

**LAND AT BROOK COTTAGE
NEAR BOSPORTHENNIS
ZENNOR
CORNWALL**

Heritage Impact Assessment



South West Archaeology Ltd. report no. 220504



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Land at Brook Cottage, near Bosporthennis, Zennor, Cornwall

Heritage Impact Assessment

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Work undertaken by SWARCH for Western Power Distribution (The Client)

SUMMARY

This report presents the results of a Heritage Impact Assessment carried out by South West Archaeology Ltd. (SWARCH) for the installation of an overhead electrical line on land to the east of Brook Cottage, near Bosporthennis, Zennor, Cornwall.

The site sits to the east of Brook Cottage and runs across common land. The landscape here remains largely desolate and rugged, with very sparse houses and farm buildings, pockets of irregular fields and the relict former mining environment.

The proposal is for the installation of an overhead electrical cable to supply mains power to Brook Cottage, which is in the process of being renovated.

Although the site lies within the World Heritage Site, it does not sit in close proximity to any upstanding mining buildings or features. Brook Cottage is the nearest building and its plot is bounded by mature trees and shrubs, with a small copse to the east, between the cottage and most of the proposed overhead line. The lanes accessing Brook Cottage and Bosporthennis, to east and west of the proposed line, are privately accessed, which limits further the potential visibility of the proposals. From the closest publically accessible lane, the site does not appear visible, although extant overhead power cables are visible a few metres to the north. Modern fence posts, gates and barbed wire, along with the extant power cables, are modern features which already exist in this moorland landscape, so it is not an entirely pristine one.

*With this in mind, the overall impact of the proposed development can be assessed as **negligible**. The impact of the development on the buried archaeological resource would be **permanent/irreversible** but is thought to be of low potential.*



May 2022

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1.0 INTRODUCTION

LOCATION:	LAND EAST OF BROOK COTTAGE, NEAR BOSPORTHENNIS
PARISH:	ZENNOR
COUNTY:	CORNWALL
CENTROID NGR:	SW 44095 35638
PLANNING REF:	PRE-APPLICATION
SWARCH REF:	ZBC22
OASIS REF:	SOUTHWES1-506462

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Western Power Distribution (The Client) to produce a heritage impact assessment for the installation of an overhead electrical line on land east of Brook Cottage, Near Bosporthennis, Zennor, Cornwall. This work was undertaken in accordance with best practice and ClfA guidelines ahead of a planning application.

1.2 SITE LOCATION

The site lies to the east of Brook Cottage, on common land, within a wider landscape of rough ground and sporadic, irregular field enclosures. The house lies on an east facing slope, at a height of between c.201 and c.212m AOD. The bedrock geology is the igneous granite of the Land's End Intrusion (BGS 2022).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The site lies within the St. Just Mining District of the Cornwall and West Devon Mining World Heritage Site (A1). The area is described as comprising both valley and upland settings for tin, copper, silver-lead and arsenic mining, ore processing and smelting¹²³, with the description for the St. Just Mining District characterised 'by big skies, jagged rocks, and rugged moorland meeting iconic clifftop engine houses'⁴.

The Historic Landscape Characterisation (HLC) records the site as lying within an area of Upland Rough Ground: *Areas of rough grassland, heathland, and open scrub, usually on the higher or more exposed ground in a locality*. The proposed overhead line runs across an area recorded on the Cornwall HER as Bosporthennis medieval and post medieval streamworks (MCO28054), this area of tin streaming disturbance has been identified from aerial photography. To the immediate south of this area lie the remains of a medieval strip field system (MCO50547). To the east of the proposed line, along the road, lies an early medieval boundary stone, although the HER also records it as 'presumable a property boundstone of post medieval date' (MCO28051). The wider landscape includes a large number of possible and confirmed prehistoric features, including iron age and bronze age hut circles (MCO50529, MCO18865, MCO18866, MCO18867, MCO50564, MCO50528), enclosures and linkages (MCO280, MCO50549, MCO50550, MCO50551, MCO27965, MCO50538, MCO21452) prehistoric field systems (MCO50548, MCO20673) and cairns (MCO50545). Scattered throughout are the remnants of medieval and post medieval mining and prospecting.

¹ Cornish Mining 2005: *Cornwall and West Devon Mining Landscape: World Heritage Site Management Plan 2005-10*.

² DCMS 2005: *Nomination of the Cornwall and West Devon Mining Landscape for inclusion on the World Heritage List*.

³ Sharpe, A. 2014: *Cornwall and West Devon Mining Landscape World Heritage Site; Condition Survey 2014*.

⁴ conrishmining.org.uk/areas/st-just-mining-district

No archaeological fieldwork has been undertaken on the site, although it falls within study areas for the WHS.

1.4 METHODOLOGY

This archaeological assessment was undertaken in accordance with best practice. The heritage impact assessment follows the guidance outlined in: Conservation Principles: policies and guidance for the sustainable management of the historic environment (English Heritage 2008), The Setting of Heritage Assets (Historic England 2015), Seeing History in the View (English Heritage 2011), Managing Change in the Historic Environment: Setting (Historic Scotland 2010), and with reference to Guidelines for Landscape and Visual Impact Assessment 3rd Edition (Landscape Institute 2013). The impact assessment also follows the guidance outlined in the Principles of Cultural Heritage Impact Assessment in the UK produced by Cifa, IHBC and IEMA in July 2021.

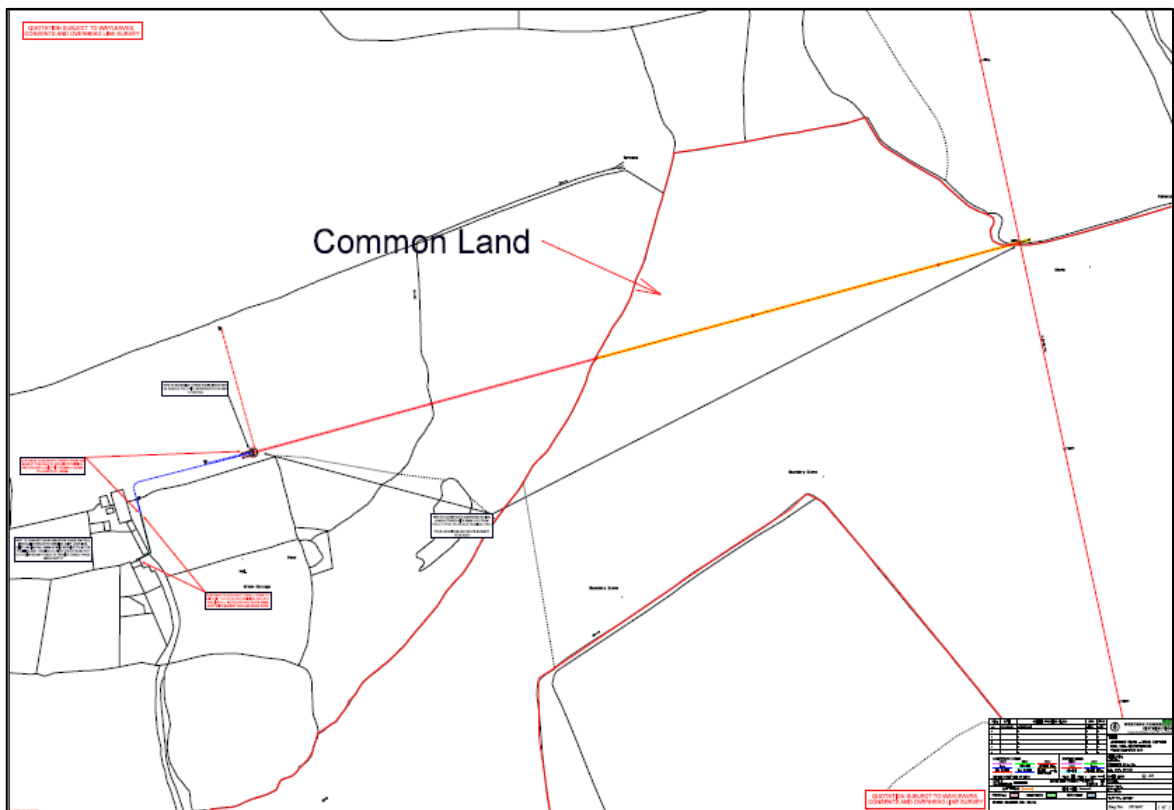


FIGURE 1: THE PROPOSED SITE LOCATION IS INDICATED IN YELLOW; SUPPLIED BY THE CLIENT.

