

Goetre Primary School Solar Site, Merthyr Tydfil

Archaeological and Heritage Desk-based Assessment

Prepared by:

The Environmental Dimension Partnership Ltd

On behalf of: **Morgan Sindall** 

May 2024

Report Reference edp7081\_r004a

#### **Document Control**

#### **DOCUMENT INFORMATION**

Client	Morgan Sindall
Report Title	Archaeological and Heritage Desk-based Assessment
<b>Document Reference</b>	edp7081_r004a

#### **VERSION INFORMATION**

	Author	Formatted	Peer Review	Proofed by/Date
004_DRAFT	МВа	CTi	RSk	-
004a	МВа	-	-	FMi 220524

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### **Executive Summary**

- S1 This report has been prepared by The Environmental Dimension Partnership Ltd (EDP) and presents the results of an Archaeological and Heritage Desk-based Assessment (DBA). It has been produced to accompany proposals for a solar farm development.
- S2 The Site does not contain any 'designated historic assets' (i.e. World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Historic Parks and Gardens). As such, no designated historic assets would be physically affected by the Proposed Development within the Site.
- No impacts have been identified to the significance of designated historic assets nor to that of non-designated Locally Listed Buildings within the Study Area from change within their settings by the Proposed Development.
- A very low potential has been identified for prehistoric to medieval remains and a moderate potential for post-medieval and modern remains. Remains within the Site would most likely be associated with past agricultural practices such as infilled furrows, land management practices in the form of drainage ditches and culverted services and building remains associated with a mid-1980s compound within the far east end of the Site. Such remains, if present, would be up to low or local significance and not merit preservation *in situ*.
- The Site is located within the Merthyr Tydfil Landscape of Outstanding Historic Interest (LOHI). The assessment concludes that the proposals would diverge from the character of the LOHI in the local Historic Landscape Character Area, but such change would be at a small-scale and not detract from or destroy the LOHI's characteristic industrial heritage, nor amount to a large-scale change to the existing urban residential character of the Gurnos and Galon Uchaf estates that would result in an adverse effect to the significance of LOHI as a whole. As such the Proposed Development would have a neutral effect on the LOHI.

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### **Crynodeb Gweithredol**

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- Mae`r adroddiad yma wedi ei baratoi gan The Environmental Dimension Partnership Ltd (EDP) ac yn cyflwyno canlyniadau yr Asesiad Desg Hynafiaethol a Threftadaeth. Mae wedi ei gynhyrchu i gyd-fynd gyda chynnig ar gyfer datblygiad fferm solar.
- S2 Nad yw'r safle yn cynnwys unrhyw asedau hanesyddol dynodedig (hynny yw Safleoedd Treftadaeth y Byd, Henebion Cofrestredig, Adeiladau Rhestredig, Ardaloedd Gadwraeth, Parciau a Gerddi Hanesyddol Cofrestredig). Felly, ni fyddai unrhyw asedau hanesyddol dynodedig yn cael eu heffeithio'n ffisegol gan y Datblygiad Arfaethedig o fewn y Safle.
- S3 Nad oes unrhyw effeithiau wedi nodi i arwyddocâd yr asedau hanesyddol dynodedig nac i Adeiladau Rhestredig Lleol sydd heb eu dynodi yn yr Ardal Astudiaeth o newid yn eu gosodiadau gan y Datblygiad Arfaethedig.
- Mae potensial isel iawn wedi ei nodi ar gyfer olion cynhanesyddol i'r canol oesoedd a photensial cymedrol ar gyfer olion ôl-ganoloesol a modern. Mae olion o fewn y Safle yn debygol o fod yn gysylltiedig gydag arferion amaethyddol y gorffennol megis blewau wedi'u llenwi, arferion rheoli tir ar ffurf ffosydd draenio a gwasanaethau wedi'u twneli ac olion adeiladad sy'n gysylltiedig â chyfansoddyn o ganol yr 1980au yn ardal ddwyreiniol bellaf y Safle. Byddai gweddillion o'r fath, os ydynt yn bresennol, efo arwyddocâd isel neu leol o bosib ac nid ydynt yn haeddu cael eu cadw yn y fan a'r lle.
- Mae`r Safle wedi ei leoli o fewn Tirwedd o Ddiddordeb Hanesyddol Eithriadol (TDdHE) Merthyr Tudful. Mae`r asesiad yn cloi gan ddatgan fod y datblygiad yn ymwahanu oddi wrth gymeriad y TDdHE o fewn yr Ardal Gymeriad Tirwedd Hanesyddol leol, ond byddai`r newid o'r fath ar raddfa fach ac ni fydd yn amharu neu`n distrywio treftadaeth ddiwydiannol nodweddiadol y TDdHE, ac ni fydd newid ar raddfa fawr i gymeriad preswyl trefol presennol ystadau'r Gurnos a Chalon Uchaf a fyddai'n arwain at effaith gwrthwynebus ar arwyddocâd y TDdHE gyfan. Byddai'r Datblygiad Arfaethedig yn cael effaith niwtral ar y TDdHE.

# Section 1 Introduction

- 1.1 This report has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Morgan Sindall (hereafter referred to as 'the Client') and presents the results of an Archaeological and Heritage Desk-based Assessment (DBA) of land to the north of Goitre Lane, Merthyr Tydfil (hereafter referred to as 'the Site'). It has been produced to accompany a planning application for a new solar farm within the Site (hereafter referred to as 'the Proposed Development'). The Proposed Development is associated with an adjacent new primary school proposal, situated to the west of the Site.
- 1.2 This report follows the aims and objectives set out in a Written Scheme of Investigation (WSI) (edp7081\_r003). The WSI was approved by Glamorgan Gwent Archaeological Trust (GGAT) on 23 April 2024.
- 1.3 The first aim of this assessment is to consider the available historical and archaeological resources for the Site and to establish its likely potential to contain historic assets in accordance with Welsh Government guidance in Planning Policy Wales (PPW) Edition 12, Technical Advice Note 24 (TAN 24) and local planning policy.
- 1.4 In accordance with best practice guidance, desktop sources have been augmented through the completion of a heritage walkover of the Site, undertaken in December 2023.
- 1.5 The second aim of this assessment is to identify and assess possible changes to the setting of surrounding historic assets as a result of the Proposed Development, and to determine whether, and to what extent, those changes will affect their heritage significance.
- 1.6 The report also assesses the potential for change to the character of the Merthyr Tydfil Landscape of Outstanding Historic Interest (LOHI).

#### SITE DESCRIPTION

- 1.7 The Site is approximately 2.4 hectares (ha) in extent and is centred on National Grid Reference (NGR) 305168, 208279. The Site's location and current conditions are shown on **Plan EDP 1**.
- 1.8 The Site is located to the north of Merthyr Tydfil, within Gurnos parish, which encompasses the Gurnos housing estate established from the mid-20<sup>th</sup> century. It is bound by a walking path, trees and playing fields associated with Pen y Dre High School to the north, residential buildings and rear gardens along First Avenue and Sixth Avenue roads to the east, the former now infilled 'Goitre Pond' wetland to the south and an area of sloping scattered trees and grassland to the west.
- 1.9 The current ground conditions within the Site predominantly comprise open grassland across the Site's sloping topography and hilltop within its eastern half (**Image EDP A1.1**) as well as clusters of dense vegetation (i.e. trees and shrubs) across its western half (**Image EDP A1.2**). Exceptions to this include a building platform and overgrown rubble

- within the north-east corner of the Site on the hilltop (**Image EDP A1.3**), areas of burning (**Image EDP A1.4**) and areas of fly tipping.
- 1.10 The British Geological Survey (BGS) records the solid geology of the Site as sandstone, part of the South Wales Lower Coal Measures Formation (BGS 2024). The solid geological formations recorded within the Site formed between 318-319 million years ago during the Langsettian Substage. Recorded superficial geological deposits across the Site comprise till (Diamicton) which was formed during the Devensian Stage between 0.118-0.116 million years ago (ibid).
- 1.11 The topography of the Site comprises sloping land. More specifically, a hilltop encompasses the north-east corner of the Site, while the remainder of the Site comprises north-south and north-east to south-west orientated downward slopes to the edge of the former 1960s-1970s infilled 'Goitre Pond' south-west of the Site. As a result, the Site's elevation descends from approximately 305m above Ordnance Datum (aOD) within the north-east end of the Site to approximately 295m aOD along the western edge of the Site.

#### PROPOSED DEVELOPMENT

1.12 The Proposed Development comprises a renewable energy development in the form of a solar farm adjacent to the newly proposed Goitre Primary School at Merthyr Tydfil. The layout of the Proposed Development is presented in **Appendix EDP 2**.

#### **CONSULTATION**

- 1.13 A WSI outlining the methodology and approach to this assessment as per best practice guidelines, was produced by EDP (edp7081\_r003) and circulated to GGAT for comment and approval. GGAT approved the WSI 23 April 2024.
- 1.14 The Site is located within the Merthyr Tydfil LOHI. Cadw and GGAT were consulted in March 2024 in respect of whether the assessment would be required to make recourse to the Assessment of the Significance of the Impact of Development on Historic Landscape (ASIDOHL2) methodology in order to assess the impact on the development proposals on the LOHI.
- 1.15 In subsequent correspondence both Cadw and GGAT acknowledged that the proposals would diverge from the pre-existing character of the Historic Landscape Characterisation Area (HLCA) in which it is located. However, due to the small-scale of the development and the proposals not requiring Environmental Impact Assessment, as per national planning policy, the Site and Proposed Development does not require an ASIDOHL to be prepared. Instead, it was agreed that consideration of the special character of the LOHI would be considered qualitatively within this Archaeological and Heritage Assessment with regard to the potential effects from development whilst making reference to the 2017 Cadw guidance The Settings of Historic Assets in Wales.

# Section 2 Legislation and Planning Guidance

#### **INTRODUCTION**

2.1 The following section summarises the key legislation and national/local planning policies which are of relevance to this assessment.

