



Castle Road Battery Energy Storage System (BESS)

Burton, Rhoose, Vale of Glamorgan

Written Scheme of Investigation

December 2024

Report

Written Scheme of Investigation

Site

Land north of Castle Road, Rhoose, Vale of Glamorgan, Wales, CF62 3BJ

Client

REWE 7 Ltd

Planning Authority

Vale of Glamorgan Council

Planning Ref

Pre-Application

Grid reference

ST 03690 67655

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0.1	Initial Draft		19/12/2024

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Every effort is made to provide detailed and accurate information, however, Rocket Environmental Services Ltd cannot be held responsible for errors or inaccuracies within this report.

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Executive Summary

This Written Scheme of Investigation (WSI) has been produced by Rocket Environmental Services Ltd on behalf of REWE 7 Ltd. It outlines the archaeological work required to support a planning application for the development of a Battery Energy Storage System (BESS) at land north of Castle Road, Rhoose, Vale of Glamorgan, Wales, CF62 3BJ centred at NGR ST 03690 67655.

The proposal is for an Archaeological Evaluation by Trial Trenching, in advance of planning permission for the installation of a BESS Site

A geophysical survey over the 10.5ha Site was conducted by SUMO GeoSurveys in October 2024. The magnetometry survey identified potential archaeological features, including pits, trackways, and ditches, along with ridge and furrow patterns. Significant medieval activity is evident in the vicinity, with structures, pottery, and earthworks suggesting settlement and agricultural use, while the Site lies close to the Llancadle Deserted Medieval Village and other historic assets. Post-medieval finds include pottery and a clay pipe within the Site, with nearby industrial and agricultural features like Aberthaw Cement Works and historic mills.

This WSI is a design document that outlines the methodology, including the approach to fieldwork, reporting, archiving and dissemination of the results of the work. It conforms to the requirements of current national and local planning policy and has been designed in accordance with current best archaeological practice.

The archaeological scheme of works will comprise a programme of archaeological field evaluation which entails the excavation of trenches, 20no measuring 50m x 2m. It is anticipated that the work will take approximately 6-7 working days.

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1. Introduction

1.1.1. This Written Scheme of Investigation (WSI) sets out the scope and methodology for the development of a battery energy storage system (BESS) at land north of Castle Road, Rhoose, Vale of Glamorgan, Wales, CF62 3BJ centred at NGR ST 03690 67655 (Figure 1).

1.1.2. This WSI is a design document that outlines the methodology, including the approach to fieldwork, reporting, archiving and dissemination of the results of the work. The WSI conforms to the requirements of current national and local planning policy including the Planning Policy Wales Edition 12 (2024). It has been designed in accordance with current best archaeological practice, the Standard for archaeological field evaluation (CIfA 2023a), and the Universal guidance for archaeological field evaluation (CIfA 2023b).

1.1.3. The archaeological work will consist of an archaeological trial trenching evaluation and take the form of 2% coverage of all development land and equates to 20no. 50m x 2m trenches. The trench plan can be seen in Figure 2 and Figure 3.

1.1.4. The Proposed Development comprises the installation of a battery energy storage system (BESS). The trial trenching evaluation is being carried out as part of the process to support the planning application for the Proposed Development.

2. Capability Statement

2.1.1. Rocket Environmental Services provides archaeological and heritage consultancy and contracting services, carrying out work in support of planning requirements.

2.1.2. All company personnel will abide by the Chartered Institute of Archaeologists' (CIfA) Code of Conduct (2022). The project will be managed by Peter Klemen, Associate Director for Archaeology. Peter has worked on, managed and supervised a wide range of schemes across the United Kingdom over a 20-year period.

2.1.3. Suitably qualified and experienced members of our field team will also be assigned to the project.

3. Location, Topography and Geology

3.1.1. The Site is north of Rhoose, Vale of Glamorgan, Wales. The village is located c. 2.3km west of Barry and c. 8.7km southeast of Cowbridge.