2.0 HERITAGE IMPACT ASSESSMENT

2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area, monument or archaeological site (the ‘heritage asset’). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and/or its setting (indirect impact). This methodology employed in this assessment is based on the approach outlined in the relevant DoT guidance (DMRB vol.11; WEBTAG), used in conjunction with the ICOMOS (2011) guidance and the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015). The methodology employed in this assessment can be found in Appendix 1.

2.2 NATIONAL POLICY

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2021). The relevant guidance is reproduced below:

Paragraph 189

Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value. These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

Paragraph 194

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal.

Paragraph 206

Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to

the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

2.3 LOCAL POLICY

Policy 24: *Cornwall Local Plan: Strategic Policies 2010-2030:*

Policy 24: Historic environment

Development proposals will be permitted where they would sustain the cultural distinctiveness and significance of Cornwall's historic rural, urban and coastal environment by protecting, conserving and where appropriate enhancing the significance of designated and non-designated assets and their settings.

Development proposals will be expected to:

- sustain designated heritage assets;
- take opportunities to better reveal their significance;
- maintain the special character and appearance of Conservation Areas, especially those positive elements in any Conservation Area Appraisal;
- conserve and, where appropriate, enhance the design, character, appearance and historic significance of historic parks and gardens;
- conserve and, where appropriate, enhance other historic landscapes and townscapes, including registered battlefields, including the industrial mining heritage;
- protect the historic maritime environment, including the significant ports, harbours and quays.

Development within the Cornwall and West Devon Mining Landscape World Heritage Site (WHS) and its setting should accord with the WHS Management Plan. Proposals that would result in harm to the authenticity and integrity of the Outstanding Universal Value, should be wholly exceptional. If the impact of the proposal is neutral, either on the significance or setting, then opportunities to enhance or better reveal their significance should be taken.

All development proposals should be informed by proportionate historic environment assessments and evaluations (such as heritage impact assessments, desk-based appraisals, field evaluation and historic building reports) identifying the significance of all heritage assets that would be affected by the proposals and the nature and degree of any effects and demonstrating how, in order of preference, any harm will be avoided, minimised or mitigated.

Great weight will be given to the conservation of the Cornwall's heritage assets. Where development is proposed that would lead to substantial harm to assets of the highest significance, including undesignated archaeology of national importance, this will only be justified in wholly exceptional circumstances, and substantial harm to all other nationally designated assets will only be justified in exceptional circumstances.

Any harm to the significance of a designated or non-designated heritage asset must be justified. Proposals causing harm will be weighed against the substantial public, not private, benefits of the proposal and whether it has been demonstrated that all reasonable efforts have been made to sustain the existing use, find new uses, or mitigate the extent of the harm to the significance of the asset; and whether the works proposed are the minimum required to secure the long term use of the asset.

In those exceptional circumstances where harm to any heritage assets can be fully justified, and development would result in the partial or total loss of the asset and/or its setting, the applicant will be required to secure a programme of recording and analysis of that asset, and archaeological excavation where relevant, and ensure the publication of that record to an appropriate standard in a public archive.

Proposals that will help to secure a sustainable future for the Cornwall's heritage assets, especially those identified as being at greatest risk of loss or decay, will be supported.

2.4 DIRECT AND INDIRECT IMPACTS

This assessment is broken down into two main sections. Section 3.0 addresses the *direct impact* of the proposed development i.e. the physical effect the development may have on heritage assets within, or immediately adjacent to, the development site. Designated heritage assets on or close to a site are a known quantity, understood and addressed via the *design and access statement* and other planning documents. Robust assessment, however, also requires a clear understanding of the value and significance of the *archaeological* potential of a site. This is achieved via the staged process of archaeological investigation detailed in Section 3.0. Section 4.0 assesses the likely effect of the proposed development on known and quantified designated heritage assets in the local area. In this instance the impact is almost always indirect i.e. the proposed development impinges on the *setting* of the heritage asset in question, and does not have a direct physical effect.

3.0 DIRECT IMPACTS

3.1 INTRODUCTION

For the purposes of this assessment, the *direct effect* of a development is taken to be its direct physical effect on the buried archaeological resource. In most instances the effect will be limited to the site itself. However, unlike designated heritage assets (see Section 4.0) the archaeological potential of a site, and the significance of that archaeology, must be quantified by means of a staged programme of archaeological investigation.

3.2 ARCHAEOLOGICAL POTENTIAL

3.2.1 Setting

The site sits to the east of Brook Cottage and runs across common land. The landscape here is desolate, with very sparse houses and farm buildings, pockets of irregular fields and the relict former mining environment.

3.2.2 Consideration of the Proposals

The proposal is for the installation of an overhead electrical cable to supply mains power to the recently renovated Brook Cottage. The overhead cable will join into the existing network, with a line of overhead cables crossing this open landscape to the east of Brook Cottage.

Although the site lies within the World Heritage Site, it does not sit in close proximity to any upstanding mining buildings or features. Brook Cottage is the nearest building and its plot is bounded by mature trees and shrubs, with a small copse to the east, between the cottage and the proposed overhead line. The lanes accessing Brook Cottage and Bosporthennis, to east and west of the proposed line, appear to be privately accessed, which limits further the potential visibility of the proposals. From the closest publically accessible lane, the site does not appear visible, although extant power cables are visible a few metres to the north. Modern fence posts, gates and barbed wire, along with the extant power cables, are modern features which already exist in this moorland landscape, so it is not a pristine one.



FIGURE 2: VIEW ACROSS THE LANDSCAPE AND PROPOSAL SITE FROM THE EAST; BROOK COTTAGE IS INDICATED.

The First Edition OS Map of 1878 shows the area as unenclosed common, although there seems to be a large enclosure or property boundary fence, which runs across a similar line to the proposed overhead line.



FIGURE 3: EXTRACT OF THE FIRST EDITION OS MAP OF 1878; NLS (THE APPROXIMATE SITE IS INDICATED).

3.3 LIDAR

The processed LiDAR data available for the site is illustrated below. Due to the nature of the rough ground on much of the site the Digital Terrain Modelling (DTM) data (below) has been examined, but appear quite textured. DTM attempts to remove any vegetation coverage to present the ground surface. The available LiDAR data covering the entire site has a 0.5m sampling interval which is generally good for the detection of archaeological features.

The proposed overhead line runs along what appears to be a previous boundary. Other field enclosures can be seen in the top left of the image, and less so among the texture in the bottom of the image. There are no obvious archaeological features visible on the LiDAR, although the very textured area that is crossed by the proposed cable line may relate to the tin streaming works described on the HER. On the site visit, this area simply appears to be an area of wetter ground, and could be associated with peat cutting or height of vegetation similar rather than streaming works. The line of the existing overhead cable route can be seen running away to the south-south-east from the proposals. A slight causeway was visible on the ground along this part of the existing overhead route, perhaps a former track, and or landscaping associated with plant movements when the overhead cable was first installed.

