The significance, form and archaeological survival of transport corridors and dock systems is also highlighted in the most recent review documents (2016).

5. Timetable of works

5.1. Fieldwork

The programme of mitigation will be undertaken during ground works associated with the proposed development. A proposed start date has not yet been established. Archaeology Wales will update GGAT-CD with the exact date.

5.2. Report delivery

The report will be submitted to the client and to GGAT-CD within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional HER.

6. Fieldwork

6.1. Detail

The work will be undertaken to meet the standard required by The Chartered **Institute for Archaeologist's Standard** and Guidance for Watching Briefs (2014).

The watching brief will be carried out by a suitably qualified archaeologist on groundworks associated with the proposed development and associated works (stripping, levelling, foundation excavation, drainage and service excavation) where sub-surface deposits are likely to be exposed or cut into. Mechanical excavations will be undertaken by a tracked excavator using a toothless ditching bucket wherever possible.

The site archaeologist undertaking the watching brief will be afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundwork will not be undertaken without the presence of the site archaeologist. The site archaeologist will record finds and less significant archaeological deposits and features without significant delay to the work program.

Where significant or complex archaeological deposits or features are encountered there will be a requirement for those areas to be fenced off and highlighted to all contractors employed on the site. Machines or contractors shall not enter this area until archaeological recording has been completed. If significant archaeological features are revealed during the work a meeting between the client, GGAT-CD and AW will be called at the earliest convenience.

To comply with professional guidelines, a contingency for approximately **three days'** uninterrupted access to each such area and for a team of up to two further archaeologists to be employed should be provided. Dependent on the extent and significance of the archaeological remains uncovered, it may be necessary to increase these contingency arrangements. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between Archaeology Wales, the client and GGAT-CD.

6.2. Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

6.3. Finds

The professional standards set in the Chartered Institute for **Archaeologists' Standard and guidance for the collection, documentation, conservation and research of archaeological (2014)** will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

6.4. Environmental sampling strategy

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording and will **follow English Heritage's Guidelines for Environmental Archaeology (2002)**.

6.5. Human remains

In the event that human remains are encountered, their nature and extent will be established and the coroner informed. All human remains will be left *in situ* and protected during backfilling. Where preservation *in situ* is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered **Institute for Archaeologists' Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains: Technical Paper Number 13 (1993)**.

A meeting with GGAT-CD, the client and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (6.1 above) would not be of sufficient scope.

6.6. Specialist advisers

In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Flint	Kate Pitt (Archaeology Wales)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Hilary Major (Freelance)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York)/Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)
Charcoal (wood ID)	John Carrot (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Dr James Rackham
Charred and waterlogged plant remains	Wendy Carruthers (Freelance)

6.6.1. Specialist reports

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

7. Monitoring

GGAT-CD will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-CD for approval on behalf of Planning Authority.

Representatives of GGAT-CD will be given access to the site so that they may monitor the progress of the field evaluation. No area will be back-filled, until GGAT-CD has had the opportunity to inspect it, unless permission has been given in advance. GGAT-CD will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

8. Post-fieldwork programme

8.1. Archive assessment

8.1.1. Site archive

An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) upon completion of the project.

The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with ClFA Guidelines (*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, 2014). The legal landowners consent will be gained for deposition of finds.

8.1.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. This will result in the following inclusions in the final report:

- Non-technical summary
- Location plan showing the area/s covered by the watching brief, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development

- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

8.2. Reports and archive deposition

8.2.1. Report to client

Copies of all reports associated with the mitigation (watching brief), together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to the client and GGAT-CD upon completion.

8.2.2. Additional reports

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and, if appropriate, Cadw.

8.2.3. Summary reports for publication

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

8.2.4. Notification of important remains

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

8.2.5. Archive deposition

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts.

Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to GGAT-CD.

8.2.6. Finds deposition

The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal land owners.

9. Staff

The project will be managed by Philip Poucher (AW Project Manager) and the fieldwork undertaken by suitably qualified and experienced AW staff. Any alteration to staffing before or during the work will be brought to the attention of GGAT-CD and the client.

Additional Considerations

10. Health and Safety

10.1. Risk assessment

Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations 1992*. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

10.2. Other guidelines

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

11. Community Engagement and Outreach

Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.

The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.

Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

12. Insurance

AW is fully insured for this type of work, and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

13. Quality Control

13.1. Professional standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for **Archaeologists' Code of Conduct**, *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological watching briefs* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

13.2. Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

14. Arbitration

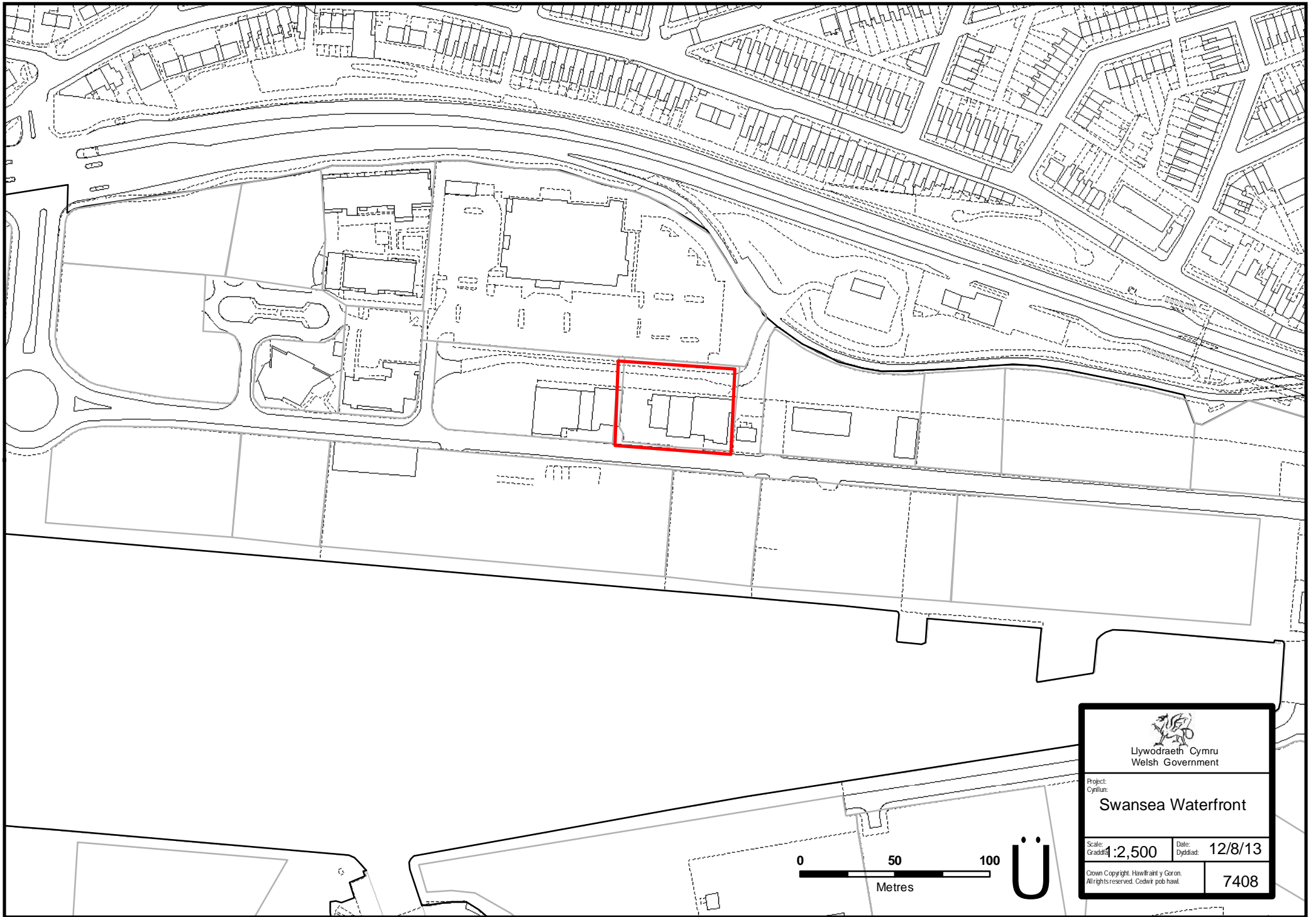
Disputes or differences arising in relation to this work shall be referred for a decision **in accordance with the Rules of the Chartered Institute of Arbitrators' Arbitration Scheme for the Institute for Archaeologists** applying at the date of the agreement.



Figure 1: Location map, 1:25,000 @ A4

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Llywodraeth Cymru
Welsh Government

Project:
Cynllun:

Swansea Waterfront

Scale:
Graddfa: 1:2,500

Date:
Dyddiad: 12/8/13

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