

7 HISTORIC ENVIRONMENT

Introduction

- 7.1 This chapter assesses the likely significant environmental effects of the Proposed Development on the site and its surroundings in respect of the historic environment. It considers potential effects to known and potential buried archaeological remains within and in proximity to the site, as well effects to archaeological and built heritage assets in the surrounding area.
- 7.2 This chapter sets out the policy context, assessment methodology and baseline conditions of the site, examines potential effects of the Proposed Development at both the construction and operational stages, and presents mitigation measures to prevent, reduce or offset (where possible) any significant adverse effects. The likely residual effects once these mitigation measures have been implemented are presented, and their significance assessed. It further considers these effects alongside potential cumulative effects arising from nearby schemes. Relevant supporting information is provided within **Appendix 7.1** (Archaeological Desk Based Assessment (DBA) and **Appendix 7.2** (Heritage Impact Assessment).
- 7.3 The chapter has been written by Victoria Brocksopp BA (Hons) MA and Gregory Barrett BA (Hons), MPhil (Cantab), FRSA, IHBC of RPS Heritage, with oversight from Philip Bethell BA (Hons) MCIfA. Philip has over 40 years professional experience in the heritage sector and is a full Member of the Chartered Institute for Archaeologists, which is the leading professional body representing archaeologists working in the UK. RPS Heritage are one of the largest heritage teams within the UK with a proven track record relating to the successful delivery of sustainable developments involving effects on the historic environment.

Assessment Methodology

- 7.4 This section of this ES chapter presents the following:
- Relevant planning legislation, policy and guidance pertaining to development and the historic environment,
 - Information sources that have been consulted throughout the preparation of this chapter;
 - Details of consultation undertaken with respect to archaeology and built heritage;
 - The methodology behind the assessment of effects on archaeological and built heritage assets, including the criteria for the determination of sensitivity of receptor and magnitude of change from the existing ‘baseline’ condition;
 - An explanation as to how the identification of heritage assets and assessment of potential archaeological effects has been reached; and
 - The significance criteria and terminology for the assessment of archaeology and built heritage assets residual effects.

Legislative and Planning Policy Context

- 7.5 An outline of the relevant legislative and planning policy framework relating to development and the historic environment is provided below. Full details are provided in Section 2 of the Archaeological Desk Based Assessment (**Appendix 7.1**) and Section 2 of the Heritage Impact Assessment (**Appendix 7.2**).
- 7.6 National (UK-wide) legislation regarding archaeology, including scheduled monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002, and updated in April 2014.

- 7.7 Legislation relating to built heritage is contained within the Planning (Listed Buildings and Conservation Areas) Act 1990, which provides the framework to ensure that proposed works are developed and considered with due regard to their impact on designated heritage assets. The relevant legislation in this case extends from section 66 of the 1990 Act which states that special regard must be given by the decision maker, in the exercise of planning functions, to the desirability of preserving or enhancing listed buildings and their setting. The meaning and effect of these duties have been considered by the courts, including the Court of Appeal's decision in relation to Barnwell Manor Wind Energy Ltd v East Northamptonshire District Council [2014] EWCA Civ 137. The Court agreed within the High Court's judgement that Parliament's intention in enacting section 66(1) was that decision makers should give 'considerable importance and weight' to the desirability of preserving (i.e. keeping from harm) the setting of listed buildings.
- 7.8 The Historic Environment (Wales) Act 2016 was given Royal Assent in March 2016. This Act provides the legislative framework for managing the historic environment in Wales. The Act amends the two pieces of UK legislation, the Ancient Monument and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990, which currently provide the framework for the protection and management for the Welsh historic environment. The amendments address the needs of the Welsh historic environment and introduced several stand-alone provisions for Wales.
- 7.9 The Well-being of Future Generation (Wales) Act 2015 places duties on public bodies requiring them to act in accordance with the 'sustainable development principle'. The Act also establishes well-being goals which include achieving 'a Wales of vibrant culture and Welsh language', described as 'a society that promotes and protects culture, heritage and the Welsh language'. The Act lays down the principle that a properly protected, conserved and enhanced historic environment can improve the quality of life and well-being for everyone.
- 7.10 The Welsh Government has published Planning Policy Wales (PPW), currently updated to Version 11 from February 2021 (PPW11). This sets out the land use planning policies of the Welsh Government (procedural advice is given in circulars and policy clarification letters). Chapter 6 of PPW11, entitled 'Distinctive and Natural Places', has a section entitled 'The Historic Environment' (section 6.1 - pp. 125-131). This section sets out current national planning policy for consideration of the historic environment through the planning system.
- 7.11 The Hedgerow Regulations 1997 set out criteria that must be used by councils in deciding which hedgerows are important, to inform development proposals which may result in their removal.
- 7.12 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance PPW11, by current Development Plan Policy and by other material considerations.
- 7.13 In terms of local planning policy, the relevant policy extends from the Rhondda Cynon Taf Local Development Plan (adopted 2011) and in particular, Policy AW 7 – Protection and Enhancement of the Built Environment is relevant in relation to the historic environment.

Relevant Guidance

- 7.14 Relevant assessment guidance is fully detailed within the accompanying Archaeological Desk Based Assessment (**Appendix 7.1**) and Heritage Impact Assessment (see **Appendix 7.2**). In summary the following documents provide the relevant guidance for this application:
- Technical Advice Note (TAN) 24: The Historic Environment, Llywodraeth Cymru/Welsh Government (2017)
 - Conservation Principles for the Sustainable Management of the Historic Environment in Wales, Cadw (2011)
 - Heritage Impact Assessment in Wales, Cadw (May 2017)

- Setting of Historic Assets in Wales, Cadw (May 2017)

- 7.15 The local plan is supported by supplementary planning guidance (SPG), the most relevant of which is 'The Historic Built Environment' adopted in March 2011.
- 7.16 In order to assist developers on sites where archaeology requires consideration, Glamorgan-Gwent Archaeological Trust (GGAT) has produced a guidance note entitled a "Brief Guide to Archaeology and Planning in Southeast Wales" (available at www.ggat.org.uk).

Study Area

- 7.17 The site is described and defined in Chapter 2 of this ES.
- 7.18 The Archaeological DBA included a review of known archaeological assets within the site and within a 1km radius of its boundary: a study area deemed appropriate and proportionate to model the archaeological potential of the Proposed Development. Where assessment has been undertaken with regard to potential impacts on the settings of designated archaeological heritage assets, the search radius has been extended to 5km. The study area radius accords with pre-application advice provided by archaeological/heritage advisors at GGAT and the pre-planning application consultation response provided by Cadw (8 December 2021).
- 7.19 With regard to built heritage, the assessment includes the site as well as a study area extending 5km from the boundary, to identify built heritage assets with potential to be affected by the Proposed Development through changes to their settings. This study area accords with the pre-planning application consultation response provided by Cadw (8 December 2021).