#### **LEGISLATION**

#### **Archaeology**

- 2.2 The Ancient Monuments and Archaeological Areas Act 1979 addresses the designation and management of scheduled monuments, providing for the maintenance of a schedule of monuments (and archaeological remains) which are protected.
- 2.3 The designation of archaeological and historic sites as scheduled monuments applies only to those that are deemed to be of national importance and is generally adopted only if it represents the best means of protection.
- 2.4 The 1979 Act does not address the concept of 'setting', just their physical remains, and, therefore, for scheduled monuments, the protection of 'setting' is a matter of policy in the same way it is for a conservation area.
- 2.5 In Wales, the written consent of the Welsh Minister is required for development that would impact upon a scheduled monument, and applications for Scheduled Monument Consent are submitted to Cadw, the Welsh Government's Historic Environment Service.

#### **PLANNING POLICY**

#### **National Planning Policy**

- 2.6 The Welsh Government published *Future Wales: The National Plan* 2040 on 24 February 2021 (Welsh Government 2021), which highlights in the foreword from the Minister for Housing and Local Government that it forms a "*framework for planning the change and development our country will need over the next two decades*".
- 2.7 In terms of the Welsh Government's objectives, the sixth 'Future Wales Outcomes' on page 55 states that:
  - "Development plans will have a forward thinking, positive attitude towards enabling economic development, investment and innovation. Increased prosperity and productivity will be pursued across all parts of Wales, building on current activity and promoting a culture of innovation, social partnership, entrepreneurialism and skills-development in sustainable industries and sectors. The culture, heritage and environment of Wales will play a positive, modern role in the economy by attracting the interest and expenditure of tourists and providing a distinctive and trusted brand for Welsh businesses."

- 2.8 National planning guidance concerning the treatment of the historic environment across Wales is detailed in Section 6.1 of Chapter 6 Distinctive and Natural Places of *Planning Policy Wales Edition Twelve* (PPW 12), which was published on 07 February 2024 (Welsh Government, 2024).
- 2.9 At paragraph 6.1.2, it identifies the historic environment as comprising individual historic features, such as archaeological sites, historic buildings and historic parks, gardens, townscapes and landscapes, collectively known as 'historic assets'.
- 2.10 At paragraph 6.1.6, the Welsh Government's specific objectives for the historic environment are outlined. Of these, the following is of relevance to the current assessment:

"Conserve archaeological remains, both for their own sake and for their role in education, leisure and the economy."

2.11 At paragraph 6.1.7, it is observed that:

"It is important that the planning system looks to protect, conserve and enhance the significance of historic assets. This will include consideration of the setting of an historic asset which might extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way."

2.12 As such, with regard to decision making, it is stated (at paragraph 6.1.9) that:

"Any decisions made through the planning system must fully consider the impact on the historic environment and on the significance and heritage values of individual historic assets and their contribution to the character of place."

#### **Archaeological Remains**

2.13 Moving on to the treatment of archaeological remains through the planning process, PPW 12 states at paragraph 6.1.23 that:

"The conservation of archaeological remains and their settings is a material consideration in determining planning applications, whether those remains are a scheduled monument or not."

2.14 It then adds at paragraph 6.1.24 that:

"Where nationally important archaeological remains are likely to be affected by proposed development, there should be a presumption in favour of their physical protection in situ. It will only be in exceptional circumstances that planning permission will be granted if development would result in a direct adverse impact on a scheduled monument (or an archaeological site shown to be of national importance)."

2.15 At paragraph 6.1.25 it states that:

"In cases involving less significant archaeological remains, planning authorities will need to weigh the relative importance of the archaeological remains and their settings against other factors, including the need for the proposed development."

#### 2.16 Paragraph 6.1.26 recommends that:

"Where archaeological remains are known to exist or there is a potential for them to survive, an application should be accompanied by sufficient information, through desk-based assessment and/or field evaluation, to allow a full understanding of the impact of the proposal on the significance of the remains. The needs of archaeology and development may be reconciled, and potential conflict very much reduced, through early discussion and assessment."

2.17 In situations where planning approval would result in archaeological remains being destroyed by development, paragraph 6.1.27 of PPW 12 states the following regarding the relevant planning authority's obligations:

"If the planning authority is minded to approve an application and where archaeological remains are affected by proposals that alter or destroy them, the planning authority must be satisfied that the developer has secured appropriate and satisfactory provision for their recording and investigation, followed by the analysis and publication of the results and the deposition of the resulting archive in an approved repository. On occasions, unforeseen archaeological remains may still be discovered during the course of a development. A written scheme of investigation should consider how to react to such circumstances or it can be covered through an appropriate condition for a watching brief.

Where remains discovered are deemed to be of national importance, the Welsh Ministers have the power to schedule the site and in such circumstances scheduled monument consent must be required before works can continue."

2.18 Regarding Historic Landscapes at paragraph 6.1.21, PPW 12 states that:

"The register should be taken into account in decision making when considering the implications of developments which meet the criteria for Environmental Impact Assessment or, if on call in, in the opinion of the Welsh Ministers, the development is of a sufficient scale to have more than a local impact on the historic landscape. An assessment of development on a historic landscape may be required if it is proposed within a registered historic landscape or its setting and there is potential for conflict with development plan policy."

#### Technical Advice Note 24 (TAN 24)

- 2.19 Additional heritage guidance in Wales is set out in Technical Advice Note 24 (TAN 24): The Historic Environment (Welsh Government, 2017).
- 2.20 TAN 24 sets out that it provides "guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning applications".
- 2.21 It clarifies the polices and distinctions made in PPW (2024). A definition for a 'historic asset' is given as:

"An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated."

- 2.22 Effects through changes within the setting of a designated historic asset are covered in TAN 24 at paragraphs 1.23 to 1.29. These paragraphs define the setting of an historic asset as comprising:
  - "...the surroundings in which it is understood, experienced, and appreciated embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral. Setting is not a historic asset in its own right but has value derived from how different elements may contribute to the significance of a historic asset."
- 2.23 TAN 24 also identifies factors to consider when assessing effects on setting. Paragraph 1.26 requests that it is:
  - "...for the applicant to provide the local planning authority with sufficient information to allow the assessment of their proposals in respect of scheduled monuments, listed buildings, conservation areas, registered historic parks and gardens, World Heritage Sites, or other sites of national importance and their settings".
- 2.24 Paragraph 1.29 goes on to state that:
  - "The local planning authority will need to make its own assessment of the impact within the setting of a historic asset, having considered the responses received from consultees as part of this process. A judgement has to be made by the consenting authority, on a case-by-case basis, over whether a proposed development may be damaging to the setting of the historic asset, or may enhance or have a neutral impact on the setting by the removal of existing inappropriate development or land use."
- 2.25 Of relevance to this report is Section 4 of Tan 24, which is concerned with archaeological remains. This section outlines advice regarding consultation, archaeological assessment and the preservation, recording and understanding of archaeological evidence.

#### **Local Planning Policy**

- 2.26 The Site is located within the administrative boundary of Merthyr Tydfil County Borough Council (MTCBC). The current Local Development Plan (LDP) was adopted in January 2020 and covers the period from 2016-2031 (MTCBC 2024).
- 2.27 The current LDP Written Statement (2016-2031) includes 18 objectives "to realise the vision, support local well-being objectives and address key issues". The objectives were determined "having regard to local issues raised through consultation, the evidence base and national policy". Of these, 'Objective 9: Heritage and Cultural Assets' states the following: "To protect, enhance and promote all heritage, historic and cultural assets".

2.28 Objective 9 of the current LDP is achieved via the inclusion of 'Policy CW1: Historic Environment' in the LDP's Written Statement (MTCBC 2020). Policy CW1 is outlined below:

"Policy CW1: The Historic Environment

The integrity of our historic environment assets will be conserved and enhanced. Development proposals will only be permitted where it can be demonstrated they would preserve or enhance the architectural quality, character or the historic or cultural importance of our designated historic environment assets.

Development affecting undesignated historic environment assets including, Locally Listed Buildings or structures, Landscapes of Outstanding Historic Interest in Wales, Urban Character Areas and Archaeologically Sensitive Areas should have regard to their special character and archaeological importance."

2.29 The LDP Written Statement (2016-2031) also contains a housing allocation policy within the south-east portion of the Site, under policy 'SW3.13 – Pen y Dre Fields, Gurnos'. The housing allocation policy states the following:

"This 1.55-hectare site is located in the community of Gurnos. The site is allocated for 40 dwellings and is anticipated to deliver affordable housing and other planning obligations in accordance with Policy SW9. The Council's Engineers have advised that the principle of development is considered acceptable. New highways, drainage infrastructure or ground works will be required to bring forward an acceptable development proposal however, this does not represent an insurmountable constraint.

A 450mm trunk water main for which protection measures will be required in the form of an easement width or diversion traverses the site. Off-site sewers will be required in order to connect to the existing network.

The site is adjacent to an existing open space that has recently received investment. The interface between the two developments should be respected and adequate buffer planting considered. This open space contains known occurrences of Japanese Knotweed on its boundary.

- A Road Safety Audit/Transport Assessment (dependent on the exact nature of proposals) should be carried out to identify the required local highway network improvements required.
- A Ground Investigation Report will be required, including a contamination survey, due to various past activities on site.
- Areas of the site lie in a Development Low Risk Coal Area. A coal mining risk assessment will therefore be required.
- An Ecological Impact Assessment will be required in order to ascertain any potential mitigation, compensation and/or enhancement required.

 An Assessment of the Significance of Impacts of Development on Historic Landscape (ASIDOHL) and a Desk Based Assessment would be required which sets out how archaeology on the site will be considered. Cadw should also be consulted.

The site is projected to deliver 40 units over a two-year period during the middle of the Plan period."

# Section 3 Methodology

#### INTRODUCTION

- 3.1 This report has been produced in accordance with the Standard and Guidance for Historic Environment Desk-based Assessment issued by the Chartered Institute for Archaeologists (CIfA, 2020). These guidelines provide a national standard for the completion of Desk-based Assessments.
- 3.2 The methodology set out in this report follows that of the EDP produced and GGAT approved WSI (edp7081\_r003).