3.1.2. The Site is consisting of two agricultural fields and covers an area of 10ha and located c. 1.2 km northwest of Rhoose's urbanised area. These are currently in use as arable land. The fields are bounded by a treeline along the B4265 to the north, Castle Road to the south and a track road linking the two to the east. The western boundary consists of Fontygary Road to the south and the limits of a private property to the north.

3.1.3. The Site is between 15m and 31m above Ordnance Datum (aOD). It slopes from the higher areas in the south downwards towards the north.



- 3.1.4. The underlying bedrock geology of the Site consists of interbedded limestone and mudstone of the Porthkerry Member Formation, a sedimentary bedrock formed between 201.3 and 190.8 million years ago during the Jurassic period.

4. Archaeological and Historical Background

- 4.1.1. A geophysical survey report was produced by SUMO GeoSurveys in October 2024. The archaeological and historical background outlined below summarises the findings from this report with additional records from the HER data.

Prehistoric

- 4.2. Two sub-round ditches, interpreted as potential prehistoric features, were identified approximately 170m north of the Site through aerial photographs in 1975. However, a subsequent field survey conducted in 1999 found no evidence to substantiate the presence of a prehistoric monument at this location (GGAT 02417s). A few metres north, the remains of two potential prehistoric enclosures were also recorded (GGAT 02406s, 02943s). A prehistoric field system or enclosure group was also identified around 200m east of the Site, now intersected by the B4265 road.

- 4.2.2. There are no recorded prehistoric finds or features within the Site.

Roman

- 4.3. Roman finds in the area are limited to a single sherd of pottery that was recovered during a fieldwalking survey conducted in 2001, approximately 140m north of the northeastern corner of the Site.

- 4.3.1. There are no recorded Roman finds or features within the Site.

- 4.3.2. **Early Medieval and Medieval**

- 4.4. HER data indicates significant medieval activity within the area of the Proposed Development and its surroundings. The Site lies near to Burton farmstead, depicted on early survey maps (GGAT 06926s). Additional finds include medieval middens and pits containing 12th to 15th century pottery discovered during road widening works north of the B4265 (GGAT 01008s). The remains of a possible medieval house platform or enclosure was identified within the northeast corner of the Site during a 2000-2001 field survey (GGAT 01906s). Approximately 50m west of the northern portion of the Site, the remains of a long hut measuring 6m x 12m in a quadrangular embanked enclosure were identified. This structure, dated to the late 13th to early 14th century, was associated with medieval pottery shards (RCAHMW 15247). Other records suggest the presence of ridge-and-furrow earthworks and other agricultural features (GGAT 08117s). Evidence of an historic dry-stone wall and remains of enclosures near the Site (GGAT 01906s) further highlights medieval agricultural and settlement activity in the group of fields that compose the Site.

- 4.4.2. The Site is located approximately 215m south of the Scheduled Monument, Llancadle Deserted Medieval Village (GAAT 00691s), a site characterised by the remains of earthworks, platforms and building footings. Other medieval listed assets nearby include the East Orchard complex (GM082) and Fonmon Castle Grade II Listed Registered Park and Garden, which encompasses seven



associated Listed Buildings, including the Grade I Listed Fonmon Castle, dated to the 11th century (LB 13597).

- 4.4.4. No early medieval and medieval designated historic assets are recorded within the Site.

4.5. Post-Medieval and Modern

- 4.5.1. Numerous post-medieval structures remain within the landscape surrounding the Site. These include Aberthaw Cement Works, located c. 200m to the west, and remains of historic mills associated with the Afon Ddawan, c. 300m to the west.

- 4.5.2. A fieldwalking survey conducted within the Site yielded 16 sherds of post-medieval pottery and a fragment of clay pipe (GGAT 03368s).

- 4.5.3. No post-medieval designated historic assets are recorded within the Site.

4.6. Geophysical Survey

- 4.6.1. A geophysical survey was conducted over the area of the proposed development by SUMO GeoSurveys in October 2024. Interpretation of the magnetic data suggest features of potential archaeological interest in the southwest area of the Site. These could represent pits, trackways, ditches and/or enclosures. Linear trends and discrete anomalies were identified and can either have archaeological origins or result from variations in the underlying geology.