Baseline Methodology

- 7.20 No standard EIA methodologies exist for built heritage and archaeological assessment. The applied assessment methodology for this chapter has been guided by various published documents including Conservation Principles for the Sustainable Management of the Historic Environment in Wales (2011) and the Design Manual for Roads and Bridges (2020). Although the latter was designed as best-practice for road schemes in particular, it is accepted as best-practice for the assessment of cultural heritage in relation to archaeology, listed buildings and historic landscapes.
- 7.21 The baseline methodologies for the Archaeological DBA and the Heritage Impact Assessment have been prepared following the methodology agreed with Cadw via the Scoping Direction (**Appendix 4.2**). This allows for the assessment of known archaeological heritage assets (both designated and non-designated) within the site and a 1km radius, and of designated archaeological assets within a 5km radius. With regard to built heritage, the agreed methodology included a study radius of 5km.
- 7.22 As part of a proportionate approach to the data, a Zone of Theoretical Visibility (ZTV) was produced to identify those heritage assets within the study area which experience a degree of intervisibility with the site and to inform an appropriate scoping exercise. These desk-based findings were tested and refined as part of a site visit, undertaken in April 2022, to assess the site and relevant identified heritage assets within the respective study areas.
- 7.23 The assessments are informed by evidence in the Historic Environment Record (HER) curated by GGAT for the site and for a 1km radius around the site centre (the study area). Data held by The National Monuments Record (NMR), part of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), was also consulted. Historic maps and documents were examined from publicly available on-line sources, as well as historic Ordnance Survey maps from open/commercial sources.
- 7.24 The Archaeological DBA has been prepared to Chartered Institute for Archaeologists' standard, which conforms to the Guidance for the Submission of Data to the Welsh Historic Environment Records 2018, and the RCAHMW Guidelines for Digital Archives 2015 (including Welsh translation of report summary).

- 7.25 The baseline assessments have identified, as far as is reasonably possible, the nature of the archaeological and built heritage resource within the site and its surroundings and assessed the sensitivity of all relevant features or assets. This has included full consideration of the assets’ settings, where relevant.
- 7.26 The findings of the baseline assessments have been used to inform the three-stage approach presented below, which is adopted in order to reach an understanding of the significance of any effect that a proposed development may have on a heritage asset. It is necessary to understand the sensitivity of the asset and the proposed impacts on the asset to assess the overall significance of effect on the identified assets.
- 7.27 Using a matrix that measures both asset sensitivity and impact magnitude produces an assessment of the significance of the effect of the Proposed Development on identified heritage assets. This approach, including the matrices themselves, is set out below in **Tables 7.2 – 7.4**.

Consultation

- 7.28 Pre-application consultation was undertaken with Cadw, as the historic environment service of the Welsh Government, as well as the Local Planning Authority and their archaeological/heritage advisors at GGAT. The responses are summarised below in **Table 7.1**.

Table 7.1: Historic Environment Consultation Responses

Date	Consultee and Issues Raised	How/ Where Addressed
Date	Consultee and Issues Raised	How/ Where Addressed
28 December 2021	<p>Cadw</p> <p>Cadw provided a detailed response and considered that the application was not appropriately documented at that time. They identified a large number of designated heritage assets, both archaeological and built heritage, which could potentially be affected by the development. They identified that no designated heritage assets would be directly impacted by the proposals, but that impacts are more likely to be on the settings of heritage assets. Cadw considered that a 5km radius from the proposed development boundary would be an appropriate distance to consider impacts on settings.</p> <p>Cadw listed 23 Scheduled Monuments, 2 Registered Parks and Gardens, and 177 listed buildings within 5km of the development site boundary. Cadw went on to say:</p> <p>“The above designated historic assets are located inside 5km of the proposed development, but there will not be a direct impact on them, although there could be an effect on their settings. The applicant is proposing to commission a heritage and cultural archaeology report to accompany the planning application. This report should assess any impact on the settings of these designated historic assets following the Welsh Government guidance given in the document “The Setting of Historic Assets in Wales”. It is expected that a stage 1 assessment should be carried out for all of the above designated heritage assets, which will determine the need, if necessary, for stages 2 to 4 to be carried out for specific heritage assets. The results of the stage 1 assessment should be included in the report, possibly as an appendix, in order to evidence that</p>	<p>An Archaeological DBA and Heritage Impact Assessment have been prepared to support the findings of the ES Chapter. These documents have been informed by all relevant best practice guidance and included the scope of assessment recommended by Cadw.</p>

Date	Consultee and Issues Raised	How/ Where Addressed
	the possible impact on the setting of the designated historic assets has been fully considered.”	
	<p>Glamorgan-Gwent Archaeological Trust (GGAT)</p> <p>GGAT responded as follows: “We have consulted the regional Historic Environment Record (HER) and note the proposal is located in an area of archaeological potential. Previous archaeological work in the close vicinity of the proposal has identified historically significant hedgerows and field boundaries, Post-medieval farmsteads and mining activity. We note that in the pre-application letter by RPS dated 11th November 2021, it is proposed to submit a ‘Heritage and Cultural Archaeology report’, and we would agree that such an approach is appropriate. This would certainly be our recommendation and is in accordance with PPW and TAN 24.</p> <p>The report will need to conform to the Standards and Guidance for historic environment desk-based assessment of the Chartered Institute for Archaeologists (CIfA) and to a methodology detailed in an agreed Written Scheme of Investigation (WSI).</p> <p>It is our policy to recommend that all archaeological work is carried out by either a Registered Organisation (RO) with CIfA, or by a full Member (MCIfA) of CIfA”.</p>	<p>An Archaeological DBA and Heritage Impact Assessment have been prepared to support the findings of the ES Chapter. These documents have been informed by all relevant standards and best practice guidance, as agreed with GGAT.</p>

Assessment Criteria and Assignment of Significance

7.29 The assessment of likely significant environmental effects on cultural heritage resources within the site has been conducted in line with the latest and most comprehensive guidance provided in the “Design Manual for Roads and Bridges (DMRB) published by the Highways Agency in 2007 (updated 2020), and the Chartered Institute for Archaeologists Standard and Guidance for historic desk-based assessment (updated October 2020). These documents do not provide a prescriptive approach to assessment but identify principles and good practice that have been applied in the methodology for this assessment.

Receptor Sensitivity

7.30 It is important to clarify the terminology used within this ES Chapter with regards to heritage assets, to ensure consistency and avoid confusion with the terminology recommended in relevant policy and guidance pertaining to development and the historic environment. Other chapters in this ES may refer to receptor “sensitivity” or “value”. This Chapter exclusively uses the term “sensitivity” to differentiate the term from other assessment criteria outlined by Cadw within *Conservation Principles*, which includes a range of heritage “values.” The Heritage Impact Assessment (**Appendix 7.2**) uses the term ‘value’ specifically in line with the Cadw guidance.

7.31 The sensitivity of a heritage asset is a qualitative assessment, determined in part by its status in terms of national, regional or local statutory or non-statutory protection and designations. It is also informed by factors such as the condition of the asset, relevant guidance (outlined in paragraph 7.14) and professional judgement. **Table 7.2** sets out the criteria for assessing sensitivity.

