MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 3, Annex 5.5: Settings assessment

September 2024
ES For Issue

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Glossary

Term	Meaning
400 kV grid connection cables	Cables that will connect the proposed onshore substations to the existing National Grid Penwortham substation.
400 kV grid connection cable corridor	The corridor within which the 400 kV grid connection cables will be located.
Conservation Area	An area designated by a local authority as being of special architectural or historic interest.
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in this Environmental Statement. Secondary commitments are incorporated to reduce effects to environmentally acceptable levels following initial assessment.
Designated heritage asset	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Heritage asset	A building, monument, site, place, area or landscape identified as having a degree of heritage significance meriting consideration in planning decisions, because of its heritage interest.
Heritage significance	The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Listed building	A building or structure placed on a statutory 'List' of Buildings of Special Architectural or Historic Interest. There are three grades of listing, which are: • Grade I (these are of exceptional interest); • Grade II* (these are particularly important); and • Grade II (these are of special interest).
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.

Term	Meaning
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.
Onshore export cables	The cables which would bring electricity from the landfall to the onshore substations.
Onshore export cable corridor	The corridor within which the onshore export cables will be located.
Onshore Infrastructure Area	The area within the Transmission Assets Order Limits landward of Mean High Water Springs. Comprising the offshore export cables from Mean High Water Springs to the transition joint bays, onshore export cables, onshore substations and 400 kV grid connection cables, and associated temporary and permanent infrastructure including temporary and permanent compound areas and accesses. Those parts of the Transmission Assets Order Limits proposed only for ecological mitigation/enhancement/biodiversity benefit are excluded from this area.
Onshore substations	The onshore substations will include a substation for the Morgan Offshore Wind Project: Transmission Assets and a substation for the Morecambe Offshore Windfarm: Transmission Assets. These will each comprise a compound containing the electrical components for transforming the power supplied from the generation assets to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid.
Registered Park and Garden	A park and/or garden of special historic interest placed on a non-statutory Register. There are three grades of registration: • grade I – these are of exceptional interest; • grade II* - these are particularly important; and • grade II – these are of special interest.
Scheduled Monument	An archaeological site given legal protection by being placed on a ‘Schedule’ of monuments.
Setting of a heritage asset	The setting of a heritage asset includes the surroundings in which it is understood, experienced and appreciated embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the heritage significance of an asset, may affect the ability to appreciate that heritage significance or may be neutral.
Study area	This is an area which is defined for each environmental topic which includes the Transmission Assets Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected.
Substation	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of electrical transformers.

Term	Meaning
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits	The area within which all components of the Transmission Assets will be located, including areas required on a temporary basis during construction and/or decommissioning.

Acronyms

Acronym	Meaning
c.	Circa
CIfA	Chartered Institute for Archaeology
DCO	Development Consent Order
ES	Environmental Statement
HER	Historic Environment Record
NHLE	National Heritage List for England
NPS	National Policy Statement
OS	Ordnance Survey
ZTV	Zone of Theoretical Visibility

Units

Unit	Description
km	Kilometres
kV	Kilovolt
m	Metre

1 Settings assessment

1.1 Introduction

1.1.1.1 This document forms Volume 3, Annex 5.5: Settings assessment of the Environmental Statement (ES) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (hereafter referred to as the Transmission Assets). The ES presents the findings of the Environmental Impact Assessment process for the Transmission Assets.

1.1.1.2 This document presents the results of the assessment of potential impacts and effects arising from changes within the settings of designated heritage assets upon their heritage significance as a result of the construction, operation and maintenance, and decommissioning of the Transmission Assets.

1.1.1.3 The area landward of Mean High Water Springs required for the construction, operation and maintenance, and decommissioning of the Transmission Assets is referred to as the Onshore Infrastructure Area and comprises the following.

- The onshore export cable corridor, which links the landfall to the onshore substations that are located to the south east of Kirkham and east of Hall Cross.
- The onshore substations, which will include a substation for the Morgan Offshore Wind Project: Transmission Assets and a substation for the Morecambe Offshore Windfarm: Transmission Assets.
- The 400 kV grid connection cable corridor, which connects the onshore substations to the National Grid substation at Penwortham.
- The construction compounds, accesses and other land that will be temporarily or permanently occupied during the construction, operation and maintenance, and decommissioning phases.

1.1.1.4 Those parts of the Transmission Assets Order Limits proposed for ecological mitigation/biodiversity enhancement are excluded from this area.

1.1.1.5 The settings assessment has examined data from a number of sources, principally the National Heritage List for England (NHLE) maintained by Historic England, in order to identify designated heritage assets within defined study areas.

1.1.1.6 Provision of this settings assessment within the Environmental Statement was described within the Preliminary Environmental Information Report (PEIR) prepared for the Transmission Assets (section 5.9 of Volume 3, Chapter 5: Historic environment of the PEIR). It was not possible to produce a similar level of assessment for the PEIR as the design of key elements (such as the onshore substations) had not progressed to the necessary level at that time.

1.2 Settings study area

1.2.1.1 The historic environment settings study area is indicated on **Figure 1.1** and is made up as follows:

- The 5 km substations settings study area - a buffer zone (for all categories of designated heritage assets) extending for 5 km from the edge of the onshore substation sites. Together with the Zone of Theoretical Visibility (ZTV) for the onshore substations (**Figure 1.6**), this enables the identification of designated heritage assets whose settings may change during and following the construction of one or both of the onshore substations.
- The 1 km settings study area - a buffer zone (for all categories of designated heritage assets) extending for 1 km from the edge of the Onshore Infrastructure Area, excluding the onshore substations which are the focus of the 5 km substations settings study area above (see **paragraph 1.1.1.3** and **Figure 1.2** to **Figure 1.5**). This enables the identification of designated heritage assets whose settings may change during construction of the onshore export cables and the 400 kV grid connection cables. It is limited to 1 km as there would be no above ground visible infrastructure in place following construction. Therefore, any impacts to the onshore export cable corridor and the 400 kV grid connection cable corridor would be short term and only occur during the construction phase.