- 4.6.2. The survey also detected linear responses corresponding to former field boundaries visible on historic mapping and ridge and furrow patterns, indicative of agricultural practices spanning the early medieval to post-medieval periods. Several other anomalies were recorded across the Site, but these are likely attributable to geological factors.

5. Aims & Objectives

5.1. Aims

- 5.1.1. The aim of the field evaluation is to achieve an understanding of archaeological remains within a designated area through intrusive fieldwork. It seeks to determine the presence or absence of significant features, structures, deposits, artefacts, or ecofacts. This comprehensive evaluation will extend to assessing the nature, extent and preservation status of these archaeological elements, with the goal of understanding their historical and cultural significance (CIfA 2023a, CIfA 2023b).

5.2. Objectives

- 5.2.1. The objective of a field evaluation is to follow a precise project design for the implementation of a programme of intrusive fieldwork methods for the systematic identification, recording and documentation of archaeological deposits, providing detailed information on the nature, extent, and preservation status of identified archaeological remains, and the subsequent analysis of recorded data to evaluate the significance of findings in the context of historical and cultural importance. The outcomes will be encapsulated in a comprehensive report and supported by the establishment of an accessible archive for future research (CIfA 2023a, 2023b).



5.3. Research Framework

- 5.3.1.** Alongside the general objectives stated above, the results of the works have the potential to contribute to the Research Framework for the Archaeology of Wales (<https://archaeoleg.org.uk/>) by answering questions about selective landscape use, during the Medieval period, for agricultural or other activities. The results may also help to shed light upon the origin and development of dispersed hamlets and farms in rural areas during the medieval to post-medieval periods. And the results may also contribute to the improvement of our understanding of the landscape enclosures, improvement and the interrelationship between arable, pasture, woodland, commons and waste across the same time period.

6. Health and Safety

- 6.1.1.** The work will be carried out pre-construction and is not, therefore, subject to Construction (Design and Management) Regulations (CDM 2015) as outlined by the Federation of Archaeological Managers and Employers (FAME).
- 6.1.2.** The client will provide information on all health and safety and ecological constraints before the commencement of site works.
- 6.1.3.** A Risk Assessment Method Statement (RAMS) will be completed for the works prior to commencement. Rocket Environmental Services Ltd will be responsible for on-site security, health and safety, plant and welfare.
- 6.1.4.** Rocket Environmental Services Ltd abides by the 1974 Health and Safety Act, and its subsequent applicable statutory amendments, including the Management of Health and Safety at Work Regulations 1999, the 2015 Construction Design and Management Regulations, RIDDOR 2013, and the Control of Asbestos at Work Regulations 2012.
- 6.1.5.** Rocket Environmental Services Ltd will always provide qualified First Aiders and first aid supplies during work. Staff present on site will be required to wear the appropriate Personal Protective Equipment (PPE), as identified in the RAMS.
- 6.1.6.** There is a high voltage overhead cable that runs across the site from northeast-southwest. As such, a 10m buffer either side of the overhead cable will be used to prevent any excavation underneath or within close distance to the overhead cable(s).
- 6.1.7.** If access for machinery is possible to either side of the proposed development area without going underneath the overhead cables this mode of site access will be used. If this is not possible goalposts will be set up and defined areas for crossing will be instigated.

7. Access

- 7.1.1.** Site access will be arranged by client or their representative at least one week before site works commence. Rocket Environmental Services Ltd will be notified if access arrangements change prior to or during the archaeological works. If areas expected to be accessible are not available for any reason, GGAT Archaeological Unit will be informed as soon as possible.



8. Methodology

- 8.1.1. The works will be conducted in accordance with ClfA's Standard and Guidance for field evaluation and Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2015a).