#### ARCHAEOLOGICAL ASSESSMENT METHODOLOGY

- 3.3 The assessment initially involved the consultation of publicly available archaeological and historical information gathered from relevant documentary and cartographic sources. The principal sources of information comprised the following:
  - Known archaeological sites, monuments and findspots from the Glamorgan-Gwent Archaeological Trust (GGAT) Historic Environment Record (HER) (April 2024 data search);
  - Cadw's Historic Environment Service for information on designated historic assets;
  - The National Monuments Record of Wales (NMRW), as held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW);
  - Historic maps held by the Glamorgan Archives and from online sources;
  - Aerial photographs, which are held by the Central Register of Aerial Photography for Wales (CRAPW) at Cardiff;
  - Environment Agency LiDAR datasets; and
  - Relevant books, articles and previous assessment reports on the Site.
- 3.4 The assessment provides a synthesis of relevant archaeological information for the Site and Study Area to allow for additional contextual information regarding its archaeological interest and/or potential to be gathered. The Archaeological Assessment utilises a 1km buffer around the Site boundary, as stated in the April 2024 WSI (report reference edp7081\_r003).
- 3.5 The information gathered from the repositories and sources identified above was checked and augmented through the completion of a heritage walkover of the Site and surrounding area, undertaken in December 2023. This walkover considered the nature and significance of known and/or potential archaeological assets within the Site, identified visible historic

- features and assessed possible factors that may affect the survival or condition of known or potential archaeological assets.
- 3.6 The report includes an assessment of the Site's likely archaeological interest or potential, made with regard to current best practice guidelines, in order to understand the likely impact(s) of the Proposed Development on the archaeological resource, whether directly or indirectly.
- 3.7 Throughout the report, where referenced and relevant, designated historic assets are referenced by their Cadw reference number, non-designated historic assets are referenced by their Preferred Reference Number and previous archaeological events are referenced by their Event Number. The distribution of designated historic assets, non-designated historic assets and previous archaeological events are presented in **Plans EDP 1** to **3**.

#### **ASSESSMENT OF SIGNIFICANCE**

- 3.8 The assessment of significance of known/recorded archaeological remains within the Site makes reference (where relevant) to the four 'heritage values' identified by Cadw within its Conservation Principles document (Cadw 2011). These are:
  - The asset's evidential value, which is defined as those elements of the historic asset that can provide evidence about past human activity, including its physical remains or historic fabric;
  - The asset's historical value, which is defined as those elements of an asset which
    might illustrate a particular aspect of past life or might be associated with a notable
    family, person, event or movement;
  - The asset's aesthetic value, which is defined as deriving from the way in which people draw sensory and intellectual stimulation from the historic asset; and
  - The asset's communal value, which is defined as deriving from the meanings that a
    historic asset has for the people who relate to it, or for whom it figures in their collective
    experience or memory.

#### SETTING ASSESSMENT METHODOLOGY

- 3.9 In addition to the potential for direct impacts on the fabric of an asset, when assessing the impact of proposals on historic assets, it is important to ascertain whether change within their 'setting' would lead to a loss of 'significance'. This assessment of potential indirect effects (in terms of 'setting') is made according to Cadw's guidance Setting of Historic Assets in Wales which was published in May 2017.
- 3.10 In simple terms, the guidance states that setting "includes the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape". It must be recognised from the outset that 'setting' is not a historic asset and cannot itself be harmed. The guidance states that the importance of setting "lies in what it contributes to the significance of a historic asset".

- 3.11 As such, when assessing the indirect impact of proposals on historic assets, it is not a question of whether their setting would be affected, but rather a question of whether change within the asset's 'setting' would lead to a loss of 'significance'.
- 3.12 Set within this context, where the objective is to determine the potential for development to have an indirect effect on historic assets beyond the boundary of a development site, it is necessary to first define the significance of the asset in question and the contribution made to that significance by its 'setting', in order to establish whether there would be a loss, and therefore harm.
- 3.13 The guidance identifies that change within a historic asset's setting need not necessarily cause 'harm' and that it can be positive or in fact neutral.
- 3.14 Cadw's guidance (Cadw, 2017) sets out a four-stage approach to the identification and assessment of setting effects; i.e.:
  - Stage 1: Identify the historic assets which might be affected;
  - Stage 2: Define and analyse the setting, to understand how it contributes to the asset's heritage significance;
  - Stage 3: Evaluate the potential impact of development; and
  - Stage 4:Consider options to mitigate or improve that potential impact.
- 3.15 Therefore, the key issue to be determined is whether, and to what extent, the proposed development would affect the contribution that setting makes to the heritage significance of the asset under consideration, as per Stage 2 of the Cadw guidance.

#### **LIDAR DATA**

- 3.16 Airborne LiDAR data (light detection and ranging) was utilised as a source of primary data for the current assessment. LiDAR scanning records height data and has applications in the recording of archaeological earthworks.
- 3.17 A Digital Terrain Model (DTM) for the Site was acquired from the Welsh Government LiDAR 2020-2022 tile Index (Welsh Government, 2024). Resolution of the data is at one data point for each 1m², a high resolution which, for archaeological prospection, is appropriate for the identification of archaeological earthworks.
- 3.18 The DTM was processed using the Relief Visualisation Toolbox (ver. 2.2 1. ZRC SAZU, 2019). This software allows for a range of visualisation techniques to be applied to the data. Different techniques have varying degrees of successful application, depending on the nature of the environment where the data was collected. As such, the whole suite of visualisations was produced and then, the individual images appraised as to their usefulness in the current context. This appraisal identified that of the visualisation techniques Sky View Factor (SVF) produced the best quality and most useful imagery for the Archaeological Assessment.

#### **Sky View Factor Imagery**

- 3.19 The relief visualisation technique for Sky View Factor (SVF) Imagery is based on the use of diffuse illumination. The technique uses the portion of the visible sky not obscured by the relief of the landscape topography above a certain observation point. The technique applies the assumption that the diffuse illumination is isotropic, in that the places that see a large portion of the sky are brighter than those where only a small portion of the sky is visible.
- 3.20 As stated by ZRC SAZU 2010:
  - "Applying the SVF for visualization purposes gives advantages over other techniques because it reveals relief features without any "sharp edges" while preserving the perception of general topography. Rather than just presenting or visualizing the same information in a new way, it extracts new information that can be further processed."
- 3.21 This technique was used to produce useful images for the assessment, providing an additional source of data on the Site's archaeological potential (**Plan EDP 4**), which was used for guiding the December 2023 walkover survey.

# Section 4 Baseline Information

#### **INTRODUCTION**

4.1 The following section details and contextualises known historic assets within the Site and Study Area.

#### **DESIGNATED HISTORIC ASSETS**

#### **Setting Assessment Stage 1**

- 4.2 The Site does not contain any 'designated historic assets', as defined in TAN 24 (i.e. World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Historic Parks and Gardens). The location of designated historic assets within the Study Area is shown on **Plan EDP 1**.
- 4.3 Within the 1km Study Area, the following designated historic assets are present:
  - One Scheduled Monument comprising the Merthyr Tramroad: Morlais Castle Section (**GM594**), located c.800m north of the Site;
  - One Registered Park and Garden comprising the Grade II\* listed Cyfarthfa Castle ornamental park and garden (PGW(Gm)1(MER)), located c.690m south-west of the Site; and
  - Two Conservation Areas comprising the 'Cyfarthfa, Merthyr Tydfil Conservation Area' and the 'Council Street and Urban Street Conservation Area', located c.690m south-west and c.880m south-east of the Site, respectively.
- 4.4 The designated historic assets listed above are located at a considerable distance from the Site boundary from a minimum distance of c.690m. They are separated from the Site boundary by the intervening modern urban residential housing estates of Gurnos and Galon Uchaf, within which the Site is situated. Hence, the Site shares no intervisibility with any of the designated historic assets except for incidental views to the Grade II\* listed Cyfarthfa Castle ornamental park and garden (**PGW(Gm)1(MER)**) and 'Cyfarthfa, Merthyr Tydfil Conservation Area', which share overlapping boundaries and extents.
- 4.5 Cyfarthfa Castle and its ornamental park and garden comprise a 19<sup>th</sup> century country house and contemporary park, built by the Crawshay family, owners of the Cyfarthfa Ironworks to the south and west of the country estate. Cyfarthfa Castle (Grade I listed) is the focus of the country park with the contemporary park designed to provide the setting for the 1824-1825 built country house and backdrop in views from the Cyfarthfa Ironworks. The historic components of the park comprise a woodland, stable block, former icehouse, lawn terrace, kitchen gardens and lake. The experience and appreciation of the country house and its parkland are focused across the western half of the parkland estate, with open views south and west across the parkland from the country house to location of the associated

- Cyfarthfa Ironworks. The rear backdrop to the house to the north and east features dense woodland which obstructs experiential views to the wider landscape.
- 4.6 The country park is the key aspect of the setting of Cyfarthfa Castle and provides a high contribution to its significance. The park itself is set within a modern urban landscape, which is largely screened from the key historic components of the parkland estate, that contain the majority of its significance, and which are experienced across its western half. As such, the modern urban landscape of Merthyr Tydfil provides a neutral contribution to the Registered Park and Garden and Conservation Area of Cyfarthfa Castle's parkland estate.
- 4.7 The Site is situated within the wider urban landscape to the north-east and lies beyond the dense woodland which occupies the eastern half of the Registered Park and Garden and Conservation Area. The only experience of the parkland from the Site is in the form of incidental and distant views of the woodland canopy (**Image EDP A1.5**). The views from the Site are in no way designed and have no relevance to the historic value or integrity of the park.
- 4.8 Due to the screening effect of woodland, there are no views to the Site from the core components of the parkland estate, or in conjunction with the castle itself. As such, the Site does not contribute to the significance of the parkland or that any of the historic assets located within it. Consequently, Cyfarthfa Castle and its ornamental park and garden are not considered any further in this report.
- 4.9 As noted above, there are no views to or from the Site to any of the other designated assets listed above. Additionally, the Site does not contain any historical elements nor does its land have any historical or functional association with any of these historic assets such that they might be a non-visual contribution to their significance. As such, the Site does not form part of the setting of these assets and does not provide a contribution to their significance. Therefore, they are not considered any further in this report.

#### **NON-DESIGNATED HISTORIC ASSETS**

#### **Locally Listed Buildings**

4.10 MTCBC maintain a Locally Listed Buildings (LLB) list, which contains buildings and/or structures within the County Borough. LLBs are referenced by their assigned Local List number. The significance of these structures in a local context is explained as follows on the MTCBC website (MTCBC,2023b):

"The Local List is a building or structure within the County Borough which is considered by the public, and Council to be an important part of Merthyr Tydfil's heritage due to its architectural, historic or archaeological significance. Locally Listed Buildings are considered to contribute to the environmental and cultural heritage of the County Borough. The Council, via development proposals, will seek to preserve and enhance these important buildings."