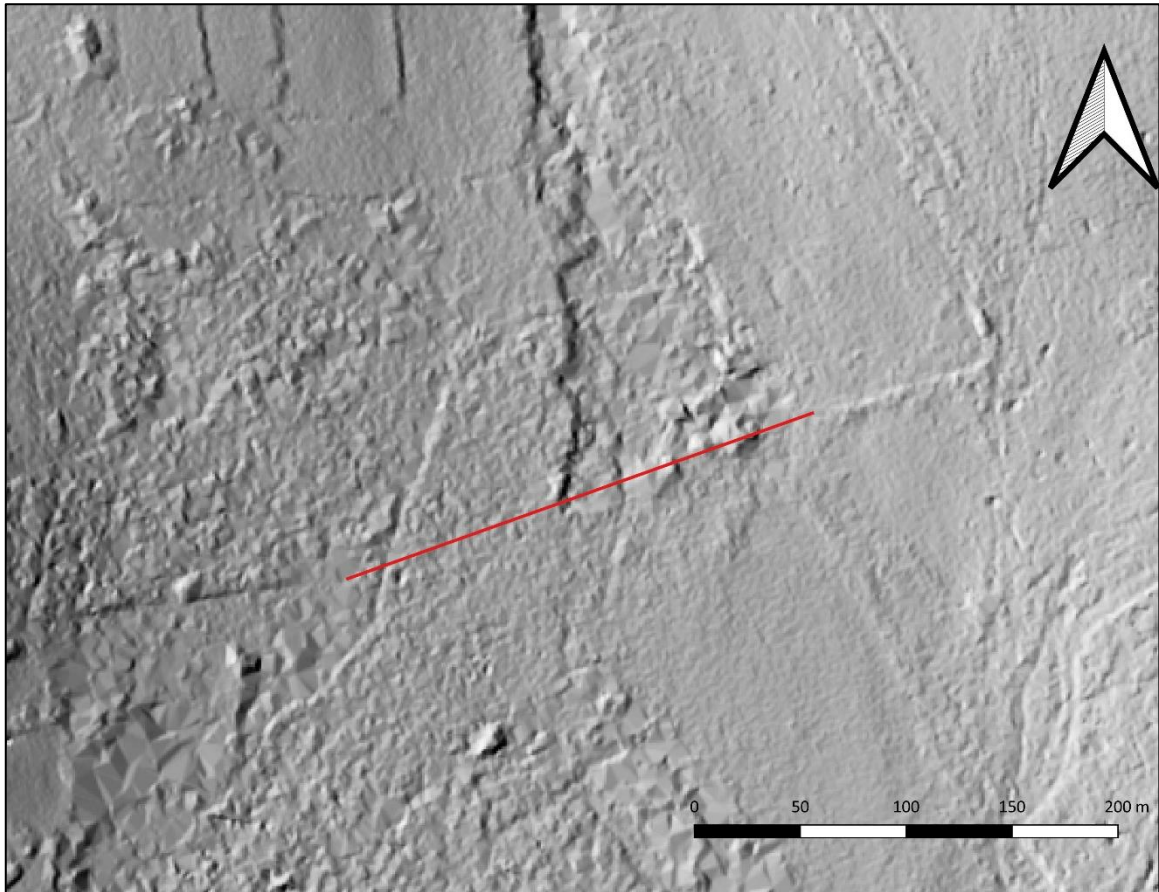


FIGURE 4: LIDAR 50CM DTM DATA PROCESSED BY RVT 2.2.1 MULTI-HILL SHADE 315_35_Z2 AND QGIS 3.14 THE APPROXIMATE SITE IS INDICATED IN RED. CONTAINS PUBLIC SECTOR INFORMATION LICENCED UNDER THE OPEN GOVERNMENT LICENCE.

3.4 HER DATA

The Cornwall and Scilly Historic Environment Record (HER) records a number of sites within the vicinity of the proposed overhead line, from the Prehistoric to Modern periods. The closest assets relate to the medieval and post medieval streamworks and farming of the area, with the closest designated assets being the enclosed hut circle settlement and field system 400m north of Bodrifty Farm (1004481), which lies approximately 250m to the south-west of the proposed site. The proposed site lies just inside of the St. Just Mining District (A1) of the World Heritage Site. The HER data and Designated assets are shown on maps below (Figures 5 & 6) and documented in Tables 1 & 2.

3.4.1 Prehistoric

The Prehistoric periods within the landscape surrounding the site are richly represented, with a range of assets including hut circles, enclosures, field systems, cairns, barrows, a cup-marked stone and a courtyard house.

3.4.1 Early Medieval & Medieval

The Early Medieval period is present in this landscape in the form of tin streaming activity and fieldsystems, along with mining prospecting pits, shafts, and the occasional building. There are also a number of boundary stones, at least one findspot, and a clearance cairn.

3.4.2 Post Medieval

Assets relating to this period include mining remains, settlements, enclosures and buildings – mostly relating to farming. These include a trackway quarry and well at Brook Cottage

3.4.3 Modern

The only modern feature within the survey area is a scatter of eight bomb craters on Bosporthennis Common.

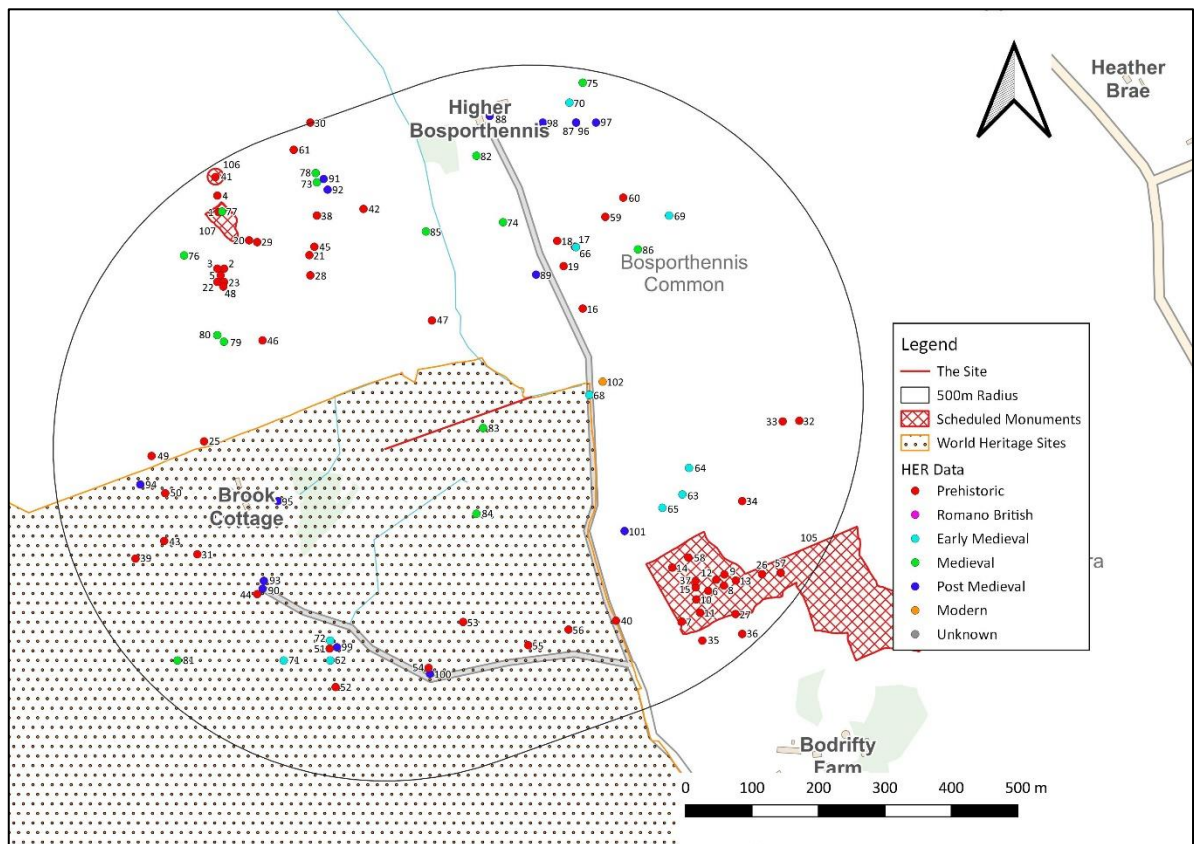


FIGURE 5: MAP SHOWING HERITAGE ASSETS WITHIN 1KM OF THE SITE RECORDED IN THE CORNWALL AND SCILLY HISTORIC ENVIRONMENT RECORD. CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022. THE APPROXIMATE SITE LOCATION IS INDICATED

TABLE 1: DETAILS OF THE HERITAGE ASSETS SHOWN ON FIGURE 5 (CSHER)

No	MonUID	Name	Summary
1	MCO10405	BOSPORTHENNIS - Iron Age courtyard house, Romano British courtyard house	A large circular courtyard house with the addition of a rectangular building within the larger chamber.
2	MCO10412	BOSPORTHENNIS - Bronze Age hut circle, Iron Age courtyard house, Romano British courtyard house	A possible hut circle or part of a courtyard house at Bosporthennis.
3	MCO10413	BOSPORTHENNIS - Bronze Age hut circle, Iron Age courtyard house, Romano British courtyard house	A possible hut circle or part of a courtyard house at Bosporthennis.
4	MCO10414	BOSPORTHENNIS - Iron Age courtyard house, Romano British courtyard house	The possible ploughed out remains of a courtyard house.
5	MCO13535	BOSPORTHENNIS - Bronze Age hut circle settlement, Iron Age settlement, Romano British settlement	A group of hut circles and a possible courtyard house at Bosporthennis.
6	MCO18816	BODRIFTY - Bronze Age hut circle settlement, Iron Age hut circle settlement, Romano British hut circle settlement	Centred on fairly flat but sloping south west facing land are the extant remains of Bodrifty hut circle settlement.
7	MCO18817	BODRIFTY - Iron Age hut circle	An extant hut circle in the south west part of the settlement.
8	MCO18818	BODRIFTY - Bronze Age hut circle, Iron Age hut circle	An extant hut circle in good condition within the settlement settlement.
9	MCO18819	BODRIFTY - Iron Age hut circle	An extant hut circle lies within the nucleated heart of the settlement of Bodrifty.
10	MCO18820	BODRIFTY - Iron Age hut circle	This well preserved hut circle lies within the heart of settlement.
11	MCO18821	BODRIFTY - Iron Age hut circle	This small extant hut circle lies within the settlement and is in a fairly good state of preservation.

