

Llandyfaelog Substation

Archaeology and Heritage – Technical Summary Note

On behalf of **National Grid**
nationalgrid

TECHNICAL NOTE

Job Name: The Llandyfaelog Project
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Subject: **Llandyfaelog Archaeology and Heritage**

Item	Subject
1.	Llandyfaelog Archaeology and Heritage Technical Summary Note

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1. Project Background

- 1.1. Stantec UK have been appointed by National Grid Electricity Transmission (NGET) to provide archaeology and heritage support including the preparation of assessments and coordination of archaeological investigations for the Site of the proposed Air Insulated Substation (AIS) facility at Llandyfaelog, Carmarthenshire (National Grid Reference: SN 41921 13396).
- 1.2. These pre-application archaeological works have been undertaken to inform the design of, and to de-risk, the Llandyfaelog AIS project. This Technical Note has been prepared to summarise the archaeological work carried out to date and outlines the impact to the significance of archaeological remains and the mitigation requirements which will be required as a condition of an approved planning application.
- 1.3. This Technical Summary Note is intended for submission with the planning application to Carmarthenshire County Council. Pre-application consultation has been undertaken with Heneb (The Welsh Archaeological Trust), which established the need for assessment, non-intrusive survey and archaeological evaluation to assess the significance of any surviving archaeological remains. Heneb agreed that this technical note was proportionate to submit with the planning application rather than update the Historic Environment Desk-Based Assessment (HEDBA). A previous Technical Note (Stantec, 2023) was prepared initially as a 'Level 1 Survey' to inform initial design and archaeological and heritage requirements.
- 1.4. The content of this Technical Note draws upon the previous HEDBA prepared by Stantec for the Llandyfaelog project (2024), together with the results of the archaeological monitoring on geotechnical works (Cotswold, 2024), geophysical survey (Heneb, 2024) and targeted evaluation trenching carried out in 2025 (Oxford Archaeology, forthcoming).

2. The Site and Proposed Scheme

- 2.1. The Site is situated within a landscape characterised by arable farming and currently comprises portions of eleven fields, mostly laid to pasture and surrounded by established hedgerows. The site lies at approximately 120m above Ordnance Datum (aOD) in the north-west, sloping south-eastwards down to c. 110m aOD.
- 2.2. The Llandyfaelog Project is comprised of the following principal elements:
 - Construction of a single level platform (260 metres by 640 metres) on which an Air Insulated Substation (AIS) is sited measuring 155 metres by 602 metres.
 - Bellmouth access to the A484 with an operational access road to connect the platform to the A484.
 - Modification works to the existing 400kV Overhead Line (OHL) to connect the substation to the existing OHL involving the installation of two new towers (pylons) and one replacement tower (pylon) circa 18 metres and 62 metres.
 - Associated drainage, and hard and soft landscaping.

3. Archaeology & Heritage Background

- 3.1. The following is a summary drawn from the HEDBA (Stantec, 2024):

Built Heritage

- 3.2. There are no designated heritage assets within the Site. As such, no designated historic assets will be physically impacted by the Proposed Scheme.

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- 3.3. There are eight designated assets within 3km of the Site, comprising six Grade II Listed Buildings and two Scheduled Monuments.
- 3.4. The Listed Buildings comprise post-medieval bridges and houses dispersed across the wider area, together with the more notable Church of St Maelog (Grade II listed building, CADW ref: 82398) located c.905m south of the Site.
- 3.5. The Scheduled Monuments comprise the Castell y Domen, Gwempa (CADW Ref: CM240), the remains of a motte and ditch of medieval date, located c.1.5km east of the Site; and Pen Celli Standing Stone (CADW Ref:CM122) of probable Bronze Age date located c.1.8km east of the Site.
- 3.6. A full setting assessment was undertaken as part of the HEDBA. It was concluded that given their distance from the Site and the intervening topography and vegetation, that the Site does not contribute towards the setting or heritage significance of any designated historic asset and as such the Proposed Scheme would not have an indirect impact on the significance of any designated historic asset.
- 3.7. The HEDBA identified four non-designated historic assets that would be affected by the Proposed Scheme. These are all post-medieval farmsteads: Llwynygcw (Heneb Ref: 22979): Cwmafael (Heneb Ref: 22986): Crigan Fach (Heneb Ref: 22987) and Bwlch-y-gwynt (Heneb Ref: 22985). In all cases the impact of the Proposed Scheme was determined to be on their wider setting and be less than major.