#### **Setting Assessment Stage 1**

- 4.11 No LLBs are recorded within the Site. Within the Study Area three LLBs and one proposed LLB are recorded. The location of LLBs within the Study Area is shown on **Plan EDP 2**. These include:
  - Post-medieval 19<sup>th</sup> century Gyrnos Tower (MT130), located c.450m north-west of the Site; and
  - Post-medieval 19<sup>th</sup> century Gurnos Farmhouse and outbuildings (**MT64**), located c.760m north-west of the Site.
- 4.12 A review of their associated HER records and historic mapping evidence, outlined below, indicates that LLBs within the Study Area are located from a minimal distance of c.450m from the Site boundary. Although the Site is located across rising ,sloped land, surrounding designated assets are separated from the Site boundary by intervening modern urban residential housing estates of Gurnos and Galon Uchaf, within which the Site is situated. As a result, the Site shares no intervisibility with any of the LLBs nor has any historical or functional association with any of them. As such, the Site does not form part of their settings and does not provide a contribution to their significance.
- 4.13 Given the low-lying height and scale of the development as proposed, none of the settings of these assets would be affected by development within the Site and therefore they are not considered any further in this report.

#### **Archaeology**

4.14 A chronological overview of known non-designated historic assets within the Site and Study Area is provided below.

#### **Pre-Industrial (c.500,000BC - AD 1750)**

- 4.15 There are no prehistoric records on the HER within the Site or Study Area.
- 4.16 The Site and surrounding landscape, which encompasses Merthyr Tydfil, are located within a natural basin at the head of the Taff Valley. As described in the description of the Merthyr Tydfil LOHI by GGAT, the Site and surrounding area during the early prehistoric period was part of a glacial environment during much of the Pleistocene, which featured minimal human activity.
- 4.17 During later prehistory (Holocene), the Site and surrounding landscape is suggested by GGAT to have largely featured native woodland. Human activity from the Neolithic period is recorded in the wider area with evidence of woodland clearance and farming practices (Caseldine,1990). Based on current evidence, with the absence of any recorded prehistoric HER records in the Study Area it is deemed likely that little prehistoric activity occurred in the Site's vicinity and that therefore, the potential for prehistoric remains within the Site is very low.
- 4.18 Roman records on the HER are limited to a segment of the projected course of a Roman road (**RR621-02b**) orientated roughly north-east to south-west c.215m east of the Site at

its nearest point. The nearest recorded Roman settlement is located c.1.5km south of the Site at the Penydarren Roman auxiliary fort, to which the HER's projected alignment of the Roman road runs through (RomanBritain.co.uk,2023). No further Roman archaeological remains area recorded within the Study Area. Based on current evidence, aside from the possible road which has not been archaeologically proven, there is little evidence for Roman activity in the Study Area and therefore the potential for Roman remains within the Site is low.

- 4.19 As suggested in the description of the LOHI, throughout the early medieval and much of the medieval period, until the c.18<sup>th</sup> century, the Site and the surrounding landscape probably comprised a predominantly forested area. The late medieval and early post-medieval period onwards saw the enclosure of the land at the valley bottom floor and lower slopes to form individual farmsteads, which may have included the Site as part of their farmland. As such, it seems unlikely that the Site contains early medieval or medieval archaeological remains, apart from a low potential for infilled features related to former agricultural activity such as infilled furrows which would be of very low significance.
- 4.20 Notwithstanding the limited number of HER records in the Study Area from the prehistoric through to the 19<sup>th</sup> century, it is unlikely remains from prior to the early 19<sup>th</sup> century are present within the Site. Such remains, if present would most likely be limited to evidence of past agricultural and land drainage practices across the sloped topography of the Site, such as infilled ditches that would be of low evidential value.

#### Industrial (AD 1750 - Present)

18th Century

- 4.21 There is no recorded evidence on the HER for archaeological remains within the Site dated to the 18<sup>th</sup> century. The Site likely continued to comprise part of wider farmland at this time.
- 4.22 Within the Study Area and wider landscape from the mid-late 18<sup>th</sup> century onwards, the change to coal from charcoal as a fuel source in iron working and the exploitation of local sources of ironstone, limestone and coal, led to a rapid change in both land use and land organisation in and around Merthyr Tydfil (GGAT,2023). As a result, the surrounding landscape became deforested not only due to the industrialisation of the area, but also to supply land for the growing urban population. Such change also brought about the industrialisation of agricultural production, with the reorganisation of field enclosures and creation of 'model farms', such as Gurnos Farm (**MT64**, and **GGAT03166m**) c.760m north-west of the Site, during the early 19<sup>th</sup> century (*ibid*).

19<sup>th</sup> Century

- 4.23 The Study Area contains one HER record in proximity to the south of the Site, along Goitre Lane dated to the 19<sup>th</sup> century. Meanwhile, a number of HER records located within the surrounding Study Area date to the 19<sup>th</sup> century.
- 4.24 From the early 19<sup>th</sup> century, the land immediately south-west of the Site was occupied by an artificial water management feature, known as 'Goitre Pond'. Meanwhile, the Site featured as a sloped partially wooded and grassed area to the north and north-east of the pond. According to the description of GGAT's Historic Landscape Characterisation Area for

'Gurnos and Galon Uchaf (**HLCA 050A**)', 'Goitre Pond' was created by 1826 to serve as a reservoir for the supply of water to Penydarren Ironworks c.1.5km to the south. The pond is first depicted on the 1850 Merthyr Tydfil Tithe Map (**Plan EDP 5**), in which the associated tithe award details how it was owned by the 'Penydarren Iron Company'. Between 1901-1905 a boat house is also depicted on the south side of 'Goitre pond' on historic maps. However, no associated remains were identified during the December 2023 heritage walkover.

- 4.25 The HER record in proximity to the south-west of the Site is associated with a segment of the former 'Morlais Tramroad' (**03173.2m**), which according to the HER was constructed in 1803 and remained in use until the c.1870s. The length of the tramroad associated with the HER record, ran from the Pennydarren Ironworks at its southern end (c.1.5km south of the Site), northwards to Morlais Castle Quarries and north of Pontsam Road (c.790m north of the Site). Its function was to provide quarried limestone and lime from Morlais Castle Quarries to the Pennydarren Ironworks. The HER indicates that the tramroad was removed over the course of the 20th century, which is supported by the findings of the survey of the Morlais Tramroad in 2006 (**E001995**) (Roberts & Jones, 2006). As such, no remains associated with the tramroad survive in proximity to the Site nor are anticipated to extend into the Site. Furthermore, the alignment of the former tramroad now comprises a modern road.
- 4.26 Within the Study Area HER records can be divided into four groups:
  - Limekilns representing 19th century industrial activity along the Morlais Tramroad are recorded c.440m north-west of the Site (e.g. GGAT03134m);
  - Post-medieval farming practices and landscape organisation represented by the Gurnos Farm 'model farm' of the 1820s (MT64) and its associated workers' cottages (GGAT03166m) located c.760-770m north-west of the Site, as well as four records for remnants of drystone field boundaries (GGAT03155m, GGAT03197m, GGAT03133m) and a coppiced woodland (i.e. 'Gyrnos Wood') (GGAT03135m) recorded c.440-630m north-west to north of the Site;
  - A stray archaeological findspot for a contentiously dated quern stone on the HER, recorded c.540m north-west of the Site within Gyrnos Wood (GGAT03128m); and
  - Three HER records for observed former structures on 1<sup>st</sup> to 3<sup>rd</sup> Edition Ordnance Survey
     (OS) Maps located between c.950-960m east of the Site. According to the HER, such
     records are associated with an unknown structure (**GGAT05255m**), an area of former
     structures at Cwm-Rhyd-Y-Bedd (**GGAT05271m**) and a former collection of buildings
     for Dowlais Old Brewery (**GGAT05269m**). Such HER records are limited to documentary
     evidence.
- 4.27 None of the HER records dated to the 19<sup>th</sup> century contained within the Study Area indicate that any associated remains extend into the Site boundary.

20th Century

4.28 There is no recorded evidence on the HER for archaeological remains within the Site or Study Area dated to the 20<sup>th</sup> century.

- 4.29 The Site continued to comprise sloped open grassland with clusters of trees and shrub vegetation during the 20<sup>th</sup> century. The only identified modern development to have occurred within the Site is a small compound within the north-east corner of the Site, adjacent to Sixth Avenue. It is not recorded on the HER and has been identified to have been briefly in use during the mid-1980s, as shown on consulted historic aerial photographs and is discussed below.
- 4.30 Adjacent to the Site, a Merthyr Express newspaper, dated to 11 May 1963, records the draining of 'Goitre Pond', followed by its infilling and landscaping into the 1970s. Consulted historic maps and aerial photographs indicate that the infilling and subsequent landscaping of the pond occurred alongside the construction of the adjacent Pen-y-Dre High School to the north of the Site (**Plan EDP 5**). The land was subsequently used as school playing fields until recently when it became disused as an open area of marshland/grassland. The infilled early 19th century pond itself is not recorded on the HER or RCAHMW as a historic asset.
- 4.31 The 20<sup>th</sup> century within the surrounding Study Area is characterised by the urbanisation of the landscape. This occurred predominantly via the construction of the Galon Uchaf housing estate within the eastern half of the Study Area from the 1920s and the Gurnos housing estate from the 1950s onwards. As such, the Site is situated within an urban environment today.

#### **RCAHMW RECORDS**

4.32 No RCAHMW records are located within the Site. Consulted RCAHMW records within the Study Area solely date to the late post-medieval and modern periods, and range between 210m-1000m from the Site boundary. They are associated with historic extant and demolished buildings dating from the early 19th century to the 1970s. Such records are associated with houses, chapels, public baths, housing estates, a cricket ground, hospital etc. None of these features extend into the Site and, as such, they have no relevance to the archaeological potential of the Site and are not discussed any further.