Table 7.2: Sensitivity of Heritage Assets

Sensitivity	Typical Descriptors
Very High	World Heritage Sites
High	Scheduled Monuments and archaeological sites of demonstrable schedulable quality and sensitivity Protected Wreck Sites Registered Battlefields Grade I and II* listed buildings Grade I and II* registered parks and gardens
Medium	Local Authority designated sites and their settings Undesignated sites of demonstrable regional sensitivity Grade II listed buildings Grade II registered parks and gardens Registered Historic Landscapes Conservation Areas
Low	Sites with specific and substantial sensitivity to local interest groups Sites whose sensitivity is limited by poor preservation and poor survival of contextual associations Locally Listed Buildings and buildings of some quality in fabric or historic association (i.e. non-designated heritage assets)
Negligible	Sites with no surviving archaeological or historical component

Magnitude of Impact

- 7.32 The determination of magnitude of impact is based on the level of change that the Proposed Development may have on cultural heritage receptors. The magnitude of impact is assessed by taking into consideration the extent/proportion of the asset affected, its type, its survival/condition, its fragility/vulnerability and its potential amenity value. It also takes into account the nature of past development or management effects.
- 7.33 The magnitude of impact is assessed without regard to the importance of the asset. In terms of the judgment of the magnitude of impact this is based on the principle that preservation of the asset and its setting is preferred, and that total physical loss of the asset is the least preferred. Determining the magnitude of impact is based on an understanding of how, and to what extent, a proposed development would impact on the buried archaeological assets and the setting of built heritage assets. The magnitude of impact is rated as High, Medium, Low, Negligible and No Impact.
- 7.34 The survival of archaeological remains is often uncertain without archaeological evaluation and in these circumstances the magnitude of impact can only be estimated or stated as unknown. The magnitude of change resulting from the impact may vary depending on the nature of past development or management effects. These effects could include temporary or permanent land take or excavation, ground disturbance and compaction.
- 7.35 Development impacts can be characterised as to whether they would be:
 - Direct or Indirect;
 - Beneficial or Adverse;
 - Short, Medium or Long Term;
 - Reversible or Irreversible; and/or
 - Cumulative.

- 7.36 Direct impacts are those impacts which arise directly from the Proposed Development. These effects may arise from physical impacts to heritage assets or through non-physical impacts via changes to their settings. Indirect effects comprise effects which are not a direct result of the Proposed Development. These may be effects arising from a complex pathway.
- 7.37 The criteria for assessing magnitude of predicted change on cultural heritage receptors are given in **Table 7.3** below.

Table 7.3: Magnitude of Impact

Magnitude of Impact	Typical Descriptors
High	Total or substantial loss of the sensitivity of a heritage asset
	Substantial harm to a heritage asset's setting, such that the sensitivity of the asset would be totally lost or substantially reduced (e.g. the sensitivity of a designated heritage asset would be reduced to such a degree that its designation would be questionable; the sensitivity of an undesignated heritage asset would be reduced to such a degree that its categorisation as a heritage asset would be questionable)
Medium	Partial loss or alteration of the sensitivity of a heritage asset
	Harm to a heritage asset's setting, such that the asset's sensitivity would be materially affected/considerably devalued, but not totally or substantially lost
Low	Slight loss of sensitivity of a heritage asset. This could include the removal of fabric that forms part of the heritage asset, but that is not integral to its sensitivity (e.g. the demolition of later extensions/additions of little intrinsic value)
	Some harm to the heritage asset's setting, but not to the degree that it would materially compromise the sensitivity of the heritage asset
	Perceivable level of harm, but insubstantial relative to the overall interest of the heritage asset
Negligible	A very slight change to a heritage asset. This could include a change to a part of a heritage asset that does not materially contribute to its sensitivity
	Very minor change to a heritage asset's setting such that there is a slight impact not materially affecting the heritage asset's sensitivity
No change/impact	No change to a heritage asset or its setting

Significance of Effects

- 7.38 The sensitivity of a heritage asset, together with the magnitude of impact, defines the significance of the effect for the heritage asset in question. The significance of effect has been established with reference to the matrix set out in **Table 7.4**. The environmental effect outlined below represents the effect on the heritage assets without mitigation. A significance of effect of 'major' or 'moderate' would be considered to equate to significant effects highlighted in the context of EIA Regulations.
- 7.39 Designated heritage assets such as scheduled ancient monuments and listed buildings are all of high or medium sensitivity and so even low levels of predicted magnitude of change to these features can be significant. Assessment of the effect of development on the setting of heritage assets follows the guidance issued by Cadw.
- 7.40 This assessment process is not quantitative, but relies upon professional judgement at each step. However the factors considered in informing these judgements and in arriving at the various rankings and magnitudes of impact and significance of effect are observable facts (i.e., numbers of assets, special relationships, designations, impacts). This matrix approach is not intended to mechanise judgement on the significance of effect, but to act as a check to ensure that judgements regarding sensitivity, magnitude of impact and significance of effect are reasonable and balanced, in order to allow for professional judgement.

Table 7.4: Assessment Matrix for Significance of Effect

Sensitivity	Magnitude of Impact				
	No Change	Negligible	Low	Medium	High
Negligible	No change	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	No change	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	No change	Negligible or Minor	Minor	Moderate	Moderate or Major
High	No change	Minor	Minor or Moderate	Moderate or Major	Major or Substantial
	No change	Minor	Moderate or Major	Major or Substantial	Substantial

7.41 The broad definitions of the significance of effect can be defined as:

- **Substantial:** Only adverse effects are normally assigned this level of significance. They represent key factors in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also enter this category.
- **Major:** These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process.
- **Moderate:** These beneficial or adverse effects may be important, but are not likely to be key decision-making factors. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse effect on a particular resource or receptor.
- **Minor:** These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the project.
- **Negligible:** No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Limitations of the Assessment

7.42 With regard to archaeology, the assessment of the scale of effects is based on extensive professional experience gained from project work across Wales and the rest of the United Kingdom.

7.43 The information presented in this ES chapter and the technical appendix (**Appendix 7.1**) provides an indication of below ground archaeological assets present or likely to be present, rather than a definitive list of all assets likely to be present, as the full extent of below ground archaeological assets cannot be known prior to site-specific archaeological field investigation.

7.44 The principal limitation to the assessment of effects upon below ground heritage assets is the nature of the archaeological resource, which is buried and therefore not visible. This means it can be difficult to accurately predict the presence and likely sensitivity of below ground heritage assets, and the likely impact (and resultant effects) of the Proposed Development upon such assets.

7.45 With regard to built heritage, there is some limitation to the assessment in that potential intervisibility between the site and built heritage assets may vary to some degree due to seasonal changes for

intervening tree cover and planting. This potential limitation is considered to be a low risk, however, due to the accompanying ZTV which supplements the on-site assessment work.

- 7.46 With regard to both archaeology and built heritage, the assessment assumes the accuracy of the available datasets reviewed in its compilation. The technical appendices undertaken to support this ES Chapter were produced in April 2022, including a range of both desk and site-based assessment.