8.2. Field Evaluation

- 8.2.1. The evaluation will take the form of 2% coverage of all development land and equates to 20no. 50m x 2m trenches, to demonstrate the presence or absence of archaeology. The trench plan can be seen in Figure 2 and Figure 3. The layout is based on the results of the previous geophysical survey.
- 8.2.2. Trenches will be opened under constant archaeological supervision using a 21-tonne mechanical excavator fitted with a toothless ditching bucket. Excavation will continue to the uppermost archaeological horizon. Thereafter all excavation work will be undertaken by hand, where it is safe to do so. Care will be taken to ensure that the machining does not impact any shallow archaeological remains. All trenches will be opened within 3 working days. Once recorded and sign-off is granted by the Planning Archaeologist(s), sterile trenches will be backfilled immediately.
- 8.2.3. The location of the excavated area and features within it will be planned with hand-drawn plans. These will be drawn at a scale of 1:20 and sections at a scale of 1:10. All plans and sections will include the Ordnance Datum (OD) height of principal features and will be tied to the Ordnance Survey National Grid.
- 8.2.4. All exposed archaeological deposits and features will be recorded by context using a proforma recording system compatible with the single context recording methods of the Museum of London (MoLAS 1994). Registers will be kept of all photographs, levels, plans, sections, finds and samples taken in the field. A stratigraphic matrix will be produced for the site, where appropriate.
- 8.2.5. In the unlikely event that remains of very high significance warranting preservation in situ are identified, Planning Archaeologist(s) will be informed immediately, and appropriate measures will be taken to protect such remains from any damage or deterioration.
- 8.2.6. Digital colour photography of features will be undertaken with a minimum resolution of 10 megapixels and in line with Historic England guidance (Historic England 2015b). Photographs will include a scale bar and north arrow as appropriate. General record images to show site progress will also be taken.

8.3. Scientific Dating

- 8.3.1. Where suitable material is recovered, samples will be taken for radiocarbon dating. The use of other dating techniques will be considered in discussion with the Historic England Regional Science Advisor if appropriate.

8.4. Palaeoenvironmental Sampling

- 8.4.1. Where palaeoenvironmental potential is identified, bulk samples of 20 litres for wet and 40–60 litres for dry contexts of will be taken. Industrial residues and waste from craft and manufacturing processes will also be sampled. Samples will be collected from the fills of stratigraphically secure features and deposits only. Sampling methods will follow Historic England guidelines (2011).



8.5. Finds

- 8.5.1. Finds will be carefully recovered by hand and bagged or boxed according to type, with a label indicating the site code, find type and context reference number. Particularly notable artefacts will be recorded in three dimensions. Artefacts will be removed from the site to a secure location at the end of the working day.
- 8.5.2. The recovery and retention of finds and samples will be reviewed on-site to ensure retention is guided by their ability to inform the evaluation report, and material may be discarded following discussions with an appropriate specialist.
- 8.5.3. Initial conservation and storage will follow First Aid for Finds (Leigh et al 1998) and the ClfA 'Standard and Guidance for the collection, documentation, conservation and research of archaeological materials' (ClfA 2020b). If necessary, an appropriately qualified and experienced archaeological conservator will be appointed to advise and assist in the lifting and storage of fragile materials.
- 8.5.4. Finds will be washed and then marked in accordance with the project archive repository guidelines. All finds of objects definable as 'treasure' under the Treasure Act 1996, will be removed to a safe place and reported to the local Coroner according to the procedures of the Treasure Act 1996 and the Treasure (Designation) Order 2002.

8.6. Human remains

- 8.6.1. Human remains are not expected. If any human remains are encountered, a licence will be obtained from the Ministry of Justice (in accordance with Section 25 of the Burial Act 1857). The client and the GGAT Archaeological Unit will be informed and, if required, the attendance of an osteologist will be arranged to agree a strategy for recording and excavation in line with current standards and guidance (Historic England 2018).

9. Ownership of Finds

- 9.1.1. The landowner has ownership of any finds discovered on the site (this does not include human remains) and must therefore give permission for the donation of any finds to the repository in which the project archive is deposited. This enables the repository to curate the finds, in perpetuity, as part of the project archive.
- 9.1.2. Permission will be confirmed by the completion of a Deed of Transfer form. The Client (or their agent) will arrange for the landowner to sign a Deed of Transfer Form before completion of reporting.