#### PREVIOUS ARCHAEOLOGICAL EVENTS

- 4.33 Of relevance to the Site, the HER records one previous event for a field visit along the course of the former Morlais Tramroad, which occurred in 2006 (**E001995**). The event is associated with the wider 2005-2010 GGAT 'Southeast Wales Industrial Ironworks Project'. The project spans the entire area contained within the administrative boundary of MTCBC. The event recorded the degree of preservation of the former tramroad, to which extant remains are concentrated towards its northern end at Morlais Castle (Roberts & Jones, 2006). Therefore, no extant remains of the Morlais Tramroad are recorded within the vicinity of the Site, nor are anticipated to extend into the Site (*ibid*).
- 4.34 Within the Study Area, previous fieldwork events are limited to those surveys undertaken for the 2005-2010 'Southeast Wales Industrial Ironworks Project' (e.g. **GGATE005392**) or works undertaken to record extant and buried parkland estate features within Cyfarthfa Park from c.920m south-west of the Site. Such works have included a geophysical survey (**GGATE007433**), evaluations (e.g. **GGATE007109**), a building recording (GGATE007483)

and a watching brief (GGATE007482). Remaining events comprise desk-based research (e.g. **GGATE006653**). Overall, events within the Study Area are highly localised and provide no further insight into the archaeological potential of the Site, and as such are discussed no further.

#### **CARTOGRAPHIC EVIDENCE**

#### **Historic Maps**

- 4.35 Historic maps have been used to aid the establishment of the Site's 19<sup>th</sup> century history (AD 1850) onwards and identify land use change over time. Available historic maps include the 1850 Merthyr Tydfil Tithe Map and historic OS maps only.
- 4.36 The historic maps which highlight key changes to land use within the Site are outlined below and presented in **Plan EDP 5**. For reference, the publication date of each historic map is referred to below.

#### 1850 Merthyr Tydfil Tithe Map

4.37 The earliest consulted 1850 Tithe Map shows the land contained within the Site fell across two plots of land, recorded as comprising meadows (plots 2148 and 2149) at this time (The Genealogist,2023). Like the former adjacent 'Goitre Pond', both plots were owned by the 'Penydarren Iron company'. As discussed above, the company's 'Pennydarren Iron Works' were located c.1.5km south of the Site. As such, the Site appears to have comprised meadows, adjacent to the former 'Goitre Pond' which served as a water management feature, providing water to the ironworks to the south.

#### 1885-1887 OS Map

- 4.38 The 1885-1887 OS Map depicts no change across the Site. The tree lined field boundary which separated the two meadow land parcels within the Site at this time is shown to have featured as a small water course, which likely fed into 'Goitre Pond'. No other noticeable land use features are shown within the Site.
- 4.39 'Goitre Pond' itself is shown to have remained extant, with a sluice gate depicted at the south-eastern end of the pond beyond the Site boundary. The Morlais Tramroad is also depicted as extant to the south-west of the Site, albeit, based on current baseline evidence as discussed above, it likely had ceased to function by this time. The area of land adjacent to the north-west edge of the pond is shown as scrubland/woodland.

#### 1968-1986 OS Map

4.40 The 1968-1986 OS Map shows no change to the Site's land use. Meanwhile, the adjacent 'Goitre Pond' had been drained and infilled to be used as playing fields for the 1970s Pen-y-Dre High School to the west of the Site. The landscaping also included the clearance of wooded vegetation to the north of the pond. It is unclear if this included removal of vegetation within the western half of the Site.

4.41 Subsequent historic maps provide no further historical insight, reflecting the Site's continued land use as unused sloped grassland occupied by scattered clusters of vegetation.

#### **Summary**

- 4.42 Historic maps illustrate the Site's continued land use from the mid-19<sup>th</sup> century to the mid late 20<sup>th</sup> century as an area of meadow land, adjacent to the former water management feature of 'Goitre Pond'. The Site continues to feature as open grassland with clusters of vegetation.
- 4.43 Of note, consulted historic maps do not show the modern mid-1980s walled compound within the north-east corner of the Site, identified on consulted aerial photographs and verified through on site remains observed during the heritage walkover. This compound is discussed further below.

#### **GOOGLE EARTH SATELLITE IMAGERY**

- 4.44 Historic Google Earth satellite imagery from 2001 was reviewed and assessed for additional information, where relevant (GE, 2024).
- 4.45 Satellite imagery from 2001 onwards shows the outline of a former late 20<sup>th</sup> century modern compound within the east end of the Site, on the summit of the Site's north-east to south-west slopes. The compound has been dated to the mid-1980s from consulted aerial photographs. Satellite imagery also shows a concentration of remains associated with a former structure, located within the south-west corner of the compound.
- 4.46 In addition, satellite imagery shows the alignment of a water course through the Site towards the northern end of the now infilled 'Goitre Pond', which historically served as a field boundary. No other land use features, earthworks or remains of interest were identified from consulted satellite imagery.

#### **AERIAL PHOTOGRAPHS**

4.47 Available aerial photographs dated between 1945-1991 (held by CRAPW) were consulted to further inform the Site's history over the 20<sup>th</sup> century and elaborate, where possible, on the Site's development sequence outlined above using historic maps and satellite imagery. Aerial photographs, which illustrate notable changes to the Site's layout and changes in land use over time are outlined below. Aerial photographs are referenced by their date, sortie and frame numbers.

#### 1984 8402 ADAS 201 and 1985 8501 JAS1285 134

4.48 These two consulted aerial photographs, dated to 1984 and 1985 respectively, illustrate the layout of a small walled compound within the east end of the Site, across the flat summit of its north-east to south-west sloping hill.

- 4.49 The compound was short lived as it is not shown on any consulted previous or subsequent aerial photographs. The compound was accessed off the west end of Sixth Avenue to the east of the Site boundary. Several buildings are shown within the limits of the walled compound, located at its north-west, south-west and south-east corners. It is unclear what the function of the compound was as it is not shown on any consulted historic maps and evidence for its existence from consulted repositories of information outlined in **Section 3** are limited to aerial photographs and visual evidence of building platform remains through the site walkover survey (e.g. **Image EDP A1.3**). The modern compound and associated remains are not recorded as a designated nor non-designated historic asset.
- 4.50 Overall, consulted aerial photographs primarily provide insight into an ephemeral period of modern development, dated to the mid-1980s, within the far east end of the Site. No other features, earthworks or previous development of interest were identified within the Site.

#### LIDAR IMAGERY

- 4.51 The analysis of available Welsh Government LiDAR 2020-2022 tile index data indicates that the Site features land drainage earthworks most likely reflective of its past agricultural land use and earthworks associated with the eastern edge of the former infilled 'Goitre Pond' (Plan EDP 4).
- 4.52 Visible earthworks across the eastern half of the Site up to the central former field boundary and extant water course, comprise a series of closely parallel linear striations orientated north-east to south-west. These likely are reflective of ploughing and/or landscaping earthworks in the form of drainage practices across the hillside, potentially used to drain the hillside into the area of the former 'Goitre Pond'. Additional earthworks in this area include a single north-west to south-west orientated linear striation from the end of the exposed water course, across the side of the Site's hill, towards First Avenue. This is interpreted as a potential modern culverted service. No such earthworks are considered to hold any archaeological or historic interest within the Site.
- 4.53 A linear feature at the base of the Site's hillside at the east end of the former 'Goitre Pond' is likely an earthwork associated with the pond itself, potentially marking the limit of its eastern bank. Such a feature holds no archaeological and/or historic interest, being associated with a late post-medieval well-documented water management feature or its 1970s infilling.
- 4.54 The outline of the mid-1980s walled compound within the raised east end of the Site is shown clearly on consulted LiDAR imagery. Such remains are of modern date and hold no archaeological or historic interest.
- 4.55 The western half of the Site is shown to feature areas of vegetation and the course of the former field boundary and water course which divided the Site's two historic meadow enclosures, historically. These features are of no historic interest or significance.
- 4.56 Overall, LiDAR imagery identified no archaeological features or earthworks of interest or significance within the Site. Consulted LiDAR imagery illustrates land drainage and management practices across the Site dated to the 19<sup>th</sup>-20<sup>th</sup> century.

#### HERITAGE WALKOVER SURVEY

- 4.57 A heritage walkover survey of the Site was undertaken in December 2023. Dry and partially overcast weather conditions were consistent throughout the walkover. Sufficient visibility persisted throughout the survey to allow effective on-site assessment of Site ground conditions.
- 4.58 The heritage walkover confirmed the Site's ground conditions as detailed in paragraph 1.9. No extant archaeological remains or evidence of earthworks of potential archaeological interest or significance were identified.
- 4.59 The Site was observed to comprise areas of open grassland with clusters of trees and shrubland vegetation. A contrast between an open grassland and areas of dense vegetation was observed between its eastern and western halves, respectively, divided by the alignment of a former field boundary and extant water course into the Site. In addition, remains associated with the modern mid-1980s compound identified via consulted aerial photographs were identified during the walkover survey. These included remains of a building platform within the north-west corner of the former modern and ephemeral compound. Such remains are of negligible value and are of no historic interest or significance.

#### SUMMARY OF ARCHAEOLOGICAL POTENTIAL

- 4.60 The Site does not contain any 'designated historic assets', as defined in TAN 24 (i.e. World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas and Registered Historic Parks).
- 4.61 No non-designated historic assets are recorded on the HER within the Site. Furthermore, a review of previous archaeological events within the Study Area identified that no insight into the Site's archaeological potential is provided from such events.
- 4.62 The Site most likely consisted of forest and subsequently farmland from at least the medieval/post-medieval period up to present day. The Site is recorded to comprise meadow land during the mid-19<sup>th</sup> century under the tenancy of the Pennydarren Ironworks Company who created and owned the former industrial water management feature of 'Goitre Pond' to the south-west of the Site. Additionally, LiDAR imagery further indicates past agricultural and land management practices having occurred across the eastern half of the Site.
- 4.63 Previous development within the Site is limited to an ephemeral mid-1980s walled compound. The heritage walkover identified evidence for this in the form of building platforms located within the former compound's north-west corner. The function of the compound is unknown and is not recorded as a historic asset, nor is considered to hold any historic interest or significance in this report.
- 4.64 Overall, the Site has a very low potential for prehistoric to medieval remains and a moderate potential for post-medieval and modern remains. Remains within the Site would most likely be associated with past agricultural practices in the form of infilled furrows, land management practices in the form of drainage ditches and culverted services and building

remains associated with the mid-1980s compound within the far east end of the Site. Such remains, if present, would be up to low or local significance and not merit preservation *in situ*.