Baseline Environment

Archaeology

- 7.47 The current baseline conditions are informed by the Archaeological DBA (undertaken April 2022), which is appended to this ES as **Appendix 7.1**. A summary of the assessment is presented below. A plan showing the location of the archaeological resources in relation to the site is provided in **Figure 7.1**. The archaeological results are summarised (where relevant) by archaeological periods, as follows:

Prehistoric

Palaeolithic	c. 800,000 -	10,000 BC
Mesolithic	c. 10,000 -	4,400 BC
Neolithic	c. 4,400 -	2,300 BC
Bronze Age	c. 2,300 -	700 BC
Iron Age	c. 700 -	AD 43

Historic

Roman	AD 43 -	410
Post-Roman/Early Medieval	AD 410 -	1066
Medieval	AD 1066 -	1536
Post Medieval	AD 1536 -	1750
Industrial	AD 1750 -	1899
Modern	AD 1900 -	Present

- 7.48 In terms of relevant designated archaeological assets, no World Heritage Sites, Scheduled Monuments, Historic Wreck or Historic Battlefield sites are present within the site.
- 7.49 No previous archaeological work has taken place within the site.
- 7.50 The underlying bedrock of the site consists of mudstone, siltstone and sandstones of the Carboniferous Grovesend Formation. Superficial deposits are recorded as Devensian Till – Diamicton, deposited during the Quaternary Period.
- 7.51 While no specialist Historic Landscape Characterisation data has been viewed for the site, it lies within the Landmap Aspect Area CynonHL187 (GGAT 2004). Landmap is a Wales-wide landscape characterisation tool developed by the Countryside Council for Wales, and describes the Aspect Area as follows:
‘Irregular fieldscape enclosing a series of isolated and dispersed Post-medieval farmsteads. Most, if not all, of the farmsteads date to the Post-medieval period and it remains unclear if this distribution represents Medieval settlement continuity through this period.’
- 7.52 The implication of this assessment is that the current landscape containing the site had its origins in Post-Medieval enclosures, and the area may well have been more marginal, uncultivated land prior to the building of Maes Mawr farmhouse in the eighteenth century.
- 7.53 The HER records no non-designated archaeological assets within the site.

- 7.54 Historic mapping has demonstrated that the site has generally comprised open agricultural or pastoral land from the Post Medieval period until the present day.
- 7.55 The Archaeological DBA concluded that the site can be considered to have a low potential for archaeological remains associated with the Prehistoric, Roman, Early Medieval and Medieval periods.
- 7.56 Current evidence indicates that the site has been used solely for agricultural purposes throughout the Post-Medieval, Industrial and Modern periods from at least 1700. While development has taken place in the surrounding area, none has taken place within the site. Post-medieval features in the form of field boundaries survive. Based on this evidence, it is considered that the site has a low potential for hitherto unknown archaeological assets from the Post-Medieval to Modern periods to be present. Any such finds are likely to consist solely of evidence of agricultural practices, and therefore to be of no more than low/local sensitivity.
- 7.57 Some of the hedgerows forming internal boundaries within the study site are likely to be considered 'important' under the Hedgerow Regulations, as they were present at the time of the Tithe mapping in 1840.
- 7.58 As part of the baseline assessment the Archaeological DBA additionally included a review of known archaeological assets within a 1km radius of its boundary (both designated and non-designated assets). There is one scheduled monument within the 1km study area:
- Tomen Y Clawdd (GM064), 800m NW of the study site.
- 7.59 This scheduled monument has very limited intervisibility with the site, and the site is not considered to be part of its setting.
- 7.60 Where assessment has been undertaken with regard to potential impacts on the settings of designated archaeological heritage assets, the search radius was extended to 5km. There are a further 21 scheduled monuments within 5km of the site. A ZTV model was used to ascertain if any of the designated archaeological heritage assets within the study area might experience potential intervisibility with the site and required detailed assessment for potential impacts on their settings. The following six scheduled monuments were considered to be within or on the periphery of the ZTV and have been assessed in detail within the Archaeological DBA:
- Rhiw Saeson Caerau (GM065) 4.5km SW of the study site
 - Five Round Barrows on Garth Hill (GM107) 2.5km S of the study site
 - Cross Ridge Dyke & Earthwork on Cefn Eglwysilan (GM452) 4km N of the study site
 - Newbridge Beam Engine (GM457) 3.5km N of the study site
 - Garnedd Lwyd (GM462) 4km N of the study site
 - Ring Cairn and Two Standing Stones on Coedpenmaen Common (GM510) 4km NW of the study site
- 7.61 For these six scheduled monuments within 5km of the site, no more than a negligible potential impact on the setting of one asset, the Rhiw Saeson Caerau hillfort, is identified. For all the others, a combination of intervisibility, distance, and the scale of contribution to often very extensive settings has led to the conclusion that no impact will arise for any designated archaeological heritage asset as a result of the Proposed Development.

Built Heritage

- 7.62 With regard to built heritage, a full description of the scope of assessment can be found in the *Identification of Heritage Assets* section of the appended Heritage Impact Assessment (Section 3, **Appendix 7.2**).

7.63 The site does not contain any designated or non-designated built heritage assets. There are a large number of designated built heritage assets (177 listed buildings and two Registered Parks and Gardens) located within the 5km study area. As part of a proportionate approach to the assessment process a scoping exercise was undertaken using the findings of the ZTV model and further informed by a site visit in April 2022. This exercise determined which built heritage assets currently experience a degree of intervisibility with the site and have potential to experience visual effects arising from the Proposed Development (it is recognised that the setting of a heritage asset is also derived from other factors beyond intervisibility and this is fully considered in the Heritage Impact Assessment).

7.64 The following designated built heritage assets have been scoped into assessment. In some cases, these have been grouped to due to interrelated historical development, setting, or relationship with the site:

Assessed as a group:

- 29 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13490)
- 30 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13491)
- Glyntaff Roundhouse, Grade II listed building (Cadw ref: 13492)
- 32 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13493)

Assessed as a group:

- Castle Bridge, Grade II listed building (Cadw ref: 24869)
- Crawshay Obelisk SW of Castle Bridge, Grade II listed building (Cadw ref: 24870)
- Treforest Tinplate Works Feeder Sluice and Weir, Grade II listed building (Cadw ref: 80670)

Assessed independently:

- Church of St Illtyd, Grade II listed building (Cadw ref: 25541)
- Pig Sty at Berthlwyd Farm, Grade II listed building (Cadw ref: 24886)
- Coed Y Lan Comprehensive Lower School, including rear science block and Gymnasium, Grade II listed building (Cadw ref: 24874)
- Welch Regimental War Memorial, Grade II listed building (Cadw ref: 24858)

7.65 The following section provides a summary of the built heritage baseline in reference to the built heritage receptors scoped into assessment. A full assessment of the sensitivity of each heritage asset, including the contribution of the setting and site to their sensitivity, can be found in Section 3 of the accompanying Heritage Impact Assessment (**Appendix 7.2**).

The Glyntaff Roundhouse, Nos. 29, Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan; 30 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan; Glyntaff Roundhouse; and 32 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan (assessed as a group)

7.66 The Glyntaff Roundhouse and associated buildings are individually listed at Grade II and are regarded as heritage receptors of medium sensitivity. The Glyntaff Roundhouse and the adjoining buildings comprise a pair of three-stage round towers flanking wrought iron gates with two-storey attached wings of rendered walls painted white

7.67 The sensitivity of the buildings are principally drawn from their architectural and historic interest derived from their date of construction, vernacular style and original owner. The connection to Dr William Price and the wider Druid movement further contributes to the historic interest of the listed buildings.

- 7.68 The buildings are located on a partially wooded hillside. This setting makes a moderate contribution to the sensitivity of the listed buildings, albeit mostly appreciated now from the lane running to the front of the building, due to modern housing having been built to the south. The site is separated from the heritage receptors (approximately 3.8km away) with intervening valley-based developments of industrial sites and commercial buildings, including the road, rail and canal networks. The site does not contribute to the sensitivity of the listed buildings, but forms a peripheral, rural part of their much wider extended setting.