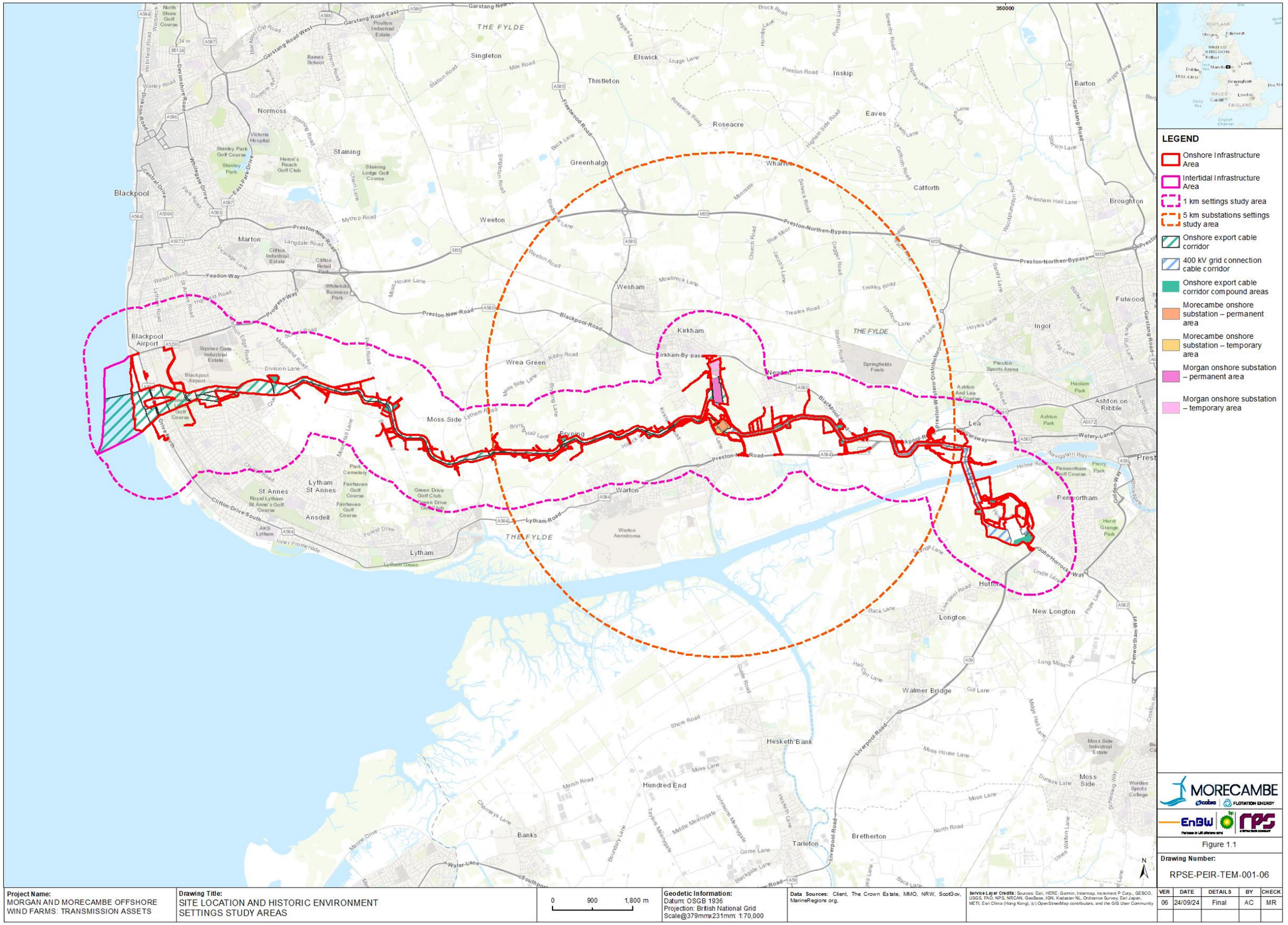


Figure 1.1: Site location and historic environment settings study area

1.3 Consultation

1.3.1.1 Consultation specific to the historic environment, including from scoping, the Onshore Heritage Expert Working Group and statutory consultation, is set out in detail in the Consultation Report (document reference E1) and Volume 3, Chapter 5: Historic environment of the ES.

1.4 Methodology

1.4.1.1 This settings assessment has been prepared with reference to appropriate guidance and 'good practice' advice including that presented in the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for Archaeological Desk Based Assessment* (CIfA, 2020).

1.4.1.2 The historic environment settings study area was used for the purposes of data collection and, where appropriate, material beyond the historic environment settings study area has also been examined.

1.4.1.3 All proposed impacts on the heritage significance of designated heritage assets would be non-physical and would derive from changes within the setting affecting the heritage significance of the assets in question.

1.4.1.4 The appraisal of desk-based information has been augmented by site walkovers undertaken in June 2022, March 2024 and May 2024. The site walkovers assisted in informing the assessment of potential changes within the settings of designated heritage assets within the defined study area.

1.4.1.5 Planning policy and guidance appropriate to the historic environment are set out in detail in Volume 3, Annex 5.1; Historic environment desk-based assessment of the ES and summarised within Volume 3, Chapter 5: Historic environment of the ES. For immediate reference, the key guidance relevant to undertaking settings assessments in England is set out within The Setting of Heritage Assets (Historic England, 2017).

1.4.1.6 This guidance document focuses on the management of change within the setting of historic assets. It explains what setting is, how it contributes to the significance of a historic asset, and why it is important, in order to aid practitioners with the implementation of policies and guidance relating to the historic environment.