#### HISTORIC LANDSCAPE CHARACTERISATION

- 4.65 The Site lies within the Merthyr Tydfil LOHI, as defined by Cadw and the Welsh Archaeological Trusts.
- 4.66 GGAT have further defined this landscape of historic interest into Historic Landscape Character Areas (HLCA), assessing the importance of each. Those in relation to the Site are shown on **Plan EDP 6**.
- 4.67 The LOHI is summarized by GGAT as occupying a natural basin at the head of the Taff valley. Its topography comprises high hills and ridges which reach 450m aOD on all sides, while the built form of the area is constrained to the basin floor and valleys.
- 4.68 The Merthyr Tydfil landscape is strongly characterised by its industrial heritage, having been "probably the largest iron-making town in the world in the early to mid- 19th century", as such, the town, and its wider landscape was "rapidly transformed from a modest village in the 1750s to the largest town in Wales by 1801". Although there has been extensive recent land reclamation and sanitisation of waste tips in the more recent years, the Merthyr Tydfil LOHI still retains its industrial landscape character, and so is defined by "the remains of large ironworks, remnants of the associated coal mining industry, water power 28east, an early iron bridge, communication systems, including early tramroads, tips, terraced industrial housing, and the ironmasters house, Cyfarthfa Castle".

#### **Direct Effects Upon the Merthyr Tydfil LOHI**

- 4.69 The Site itself is located within **HLCA 050A**: Gurnos and Galon Uchaf; this character area is summarized by GGAT as a "A mid-20<sup>th</sup> century urban landscape characterised by council housing estates with associated commercial, educational and health facilities, built on former agricultural land with some industrial features". The area is largely defined by housing estates of local authority housing created during the early 1960s which are laid out in varying patterns, with a focus on the Prince Charles Hospital in the west part of the area.
- 4.70 The Site's present character largely reflects remnants of the former agricultural landscape upon which the surrounding modern Galon Uchaf 1920s housing estate and Gurnos 1950s housing estate are built across. The HLCA makes reference to its former open nature and the benefits large schools and their playing fields make to preserving this character trait. The land contained within the Site forms part of this residual character trait within the HLCA.
- 4.71 GGAT note that most of the area was occupied by The Penydarren Iron Company, and used for agricultural purposes, as well containing leats and reservoirs. This included the land within the Site and adjacent 'Goitre Pond'. The former industrial character of the HLCA is also indicated by the present road system, which reflects the location of 19<sup>th</sup> century transport corridors including the tramway route to the Penydarren Iron Works from Morlais Castle Quarries.

- 4.72 The Proposed Development of the Site for a new solar farm would diverge from the existing character of the HLCA via the implementation of a low-lying but high-density renewable energy development upon a remnant of former agricultural land. The openness of the Site would be lost, however, such a change in land use and land character would be localised and would have a negligible effect on the wider experience and appreciation of the modern urban residential environment and industrial heritage character of its HLCA.
- 4.73 The development would not result in the loss of any extant historic features that contribute to the LOHI's industrial heritage. The adjacent main industrial feature of 'Goitre Pond' is no longer explicitly discernable in the landscape, having been infilled. It is best understood from historic maps and aerial photographs. As such, no industrial remains of the pond exist that would be removed by the Proposed Development. Furthermore, the Site features no industrial features of historic interest or significance that would be harmed by the Proposed Development and adversely affect the HLCA directly.
- 4.74 In conclusion the proposed development would result in a minor direct change to the character of **HLCA 050A**, through a small-scale change in land use only, rather resulting in the loss of any components that lend heritage value to the HLCA. Such change would comprise the transition of a remnant of former agricultural land to a renewable energy solar farm. However, the historic industrial character of the HLCA would be unaffected. Overall, this change would amount to a neutral effect to the significance of the HCLA.

#### **Indirect Effects Upon the MTLOHI**

- 4.75 The Site is located well-within **HLCA 050A** and is separated from most other HLCAs by wide extents of urban development. The nearest HLCA is **HLCA 056** (c.105m to the north) which defines a modern road corridor and so has no extant historic features that could have their setting affected by the development of the Site.
- 4.76 Some c.140m to the north is **HLCA 052** which has a more open, rural character than **HLCA 050A**. However, the Proposed Development would sit within the existing urban landscape and would not stand out in views from that area, with vegetation screening and the A465 located between the HLCA and the Site. As such the development would result in no change to the character of the wider setting of **HLCA 052**.
- 4.77 Located within the urban landscape it is concluded that the Proposed Development would not result in any change that would be noticeable from any of the other HLCAs of the LOHI and their character, such that it relates to their heritage significance would be unchanged. With the lack of any meaningful change to the character of **HLCA 050A** it is concluded that overall, the Proposed Development would not result in any change to the LOHI that would result in a loss of its historic character or significance.

# Section 5 Impact Assessment

#### INTRODUCTION

5.1 As outlined in paragraph 1.12, the Proposed Development would comprise the construction of a new renewable energy solar farm and associated infrastructure within the Site. The layout of the Proposed Development is shown in **Appendix EDP 2**.

#### **BUILT HISTORIC ASSETS**

#### **Designated Historic Assets**

- 5.2 No 'designated historic assets' as defined in TAN 24 (i.e. World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas and Registered Historic Parks and Gardens) are present within the Site (Welsh Government, 2017). Therefore, none will be physically affected by the Proposed Development within the Site.
- 5.3 No setting impacts have been identified in relation to designated historic assets within the Study Area from the Proposed Development. The Site does not form part of the setting nor contribute to the significance of such assets.

#### **Non-designated Historic Assets**

5.4 No setting impacts have been identified in relation to LLBs within the Study Area from the Proposed Development. The Site does not form part of the setting nor contribute to the significance of such assets.

#### **ARCHAEOLOGICAL REMAINS**

- 5.5 As discussed in **Section 4**, the Site most likely consisted of woodland and subsequently farmland from at least the medieval/post-medieval period up to present day with a very low potential for prehistoric to medieval remains and a moderate potential for post-medieval and modern remains. Remains within the Site would most likely be associated with past agricultural practices such as infilled furrows, land management practices in the form of drainage ditches and culverted services and building remains associated with the mid-1980s compound within the far east end of the Site. Such remains, if present, would be up to low or local significance and not merit preservation *in situ*.
- 5.6 The Proposed Development's layout as shown in **Appendix EDP 2** will involve groundworks associated with the insertion of linear cable routes within shallow trenches, orientated predominantly north-south through the Site, the supporting framework for the solar panels, comprising narrow driven piles spaced at c.2m and orientated east-west across the Site, support posts for fencing around the perimeter of the Site and topsoil stripping in the area of the site compound and access road within the eastern end of the Site.

- 5.7 Such works would result in localised, shallow groundworks within the Site. Archaeological remains located within the footprint of the cable runs or areas of stripping would potentially be subject to total loss. However, remains located within the wider footprint of the solar panels and fencing would only be subject to very minor occasional direct impacts, likened to a 'pin cushion' effect. Such impacts would have little implication for the significance of more robust archaeological features (such as infilled ditches) which would retain the majority of their form and with most of their deposits intact. It is only more sensitive remains such (as burials) that might be susceptible to the impact of the support piles of the solar panels or fence posts, which would comprise the majority of the ground impact across the Site.
- 5.8 Nevertheless, it is very unlikely that groundworks would affect any significant archaeological remains given the Site's very low archaeological potential for any remains pre-dating the late medieval period. Agricultural remains of post-medieval to modern date would likely comprise large robust feature such as ditches and would not be sensitive to the impacts caused by the support piles for solar panels or fence posts. Being at most of low evidential value the loss of such remains in the footprint of the cable trenches and stripped areas would result in only a very limited impact upon the Site's potential archaeology.
- 5.9 As such, given that the likelihood is that only possible remains of low or very low significance would be affected by the Proposed Development, and that, for the most part, potential archaeological remains in the Site would not be susceptible to development impacts in the footprint of the solar panels, there should be no need for any archaeological mitigation and, development should be able to proceed without recourse to the discharge of an archaeological condition.

# Section 6 Conclusions

- 6.1 This report has been prepared by EDP and presents the results of an Archaeological and Heritage Desk-based Assessment of the Site. It has been produced to accompany a planning application for the development of a solar farm.
- 6.2 The Site does not contain any 'designated historic assets' (i.e. World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas and Registered Historic Parks and Gardens). As such, no designated historic assets would be physically affected by the Proposed Development within the Site.
- 6.3 No change to setting has been identified in relation to designated historic assets or non-designated LLBs within the Study Area from the Proposed Development, that might result in a loss of significance.
- 6.4 The Site most likely consisted of forest and subsequently farmland from at least the medieval/post-medieval period up to present day. A very low potential for prehistoric to medieval remains and a moderate potential for post-medieval and modern remains has been identified. Remains within the Site would most likely be associated with past agricultural practices in the form of infilled furrows, land management practices in the form of drainage ditches and culverted services and building remains associated with a mid-1980s compound within the far east end of the Site. Such remains, if present, would be no more than low or local significance and not merit preservation *in situ*.
- 6.5 Impacts to such remains would be localised within the Site, restricted to targeted groundworks associated with the insertion of narrow, driven solar panel support piles, shallow trenches for cable routes, fence posts and stripping of topsoil in the footprint of a compound and vehicle access. Such impacts would most likely be to post-medieval or modern agricultural features of no more than low significance and which for the most part would be large and robust and thus not sensitive to the impact of the solar panels or fencing.
- 6.6 Given the potential for impact on features of only low significance, the need for mitigative archaeological works prior to the Proposed Development, are not considered warranted.
- 6.7 The Site is located within the Merthyr Tydfil LOHI. The assessment concludes that the proposals would diverge from the character of the LOHI, but such change would comprise a small-scale land use and character change and not detract from the LOHI's contributary industrial heritage. Nor would a large-scale change occur to the existing urban residential environment of the Gurnos and Galon Uchaf estates that would result in an adverse effect to the significance of LOHI as a whole. As such the Proposed Development would have a neutral effect on the LOHI.
- 6.8 Overall, the Proposed Development is considered to be compliant with national and local planning policies as set out in **Section 2** of this Archaeological and Heritage Desk-based Assessment.

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# Appendix EDP 1 Images



**Image EDP A1.1:** North-east facing view towards the Site raised above the existing wetland environment of the infilled 'Goitre Pond'.



Image EDP A1.2: West facing view across the western half of the Site.