10. Reporting

- 10.1.1. All reports will include a non-technical summary, project design or appropriate references to it, details on aims, objectives, and methods used (including any deviations from the project design), results aligned with the research aims, illustrations, plans, and essential technical details providing accurate spatial information, conclusions with a confidence rating on techniques used, recommendations for further work, archive locations (if known), a bibliography and a list of all sources used (ClfA 2023b).



10.1.2. The following specialists will be called on, as necessary and subject to availability, to examine, process and record the excavated material in line with the relevant technical standards and guidance (eg. Historic England guidance).

• medieval /post-medieval pottery	Dr Chris Cumberpatch
• Roman pottery	Dr David Griffiths
• prehistoric pottery	Dr David Griffiths
• animal bone	Dr Hannah Russ
• medieval / post-medieval artefacts	Dr Elizabeth Foulds
• coins and tokens	Dr Elizabeth Foulds
• other artefacts	Dr Hannah Russ
• slag and industrial residues	Dr Elizabeth Foulds
• palaeoenvironmental remains	Dr Hannah Russ
• conservation	Vicky Garlick
• human bone	Natasha Powers

10.1.3. A digital copy of the final report will be submitted to the GGAT Team for approval, prior to its submission to the Local Planning Authority.

11. Publication and Dissemination

11.1.1. One digital copy of the final report will be submitted to the Glamorgan-Gwent Archaeological Trust (GGAT) for inclusion in HER.

11.1.2. Recommendations for publication will be made following the completion of the site works. The nature and extent of the publication will be dependent on the nature and significance of the results of the work.

11.1.3. If appropriate, provision will be made for the presentation of results in non-academic publications and/or for updates on the results to be provided via the Rocket Environmental Services Ltd website or social media.

12. Archival

12.1.1. Upon completion of all site works and reporting, the archive will be deposited in the appropriate repositories as recommended by GGAT. Materials will be selected with reference to the ClfA Archive Selection Toolkit as appropriate.

12.1.2. The site archive will be quantified, ordered and indexed and will be prepared according to the following standards and guidance:

- National Panel for Archaeological Archives in Wales (2019)
- Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) (2018)
- Archaeological Archive Forum (2011) Archaeological Archives: a guide to best practice in creation, compilation transfer and curation
- Chartered Institute for Archaeologists (2020a) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives
- Society for Museum Archaeology (2020) Standards and Guidance in the Care of Archaeological Collections
- United Kingdom Institute for Conservation (19900) Guidelines for the preparation of excavation archives for long term storage



- United Kingdom Institute for Conservation (2001) Excavated Artefacts and Conservation

13. Archwilio

- 13.1.1. Archwilio is a Wales-wide database of archaeological and historical information.
- 13.1.2. An Archwilio submission form will be completed for this project. After validation by the project report will become a publicly accessible document on the Welsh Historic Environment Records (WHER).

14. Copyright

- 14.1.1. Copyright in the project report will rest with Rocket Environmental Services Ltd unless specific arrangements are made for its assignment elsewhere. GGAT Archaeology Team will have permission to use the report for the purposes of the HER. This may include photocopying by third parties. Copyright of the written archive will be vested in the project archive repository at such a time that deposition is possible.

15. Programme and Resources

- 15.1.1. It is anticipated that the site work will take approximately 6-7 working days. Reporting will be completed within 4 working weeks of the end of all site work.

16. Monitoring

- 16.1.1. GGAT Archaeology Team will be given two weeks' notice in writing of the commencement of fieldwork and will be allowed access to the site at all reasonable times. Key decisions on excavation strategy and any variance in the scope of work from that outlined in this WSI will be made in consultation with GGAT Archaeology Team. Visits by GGAT Archaeology Team will be arranged so that they are satisfied that the works are conducted to professional standards.