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12	MCO18823	BODRIFTY - Iron Age hut circle	This extant hut circle lies, overgrown with moorland vegetation, within the settlement.
13	MCO18824	BODRIFTY - Iron Age hut circle	An overgrown, small hut circle within the settlement, in a fairly good state of preservation.
14	MCO18825	BODRIFTY - Iron Age hut circle	This extant hut circle lies outside the enclosed settlement of Bodrifty.
15	MCO18828	BODRIFTY - Bronze Age hut circle	Russell in 1971 lists the extant remains of a hut circle outside the round at Bodrifty.
16	MCO18865	BOSPORTHENNIS COMMON - Bronze Age hut circle settlement	A hut circle settlement at Bosporthennis first noted by Dudley in 1950.
17	MCO18866	BOSPORTHENNIS COMMON - Bronze Age hut circle	A hut circle, slightly oval, approx 5.8m NE-SW by approx 5.5m NW-SE, internally.
18	MCO18867	BOSPORTHENNIS COMMON - Bronze Age hut circle	A probable hut circle 6.5m in diameter.
19	MCO18868	BOSPORTHENNIS COMMON - Bronze Age hut circle	Remains of a possible hut circle, 5.3m NW-SE by approx 3.8m NE-SW.
20	MCO18877	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	The remains of a single hut survive at Bosporthennis.
21	MCO18878	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	The remains of a hut circle with an internal diameter of approx 8.0m.
22	MCO18882	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A freestanding hut circle, part of the settlement at Bosporthennis.
23	MCO18883	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A possible hut circle, part of the settlement at Bosporthennis.
24	MCO18884	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A probable hut circle surviving as low stony banks up to 0.35m high defining an area with an internal diameter of 6.8m.
25	MCO18885	BOSPORTHENNIS - Prehistoric hut circle	A circular structure on the east slopes of Little Galver is unlikely to be a hut circle and more likely to be a medieval or post-medieval field barn.
26	MCO20576	BODRIFTY - Iron Age field system, Romano British field system, Early Medieval field system	The traces of a field system which appears to have been associated with Bodrifty settlement.
27	MCO20518	BODRIFTY - Iron Age hut platform	The poor traces of a possible hut circle platform lie within the area of the settlement.
28	MCO20624	BOSPORTHENNIS - Bronze Age field system, Iron Age field system	A prehistoric field system at Bosporthennis.
29	MCO20625	BOSPORTHENNIS - Prehistoric field system	A short stretch of poorly preserved sinuous boulder wall is visible on aerial photographs at Bosporthennis.
30	MCO20627	BOSPORTHENNIS - Bronze Age field system, Iron Age field system	An area of prehistoric fields (30739) associated with a hut circle (30738) are visible.
31	MCO20673	BROOK COTTAGE - Prehistoric field system	Incorporated into the C19 field system at Brook Cottage Farm are fragments of an earlier curvilinear field system.
32	MCO2115	BODRIFTY - Bronze Age barrow	Remains of an impressive though partly mutilated barrow, with an intact cist and traces of kerbing in situ.
33	MCO2116	BODRIFTY - Bronze Age barrow	Remains of a small sub-ovoid barrow in poor condition, with traces of an orthostat kerb.
34	MCO2117	BODRIFTY - Bronze Age barrow	A disturbed, horeshoe shaped and denuded barrow, with a few kerb stones remaining in situ.
35	MCO2118	BODRIFTY - Neolithic long barrow, Bronze Age barrow	The site of a barrow or long barrow recorded in the 1920s; there are no remains.
36	MCO2119	BODRIFTY - Bronze Age barrow	The site of a barrow recorded in the 1920s of which there are no remains.
37	MCO21413	BODRIFTY - Iron Age enclosure	The remains of a stone and earth bank, encircling the northern part of Bodrifty hut circle settlement.
38	MCO21427	BOSPORTHENNIS - Bronze Age enclosure, Iron Age enclosure, Post Medieval enclosure	A small circular enclosure reused in the post medieval period appears to be attached to and associated with a hut circle.
39	MCO21452	BROOK COTTAGE - Prehistoric enclosure, Medieval enclosure	A large curvilinear enclosure partially fossilised by C19 fields.

40	MCO24610	BODRIFTY - Prehistoric cup marked stone	An earth fast boulder with cup marks is noted at this location. The cup marked stone is possibly prehistoric in date.
41	MCO27514	BOSPORTHENNIS - Iron Age / Romano British hut	The beehive hut at Bosporthennis courtyard house settlement (30733) is still visible.
42	MCO276	BOSPORTHENNIS - Bronze Age findspot	An urn was found in a barrow on Treen Common.
43	MCO27965	BROOK COTTAGE - Prehistoric boundary bank	A sinuous boundary linking two curvilinear enclosures which are presumed prehistoric.
44	MCO27966	BROOK COTTAGE - Prehistoric boundary bank, Medieval boundary bank	A boundary bank is an integral part of a presumably prehistoric field system.
45	MCO50527	BOSPORTHENNIS - Bronze Age hut circle	The remains of a hut circle is visible on aerial photographs.
46	MCO50528	BOSPORTHENNIS - Bronze Age hut circle	The possible remains of a prehistoric hut circle is visible on aerial photographs.
47	MCO50529	BOSPORTHENNIS - Iron Age hut circle, Romano British hut circle	Faint traces of an oval enclosure is visible on aerial photographs.
48	MCO50530	BOSPORTHENNIS - Bronze Age cairn	Traces of a circular mound visible on aerial photographs could possibly be a Bronze Age cairn.
49	MCO50536	BROOK COTTAGE - Prehistoric field system	Linear earth and stone banked boundaries are visible on an aerial photograph.
50	MCO50538	BROOK COTTAGE - Prehistoric enclosure	The remains of a sub-circular enclosure 11m across, visible as an earth and stone banked feature on an aerial photograph.
51	MCO50545	BOSKEDNAN - Bronze Age cairn	A sub-circular feature, possibly a ring cairn, is visible on aerial photographs.
52	MCO50546	BOSKEDNAN - Prehistoric field system	Linear field boundaries are visible on aerial photographs.
53	MCO50548	BOSKEDNAN - Prehistoric field system	A linear and curvilinear pattern of field enclosures are visible on aerial photographs.
54	MCO50549	BOSKEDNAN - Prehistoric enclosure	A sub-circular stone enclosure, with an internal diameter approx 14m, visible on aerial photographs.
55	MCO50550	BOSKEDNAN - Prehistoric enclosure	An oval shaped enclosure 18m by 10m, visible as an earth and stone bank on aerial photographs.
56	MCO50551	BOSKEDNAN - Prehistoric enclosure	Traces of an earth and stone banked enclosure, 8.0m by 5.0m, visible on aerial photographs.
57	MCO50560	BODRIFTY - Bronze Age barrow	A possible round barrow is visible on aerial photographs.
58	MCO50561	BODRIFTY - Bronze Age barrow	A possible round barrow is visible on aerial photographs.
59	MCO50563	BOSPORTHENNIS COMMON - Prehistoric field system	Curvilinear earth and stone banks form the remains of a possible prehistoric field system.
60	MCO50564	BOSPORTHENNIS COMMON - Prehistoric hut circle	An oval enclosure is visible on aerial photographs.
61	MCO7649	BOSPORTHENNIS - Iron Age round, Romano British round	A field named 'Round Field', suggested as the possible site of a round, is the fossilized remains of part of an early field system.
62	MCO11872	BOSKEDNAN - Historic mine, Post Medieval mine	
63	MCO20577	BODRIFTY - Early Medieval field system, Post Medieval field system	
64	MCO24608	BODRIFTY - Early Medieval tanners hut	
65	MCO24609	BODRIFTY - Early Medieval prospecting pit, Post Medieval prospecting pit	
66	MCO280	BOSPORTHENNIS COMMON - Early Medieval findspot	A small well made rectangular stone trough was found in a hut, either exposed by a small excavation or placed in a pit dug to receive it. By 1975 the trough had been removed.
67	MCO28051	BOSPORTHENNIS COMMON - Early Medieval boundary stone	