Castle Bridge; Crawshay Obelisk SW of Castle Bridge; and Treforest Tinplate Works Feeder Sluice and Weir (assessed as a group)

- 7.69 Castle Bridge is a former road bridge dating from the nineteenth century. Spanning the River Taff, the bridge is constructed of rubble stone with segmental arches. The medium sensitivity of the bridge is derived from its historic interest as a nineteenth century crossing point on the River Taff, constructed of local stone and altered again in the late nineteenth century when traffic increased.
- 7.70 The Crawshay Obelisk is located to the southwest of Castle Bridge. The obelisk was raised in 1844 and erected by Francis Crawshay of the nearby Treforest Tinplate Works. The heritage receptor is of medium sensitivity and has historic interest for the age of its fabric, its links to the Crawshay family and the nearby tinplate works, and in being representative of the antiquarian interests and subsequent designs of the time.
- 7.71 The Treforest Tinplate Sluice and Weir is located to the south of Castle Bridge and is a heritage receptor of medium sensitivity. The structure has historic interest as an element of the industrial past of the area, both to power water works and then later as part of the age of steam.
- 7.72 The heritage receptors are located on or next to the River Taff, and all share a historic and functional connection with the river, which continues to make a positive contribution to their settings by informing an understanding of their historic uses and sensitivity. The site lies approximately 3.3km to the south of the group of heritage receptors and forms a peripheral, rural element of their extended settings, making no specific contribution in its own right to those settings. The site does not contribute to the sensitivity of the heritage receptors.

St Illtyd's Church, Church Village

- 7.73 St. Illtyd's is a medieval church on an ancient Celtic site. The bell tower is dated 1636 but the long walls of the nave and at least the south wall of the chancel date from the thirteenth century, other work is thought to date from 1525. The church was extensively remodelled in the early 1970s. The sensitivity of the building is derived from its architectural and historic special interest as a long standing, purpose built Christian place of worship. The heritage receptor is of medium sensitivity.
- 7.74 The former open landscape setting of this medieval church has been altered over time. The associated churchyard makes a strong contribution to the immediate setting of the building. The fields to the north reflect the historic, rural setting of the listed building and also contribute to its historical value. The site is separated from the listed building, approximately 1.7km away, by the housing estates of Church Village and is sited lower in the landscape. While forming a remnant of the wider rural landscape once surrounding the church, these settlement changes have meant the site does not form an appreciable part of the setting of the heritage receptor and makes no contribution to its sensitivity.

Pig Sty at Berthlwyd Farm

- 7.75 The heritage receptor is a round, corbelled pigsty that dates to circa 1800. The sensitivity of the building is derived from its historic interest as one of the few surviving corbelled pigsties in Glamorgan, and as such has evidential and historic value. The listed structure is regarded as having medium sensitivity.

7.76 The surrounding agricultural buildings and land of Berthlwyd Farm contribute to the setting and sensitivity of the heritage receptor. The site lies approximately 2.8km to the south of the heritage receptor and forms a peripheral, rural element of its wider setting. Other than forming one part of its wider setting, the site does not contribute to the sensitivity of the listed building.

Coed Y Lan Comprehensive Lower School, including rear science block and gymnasium

7.77 The heritage receptor was opened as the County School in 1896. The building is asymmetrical and of two storeys, constructed of rock faced stone with brick dressing under a slate roof. The sensitivity of the school is derived from its architectural and historic interest as a nineteenth century County School, the development of which was linked to Welsh educational reforms. The heritage receptor is considered to have medium sensitivity.

7.78 The immediate setting of the listed building contains the former high school campus, and these close surroundings contribute to the setting and sensitivity of the former school. Set into a relatively prominent location on the hillside, views out towards Pontypridd and the surrounding landscape assist in understanding the historic interest of the heritage receptor. It is considered that the site forms part of the far wider rural setting of the listed building, located approximately 5km away, but makes no contribution to its sensitivity.

Welch Regimental War Memorial

7.79 The listed structure is an obelisk constructed of rock faced sandstone dedicated to the Welch Regiment and their actions during both World Wars. The sensitivity of the structure is derived from its historic interest (derived from historical and communal value) as a reminder of the community’s role and loss during two major, transformative conflicts. The heritage receptor is considered to have medium sensitivity. The position of the monument, its visual prominence, and the surrounding public park, contribute to its historic interest and an appreciation of its sensitivity.

7.80 The site forms an extended part of the setting of the heritage receptor, as one small part of the surrounding rural landscape, approximately 4.6km away. The site makes no contribution to the sensitivity of the monument.

Summary of Heritage Receptors

Table 7.5: Scoped in heritage assets and identification of sensitivity

Baseline Evidence	Description of Resource/ Asset and Potential	Comment	Sensitivity
DBA	Prehistoric activity	Low – no Prehistoric material recorded within 1km	Low (Local) – only chance finds likely
DBA	Roman activity	Low – only Roman potsherd recorded within 1km	Low (Local) – only chance finds likely
DBA	Early Medieval/ Medieval activity	Low – likely to have been marginal agricultural land at best	Low (Local) – only chance finds likely
DBA	Post Medieval/ Industrial/ Modern activity	Low – Agricultural land throughout this time	Low (Local) – only chance finds likely, evidence of agricultural use
DBA	Rhiw Saeson Caerau (GM065), scheduled monument	Located approximately 4.5km from the site	High

Baseline Evidence	Description of Resource/ Asset and Potential	Comment	Sensitivity
Heritage Impact Assessment	Glyntaff Roundhouse, Grade II (Cadw ref: 13490)	Located approximately 3.8km from the site	Medium
Heritage Impact Assessment	No. 29, Graid Yr Helfa Road, Grade II (Cadw ref: 13491)	Located approximately 3.8km from the site	Medium
Heritage Impact Assessment	No. 30 Graig yr Helfa Road, Grade II (Cadw ref: 13492)	Located approximately 3.8km from the site	Medium
Heritage Impact Assessment	No. 21 Graig yr Helfa Road, Grade II (Cadw ref: 13493)	Located approximately 3.8km from the site	Medium
Heritage Impact Assessment	Castle Bridge, Grade II (Cadw ref: 24869)	Located approximately 3.3km from the site	Medium
Heritage Impact Assessment	Crawshay Obelisk SW of castle Bridge, Grade II (Cadw ref:24870)	Located approximately 3.3km from the site	Medium
Heritage Impact Assessment	Treforest Tinplate Works Feeder Sluice and Weir, Grade II (Cadw ref: 80670)	Located approximately 3.3km from the site	Medium
Heritage Impact Assessment	St Illtyd's Church, Grade II (Cadw Ref: 25541)	Located approximately 1.7km from the site	Medium
Heritage Impact Assessment	Pig Sty at Berthlwyd Farm, Grade II (Cadw Ref: 24886)	Located approximately 2.8km from the site	Medium
Heritage Impact Assessment	Coed Y Lan Comprehensive Lower School, including rear science block and gymnasium, Grade II (Cadw ref: 24874)	Located approximately 5km from the site	Medium
Heritage Impact Assessment	Welch regimental War Memorial, Grade II (Cadw ref: 24858)	Located approximately 4.6km from the site	Medium

Future Baseline Conditions

- 7.81 The current baseline scenario has been outlined above. The site currently comprises a number of parcels of agricultural land used for a mix of pasture and arable purposes.
- 7.82 No archaeological heritage assets are recorded within the site. In terms of the future baseline, it is considered that without the implementation of the Proposed Development the site would likely remain in use as agricultural land. If any hitherto unknown archaeological receptors are present, the likely evolution of the current archaeological environment could include the unrecorded loss of any such archaeological receptors on the site through agricultural practices.
- 7.83 With regard to built heritage assets, if the Proposed Development were not implemented then there would be no changes to the extended settings of the identified built heritage assets. The limited degree to which the built heritage assets derive sensitivity from the site as one small element of their wider settings, however, is such that the effects of no development would be minimal to the way in which the sensitivity of the assets is experienced and appreciated.

