

1 ARCHAEOLOGICAL ASSESSMENT

1.1 Introduction

- 1.1.1 In early May 2008 the Field Services Section of the Clwyd-Powys Archaeological Trust (hereafter CPAT) was commissioned by Dulas Ltd to undertake a cultural heritage assessment of a new section of access road for the proposed Reeves Hill wind farm, between the Ludlow Road (A4113) in Knighton and Llanshay Lane. The proposed access route runs southwards off the A4113 to meet Llanshay Lane to the south-east of Llanshay Farm.
- 1.1.2 In December 2011 Dulas Ltd requested an addition to the assessment, to include revised site entrances for the turbines and proposed passing bays along the existing public road on the remainder of the route between the new road and the site of the proposed wind farm.
- 1.1.3 The details of the archaeological resource recorded for the proposed new access route are presented on Figure 6-1. The results of the archaeological desk-based review and walkover survey are reported in this section.

1.2 Methodology

- 1.2.1 A desk-based assessment of the area had been conducted at the National Library of Wales in Aberystwyth during early May 2008 and was followed by a walkover survey of the new road alignment shortly thereafter. The desk-top work for the revision was completed in January 2012 using the same repository. In addition, aerial photographs held by The Central Register of Aerial Photography for Wales in Cardiff were examined, for both the new road and the route to the proposed wind farm. A field visit to examine the proposed modifications to the existing public road and the site entrances was carried out immediately thereafter.

1.3 The Cultural Heritage Resource

- 1.3.1 The common standard for assessing the relative value of a cultural heritage asset is detailed in the Design Manual for Roads and Bridges Volume 11 Section 3 Part 2, HA 208/07 (August 2007), and is laid out in Table 1.1.

Table 1.1 Criteria for assessing the value of cultural heritage assets

Factors for assessing the value of cultural heritage assets	
Very High	<ul style="list-style-type: none">• World Heritage Sites (including those nominated)• Assets of acknowledged international importance• Assets that can contribute significantly to acknowledged international research objectives
High	<ul style="list-style-type: none">• Scheduled Monuments (including those proposed)• Undesignated monuments of schedulable quality and importance• Grade I and Grade II* Listed Buildings• Assets that can contribute significantly to acknowledged national research objectives
Medium	<ul style="list-style-type: none">• Grade II Listed Buildings• Conservation Areas• Designated or undesignated assets that contribute to regional research objectives

Low	<ul style="list-style-type: none"> • Designated and undesignated assets of local importance • Assets compromised by poor preservation and/or poor survival of contextual associations • Assets of limited value, but with the potential to contribute to local research objectives
Negligible	<ul style="list-style-type: none"> • Assets with very little or no surviving cultural heritage interest
Unknown	<ul style="list-style-type: none"> • The importance of the resource has not been ascertained

1.3.2 Currently, thirty-five cultural heritage sites or assets have been recorded on or near the line of the new road in the vicinity of Llanshay Farm and within 30m of the road link to the wind farm. All of the sites have been identified by unique numbers in this assessment, but it should be noted that four of these are derived from the existing Historic Environment Record (HER) and ten were first recorded during the original assessment of the wind farm turbine locations. Both groups are included here to ensure that all relevant data is available for this assessment; their original numbers are included in the project database, should they be required.

1.3.3 The classification of each asset (with the exception of nationally important scheduled sites and listed buildings) is based on the collective professional judgment and expertise of the field staff of CPAT, and is shown in Table 1.2. There are, however, two sites which cannot be categorised owing to a lack of surface evidence and one which needs further work to define its nature and function; the value of these four sites remains unknown. The only historic boundaries identified are included with the other sites and are detailed below. All cultural heritage assets have been plotted and are depicted on Figure 5-1.