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68	MCO28052	BOSPORTHENNIS COMMON - Early Medieval boundary stone	
69	MCO28055	BOSPORTHENNIS COMMON - Early Medieval boundary stone	A boundary stone is noted on Bosporthennis Common.
70	MCO28058	BOSPORTHENNIS COMMON - Early Medieval boundary stone	A boundary stone is noted on the western slopes of Bosporthennis Common.
71	MCO28237	BOSKEDNAN - Early Medieval horse engine, Post Medieval horse engine	
72	MCO28238	BOSKEDNAN - Early Medieval adit, Post Medieval adit	
73	MCO13536	BOSPORTHENNIS - Medieval settlement, Post Medieval settlement	All that survives of a settlement on the western side of Bosporthennis stream are roofless and abandoned buildings.
74	MCO20617	BOSPORTHENNIS - Medieval field system, Post Medieval field system	Along the eastern side of the valley through Bosporthennis to the south of the main field system, is a small medieval field system.
75	MCO20621	BOSPORTHENNIS COMMON - Medieval field system	On the western slopes of Bosporthennis Common are the remains of medieval enclosures.
76	MCO20630	BOSPORTHENNIS - Medieval field system	A sinuous curvilinear boundary on the south east slopes of Hannibal's Carn is visible.
77	MCO27494	BOSPORTHENNIS - Medieval building, Post Medieval building	A roughly rectangular, two room hut built inside a courtyard house.
78	MCO27935	BOSPORTHENNIS - Medieval longhouse, Post Medieval house	A ruinous house survives which it is suggested may reuse the site of a medieval longhouse.
79	MCO27938	BOSPORTHENNIS - Medieval ridge and furrow	At Bosporthennis an area of ridge and furrow are visible on aerial photographs.
80	MCO27939	BOSPORTHENNIS - Medieval clearance cairn	A solitary stone clearance heap (clearance cairn) lies within an area of ridge and furrow which is contained by a medieval ring fence.
81	MCO27961	BROOK COTTAGE - Medieval boundary, Post Medieval boundary	Boundary and corn ditch to the SW perimeter of Brook Cottage Farm was formerly the perimeter of Bosporthennis Farm.
82	MCO28053	BOSPORTHENNIS - Medieval ridge and furrow	
83	MCO28054	BOSPORTHENNIS - Medieval streamworks, Post Medieval streamworks	In the valley at Bosporthennis an area of "tin streaming disturbance" is visible on aerial photographs.
84	MCO50547	BOSKEDNAN - Medieval field system	The remains of a late medieval strip field system is visible on aerial photographs.
85	MCO50562	BOSPORTHENNIS COMMON - Medieval building	The remains of a rectangular enclosure is visible on aerial photographs.
86	MCO50566	BOSPORTHENNIS COMMON - Medieval shaft, Medieval prospecting pit	A dense scatter of prospecting pits and short shafts are visible on aerial photographs.
87	MCO11876	BOSPORTHENNIS COMMON - Post Medieval mine	A pair of shafts on the slopes of Bosporthennis appear on the modern OS map
88	MCO14891	HIGHER BOSPORTHENNIS - Post Medieval settlement	The settlement of Higher Bosporthennis is likely to be post-medieval in origin.
89	MCO21426	BOSPORTHENNIS - Post Medieval enclosure	A small rectangular enclosure, possibly medieval is visible on the western slopes of Bosporthennis Common.
90	MCO27931	BROOK COTTAGE - Post Medieval building	Two ruined and roofless farm buildings; that to the west apparently a cartshed.
91	MCO27936	BOSPORTHENNIS - Post Medieval farm building	A ruinous post medieval farm building at Bosporthennis.
92	MCO27937	BOSPORTHENNIS - Post Medieval farm building	A small sub-rectangular post medieval farm building, approx 3.4m by 1.8m internally.
93	MCO27964	BROOK COTTAGE - Post Medieval trackway	A trackway leading from the south west perimeter into Brook Cottage Farm.
94	MCO27967	BROOK COTTAGE - Post Medieval quarry	The remains of a small quarry approx. 14m across
95	MCO27968	BROOK COTTAGE - Post Medieval well	A farm well, presumably a well and drinking trough still survives at Brook Cottage.
96	MCO28047	BOSPORTHENNIS COMMON - Post Medieval shaft	
97	MCO28048	BOSPORTHENNIS COMMON - Post Medieval prospecting pit	
98	MCO28050	BOSPORTHENNIS COMMON - Post Medieval hollow way	The western part of a sinuous and fragmented hollow way, probably post medieval, runs WNW-ESE across Bosporthennis Common.
99	MCO28239	BOSKEDNAN - Early Medieval tanners hut, Post Medieval tanners hut	
100	MCO38544	VENTON EGO - Post Medieval mine	
101	MCO50555	BODRIFTY - Post Medieval prospecting pit	A series of up to 80 prospecting pits are visible on aerial photographs.

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102	MCO28056	BOSPORTHENNIS COMMON - Modern bomb crater	A scatter of eight bomb craters are visible on NMR aerial photographs of Bosporthennis Common.
103	MCO10749	BROOK COTTAGE - Undated house	A small farming settlement called Brook Cottage is recorded in c1880 and still occupied in 1979.
104	MCO50531	BOSPORTHENNIS - Undated mound	The remains of a large earth mound is visible on aerial photographs.
105	1004481	Enclosed stone hut circle settlement and part of a field system 400m north of Bodrifty Farm	SM
106	1006736	Iron Age beehive hut 380m SSW of Bosporthennis Farm Cottage	SM
107	1004421	Courtyard house settlement and field system and medieval farmstead 440m south of Bosporthennis Farm Cottage	SM
No	MonUID	Name	Summary
1	MCO10405	BOSPORTHENNIS - Iron Age courtyard house, Romano British courtyard house	A large circular courtyard house with the addition of a rectangular building within the larger chamber.
2	MCO10412	BOSPORTHENNIS - Bronze Age hut circle, Iron Age courtyard house, Romano British courtyard house	A possible hut circle or part of a courtyard house at Bosporthennis.
3	MCO10413	BOSPORTHENNIS - Bronze Age hut circle, Iron Age courtyard house, Romano British courtyard house	A possible hut circle or part of a courtyard house at Bosporthennis.
4	MCO10414	BOSPORTHENNIS - Iron Age courtyard house, Romano British courtyard house	The possible ploughed out remains of a courtyard house.
5	MCO13535	BOSPORTHENNIS - Bronze Age hut circle settlement, Iron Age settlement, Romano British settlement	A group of hut circles and a possible courtyard house at Bosporthennis.
6	MCO18816	BODRIFTY - Bronze Age hut circle settlement, Iron Age hut circle settlement, Romano British hut circle settlement	Centred on fairly flat but sloping south west facing land are the extant remains of Bodrifty hut circle settlement.
7	MCO18817	BODRIFTY - Iron Age hut circle	An extant hut circle in the south west part of the settlement.
8	MCO18818	BODRIFTY - Bronze Age hut circle, Iron Age hut circle	An extant hut circle in good condition within the settlement settlement.
9	MCO18819	BODRIFTY - Iron Age hut circle	An extant hut circle lies within the nucleated heart of the settlement of Bodrifty.
10	MCO18820	BODRIFTY - Iron Age hut circle	This well preserved hut circle lies within the heart of settlement.
11	MCO18821	BODRIFTY - Iron Age hut circle	This small extant hut circle lies within the settlement and is in a fairly good state of preservation.
12	MCO18823	BODRIFTY - Iron Age hut circle	This extant hut circle lies, overgrown with moorland vegetation, within the settlement.
13	MCO18824	BODRIFTY - Iron Age hut circle	An overgrown, small hut circle within the settlement, in a fairly good state of preservation.
14	MCO18825	BODRIFTY - Iron Age hut circle	This extant hut circle lies outside the enclosed settlement of Bodrifty.
15	MCO18828	BODRIFTY - Bronze Age hut circle	Russell in 1971 lists the extant remains of a hut circle outside the round at Bodrifty.
16	MCO18865	BOSPORTHENNIS COMMON - Bronze Age hut circle settlement	A hut circle settlement at Bosporthennis first noted by Dudley in 1950.
17	MCO18866	BOSPORTHENNIS COMMON - Bronze Age hut circle	A hut circle, slightly oval, approx 5.8m NE-SW by approx 5.5m NW-SE, internally.
18	MCO18867	BOSPORTHENNIS COMMON - Bronze Age hut circle	A probable hut circle 6.5m in diameter.
19	MCO18868	BOSPORTHENNIS COMMON - Bronze Age hut circle	Remains of a possible hut circle, 5.3m NW-SE by approx 3.8m NE-SW.
20	MCO18877	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	The remains of a single hut survive at Bosporthennis.
21	MCO18878	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	The remains of a hut circle with an internal diameter of approx 8.0m.
22	MCO18882	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A freestanding hut circle, part of the settlement at Bosporthennis.
23	MCO18883	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A possible hut circle, part of the settlement at Bosporthennis.
24	MCO18884	BOSPORTHENNIS - Bronze Age hut circle, Iron Age hut circle	A probable hut circle surviving as low stony banks up to 0.35m high defining an area with an internal diameter of 6.8m.