Archaeology

- 3.8. There is one prehistoric record returned by the HER within the Site, a Bronze Age standing stone (11288), however this is based only on place name evidence and has not been physically identified within the Site. A further five prehistoric records are within 1km of the Site, all of them Bronze Age and comprising possible locations of standing stones or burnt mounds, these are all based on place name or historic evidence and are not confirmed with any physical remains. Overall the prehistoric evidence for the Site and wider landscape is not compelling.
- 3.9. There is recorded evidence of a Roman road immediately north-east of the Site (7459). This record relates to the projected route of the *Via Julia Maritima* Roman road which ran from Carmarthen to Loughor via Kidwelly. The projected route of this road appeared to correlate with an earthwork visible on LiDAR (Figure 1), and the HEDBA concluded there was potential for remains relating to this road, including former agger and metalling, together with flanking ditches and quarry pits.
- 3.10. There were no other Romano-British records returned by the HER within 1km of the Site, however the town of Carmarthen c6km north is of known Roman origin (Moridunum) and the Site would have been set within the wider hinterland of the settlement during the period.
- 3.11. There are no medieval records within the Site. Within 1km of the Site there are two records from the period both relate to place-name evidence based on use of the word 'Llan' (Church) and do not correlate with any recorded physical remains. However, the Church of St Maelog and the origins of the village of Llandyfaelog in the wider area are both medieval.
- 3.12. The Site will have been characterised as rural land throughout the medieval and post medieval period, and minor agricultural remains, such as drainage ditches and gullies, ploughmarks boundary ditches and discrete features such as pits of the period were considered possible.
- 3.13. The Site would have remained in agricultural use throughout the post-medieval period until the present and would have been associated with the four historic farmsteads described above. There are three HER records within the Site, including two place name records ("*Llan Issa*, *llan Ganol*, *llan Ucha*"; Heneb Ref: 23115 and *Waun Gadog*, *llan Llwynygcw*, *llan Gadog*: Heneb Ref: 23116) and one quarry pit (Heneb Ref:40846) in the southern part of the Site.

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- 3.15. There are numerous post-medieval HER records within 1km of the Site, indicative of the Site's situation within a rural post-medieval landscape. The Site is covered by the 'Plan of the Parish of Llandyfaelog in the County of Carmarthen' tithe map of 1844. A linear cropmark within the Site is thought to relate to a field boundary depicted on the tithe map. Some of the field names within the accompanying apportionment include 'Park' references, which could indicate that the land formerly belonged to part of a parkland landscape or estate.



Figure 1 - LiDAR hill shade data showing possible Roman Road

Previous Archaeological Investigations

- 3.16. Two previous archaeological investigations had been recorded within 1km of the Study Area by the HER prior to the HEDBA: a desk-based assessment and a field walking exercise, both associated with the Pontyates to Bancyfelin Gas pipeline. The gas pipeline crossed the Site and the line of the *Via Julia Maritima* Roman road. The gas pipeline was constructed in 2002 before the Roman road had been identified and there is no record of any archaeological mitigation such as watching brief being undertaken on the route.

4. Further Investigations

- 4.1. A programme of pre-determination archaeological investigations has been carried out with the Site as part of this Proposed Scheme and are summarised below.