7.84 The likely ranges of change in climatic parameters including precipitation, temperature, wind speed, humidity and frequency of extreme weather may affect the native flora. While this would not affect the sensitivity of identified heritage assets, it may affect the magnitude of impact, e.g. the Proposed Development may be more visible from some heritage assets which experience semi-screened views at present. This could possibly require assessment of a higher number of heritage assets as part of the baseline where loss of trees could enable views not currently possible (although these effects are likely to be limited due to the application of a ZTV model as part of the assessment methodology).

Mitigation Measures Adopted as Part of the Project

Archaeology

Pre-Construction

7.85 Any mitigation measures will be developed in consultation with GGAT as required. Any mitigation measures will be undertaken as best practice determines and will comprise measures to preserve the archaeological resource by record prior to any significant impacts.

During Construction

7.86 Depending on the extent of pre-construction mitigation, programmes of archaeological monitoring may be required during construction.

During Operation

7.87 No archaeological effects are anticipated at the operational stage and therefore no further mitigation measures are required.

Built Heritage

7.88 No mitigation measures are required with regard to built heritage receptors within the study area, taking into consideration the distance at which they are located from the site and minimal visual effects which will likely arise as a result of the Proposed Development. The implementation of proposed landscaping would, however, assist to soften the limited views of the Proposed Development which may exist.

Assessment of Construction Effects

7.89 This section identifies and assesses the likely impacts and effects on relevant archaeological and built heritage assets during the construction phase of the Proposed Development. The potential impacts, and the significance of the effects on the assets, are characterised in the absence of mitigation measures.

Archaeology

7.90 The assessment of the impact of construction works is based on the knowledge regarding the site's archaeological remains and assumed construction impacts (described below).

7.91 There are no known archaeological heritage assets within the site and as such there will be no direct physical impacts to any known designated or non-designated archaeological heritage assets.

7.92 There is the potential for unknown buried archaeological remains to be disturbed or destroyed by new construction within the site. In the case of the Proposed Development, this would be where topsoil is removed for e.g. access tracks, construction compounds, transformer bases, etc.

- 7.93 The assessment has identified a low potential for hitherto unknown archaeological remains from any period to be present within the site.
- 7.94 It is considered likely that any effects to below ground archaeological heritage assets as a result of construction activities would be adverse in nature given the disturbance of any below ground remains which may be present within the site. Any disturbance or destruction of archaeological remains would be regarded as a high impact. These impacts would be limited to the site and would be permanent and irreversible.
- 7.95 These effects would be limited to the site and will be permanent and irreversible.
- 7.96 It is understood that existing hedgerows within the site are to be retained within the Proposed Development. There would therefore be no adverse effects on important historic hedgerows.
- 7.97 Any effects as a result of construction activities on the settings of archaeological heritage assets outside of the site would be **negligible** (insignificant).

Built Heritage

- 7.98 With regard to built heritage, it is possible that the scoped in heritage assets could experience some minor and long-distance views towards the site, which could include views of any plant required as part of the construction process. These effects would be short term and temporary. Given the nature of the Proposed Development as a solar farm, however, it is not anticipated that works during the construction phase would materially impact upon the way in which the sensitivity of the heritage assets is currently experienced and understood.
- 7.99 An evaluation of the predicted impacts for both archaeological and built heritage assets during construction are included in **Table 7.6**, along with the subsequent nature, scale and significance of effects.

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Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant
Prehistoric activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant
Roman activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant
Early Medieval/ Medieval activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant
Post Medieval/ Industrial/ Modern activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant
Rhiw Saeson Caerau (GM065)	High	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Minor	Not significant
Glyntaff Roundhouse	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
No. 29, Graid Yr Helfa Road	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
No. 30 Graig yr Helfa Road	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
No. 21 Graig yr Helfa Road	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
Castle Bridge	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant

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Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant
Crawshay Obelisk SW of castle Bridge	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
Treforest Tinplate Works Feeder Sluice and Weir	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
St Illtyd's Church	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
Pig Sty at Berthlwyd Farm	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
Coed Y Lan Comprehensive Lower School, including rear science block and gymnasium	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant
Welch regimental War Memorial	Medium	Alteration of minor element of extended setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant

Table 7.6: Effects to Heritage Assets During Construction Phase

- 7.100 The range of sensitivity of known or potential archaeological assets is generally anticipated to be Low (Local). The magnitude of impact is considered to be High Direct upon any archaeological remains within the footprint of the Proposed Development as these are likely to be directly impacted and unlikely to survive the demolition and construction process. Using the matrix in **Table 7.5** this would give rise to **Moderate/Minor** significance of effects to potential archaeological heritage assets.
- 7.101 Professional judgement has subsequently been applied and the construction of the Proposed Development is assessed as likely having a generally permanent **Minor Adverse** effect on archaeological remains. These effects would not be considered significant.
- 7.102 It is considered that any indirect impacts upon relevant archaeological assets outside of the site will be **Negligible**.
- 7.103 With regard to built heritage, the construction phase of the Proposed Development may result in the introduction of plant to the site, an increase in activity on the site as a result of construction works, and potential increase in vehicular activity on the routes leading to the site. Due to the distance between the built heritage receptors and the site, the lack of contribution of the site to their sensitivity, and the degree of interceding development, these changes would result in a short term, temporary, negligible magnitude of impact. Given the medium sensitivity of all of the heritage receptors concerned, this would give rise to a short term, temporary, **Negligible/Minor** significance of effect.

Further Mitigation

- 7.104 Given the nature of the potential impacts and low significance of effects to heritage assets described above, further mitigation measures are not required.

Accidents and/or Disasters

- 7.105 There are no anticipated accidents or disasters which would affect identified archaeological or built heritage assets.

Assessment of Operational Effects

- 7.106 This section provides an assessment of potential effects that would occur during the operational phase of the Proposed Development. The Proposed Development is fully described in detail in Chapter 2 of this ES. This description makes clear that the Proposed Development is temporary and fully reversible at the end of its 'lifespan' (up to forty years).

Archaeology

- 7.107 The Proposed Development, once completed, will not have any effect on archaeological remains within the site as it has been assumed that the construction phase will have disturbed any remains which may be present as a result of excavation, earthworks and other below ground construction activities. Consequently, no further direct physical effects will occur to relevant archaeological assets during this phase.
- 7.108 Any effects on archaeological heritage assets will be confined to the settings of any assets within the study area. At distances further than 1km from the site, it is considered that the Proposed Development would not produce noise or light pollution, or generate increased traffic, which could adversely affect the identified archaeological heritage assets in a way unrelated to visibility.
- 7.109 The one scheduled monument within 1km of the study site has very limited intervisibility with the site, and the site is not considered to be part of its setting. For the other six scheduled monuments within 5km of the site, no more than a **negligible** potential effect on the setting of one asset, the Rhiw Saeson Caerau hillfort, is identified. For all the other scheduled monuments, a combination of intervisibility, distance, and the scale of contribution to often very extensive settings has led to the

conclusion that there would be **no impact** to the settings or sensitivity of any designated archaeological heritage assets as a result of the Proposed Development.