25	MCO18885	BOSPORTHENNIS - Prehistoric hut circle	A circular structure on the east slopes of Little Galver is unlikely to be a hut circle and more likely to be a medieval or post-medieval field barn.
26	MCO20576	BODRIFTY - Iron Age field system, Romano British field system, Early Medieval field system	The traces of a field system which appears to have been associated with Bodrifty settlement.
27	MCO20518	BODRIFTY - Iron Age hut platform	The poor traces of a possible hut circle platform lie within the area of the settlement.
28	MCO20624	BOSPORTHENNIS - Bronze Age field system, Iron Age field system	A prehistoric field system at Bosporthennis.
29	MCO20625	BOSPORTHENNIS - Prehistoric field system	A short stretch of poorly preserved sinuous boulder wall is visible on aerial photographs at Bosporthennis.
30	MCO20627	BOSPORTHENNIS - Bronze Age field system, Iron Age field system	An area of prehistoric fields (30739) associated with a hut circle (30738) are visible.
31	MCO20673	BROOK COTTAGE - Prehistoric field system	Incorporated into the C19 field system at Brook Cottage Farm are fragments of an earlier curvilinear field system.
32	MCO2115	BODRIFTY - Bronze Age barrow	Remains of an impressive though partly mutilated barrow, with an intact cist and traces of kerbing in situ.
33	MCO2116	BODRIFTY - Bronze Age barrow	Remains of a small sub-ovoid barrow in poor condition, with traces of an orthostat kerb.
34	MCO2117	BODRIFTY - Bronze Age barrow	A disturbed, horeshoe shaped and denuded barrow, with a few kerb stones remaining in situ.
35	MCO2118	BODRIFTY - Neolithic long barrow, Bronze Age barrow	The site of a barrow or long barrow recorded in the 1920s; there are no remains.
36	MCO2119	BODRIFTY - Bronze Age barrow	The site of a barrow recorded in the 1920s of which there are no remains.
37	MCO21413	BODRIFTY - Iron Age enclosure	The remains of a stone and earth bank, encircling the northern part of Bodrifty hut circle settlement.
38	MCO21427	BOSPORTHENNIS - Bronze Age enclosure, Iron Age enclosure, Post Medieval enclosure	A small circular enclosure reused in the post medieval period appears to be attached to and associated with a hut circle.
39	MCO21452	BROOK COTTAGE - Prehistoric enclosure, Medieval enclosure	A large curvilinear enclosure partially fossilised by C19 fields.
40	MCO24610	BODRIFTY - Prehistoric cup marked stone	An earth fast boulder with cup marks is noted at this location. The cup marked stone is possibly prehistoric in date.
41	MCO27514	BOSPORTHENNIS - Iron Age / Romano British hut	The beehive hut at Bosporthennis courtyard house settlement (30733) is still visible.
42	MCO276	BOSPORTHENNIS - Bronze Age findspot	An urn was found in a barrow on Treen Common.
43	MCO27965	BROOK COTTAGE - Prehistoric boundary bank	A sinuous boundary linking two curvilinear enclosures which are presumed prehistoric.

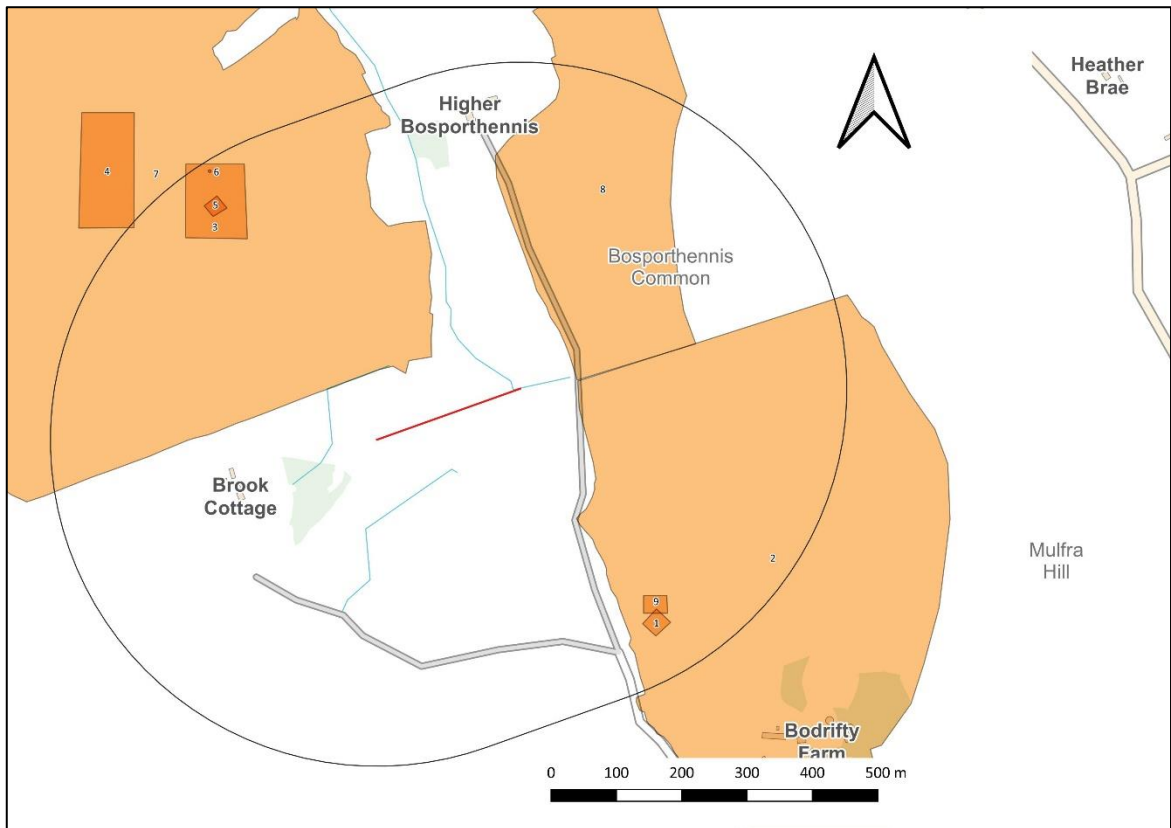


FIGURE 6: MAP SHOWING EVENT RECORDS WITHIN 1KM OF THE SITE RECORDED BY CORNWALL COUNCIL HER. CONTAINS OS DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2022 THE APPROXIMATE SITE LOCATION IS INDICATED.

TABLE 2: DETAILS OF THE EVENTS SHOWN ON FIGURE 6 (CCHER)

No	EvUID	RecordType	Name
1	ECO1382	Event - Survey	Bodrifty Settlement
2	ECO1898	Event - Survey	Bodrifty
3	ECO2351	Event - Survey	Courtyard Houses of West Penwith
4	ECO2351	Event - Survey	Courtyard Houses of West Penwith
5	ECO2352	Event - Survey	Courtyard House Survey
6	ECO2865	Curatorial Advice	Bosporthennis beehive hut, Zennor
7	ECO2871	Event - Survey	West Penwith 1983
8	ECO2871	Event - Survey	West Penwith 1983
9	ECO730	Maintenance	SM Management: Bodrifty Iron Age Settlement
No	EvUID	RecordType	Name
1	ECO1382	Event – Survey	Bodrifty Settlement
2	ECO1898	Event – Survey	Bodrifty
3	ECO2351	Event – Survey	Courtyard Houses of West Penwith
4	ECO2351	Event – Survey	Courtyard Houses of West Penwith
5	ECO2352	Event – Survey	Courtyard House Survey
6	ECO2865	Curatorial Advice	Bosporthennis beehive hut, Zennor
7	ECO2871	Event – Survey	West Penwith 1983

3.4.4 Archaeological Potential

The archaeological impact of the proposed extension is largely unproven, but considered to have low potential based on the site visit and the records shown on the Cornwall HER and historic maps. The area appears to be within an area of post-medieval or later enclosure. It is not recommended that further archaeological investigation work is necessary in this instance given the small footprints of the proposed groundworks.

4.0 INDIRECT IMPACTS

4.1 INTRODUCTION

For the purposes of this assessment, the *indirect effect* of a development is taken to be its effect on the wider historic environment. The principal focus of such an assessment falls upon identified designated heritage assets like Listed buildings or Scheduled Monuments. Depending on the nature of the heritage asset concerned, and the size, character and design of a development, its effect – and principally its visual effect – can impact on designated assets up to 20km away.

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (GPA3 Historic England 2015), with reference to ICOMOS (2011) and DoT (DMRB, WEBTAG) guidance. The assessment of effect at this stage of a development is an essentially subjective one, but one based on the experience and professional judgement of the authors. Appendix 1 details the methodology employed.