Sources

Websites

British Geological Society (BGS) Geology of Britain Viewer - www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

A Research Framework for the Archaeology of Wales - <https://www.archaeoleg.org.uk/>

Archwilio Historic Environment Records of Wales: <https://archwilio.org.uk/her/chi3/arch.php?county=Vale%20of%20Glamorgan&lang=eng>

Bibliographic

Archaeological Archive Forum, 2011, Archaeological Archives: a guide to best practice in creation, compilation transfer and curation

Chartered Institute for Archaeologists (CIfA), 2023a, Standard for archaeological field evaluation

Chartered Institute for Archaeologists (CIfA), 2023b, Universal guidance for archaeological field evaluation

Chartered Institute for Archaeologists, (CIfA), 2022, Code of Conduct

Chartered Institute for Archaeologists (CIfA), 2020a, Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives, Reading

Chartered Institute for Archaeologists, (CIfA), 2020b, Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

Chartered institute for Archaeologists (CIfA), 2020c, Standard and guidance for archaeological geophysical survey

Department for Levelling Up, Housing and Communities (DLUHC), 2023, National Planning Policy Framework

GGAT, 2018, Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)

Health and Safety Executive (HSE), 2015, Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015) London

Historic England, 2018, The Role of the Human Osteologist in an Archaeological Fieldwork Project. Swindon. Historic England

Historic England, 2015a, Management of Research Projects in the Historic Environment (MoRPHE)

Historic England, 2015b, Digital Image Capture and File Storage: Guidelines for Best Practice

Historic England, 2011, Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation

Leigh D, Watkinson and Neal V 1998, First Aid for Finds: Practical Guide for Archaeologists

Museum Federation Cymru, 2019, National Panel for Archaeological Archives in Wales

Museum of London Archaeology Service (MoLAS), 1994, Archaeological Site Manual

Planning Policy Wales, Edition 12 (February 2024), Welsh Government



United Kingdom Institute for Conservation, 1990, Guidelines for the preparation of excavation archives for long term storage

United Kingdom Institute for Conservation, 2001, Excavated Artefacts and Conservation. (United Kingdom Institute for Conservation, Conservation Guidelines No 1, revised)

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A. and Fassbinder, J., 2016, EAC Guidelines for the Use of Geophysics in Archaeology

Society for Museum Archaeology, 2020, Standards and Guidance in the Care of Archaeological Collections