Archaeological Monitoring and Recording (2024)

- 4.2. In March and April 2024, Cotswold Archaeology carried out a programme of archaeological monitoring and recording during groundworks associated with geotechnical work. A total of 18 test pits were archaeologically monitored, with no archaeological remains encountered. This included some test pits in the vicinity of the projected route of the Roman road.
- 4.3. The natural geology recorded during the GI works comprised red-brown clay with mudstone/siltstone. This was encountered at an average depth of 0.4m below ground level (bgl) and was overlain by a silty clay subsoil, averaging 0.2m in thickness, in turn sealed by topsoil.

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Geophysical Survey (2024)

- 4.4. Geophysical survey of the Site was undertaken by Heneb in November 2024. The total surveyed area was 37ha, across 19 fields.
- 4.5. A number of geophysical anomalies were identified including the Roman road along with a number of enclosures (Figure 2).



Figure 2 - Results of geophysical survey

Trenching Evaluation (2025)

- 4.6. Archaeological trial trenching was undertaken between July and August 2025. The trench plan was agreed in consultation with Heneb's Regional Head & Archaeological Planning Manager, Mike Ings, and was designed to target the anomalies identified during the geophysical survey and the 'blank areas'. Despite significant constraints from buried and overhead utilities it was possible to sample much of the Site and all major anomalies identified during the geophysical survey were successfully targeted. In total 42 trenches 40m long and 1.5m wide were excavated within the footprint of the Proposed Scheme (Figure 3). The fieldwork was undertaken by Oxford Archaeology.
- 4.7. Results of the evaluation were modest, with many geophysical anomalies either correlating with geological features, or with no features at all. A very small number of likely post-medieval agricultural features were identified and recorded.



Figure 3 - Trench Plan

- 4.8. A single shallow linear feature was encountered in Trench 21 towards the north of the Site, that appeared to correlate with the location and orientation of the Roman road, and may represent part of the roadside ditch, although no finds were recovered that could provide a date for the feature.
- 4.9. No other features were identified in other trenches that targeted the possible line of the Roman road. In Trench 42 towards in the southern part of the Site, the possible line of the road interpreted from the geophysical survey was positively identified as a ridge of bedrock.
- 4.10. The full results of the evaluation will be presented with an interpretative report currently being drafted and will be submitted with the planning application.

5. Consultation and Mitigation

Consultation

- 5.1. A summary of the results of the trial trenching was provided by Oxford Archaeology in lieu of the final report. This summary was discussed with Mike Ings at a virtual meeting held on 17 September 2025, during which the preliminary results were discussed together with anticipated mitigation measures that would be required as a condition of planning.
- 5.2. The following written confirmation of the required mitigation was received from Mike Ings on 18 September 2025 :

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The evaluation revealed that the archaeological potential of the proposed development site was generally low, with the anomalies recorded during the geophysics survey proving to include geological features, field drainage and tree throws. However, the Roman road that runs through the area was picked up, albeit heavily truncated, and its preservation may be better elsewhere. We therefore recommended that intrusive ground works within the vicinity of the line of this road should be archaeologically monitored.

Mitigation

- 5.3. As outlined in Mike Ings' response – archaeological monitoring and recording will be required in the vicinity of the line of the Roman road. This will be required as a condition of planning.
- 5.4. Archaeological monitoring and recording (formally known as watching brief) will require:
- Agreement with Heneb on the exact area to be monitored.
 - Appointment of an archaeological contractor to undertake the monitoring
 - A Written Scheme of Investigation to be prepared by the archaeological contractor to ClfA standards and approved by Heneb
 - Coordination with groundworks contractor to ensure monitoring they are aware of the requirement and allow sufficient time and allowance within the programme for the monitoring
 - Provision for consultation, dissemination of results and archiving.

6. References

Stantec (2024) *Llandyfaelog Substation - Historic Environment Desk-Based Assessment*.

CA (Cotswold Archaeology) (2024) *Air Insulated Substation, Llandyfaelog, Carmarthenshire Archaeological Monitoring and Recording*

Heneb (2024) *Llandyfaelog, Carmarthenshire – Geophysical Survey*