Table 1.2 Cultural Heritage Assets and their value

PRN	Name	NGR	Value
Site 1	Llanshay farmstead	SO2970271816	Medium
Site 2	Llanshay platform	SO2976271790	Unknown
Site 3	Caleck's Lane	SO2981171915	Low/Medium
Site 4	Llanshay Lane	SO2980471684	Low
Site 5	Llanshay farm quarry	SO2976171773	Low
Site 6	Llanshay trackway	SO2974371865	Low
Site 7	Llanshay boundaries	SO2982371950	Low
Site 8	Llanshay ancillary building	SO2977671857	Unknown
Site 9	Knighton open fields	SO29697204	Low
Site 10	Stonewall Hill quarry	SO3176069166	Negligible
Site 11	Law's Barn pound	SO3020571337	Negligible
Site 12	Law's Barn pond	SO3046171171	Low
Site 13	West Wood quarry II	SO3087570683	Low
Site 14	West Wood quarry I	SO3149970122	Negligible
Site 15	Upper Barn quarry	SO3108570343	Negligible
Site 16	Upper Barn trackway	SO3100970451	Low
Site 17	Knighton Royal Observer Corps post	SO2999371611	Low
Site 18	Llanshay Quarry (dis)	SO2979472045	Low
Site 19	Llanshay Farm, house	SO2969871834	Medium
Site 20	Llanshay Farm, barn	SO2970071798	Medium
Site 21	Reeves Hill Find II	SO311703	Unknown
Site 22	West Wood quarry III	SO3135870229	Negligible
Site 23	West Wood quarry IV	SO3158070005	Negligible
Site 24	Reeves Hill quarry III	SO31836929	Negligible
Site 25	Reeves Hill quarry II	SO31836926	Negligible
Site 26	Reeves Hill field bank	SO31776908	Negligible
Site 27	Reeves Hill quarry VII	SO3171568770	Negligible

Site 28	The Warren quarry III	SO3170368750	Negligible
Site 29	The Warren quarry II	SO3167068655	Low
Site 30	The Warren quarry I	SO3169368625	Negligible
Site 31	The Warren quarry XIV	SO3169168577	Negligible
Site 32	Boundary wall, Stonewall Hill	SO3168468354	Low
Site 33	Stonewall Hill quarry VII	SO3179768179	Negligible
Site 34	Stonewall Hill quarry	SO3166426834	Negligible
Site 35	Stonewall Hill quarry	SO3164968672	Negligible

1.4 Potential Impacts on the Cultural Heritage

- 1.4.1 Some cultural heritage assets could be damaged in the construction of the new section of road, and this could occur at any stage of the construction process. None of them is currently classed in the higher value categories (see Table 1.1), and only the farm complex at Llanshay and its component parts are considered to be of medium (or regionally important) value, with the possible exception of Caleck's Lane. Most of the sites alongside the public road to the wind farm are of negligible value, although there are some which are of low value.
- 1.4.2 The following table provides an assessment of the magnitude of any identified impacts on the cultural heritage assets of the locality from the proposed development.

Table 1.3 Assessment of the magnitude of potential impacts

PRN	Name	Value	Magnitude of impact (before mitigation)
Site 1	Llanshay farmstead	Medium	Negligible
Site 2	Llanshay platform	Unknown	Major
Site 3	Caleck's Lane	Low/Medium	Minor
Site 4	Llanshay Lane	Low	Negligible
Site 5	Llanshay farm quarry	Low	Negligible
Site 6	Llanshay trackway	Low	Minor
Site 7	Llanshay boundaries	Low	Minor
Site 8	Llanshay ancillary building	Unknown	No change
Site 9	Knighton open fields	Low	No change
Site 10	Stonewall Hill quarry	No change	No change
Site 11	Law's Barn pound	Negligible	No change
Site 12	Law's Barn pond	Low	No change
Site 13	West Wood quarry II	Low	Moderate
Site 14	West Wood quarry I	Negligible	No change
Site 15	Upper Barn quarry	Negligible	Minor
Site 16	Upper Barn trackway	Low	Minor
Site 17	Knighton Royal Observer Corps post	Low	Possible moderate
Site 18	Llanshay Quarry (dis)	Low	Minor
Site 19	Llanshay Farm, house	Medium	No change
Site 20	Llanshay Farm, barn	Medium	No change
Site 21	Reeves Hill Find II	Unknown	Negligible
Site 22	West Wood quarry III	Negligible	No change
Site 23	West Wood quarry IV	Negligible	No change
Site 24	Reeves Hill quarry III	Negligible	No change
Site 25	Reeves Hill quarry II	Negligible	No change
Site 26	Reeves Hill field bank	Negligible	Negligible
Site 27	Reeves Hill quarry VII	Negligible	No change
Site 28	The Warren quarry III	Negligible	No change
Site 29	The Warren quarry II	Low	Minor
Site 30	The Warren quarry I	Negligible	No change
Site 31	The Warren quarry XIV	Negligible	No change
Site 32	Boundary wall, Stonewall Hill	Low	Minor
Site 33	Stonewall Hill quarry VII	Negligible	No change
Site 34	Stonewall Hill quarry	Negligible	No change
Site 35	Stonewall Hill quarry	Negligible	No change
--	Possible sub-surface archaeological remains	Unknown	Unknown

1.4.3 It should also be noted that there is also a potential for direct impacts on previously unrecorded cultural heritage assets that may only survive as sub-surface features and cannot therefore be identified through this assessment.