This report follows the staged approach to proportionate decision making outlined in *The Setting of Heritage Assets* (Historic England 2015, 6). *Step one* is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. The second stage in the process is to look at the heritage assets within the search radius and assign to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location and current setting would indicate that the impact of the proposed development is likely to be limited, but some uncertainty remains
- Category #3 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are still listed in the impact summary table.

For *Step two* and *Step three*, and with an emphasis on practicality and proportionality (*Setting of Heritage Assets* p15 and p18), this assessment then groups and initially discusses heritage assets by category (e.g. churches, historic settlements, funerary remains etc.) to avoid repetitious narrative; each site is then discussed individually, and the particulars of each site teased out. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the potential effect, the individual entry elaborates on local circumstance and site-specific factors. The individual assessments should be read in conjunction with the overall discussion, as the impact assessment is a reflection of both.

4.2 QUANTIFICATION

The size and profile of the proposed overhead line, as well as the local topography and screening, would indicate that a search radius of approximately 500m is sufficient for this study.

There is only one designated heritage asset which has been deemed to require detailed consideration, The St. Just Mining area of the Cornwall and West Devon Mining World Heritage Site (A1).

4.3 CORNWALL & WEST DEVON MINING WHS

4.3.1 Cornwall and West Devon Mining Landscape WHS

The proposed development would lie within the Cornwall and West Devon Mining Landscape World Heritage Site (St. Just Mining Area). There is an inherent conflict between the protection and preservation of this landscape, and the duty to ‘protect, conserve and enhance historical authenticity, integrity and historic character’ and the need to appreciate this is a living landscape that continues to evolve and where sustainable development must be encouraged (see the *WHS Management Plan 2005-10*). The upland parts of this landscape form a highly distinctive landform, in which the relicts of its mining heritage form prominent components. Anything that detracts from that comes into conflict with the need to conserve and enhance historic character. While an increase in modern developments within the World Heritage Site could erode the distinctive character of the landscape, the proposed development is single overhead power cable, supplying power to an existing building in a remote area of common land, with restricted access. Any views to the overhead cable would be very limited and heavily screened by the mature trees and hedgerows, as well as the undulating topography. The impact of this development on the WHS is therefore considered to be **neutral to negligible**.

4.3.2 Aggregate Impact

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. This differs from cumulative impact (below), which is an assessment of multiple developments on a single heritage asset. Aggregate impact is particularly difficult to quantify, as the threshold of acceptability will vary according to the type, quality, number and location of heritage assets, and the individual impact assessments themselves.

Based on the restricted number of assets where any appreciable effect is likely, the aggregate impact of this development is **neutral**.

4.3.3 Cumulative Impact

Cumulative impacts affecting the setting of a heritage asset can derive from the combination of different environmental impacts (such as visual intrusion, noise, dust and vibration) arising from a single development or from the overall effect of a series of discrete developments. In the latter case, the cumulative visual impact may be the result of different developments within a single view, the effect of developments seen when looking in different directions from a single viewpoint, of the sequential viewing of several developments when moving through the setting of one or more heritage assets.

The Setting of Heritage Assets 2011a, 25

*The key for all cumulative impact assessments is to focus on the **likely significant** effects and in particular those likely to influence decision-making.*

GLVIA 2013, 123

An assessment of cumulative impact is, however, very difficult to gauge, as it must take into account existing, consented and proposed developments. The threshold of acceptability has not, however, been established, and landscape capacity would inevitably vary according to landscape character. The visual impact of the overhead cable on the wider landscape is individually fairly negligible, and it will have a **negligible cumulative impact**.

5.0 CONCLUSION

The site sits to the east of Brook Cottage and runs across common land. The landscape here is desolate, with very sparse houses and farm buildings, pockets of irregular fields and the relict former mining environment.

The proposal is for the installation of an overhead electrical cable to supply mains power to the recently renovated Brook Cottage.

Although the site lies within the World Heritage Site, it does not sit in close proximity to any upstanding mining buildings or features. Brook Cottage is the nearest building and its plot is bounded by mature trees and shrubs, with a small copse to the east, between the cottage and the proposed overhead line. The lanes accessing Brook Cottage and Bosporthennis, to east and west of the proposed line, appear to be privately accessed, which limits further the potential visibility of the proposals. From the closest publically accessible lane, the site does not appear visible, although extant power cables are visible a few metres to the north. Modern fence posts, gates and barbed wire, along with the extant power cables, are modern features which already exist in this moorland landscape, so it is not a pristine one.

With this in mind, the overall impact of the proposed development can be assessed as **negligible**. The impact of the development on the buried archaeological resource would be **permanent/irreversible** but is thought to be of low potential and the scale of footprint is small which would limit any impacts.

6.0 BIBLIOGRAPHY & REFERENCES

Published Sources:

- Chartered Institute of Field Archaeologists** 2014a, revised 2017: *Standard and Guidance for Historic Environment Desk-based Assessment*.
- Chartered Institute of Field Archaeologists, IHBC & IEMA** 2021: *Principles of Cultural Heritage Impact Assessment in the UK*.
- English Heritage** 2008: *Conservation Principles: policies and guidance for the sustainable management of the historic environment*.
- English Heritage** 2011: *Seeing History in the View*.
- Historic England** 2015: *The Setting of Heritage Assets*.
- Historic Scotland** 2010: *Managing Change in the Historic Environment: Setting*.
- Hull, R.B. & Bishop, I.D.** 1988: 'Scenic Impacts of Electricity Transmission Towers: the influence of landscape types and observer distance', *Journal of Environmental Management* 27, 99-108.
- ICOMOS** 2005: *Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas*.
- ICOMOS** 2011: *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*. International Council on Monuments and Sites.
- Landscape Institute** 2013: *Guidelines for Landscape and Visual Impact Assessment*, 3rd edition. London.
- Soil Survey of England and Wales** 1983: *Legend for the 1:250,000 Soil Map of England and Wales (a brief explanation of the constituent soil associations)*.
- UNESCO** 2015: *Operational Guidelines for the Implementation of the World Heritage Convention*.
- University of Newcastle** 2002: *Visual Assessment of Wind Farms: Best Practice*.
- Watts, V.** 2004: *The Cambridge Dictionary to English Place Names*. Cambridge University Press.
- Williams, A. & Martin G.H.** 2002: *Domesday Book*. Penguin Books, London.

Websites:

- Archaeological Data Service (ADS)** 2022: *Archsearch & Grey Literature*
<http://archaeologydataservice.ac.uk>
- British Geological Survey** 2022: *Geology of Britain Viewer*.
<https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>
- Cornish Mining** 2005: *Cornwall and West Devon Mining Landscape: World Heritage Site Management Plan 2020-25*.
https://www.cornishmining.org.uk/media/Conservation/Management%20Plan/PDFs/Appendix_1-World_Heritage_Site_Area_Statements_A1-A10.pdf
- DCMS** 2005: *Nomination of the Cornwall and West Devon Mining Landscape for inclusion on the World Heritage List*.
- Design Manual for Roads and Bridges (DMRB)** 2016: Volume 11, Cultural Heritage
<http://www.standardsforhighways.co.uk/DMRB/vol11/index.htm>
- Sharpe, A.** 2014: *Cornwall and West Devon Mining Landscape World Heritage Site; Condition Survey 2014*. <http://www.Cornishmining.org.uk/areas/st-just-mining-district>
- WEBTAG** 2016: *Transport Analysis Guidance, Cultural Heritage*
<https://www.gov.uk/guidance/transport-analysis-guidance-webtag>

APPENDIX 1: IMPACT ASSESSMENT METHODOLOGY

Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonable practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the ‘heritage asset’). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and its setting (indirect impact). This methodology employed in this assessment is based on the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015), used in conjunction with the ICOMOS (2011) and DoT (DMRB vol.11; WEBTAG) guidance. The impact assessment also follows the guidance outlined in the Principles of Cultural Heritage Impact Assessment in the UK produced by Cifa, IHBC and IEMA in July 2021. This Appendix contains details of the methodology used in this report.

National Policy

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2021). The relevant guidance is reproduced below:

Paragraph 189

Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value. These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

Paragraph 194

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal.

Paragraph 206

Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Cultural Value – Designated Heritage Assets

The majority of the most important (‘nationally important’) heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest*. The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas

Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments

In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of '**national importance**'. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation. Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent. There are 19,000-20,000 Scheduled Monuments in England.

Registered Parks and Gardens

Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic

England. Sites included on this register are of **national importance** and there are currently 1,600 sites on the list, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on ‘designed’ landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields

Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to ‘read’ the battle on the ground.