1.4.1.7 In The Setting of Heritage Assets (Historic England, 2017), setting is defined as: '*The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral*'. This definition is repeated in Annex 2: Glossary of the National Planning Policy Framework (Department of Levelling Up, Housing and Communities, 2023) and also in footnote 231 of the overarching National Policy Statement for Energy (NPS EN-1) (Department for Energy Security and Net Zero, 2023).

1.4.1.8 The Historic England guidance document makes the following points:

- A setting does not have a fixed boundary as it may change.

- Extensive heritage assets such as landscapes or townscapes can include many heritage assets and their nested and overlapping settings, as well as having a setting of their own.
- The setting of a heritage asset may reflect the character of the wider townscape or landscape in which it is situated, whether fortuitously or by design.
- The importance of a setting of a heritage asset is what it contributes to the significance of the asset.
- Where the significance of a heritage asset has been compromised in the past by unsympathetic development within its setting, consideration still needs to be given as to whether additional change would further detract from (or possibly enhance) the significance of the asset.
- The contribution made by its setting to the significance of a heritage asset does not depend on public access.

1.4.1.9 The document deals with the issue of setting and proportionate decision taking. It advises a five-stage approach:

1. identify which heritage assets and their settings are affected;
2. assess to what degree these settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated;
3. assess the effects of the proposed development, whether beneficial or harmful, on that significance or on the ability to appreciate it;
4. explore the way to maximise enhancement and avoid or minimise harm; and
5. make and document the decision and monitor outcomes.

1.4.1.10 Although assessments of changes within the settings of heritage assets can involve non-visual matters such as noise, it is more usually the visual aspects of a development that form the major part of the assessment.

1.4.1.11 The existence of direct lines of sight between the heritage asset and a proposed development is an important factor in judging the visual impact of a development. However, it is possible for changes within the setting to occur even when such a relationship does not exist. For example, views towards a listed building from a frequently visited location, such as a park or a public footpath, may be affected by the presence of a larger development, even if the development is not directly visible from the building itself.

1.4.1.12 An assessment of visual impacts on the heritage assets and their settings needs to take into account a wide variety of factors including the location of the asset within the physical landscape, its relationship with contemporary and non-contemporary features within that landscape and the location, size and character of the proposed development in relation to these factors.

1.4.1.13 The assessment then needs to balance the impact of these various considerations on the basis of informed professional judgment. If there is the potential for changes within the setting of heritage assets due to noise or other impact types, then these should also be considered.

1.4.1.14 There should also be consideration of the sensitivity to change of the setting of a heritage asset. This requires examination of the current setting with regard to identifying elements that contribute to the significance of the asset, elements that make a neutral contribution to the significance of the asset and elements that make a negative contribution to (i.e., detract from) the heritage significance of the asset. This examination has been undertaken by way of site visits in June 2022, March 2024 and May 2024.

1.5 Scoping

1.5.1.1 Not all designated heritage assets within the settings study areas would be affected by the Transmission Assets. Through a consideration of the Transmission Assets in context to distance, elevation, function and designation status of an asset, in addition to factoring in the results of the site walkovers, assessment of intervisibility, and in combination with professional opinion, it has been possible to scope out a number of designated heritage assets from a requirement for further assessment. This scoping has also been informed by the production of a ZTV for the onshore substations (see **Figure 1.6**).

1.5.1.2 **Table 1.1** presents the results of the scoping exercise and corresponds to Stage 1 of the process for assessment of settings as set out in the Historic England guidance (Historic England, 2017), but has necessarily involved some aspects of Stages 2 and 3 (definition of setting and initial impact assessment) in order to better validate the exercise and justify the inclusion or exclusion of assets for more detailed assessment. The locations of designated heritage assets are shown on **Figure 1.2** to **Figure 1.6**. Those assets scoped in for detailed assessment are indicated with their names as well as their NHLE number. Stage 2 of the assessment process is then addressed in greater detail within **Table 1.2** of this document and Stages 3 and 4 of the assessment process are undertaken within **section 1.9** of this assessment document.

Table 1.1: Summary of designated historic assets potentially affected by the Transmission Assets

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
1000949	Lytham Hall Grade II Registered Historic Park and Garden.	600 m south of onshore export cable corridor	Out	Northern boundary of the Registered Park and Garden comprises a substantial tree belt. This precludes any views out from the open interior part of the park towards the onshore export cable corridor.
1001377	Ashton Gardens Grade II Registered Historic Park and Garden.	600 m south of onshore export cable corridor	Out	The Registered Park and Garden is in an urban location with no views towards the onshore export cable corridor.
N/A	Porritt Houses/Ashton Gardens Conservation Area.	600 m south of onshore export cable corridor	Out	The Conservation Area is in an urban location with no views towards the onshore export cable corridor.

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
N/A	St Annes Road East Conservation Area.	50 m south of onshore export cable corridor.	Out	Despite the proximity of the onshore export cable corridor, any works here would be within existing highways. The Conservation Area is in an urban location with no views towards the main part of the onshore export cable corridor.
1219217	Church of St Anne, St Anne's on the Sea. Grade II listed building.	700 m south of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1423954	Gravestone of Sir Charles Wright Macara, churchyard of Church of St Anne, St Anne's on the Sea. Grade II listed building.	700 m south of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1423950	Laura Janet Memorial Cross, churchyard of Church of St Anne, St Anne's on the Sea. Grade II listed building.	700 m south of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1196379	Lychgate and boundary wall to churchyard of Church of St Anne, St Anne's on the Sea. Grade II listed building.	700 m south of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1205755	Cottage known as Blowing Sands and attached wall to north, Stanley. Grade II listed building.	900 m north of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1205761	Nos. 1 and 2 Fishers Lane, Stanley. Grade II listed building.	900 m north of onshore export cable corridor.	Out	The listed building is in an urban location with no views towards the onshore export cable corridor.
1362389	White House, Lower Balham. Grade II listed building.	550 m north of onshore export cable corridor.	Out	Farm buildings and mature vegetation preclude any views towards the onshore export cable corridor.
1072058	Hall Cross Farmhouse, Freckleton. Grade II listed building.	60 m north of onshore export cable corridor.	In	Onshore export cable corridor is just to the south and there are also views from the listed building towards the onshore substation sites.
N/A	Kirkham Conservation Area.	650 m north west of onshore substation sites.	Out	The Conservation Area is in an urban location with no views towards the onshore substation sites.