Image EDP A1.3: East facing view of remains of building platform within the centre of the Site on brow of hill.

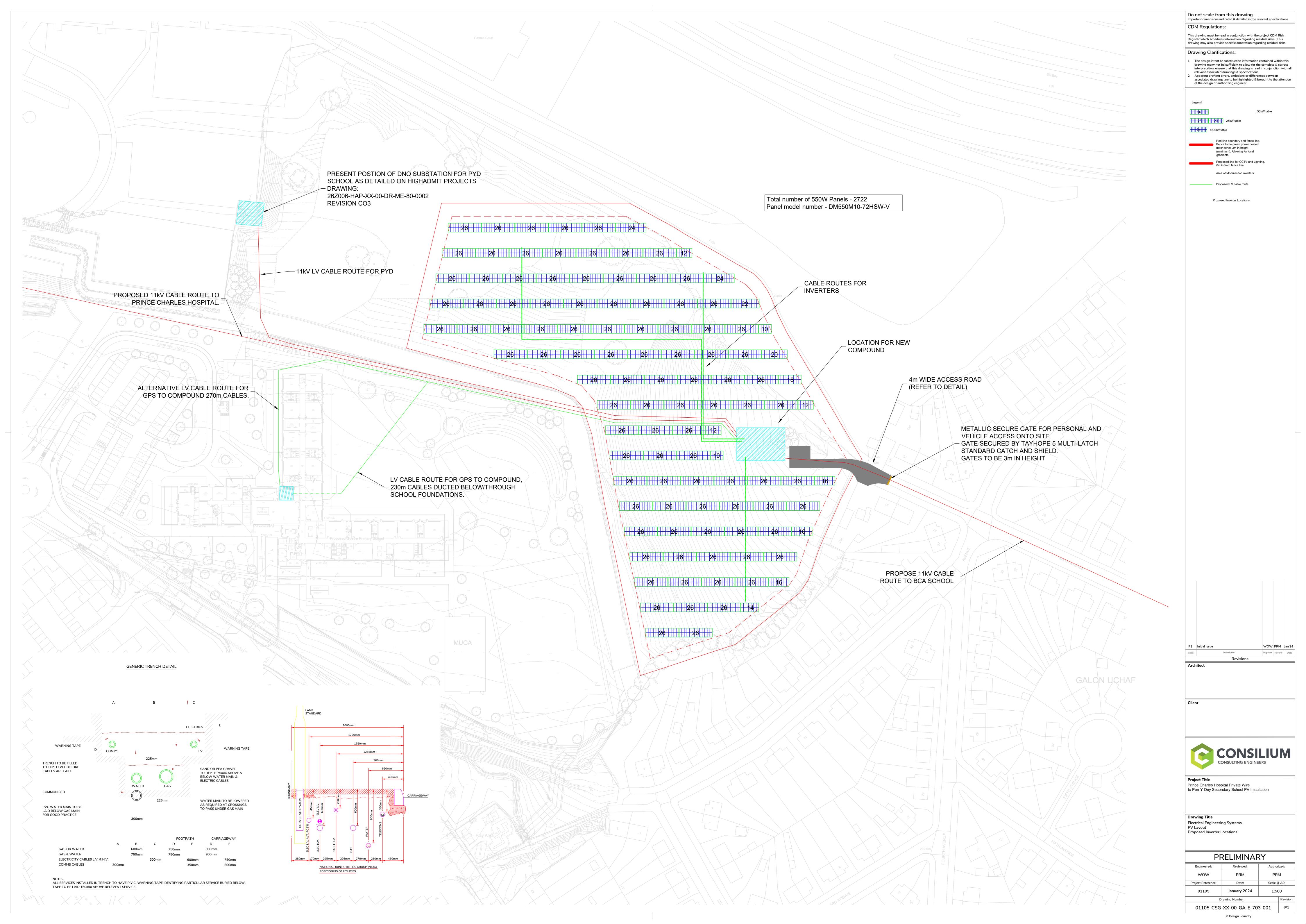


**Image EDP A1.4:** West facing view of areas of burning within the north-east corner of the Site on hill's flat summit.



**Image EDP A1.5:** South-west facing view from the eastern half of the Site at its tallest point looking towards the Grade II\* listed Cyfarthfa Castle ornamental park and garden (**PGW(Gm)1(MER)**).

# Appendix EDP 2 Proposed Development Plan



#### **Plans**

**Plan EDP 1:** Designated Historic Assets (edp7081\_d007a 01 May 2024 GYo/MBa)

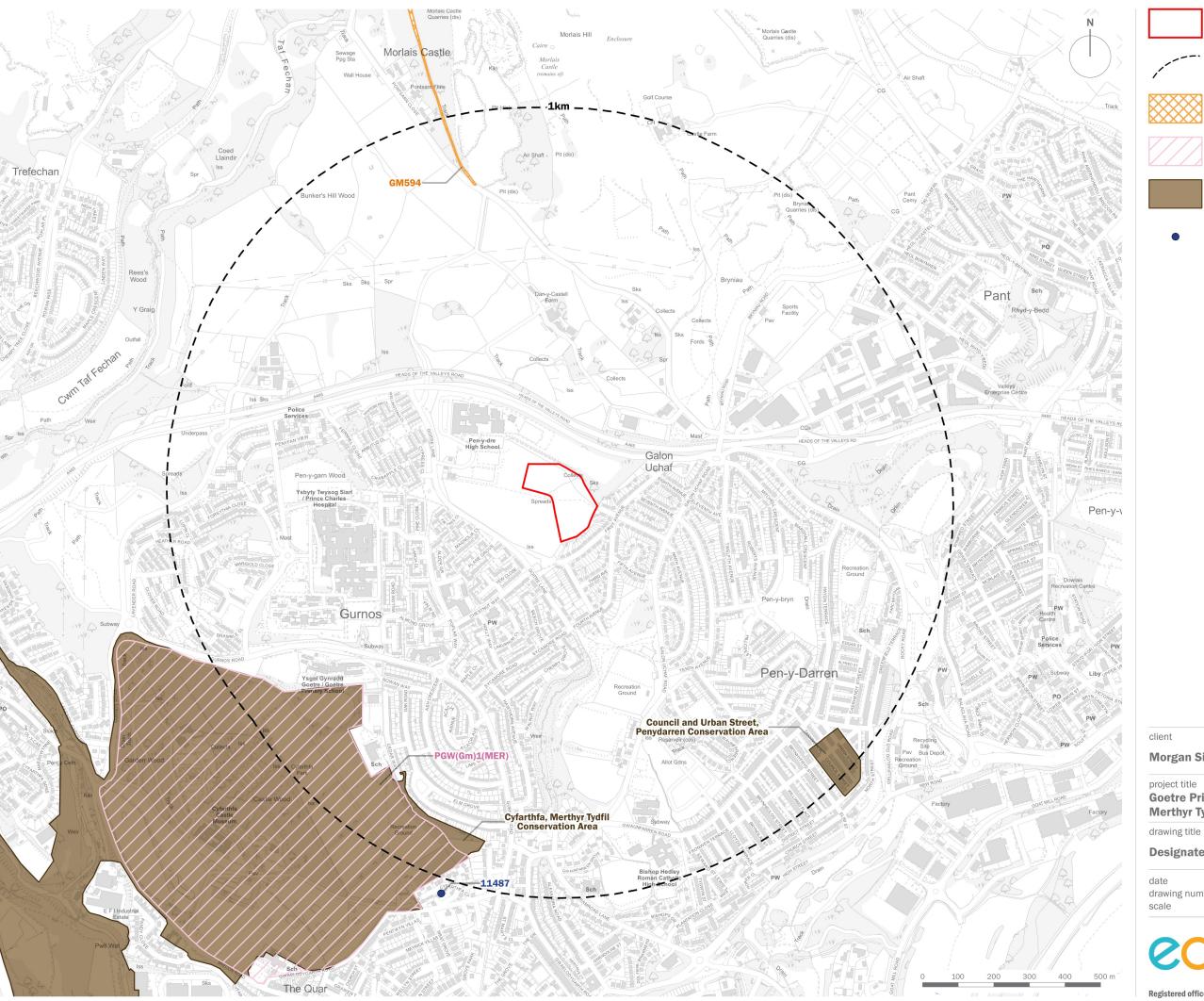
**Plan EDP 2:** Non-Designated Historic Assets (edp7081\_d008a 01 May 2024 GYo/MBa)

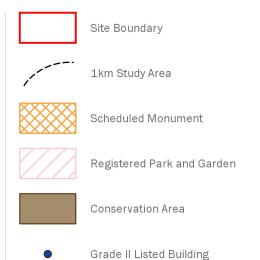
**Plan EDP 3:** Previous Archaeological Events (edp7081\_d009a 01 May 2024 GYo/MBa)

**Plan EDP 4:** LiDAR Sky View Factor Imagery (edp7081\_d010a 01 May 2024 GYo/MBa)

**Plan EDP 5:** Historic Maps (1850 to 1968-1986) (edp7081\_d011a 01 May 2024 GYo/MBa)

**Plan EDP 6:** Merthyr Tydfil Landscape of Outstanding Historic Interest – Historic Landscape Characterisation Areas (edp7081\_d012a 01 May 2024 GYo/MBa)