- 7.110 No indirect impacts are anticipated for archaeological heritage assets with respect to the Proposed Development.

Built Heritage

- 7.111 Some limited and distant, direct and temporary operational effects would arise as a result of primarily visual effects on the settings of the identified built heritage assets. These effects would include views towards the solar panels occupying the site. These effects would be temporary, limited to the 'lifespan' of the Proposed Development and would be reversible.
- 7.112 No indirect impacts are anticipated for built heritage assets with respect to the Proposed Development.

29 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan; 30 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan; Glyntaff Roundhouse; and 32 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan

- 7.113 The heritage receptors are located to the northwest of the site, on a hillside overlooking Pontypridd. The site currently makes no contribution to the sensitivity of the listed buildings but forms a small rural part of their extended settings.
- 7.114 The Proposed Development would alter the site from agricultural fields to a solar farm. The ZTV suggests that there may be a degree of distant intervisibility between the operational site and the group of heritage receptors, leading to alteration of a small part of their extended settings. It is considered that the Proposed Development would cause a negligible magnitude of impact on the heritage receptor. Given the medium sensitivity of the heritage receptor, this would result in a **Negligible/Minor** significance of effect.

Castle Bridge; Crawshay Obelisk SW of Castle Bridge; and Treforest Tinplate Works Feeder Sluice and Weir

- 7.115 The heritage receptors are located to the northwest of the site, around the river Taff. The site currently makes no contribution to the sensitivity of the listed buildings but forms a small rural part of their extended settings.
- 7.116 The Proposed Development would alter the site from agricultural fields to a solar farm. As acknowledged by the ZTV, this change will only alter one peripheral part of the settings of the heritage receptors, which share no known direct historic or functional links with the site.
- 7.117 It is considered that the Proposed Development would cause a negligible magnitude of impact on the heritage receptor. Given the medium sensitivity of the heritage receptor, this would result in a **Negligible/Minor** significance of effect.

Church of St Illtyd, Grade II listed building (Cadw ref: 25541)

- 7.118 The Church of St Illtyd lies to the northwest of the site. While forming a minor part of the broader rural setting of the church, the site is considered to make no contribution to its sensitivity.
- 7.119 The ZTV illustrates that the Proposed Development may be distantly appreciable from the Church and its immediate setting to the north. The proposals would alter a rural part of the wider setting of the church, however due to the changes that have occurred to date, this alteration would be in line with the evolving nature of this part of its setting associated with Church Village and would not appear incongruous.

- 7.120 It is considered that the Proposed Development would cause a negligible magnitude of impact on the heritage receptor. Given the medium sensitivity of the heritage receptor, this would result in a **Negligible/Minor** significance of effect.

Pig Sty at Berthlwyd Farm, Grade II listed building (Cadw ref: 24886)

- 7.121 The heritage receptor is located to the northwest of the site, and is separated from it by interceding development, topography, and planting. The site is considered to make no contribution to the sensitivity of this listed building.
- 7.122 The Proposed Development would alter the site by the introduction of a solar farm. This would be predominantly screened from the listed building by existing planting and topography, but the ZTV suggests it may be partially appreciable. Where visible, the proposals would be appreciable alongside the twentieth century development around Church Village and Tonteg. Given the distance from the site to the heritage receptor, this would be considered a negligible magnitude of impact on the heritage receptor.
- 7.123 Given the medium sensitivity of the heritage receptor, this would result in a **Negligible/Minor** significance of effect.

Coed Y Lan Comprehensive Lower School, including rear science block and Gymnasium, Grade II listed building (Cadw ref: 24874)

- 7.124 The heritage receptor located far to the northwest of the site, on a hillside overlooking Pontypridd. The site currently makes no contribution to the sensitivity of the listed building but forms a small rural part of its extended setting.
- 7.125 The Proposed Development would alter the site from agricultural fields to a solar farm. The ZTV indicates that this may be marginally appreciable from the listed building in distant views, which would cause a negligible magnitude of impact on the heritage receptor. As the heritage receptor is of medium sensitivity, this would give rise to a **Negligible/Minor** significance of effect.

Welch Regimental War Memorial, Grade II listed building (Cadw ref: 24858)

- 7.126 The heritage receptor is located to the northwest of the site, on a prominent hillside position within a public park, fringed by planting. The site currently forms a peripheral part of its wider setting but makes no contribution to its sensitivity.
- 7.127 The Proposed Development will alter the current agricultural nature of the site to solar farm use. This will alter a small part of the extended setting of the listed building. Given the distance between the listed building and the site, and the interceding development, this would result in a negligible magnitude of impact on the heritage receptor. As the heritage receptor is of medium sensitivity, this would give rise to a **Negligible/Minor** significance of effect.
- 7.128 An evaluation of the predicted impacts for both archaeological and built heritage assets during the operational phase of the Proposed Development are included in **Table 7.7**, along with the subsequent nature, scale and significance of effects.

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Table 7.7: Effects to Heritage Assets During Operational Phase

Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant
Rhiw Saeson Caerau (GM065)	High	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Minor	Not significant
Glyntaff Roundhouse	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
No. 29, Graid Yr Helfa Road	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
No. 30 Graig yr Helfa Road	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
No. 21 Graig yr Helfa Road	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
Castle Bridge	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
Crawshay Obelisk SW of castle Bridge	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
Treforest Tinplate Works Feeder Sluice and Weir	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
St Illtyd's Church	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
Pig Sty at Berthlwyd Farm	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant

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Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant
Coed Y Lan Comprehensive Lower School, including rear science block and gymnasium	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant
Welch regimental War Memorial	Medium	Alteration of minor element of extended setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant

Further Mitigation

- 7.129 No further mitigation would be required for archaeological heritage assets during the operational phase of the Proposed Development.
- 7.130 Due to the nature of the impacts and limited significance of effects during the operational phase of the Proposed Development, further mitigation measures are not required in terms of built heritage. Proposed landscaping works would, however, soften the appearance of the Proposed Development within the extended settings of the affected heritage receptors.

Future Monitoring

- 7.131 Due to the nature of the impacts and significance of effects in the operational phase described above, further monitoring measures are not required in terms of archaeological or built heritage assets.

Accidents/Disasters

- 7.132 There are no anticipated accidents or disasters which would affect archaeological or built heritage assets.

Potential Changes to the Assessment as a Result of Climate Change

- 7.133 Climate change would not cause any future changes of baseline conditions that would fundamentally change the assessment for the operational phase set out above. Variances in planting due to climate change may affect future intervisibility, but due to the distance between the site and the surrounding heritage receptors, and the nature of the setting of these heritage receptors, these changes would not be expected to fundamentally alter the assessment itself or the identified significance of effects.