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
1362357	Church of St Michael, Kirkham. Grade II* listed building.	900 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072022	Sundial in churchyard of Church of St Michael, Kirkham. Grade II listed building.	900 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072023	Tomb of Edward and Dorothy King in churchyard of Church of St Michael, Kirkham. Grade II listed building.	900 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1163974	Tomb of Edward and Elizabeth Birley in churchyard of Church of St Michael, Kirkham. Grade II listed building.	900 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1362358	Tomb of William Birley and others in churchyard of Church of St Michael, Kirkham. Grade II listed building.	900 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072020	No. 2 Church Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072021	No. 4 Church Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072024	Fishstones and lamp, Market Square, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072025	Hillside and attached wings, Preston Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1163984	Nos. 4 and 6 Freckleton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
1163996	No. 32 Poulton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1164005	No. 14 Preston Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1264897	K6 telephone kiosk, Poulton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1362359	Trustee Savings Bank, Poulton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1405186	Jubilee Lamp, Poulton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1407288	United Reform Church, Poulton Street, Kirkham. Grade II listed building.	800 m north west of onshore substation sites.	Out	The listed building is in an urban location with no views towards the onshore substation sites.
1072035	Dixon's Farmhouse, Newtown-with-Scales. Grade II listed building.	550 m north of 400 kV grid connection cable corridor.	In	Possibility of views towards the onshore substation sites and the 400 kV grid connection cable corridor.
1164155	Dagger Cottage, Newtown-with-Scales. Grade II listed building.	550 m north of 400 kV grid connection cable corridor.	In	Possibility of views towards the onshore substation sites and the 400 kV grid connection cable corridor.
1164146	No. 8 Grange Lane, Newtown-with-Scales. Grade II listed building.	550 m north of 400 kV grid connection cable corridor.	Out	The listed building is in an urban location with no views towards the 400 kV grid connection cable corridor.
1072034	Newton Hall Farmhouse, Newtown-with-Scales. Grade II listed building.	550 m north of 400 kV grid connection cable corridor.	Out	The listed building is in a semi-urban location with no views towards the 400 kV grid connection cable corridor.

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
1072036	Clifton Hall, Clifton. Grade II listed building.	400 m north of 400 kV grid connection cable corridor.	Out	Mature planting around the perimeter of the grounds precludes views towards the 400 kV grid connection cable corridor
1165074	Raikes Farmhouse, Lea Town. Grade II listed building.	950 m north of 400 kV grid connection cable corridor.	Out	Farm buildings and mature vegetation preclude any views towards the 400 kV grid connection cable corridor.
1361663	Old Lea Hall Farmhouse, Blackpool Road, Lea. Grade I listed building.	65 m north of 400 kV grid connection cable corridor.	In	Close to 400 kV grid connection cable corridor.
1073511	Stable block *c*. 50 m south of Old Lea Hall Farmhouse. Grade II listed building.	40 m north of 400 kV grid connection cable corridor.	In	Close to 400 kV grid connection cable corridor.
1317477	Barn *c*. 120 m south east of Old Lea Hall Farmhouse. Grade II listed building.	40 m north of 400 kV grid connection cable corridor.	In	Close to 400 kV grid connection cable corridor.
1165029	Barn north of New Hall Farmhouse, Blackpool Road, Lea. Grade II listed building.	250 m north of 400 kV grid connection cable corridor.	Out	Farm buildings and mature vegetation preclude any views towards the 400 kV grid connection cable corridor.
1073060	Hesketh Farmhouse, Howick Cross Lane, Penwortham. Grade II listed building.	180 m north of 400 kV grid connection cable corridor.	In	Close to 400 kV grid connection cable corridor.
1073061	Howick Cross, Liverpool Road, Penwortham. Grade II listed building.	350 m south east of 400 kV grid connection cable corridor.	Out	The listed building is in an urban location with no views towards the 400 kV grid connection cable corridor onshore export cable corridor.
1361897	Nos. 138 and 140 Ratten Lane, Hutton. Grade II listed building.	850 m south west of 400 kV grid connection cable corridor.	Out	Mature vegetation along field boundaries precludes views towards the 400 kV grid connection cable corridor.
1210426	No. 150 Ratten Lane, Hutton. Grade II listed building.	850 m south west of 400 kV grid connection cable corridor.	Out	Mature vegetation along field boundaries precludes views towards the 400 kV grid connection cable corridor.
1317931	Windmill Tavern, Newton-with-Clifton. Grade II listed building.	2.8 km east of onshore substations.	Out	Mature vegetation and buildings preclude views towards the onshore substation sites.