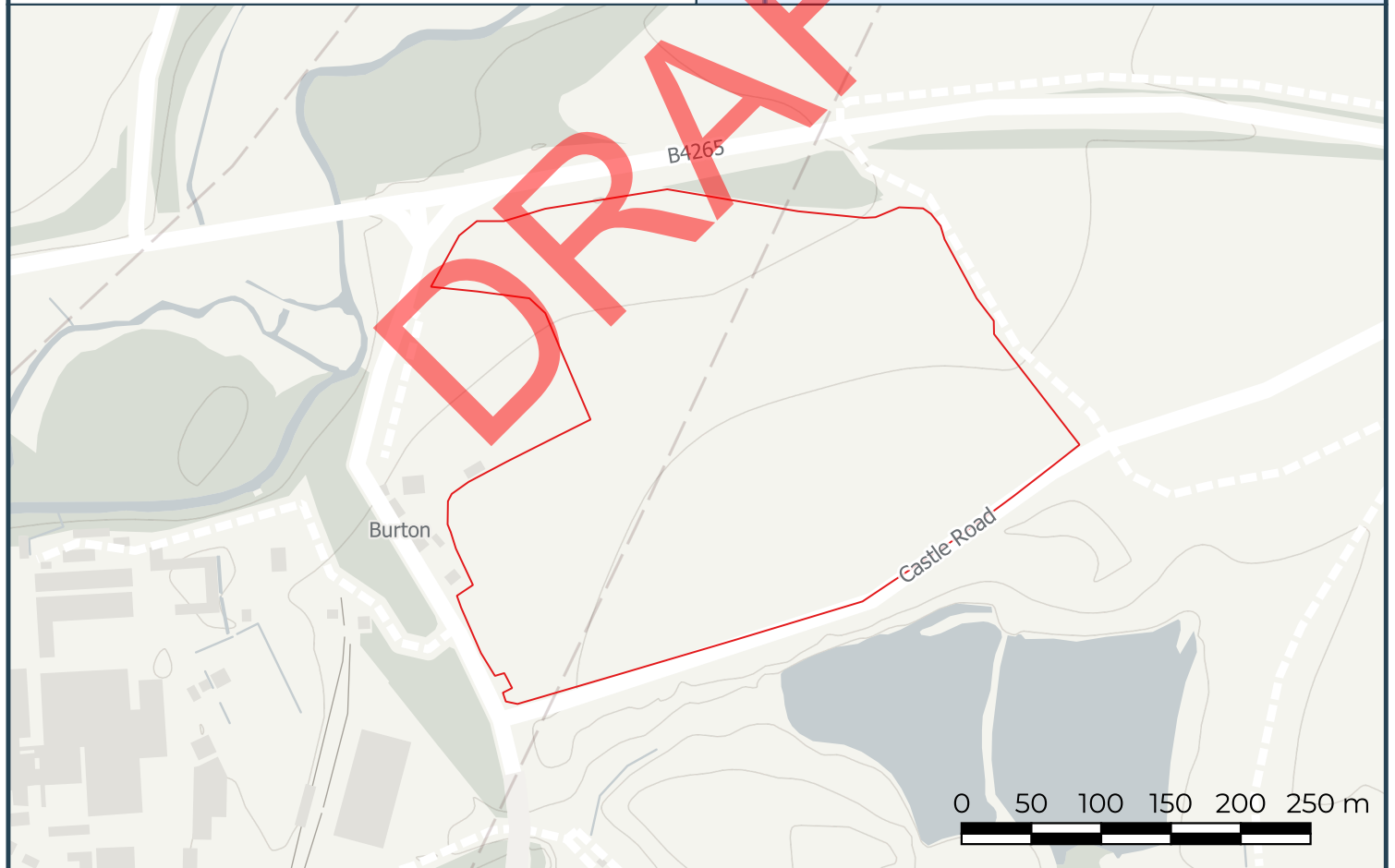
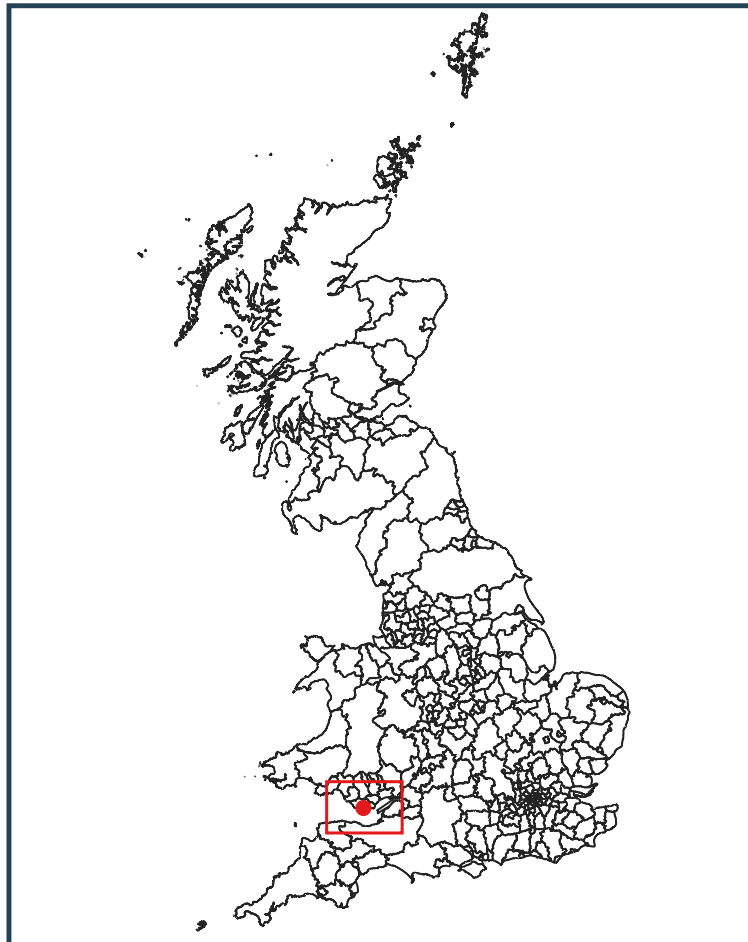
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Appendix A: Figures

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Title:
Figure 1: Site Location
Address:
Land north of Castle Road, Rhoose, Vale of Glamorgan, Wales