1.5 Proposed Mitigation for Impacts on the Cultural Heritage

1.5.1 It is accepted that cultural heritage assets represent a non-renewable resource, and should be avoided, wherever this is feasible, in order to avoid damage or destruction. The purpose of mitigation is to avoid or reduce any adverse impacts that might result from the proposed development on the cultural heritage resource. The main strategy for minimising impacts from the scheme is avoidance, through careful planning, design and routeing. Where an impact is unavoidable, the reduction of that impact on the cultural heritage asset necessitates detailed consideration of the site characteristics and the introduction of specific measures designed to limit the impact. These are addressed in the section that follows.

Mitigation options

- 1.5.2 *Preservation in situ*: where a site is considered to be of sufficient significance, or it can be easily avoided, it may be considered appropriate to preserve the site in its present form, condition and location. This may be achieved during the primary design stage before the layout is finalised, or after detailed site survey. Where complete avoidance can be achieved, any impact can be totally avoided.
- 1.5.3 *Preservation by record*: where proposals will inevitably lead to the loss of a site, sufficient recording should be undertaken to provide a full, accurate and permanent record of its nature, form, significance and dating. Preservation by record can take a number of forms, depending on the nature of the site in question, and may be achieved with or without excavation. It could include any or all of the following: a written record; drawn record; photographic record; artefactual record; survey; and environmental sampling. Unless guidance is requested jointly from the client and archaeological curator, the level of detail required for preservation by record in any specific instance is a decision for the local authority's archaeological advisor to make rather than the writers of this report.
- 1.5.4 *Excavation*: where an archaeological feature is to be wholly removed as part of the development, its complete excavation may be required in advance of any construction works.
- 1.5.5 *Evaluation*: where insufficient information exists regarding a site for a decision to be made regarding its future management a programme of investigative work may be proposed. Such investigation may include geophysical survey, topographical survey and trial excavation.
- 1.5.6 *Watching brief*: a watching brief may be recommended to include archaeological monitoring of all relevant groundworks, including topsoiling, in order to identify and record any previously unknown archaeological remains which may be revealed. Sufficient time must be allowed for adequate recording of any remains that are encountered, and in the case of assets then considered to be of medium, high or very high value, their continuing preservation may need to be considered by the archaeological curator in conjunction with the developer. A watching brief may also be required for known sites of lesser value, where there is a possibility that further evidence regarding their nature may be revealed by development work.
- 1.5.7 *Demarcation*: features that are close to planned works or that could be affected by unplanned works may need to be fenced in advance of the work and monitored (in concert with the watching brief) during the construction phase. Close here is defined as within 30m of the perimeter or boundary of the asset. Given the nature of some of the works along the existing public road, which is fenced in its entirety, it may be that features in close proximity will be protected by existing fences.

Table 1.4 Proposed mitigation measures

PRN	Name	Value	Magnitude	Proposed Mitigation
Site 1	Llanshay farmstead	Medium	Negligible	Preservation in situ
Site 2	Llanshay platform	Unknown	Major	Evaluation (excavation), further work may be required
Site 3	Caleck's Lane	Low/Medium	Minor	Preservation by record (photographic)/Watching brief
Site 4	Llanshay Lane	Low	Negligible	Preservation by record (photographic)
Site 5	Llanshay farm quarry	Low	Negligible	Preservation in situ/ Demarcation if needed
Site 6	Llanshay trackway	Low	Minor	Preservation by record (photographic)
Site 7	Llanshay boundaries	Low	Minor	Watching brief
Site 8	Llanshay ancillary building	Unknown	No change	None
Site 9	Knighton open fields	Low	No change	None
Site 10	Stonewall Hill quarry	Negligible	No change	None
Site 11	Law's Barn pound	Negligible	No change	None
Site 12	Law's Barn pond	Low	No change	None
Site 13	West Wood quarry II	Low	Minor	Preservation by record (photographic)
Site 14	West Wood quarry I	Negligible	No change	None
Site 15	Upper Barn quarry	Negligible	Negligible	Preservation in situ/ Demarcation if needed
Site 16	Upper Barn trackway	Low	Minor	Preservation in situ/ Demarcation if needed
Site 17	Knighton Royal Observer Corps post	Low	Possible moderate	Preservation in situ/ Demarcation if needed
Site 18	Llanshay Quarry (dis)	Low	Minor	Preservation by record (photographic)
Site 19	Llanshay Farm, house	Medium	No change	Preservation in situ
Site 20	Llanshay Farm, barn	Medium	No change	Preservation in situ
Site 21	Reeves Hill Find II	Unknown	Negligible	Watching brief
Site 22	West Wood quarry III	Negligible	No change	None
Site 23	West Wood quarry IV	Negligible	No change	None
Site 24	Reeves Hill quarry III	Negligible	No change	None
Site 25	Reeves Hill quarry II	Negligible	No change	None
Site 26	Reeves Hill field bank	Negligible	Negligible	Preservation in situ/ Demarcation if needed
Site 27	Reeves Hill quarry VII	Negligible	No change	None
Site 28	The Warren quarry III	Negligible	No change	None
Site 29	The Warren quarry II	Low	Minor	Preservation in situ/ Demarcation if needed
Site 30	The Warren quarry I	Negligible	No change	None
Site 31	The Warren quarry XIV	Negligible	No change	None
Site 32	Boundary wall, Stonewall Hill	Low	Minor	Preservation by record (photographic)
Site 33	Stonewall Hill quarry VII	Negligible	No change	None
Site 34	Stonewall Hill quarry	Negligible	No change	None
Site 35	Stonewall Hill quarry	Negligible	No change	None
--	Potential sub-surface archaeological remains	Unknown	Unknown	Watching brief on new road alignment