NHLE No.	Name/designation	Distance (approx.)	Scoped In/Out	Comments
1072002	Treales Windmill. Grade II listed building.	1.5 km north east of onshore substations.	In	Mature vegetation and buildings preclude views towards the onshore substation sites from ground level, but the windmill is residential and the upper floors have south-facing windows.
1362386	Derby Arms Inn, Treales. Grade II listed building.	1.5 km north east of onshore substations.	Out	Mature vegetation and buildings preclude views towards the onshore substation sites.
1071999	Treales Church of England Primary School, Moor Side. Grade II listed building.	3 km north east of onshore substations.	Out	Mature vegetation and buildings preclude views towards the onshore substation sites.
1072000	Rhododendron Cottage, Moor Side. Grade II listed building.	3 km north east of onshore substations.	Out	Mature vegetation and buildings preclude views towards the onshore substation sites.

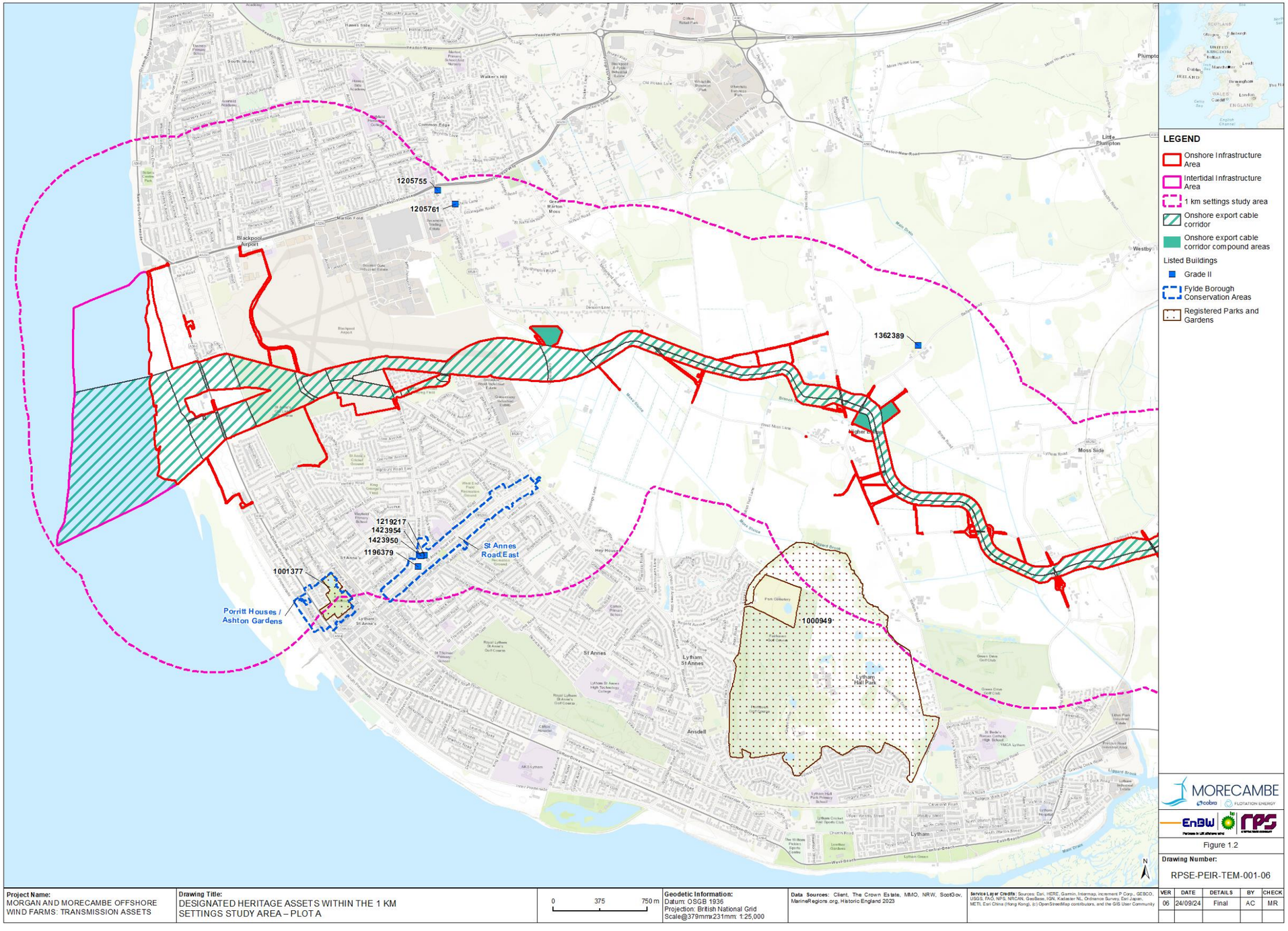


Figure 1.2: Designated heritage assets within the 1 km settings study area - Plot A