World Heritage Sites

Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: ‘Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity’. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance

While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated ‘monuments of Schedulable quality and importance’ should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

TABLE 3: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB VOL.11 TABLES 5.1, 6.1 & 7.1).

Hierarchy of Value/Importance	
Very High	Structures inscribed as of universal importance as World Heritage Sites; Other buildings of recognised international importance; World Heritage Sites (including nominated sites) with archaeological remains; Archaeological assets of acknowledged international importance; Archaeological assets that can contribute significantly to international research objectives; World Heritage Sites inscribed for their historic landscape qualities; Historic landscapes of international value, whether designated or not; Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Scheduled Monuments with standing remains; Grade I and Grade II* (Scotland: Category A) Listed Buildings; Other Listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the Listing grade; Conservation Areas containing very important buildings; Undesignated structures of clear national importance; Undesignated assets of Schedulable quality and importance; Assets that can contribute significantly to national research objectives. Designated historic landscapes of outstanding interest; Undesignated landscapes of outstanding interest; Undesignated landscapes of high quality and importance, demonstrable national value; Well-preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	Grade II (Scotland: Category B) Listed Buildings; Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations; Conservation Areas containing buildings that contribute significantly to its historic character; Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated or undesignated archaeological assets that contribute to regional research objectives; Designated special historic landscapes; Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value; Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Locally Listed buildings (Scotland Category C(S) Listed Buildings); Historic (unlisted) buildings of modest quality in their fabric or historical association; Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated and undesignated archaeological assets of local importance; Archaeological assets compromised by poor preservation and/or poor survival of contextual associations;

Hierarchy of Value/Importance	
	Archaeological assets of limited value, but with potential to contribute to local research objectives; Robust undesignated historic landscapes; Historic landscapes with importance to local interest groups; Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character; Assets with very little or no surviving archaeological interest; Landscapes with little or no significant historical interest.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance; The importance of the archaeological resource has not been ascertained.

Concepts – Conservation Principles

In making an assessment, this document adopts the conservation values (*evidential, historical, aesthetic and communal*) laid out in *Conservation Principles* (English Heritage 2008), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

Evidential Value

Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective.

Historical Value

Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be *illustrative* or *associative*.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value

Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where a proposed development usually has their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extend many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be *commemorative, symbolic, social* or *spiritual*.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farmbuildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage and its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial, and condition poor.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets

The principle guidance on this topic is contained within two publications: *The Setting of Heritage Assets* (Historic England 2015) and *Seeing History in the View* (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2015, 2 & 4):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.

Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings.

While setting can be mapped in the context of an individual application or proposal, it does not have a fixed boundary and cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset because what comprises a heritage asset's setting may change as the asset and its surroundings evolve or as the asset becomes better understood or due to the varying impacts of different proposals.

The HIA below sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Views

Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape 'naturally' brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2015, 3) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;

- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 8), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 2 (below).

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. Change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings.

This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 4-6), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 7). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved). This is in adherence with GPA3 (2015, 7).

TABLE 4: MAGNITUDE OF IMPACT (BASED ON DMRB VOL.11 TABLES 5.3, 6.3 AND 7.3).

Factors in the Assessment of Magnitude of Impact – Buildings and Archaeology	
Major	Change to key historic building elements, such that the resource is totally altered; Change to most or all key archaeological materials, so that the resource is totally altered; Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, the resource is significantly modified; Changes to many key archaeological materials, so that the resource is clearly modified; Changes to the setting of an historic building or asset, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different; Changes to key archaeological materials, such that the asset is slightly altered; Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to elements of a heritage asset or setting that hardly affects it.
No Change	No change to fabric or setting.
Factors in the Assessment of Magnitude of Impact – Historic Landscapes	
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements or components, visual change to many key aspects of the historic landscape, noticeable differences in noise quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	Changes to few key historic landscape elements, or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in minor changes to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

TABLE 5: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB VOL.11 TABLES 5.4, 6.4 AND 7.4; ICOMOS 2011, 9-10).

Value of Assets	Magnitude of Impact (positive or negative)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

TABLE 6: SCALE OF IMPACT.

Scale of Impact	
<i>Neutral</i>	No impact on the heritage asset.
<i>Negligible</i>	Where the developments may be visible or audible, but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.

<i>Negative/minor</i>	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.
<i>Negative/moderate</i>	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.
<i>Negative/substantial</i>	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances.

TABLE 7: IMPORTANCE OF SETTING TO INTRINSIC SIGNIFICANCE.

Importance of Setting to the Significance of the Asset	
Paramount	Examples: Round barrow; follies, eyecatchers, stone circles
Integral	Examples: Hillfort; country houses
Important	Examples: Prominent church towers; war memorials
Incidental	Examples: Thatched cottages
Irrelevant	Examples: Milestones

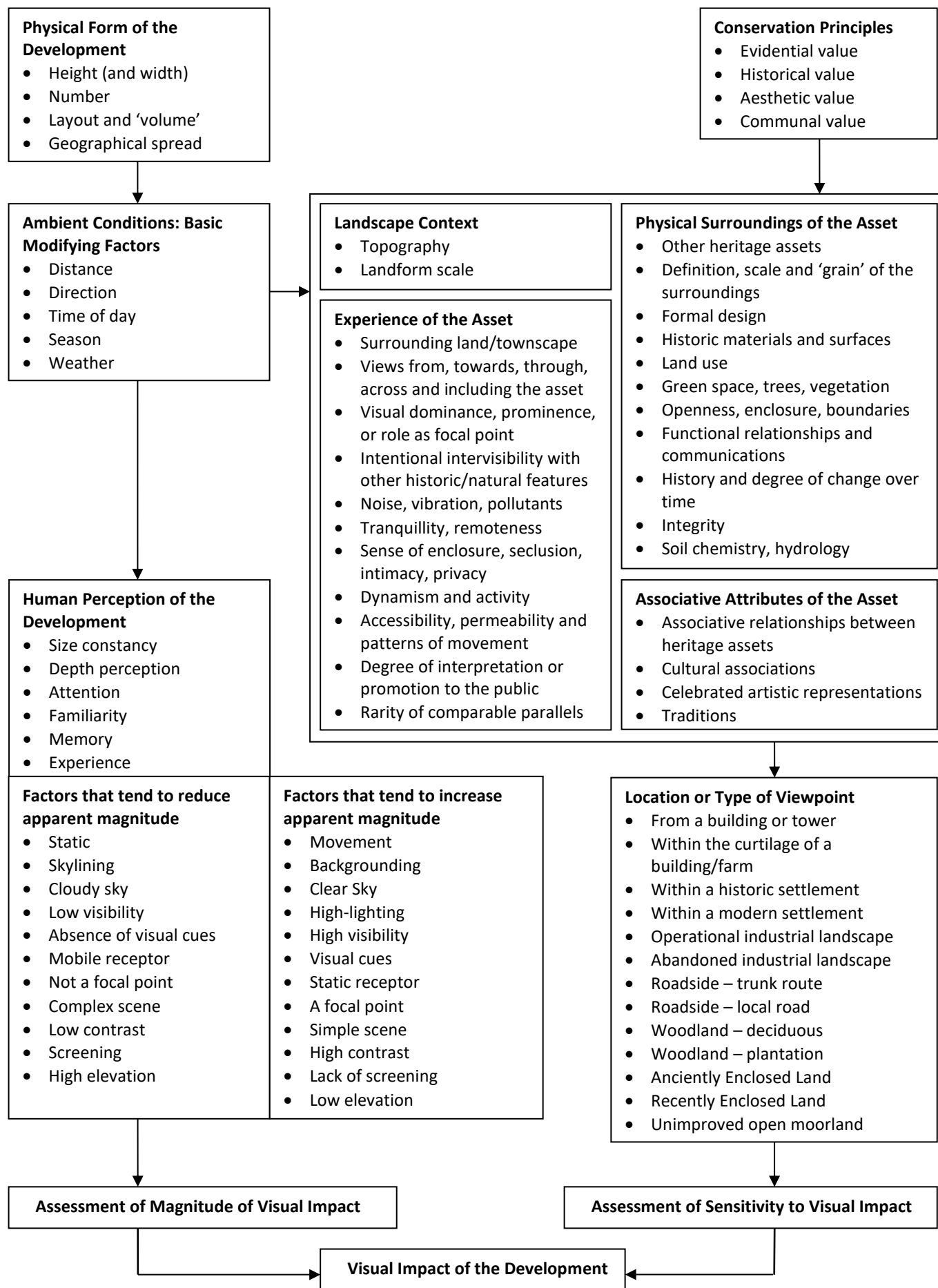


TABLE 8: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF ASSESSMENT STEP 2 FROM THE SETTING OF HERITAGE ASSETS (HISTORIC ENGLAND 2015, 9).



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