1.5.8 From the preceding table, seventeen, or nearly half of the recorded sites, require no mitigation because the proposal will not have a direct impact and a further nine

should be preserved in-situ. This may entail the erection of unique and readily distinguishable markers to identify that an area is of archaeological significance, although some sites will not need to be so defined. It is considered that Sites 5, 15, 16, 17, 26 and 29 may need to be defined in this manner. Site 17 is included as it lies close to a gate which provides access into a field near the southern end of the new road line and there is therefore a possible impact from the passage of construction traffic.

- 1.5.9 Six further sites should be preserved by record, which, in this case, means the compilation of a brief written and photographic record of the site prior to the commencement of construction. One of the six and two other sites should be the subject of a watching brief during the construction of the adjacent infrastructure, to allow the recording of any sub-surface features and finds that may be exposed.
- 1.5.10 Only in one case (Site 2) is further investigation necessary to determine the value of a site, and hence the level of mitigation required. This site might be the location of an early building associated with Llanshay Farm, but the possibility that it results from later agricultural use means that a phase of evaluation by excavation is necessary at an early stage. Depending on the results of the evaluation, the regional archaeological curator may determine that further work is required, so sufficient lead-in time needs to be allowed between the evaluation and the commencement of site construction work.
- 1.5.11 In addition to those sites which have been revealed by the assessment, there is a potential for sites which only survive as sub-surface features, whose surface traces have been removed in the past. The most appropriate means of mitigation is for the implementation of a watching brief at the time of any surface soil removal. If any such sites are identified during the watching brief, time must be allowed for them to be suitably recorded and further mitigation may be required, dependant on the importance of the site revealed.

1.6 Conclusions

- 1.6.1 Thirty-five archaeological sites have been recognised in the immediate vicinity of the proposed access route, between the A4113 and the wind farm site. Of these, only three or at most four are considered to be of moderate value, a further twelve are of low value, and fifteen are of negligible value. The value of the remaining four sites remains unknown, owing to a lack of readily understandable surface evidence.
- 1.6.2 It is anticipated that seventeen of the thirty-five identified sites will not be affected by the proposed works, largely because most of them lie alongside the route of the existing public road between Llanshay and the proposed wind farm site and are away from the locations in which passing bays are proposed. Mitigation measures are proposed for potential threats to the remaining eighteen sites, including preservation, both in-situ and by record. A watching brief while construction work is in progress allows for the recording of any sub-surface evidence associated with these sites.
- 1.6.3 One site of unknown value (Site 2) lies in close proximity to Llanshay Farm and is directly on the line of the proposed new road alignment. It needs to be archaeologically evaluated at an early stage to assess its significance and to give time for any further mitigation measures which may be necessary prior to the commencement of construction work.
- 1.6.4 There is a possibility that sub-surface features relating to archaeological sites which have no visible remains may exist in the area affected by the development. At present, this potential cannot be quantified, but it is possible to provide suitable mitigation by the implementation of a watching brief during surface soil removal works. Any sites of this type should be evident once the topsoil cover has been removed.
- 1.6.5 The archaeological mitigation proposed in this report should be confirmed by the relevant archaeological curators before the proposed development is implemented.

In this case, these are the archaeological advisors for both the Powys and Herefordshire local authorities.