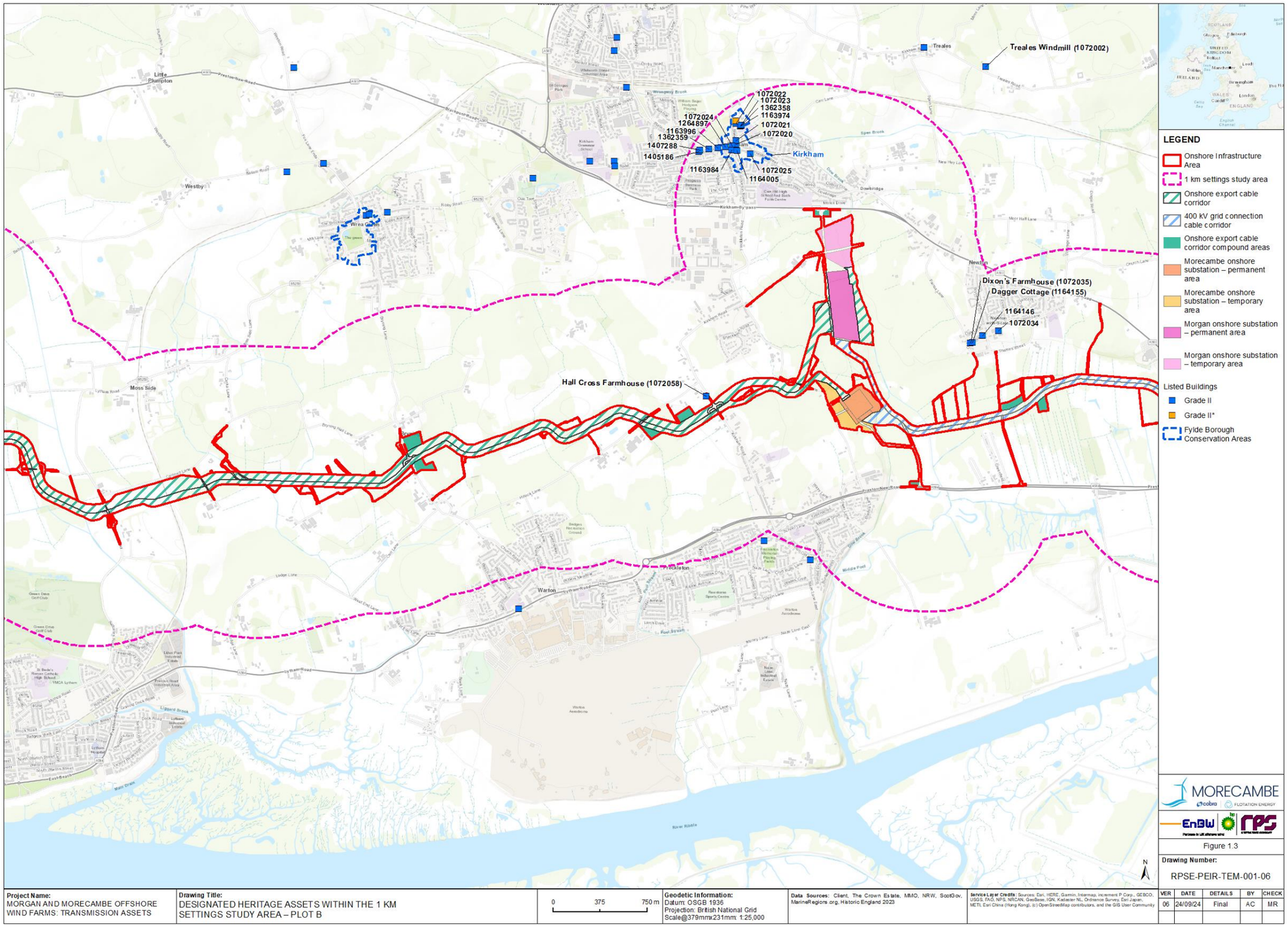


Figure 1.3: Designated heritage assets within the 1 km settings study area - Plot B