Assessment of Cumulative Effects

- 7.134 The assessment of cumulative effects considers the impacts and significance of effects associated with the Proposed Development for the historic environment alongside other relevant developments which are consented, or for which planning permissions are currently being sought.
- 7.135 In terms of potential cumulative impact, the schemes of relevance include:
- DNS/3272053 Twyn Hywel Wind Farm
 - DNS/3280378 Mynydd y Glyn Wind farm
 - DNS/3266623 Cwm lfor Solar
- 7.136 Twyn Hywel Wind Farm is proposed to the north of the site. It is separated from the site by interceding planting, development, and topography. This includes the valley of the River Taff. Mynydd Y Glyn Wind Farm is proposed to the northwest of the site, lying west of Pontypridd. It is separated from the site by interceding topography, planting, and development (including Church Village and Tonteg). While both wind farms may be partially and distantly co-appreciable with the site and in conjunction with views of the built heritage assets identified within this assessment, this visibility will not fundamentally result in an increased significance of effects (i.e. cumulative effects) to the assets when compared to the Proposed Development alone.
- 7.137 The Cwm lfor Solar Farm lies to the north of the site. Located to the north and northwest of Abertridwr, the Proposed Development is separated from the site by planting, topography and other development. This includes the valley of the River Taff. It is unlikely that the Proposed Development would be appreciable alongside the site and in conjunction with any of the built heritage assets referenced in this assessment due to its low built form as a solar farm. This scheme will therefore not result in an increased significance of effects (i.e. cumulative effects) to the built heritage assets when compared to the Proposed Development alone.

7.138 It is therefore considered that no cumulative impacts will arise from the Proposed Development.

Inter-relationships

7.139 There is an inter-relationship between Chapter 7 (Historic Environment) and Chapter 5 (Landscape and Visual) of this ES. The synergies between these chapters are limited, however, insofar that different methodologies are applied with respect to the assessment of any heritage assets included as visual receptors. As such, the findings between the chapters with respect to heritage assets may vary.

Summary of Effects

Archaeology

7.140 A low archaeological potential was identified for all past periods of human activity as part of the Archaeological DBA. It was assessed that any archaeological remains within the site would generally be considered of Local/Low sensitivity.

7.141 Construction activities would result in a High Direct impact upon archaeological remains if present within the footprint of below ground interventions associated with the construction of the Proposed Development. Where this occurs the Proposed Development would result in a generally **Minor Adverse** effect upon archaeological remains within the site, which would not be considered a significant effect.

7.142 The operational Proposed Development will **not have any direct physical effect** on archaeological remains within the site as it has been assumed that the construction phase of the Proposed Development will have disturbed any remains which may be present as a result of excavation, earthworks and other below ground construction activities.

7.143 With respect to archaeological heritage assets outside of the site but located within the 1km study area, any effects will be confined to the settings of the assets affected. The one scheduled monument within this study area has very limited intervisibility with the site, and the site is not considered to be part of its setting.

7.144 With respect to designated heritage assets within the 5km study area, it is considered that at distances further than 1km from the site the solar farm would not produce noise or light pollution, or generate increased traffic, which could adversely affect the identified archaeological heritage assets in a way unrelated to visibility. For the six additional scheduled monuments within 5km of the site, no more than a **negligible** potential effect on the setting of one asset, the Rhiw Saeson Caerau hillfort, is identified. For all the others, a combination of intervisibility, distance, and the scale of contribution to often very extensive settings has led to the conclusion that **no impact** will arise for any designated archaeological heritage asset as a result of the Proposed Development.

7.145 In summary, there would be **no significant effects** arising to archaeological heritage assets as a result of the Proposed Development.

7.146 No further archaeological works are recommended in this particular instance. If required, archaeological mitigation measures would be agreed with the council and their archaeological advisor GGAT in advance of development, to ensure that any archaeological remains within the site are appropriately preserved by record prior to any significant construction adverse effects. Any archaeological investigation and appropriate dissemination of that data would be considered a beneficial effect.

Built Heritage

7.147 The Proposed Development will minimally affect the settings of 11 built heritage receptors through distant changes to their extended settings. In each case, the built heritage receptor is of medium sensitivity and the site currently makes no contribution to this sensitivity.

- 7.148 The construction phase of the Proposed Development will result in an introduction of plant to the site, an increase in activity on the site as a result of construction operations, and potential increase in vehicular activity on the routes leading to the site. Due to the distance between the built heritage receptors and the site, the lack of contribution of the site to their sensitivity, and the interceding development, these changes would result in a short term, temporary, negligible magnitude of impact. Given the medium sensitivity of all of the heritage receptors concerned, this would give rise to a short term, temporary, **Negligible/Minor** significance of effect.
- 7.149 The operational phase of the Proposed Development would cause a change within the extended settings of the above built heritage receptors. The Proposed Development is, however, temporary and would be fully reversible at the end of its 'lifespan' (up to forty years). Due to the current distance between the site and the listed buildings, the changed nature of this part of their settings, and the nature of the Proposed Development (a solar farm), the magnitude of this impact in all cases will be negligible. The relevant heritage receptors are all of medium sensitivity. In all cases, this will give rise to a temporary **Negligible/Minor** significance of effect.
- 7.150 The Proposed Development would give rise to **no significant effects** to built heritage assets during the construction or operation phases.
- 7.151 Due to the nature of the impacts and significance of effect in the operational phase described above, further mitigation measures are not strictly required in terms of built heritage. However it is proposed that an appropriate landscape strategy, secured by condition, would further soften any visual changes to the setting of the affected heritage receptors.

References

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- Department for Farming and Rural Affairs, Hedgerow Regulations 1997 (Statutory Instrument No 1160)
- Glamorgan Gwent Archaeological Trust (undated) Brief Guide to Archaeology and Planning in Southeast Wales
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- Welsh Government, Planning Policy Wales (PPW), Version 11, February 2021

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Table 7.8: Summary of Likely Environmental Effects on the Historic Environment

Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
Construction phase							
Prehistoric activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant	
Roman activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant	
Early Medieval/ Medieval activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant	
Post Medieval/ Industrial/ Modern activity	Low (Local)	Potential for buried archaeological remains to be disturbed or destroyed	Long term (permanent)	High (Direct)	Minor	Not significant	
Glyntaff Roundhouse	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
No. 29, Graid Yr Helfa Road	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
No. 30 Graig yr Helfa Road	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
No. 21 Graig yr Helfa Road	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Castle Bridge	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Crawshay Obelisk SW of castle Bridge	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	

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Receptor	Sensitivity receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
Treforest Tinplate Works Feeder Sluice and Weir	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
St Illtyd's Church	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Pig Sty at Berthlwyd Farm	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Coed Y Lan Comprehensive Lower School, including rear science block and gymnasium	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Welch regimental War Memorial	Medium	Alteration of minor element of setting	Short-term (temporary)	Negligible (Direct)	Negligible / Minor	Not significant	
Operational phase							
Glyntaff Roundhouse	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
No. 29, Graid Yr Helfa Road	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
No. 30 Graig yr Helfa Road	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
No. 21 Graig yr Helfa Road	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
Castle Bridge	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
Crawshay Obelisk SW of castle Bridge	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
Treforest Tinplate Works Feeder Sluice and Weir	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
St Illtyd's Church	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
Pig Sty at Berthlwyd Farm	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	
Coed Y Lan Comprehensive Lower	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	

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Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
School, including rear science block and gymnasium							
Welch regimental War Memorial	Medium	Alteration of minor element of setting	Long-term (temporary)	Negligible	Negligible / Minor	Not significant	