### **Morgan Sindall**

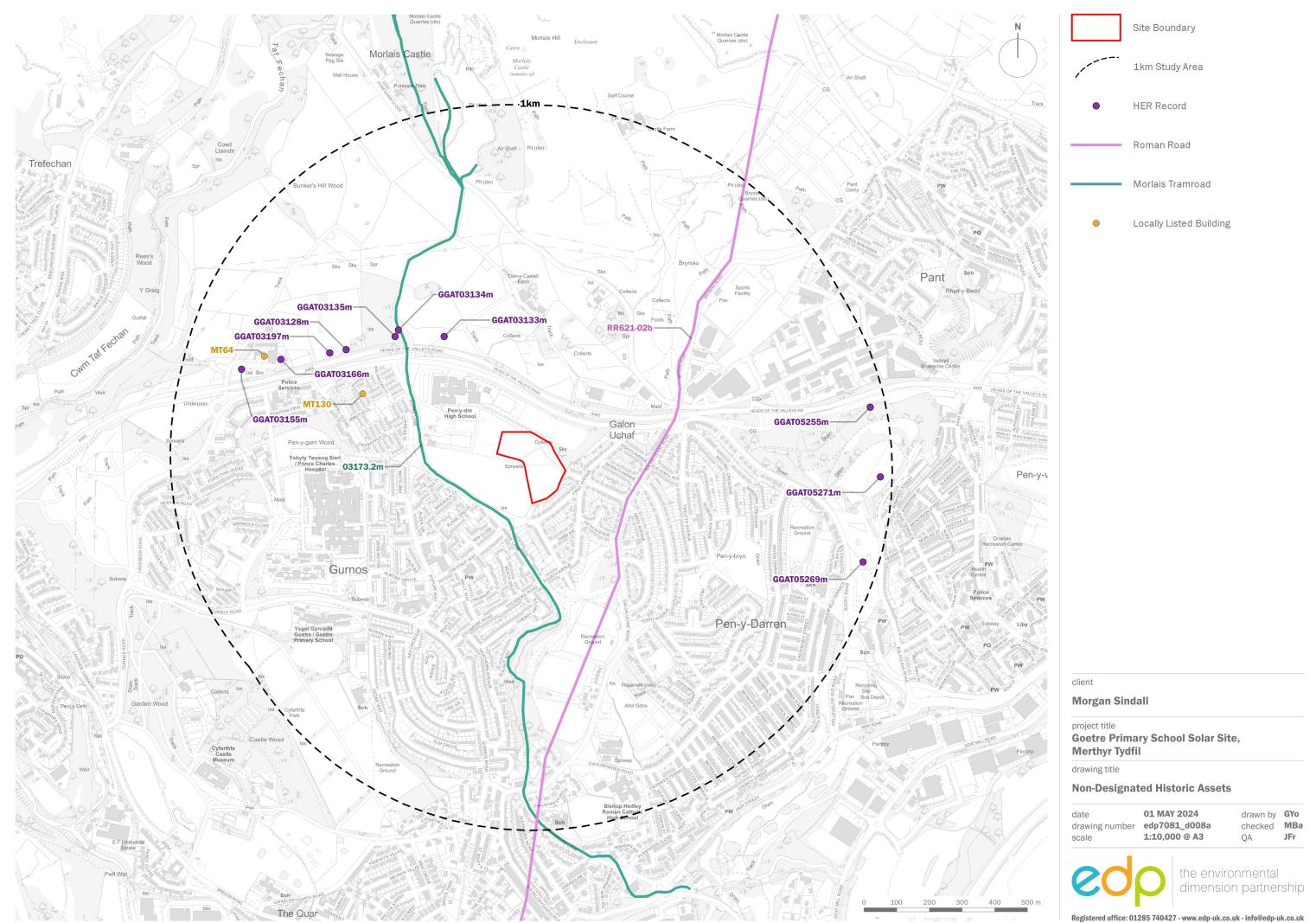
Goetre Primary School Solar Site, Merthyr Tydfil

**Designated Historic Assets** 

01 MAY 2024 drawn by **GYo** drawing number edp7081\_d007a checked MBa 1:10,000 @ A3 QA



JFr







client

# Morgan Sindall

project title

Goetre Primary School Solar Site, Merthyr Tydfil

drawing title

## **Previous Archaeological Events**

date 01 MAY 2024 drawn by GYo checked MBa scale 1:10,000 @ A3 QA JFr







Site Boundary



LiDAR Data (2020-2022) Using 1m Digital Terrain Model (DTM) with Sky View Factor Analyis

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## Morgan Sindall

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Goetre Primary School Solar Site, Merthyr Tydfil

drawing title

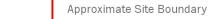
### **LiDAR Sky View Factor Imagery**

date 01 MAY 2024 drawing number scale 1:2,000 @ A3

drawn by **GYo** checked **MBa JFr** 



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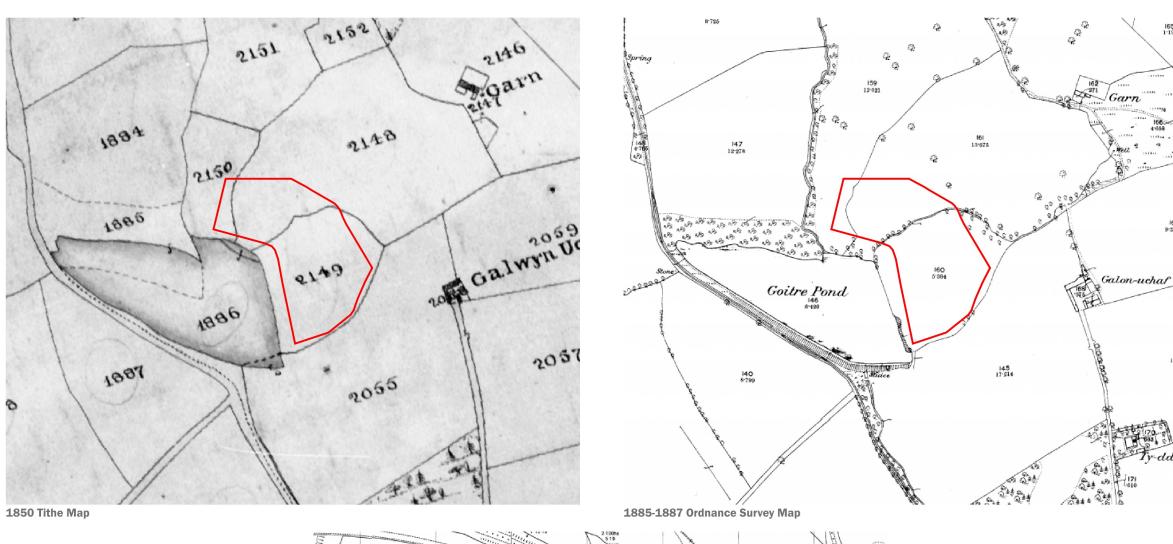
Goetre Primary School Solar Site, Merthyr Tydfil

drawing title

Historic Maps (1850 to 1968-1986)

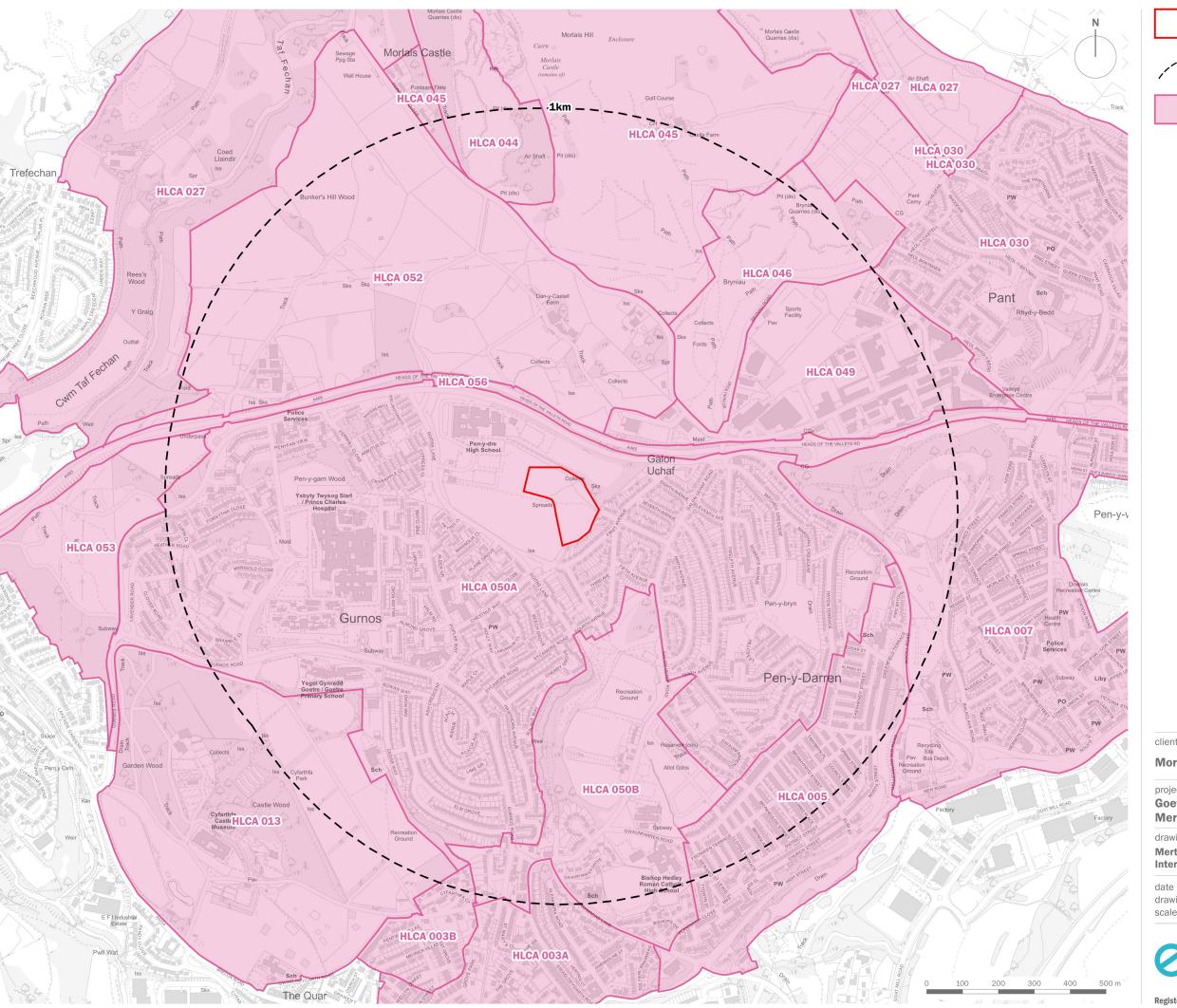
date	01 MAY 2024	drawn by	GYo
drawing number	edp <b>7081_d011</b> a	checked	MBa
scale	1:5,000 @ A3	QA	JFr







1968-1986 Ordnance Survey Map



Site Boundary 1km Study Area Historic Landscape Characterisation

## **Morgan Sindall**

project title

**Goetre Primary School Solar Site, Merthyr Tydfil** 

drawing title

Merthyr Tydfil Landscape of Outstanding Historic Interest - Historic Landscape Characterisation Areas

01 MAY 2024 drawn by **GYo** drawing number edp7081\_d012a checked MBa 1:10,000 @ A3 QA scale



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