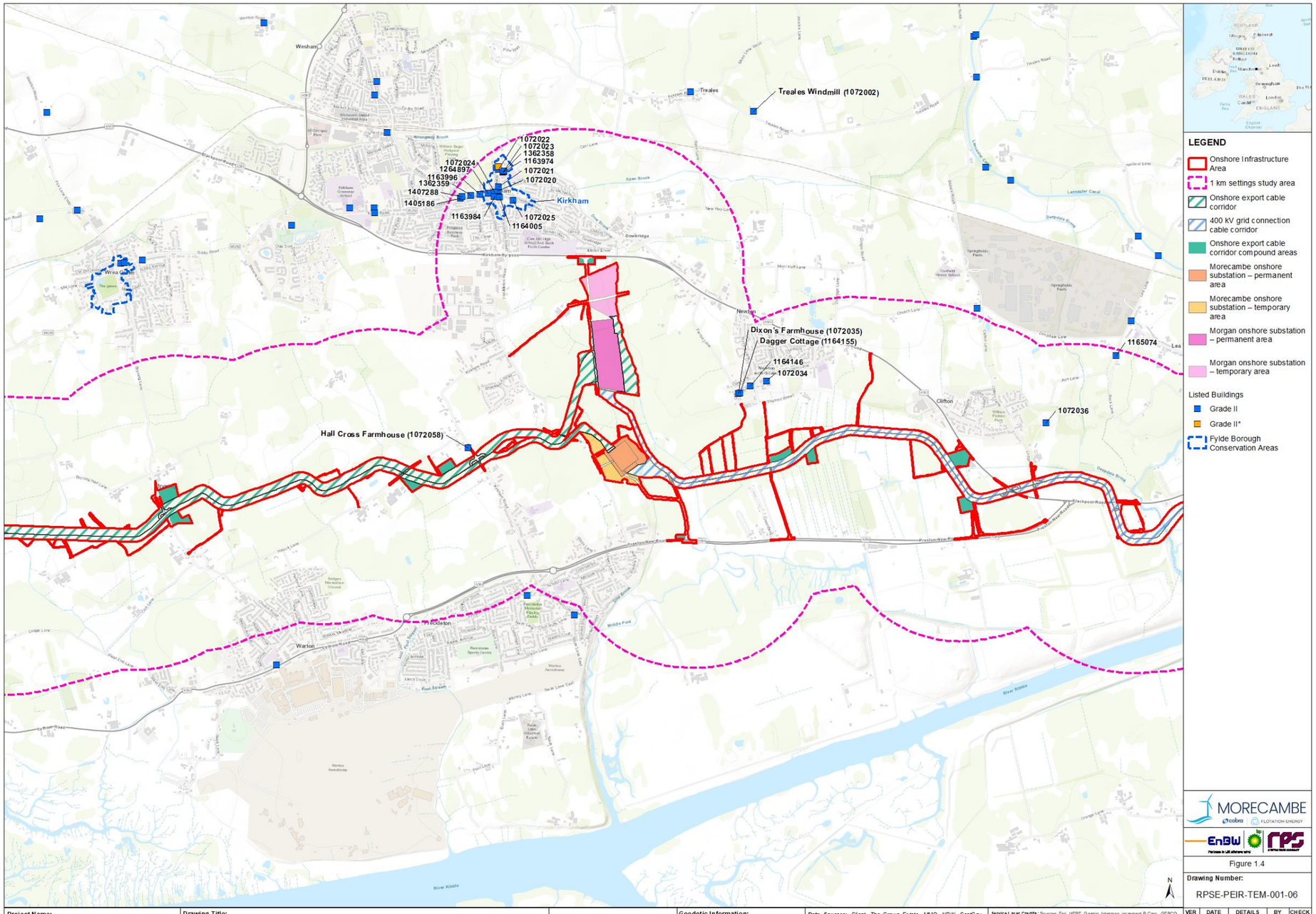


Figure 1.4: Designated heritage assets within the 1 km settings study area - Plot C

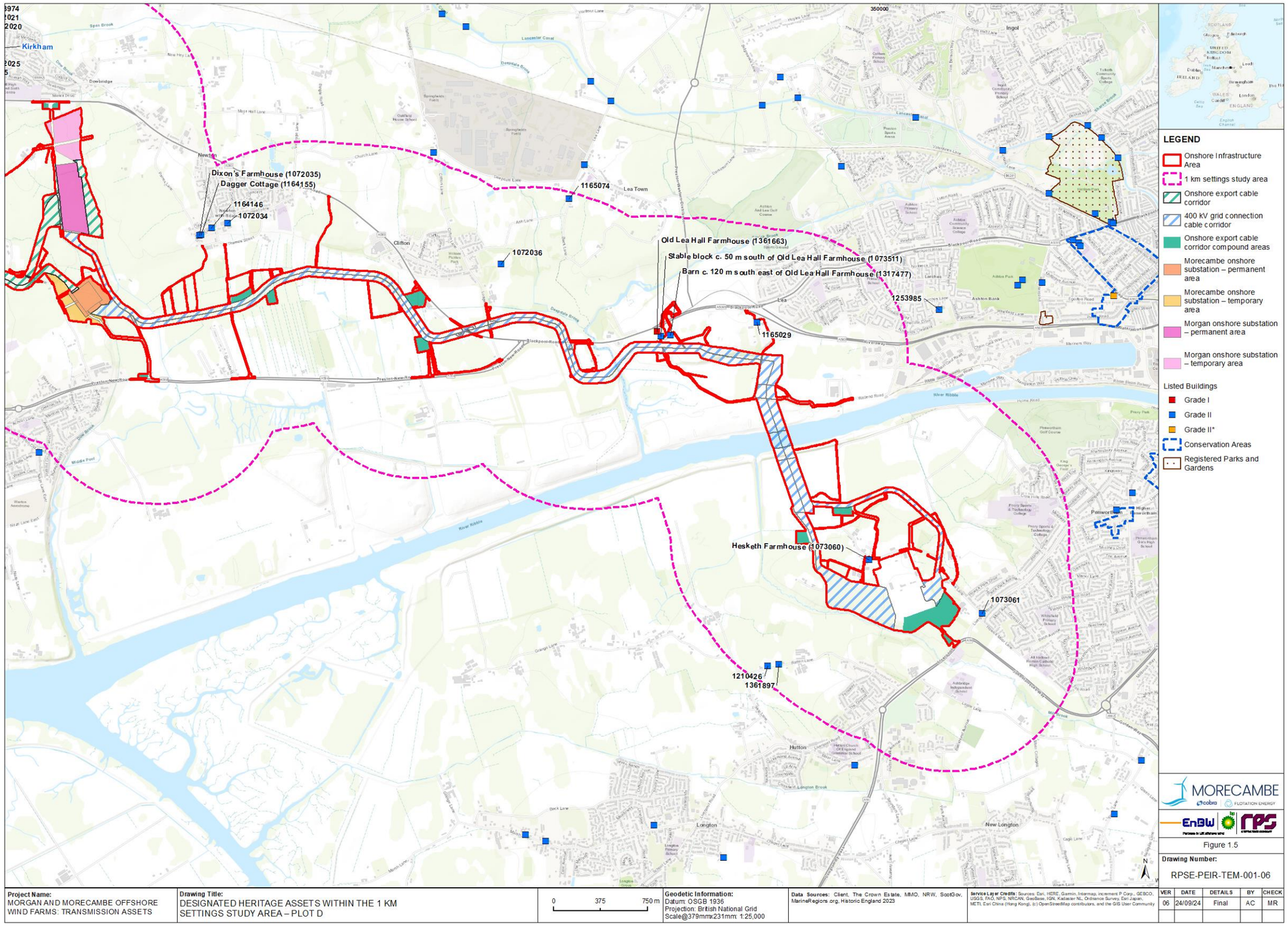
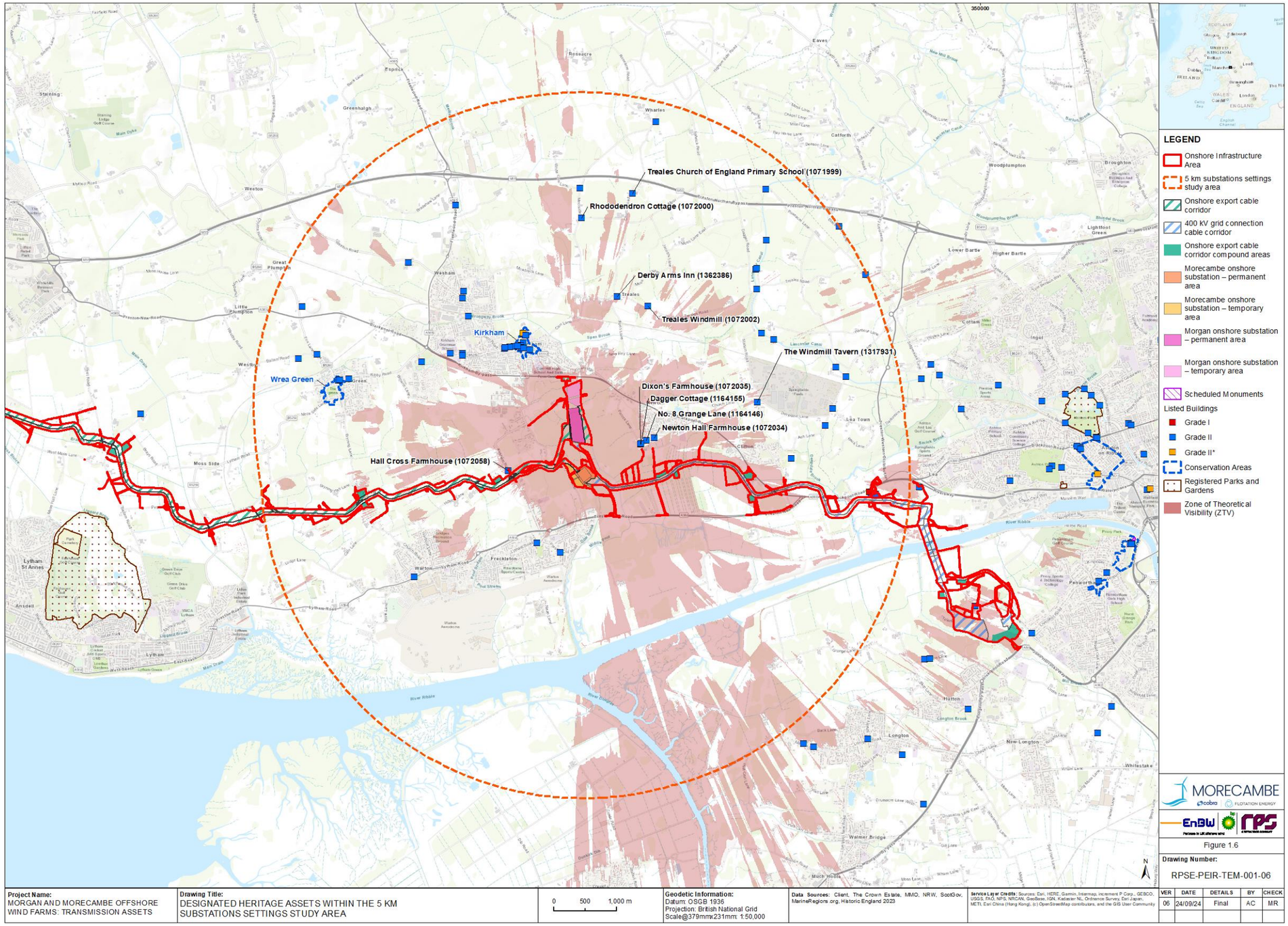