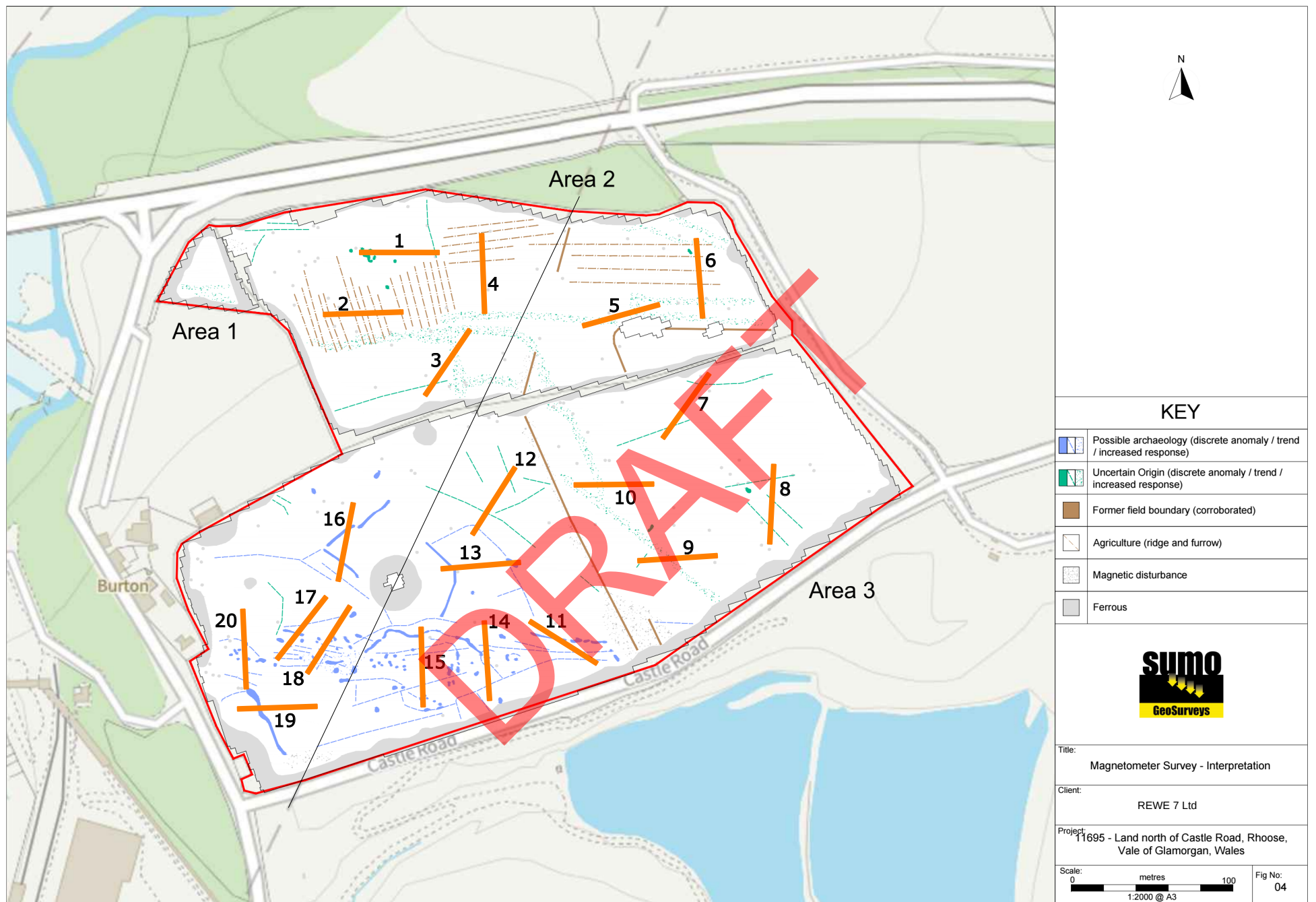


Figure 2: Trench Plan Overlain on Geophysical Survey Map

Site: Land north of Castle Road, Rhoose, Vale of Glamorgan, Wales