Figure 1.5: Designated heritage assets within the 1 km settings study area - Plot D



Project Name: MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS	**Drawing Title:** DESIGNATED HERITAGE ASSETS WITHIN THE 5 KM SUBSTATIONS SETTINGS STUDY AREA		**Geodetic Information:** Datum: OSGB 1936 Projection: British National Grid Scale@379mmx231mm: 1:50,000	**Data Sources:** Client, The Crown Estate, MMO, NRW, ScotGov, MarineRegions.org, Historic England 2023	**Service Layer Credits:** Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Figure 1.6

Drawing Number: RPSE-PEIR-TEM-001-06

VER	DATE	DETAILS	BY	CHECK
06	24/09/24	Final	AC	MR

Figure 1.6: Designated heritage assets within the 5 km substation settings study area

1.6 Settings and contribution to heritage significance

1.6.1.1 **Table 1.2** reviews the settings of the designated heritage assets that have been scoped into the assessment. This represents Stages 2 and 3 of the process set out in the Historic England guidance (Historic England, 2017).

Table 1.2: Review of settings of designated historic assets scoped into the assessment

NHLE No.	Name/designation	Setting
1072058	Hall Cross Farmhouse, Freckleton. Grade II listed building.	This is a former farmhouse, now in residential use. A datestone of 1777 is situated above the main door. The building is three storeys in red brick with a slate roof. An attached former barn (south side) does not form part of the listing. The building is located immediately adjacent to a north west/south east aligned unclassified road which links Freckleton (to the south) with Kirkham (to the north). It is on the south west side of the road with the principal façade on the north east side, separated from the road by a narrow garden. There are modern residential buildings on the same side of the road to the north and south of the listed building but not too close, with the ones to the south being separated from the listed building by a long narrow field. Further fields are present to the rear of the listed building, whilst to the north east there are open views across farmland with the higher ground of the Bowland Fells visible in the distance. The setting of the listed building therefore takes in adjacent farmland as well as modern residential development. The farmland makes some contribution towards the heritage significance of the listed building as it helps to retain some part of what would have previously been a more rural setting associated with the former farmhouse. Detracting elements include recent residential development, particularly the dwellings visible in the view to the north east across the farmland, and also the traffic on the unclassified road adjacent to the listed building.
1072035	Dixon's Farmhouse, Newtown-with-Scales. Grade II listed building.	This is a former farmhouse, now in residential use. Built *c*. 1800 in brick with a slate roof. An adjoining barn on the west side does not form part of the listing. The building is located towards the western edge of the settlement, facing north onto Grange Lane. This is a residential road with a mixture of older and modern houses. Some of the nearby buildings, including the adjacent barn, may once have been associated with the farmhouse but no such relationships now exist. There are views to the west from the road adjacent to the listed building in which farmland can be seen along with modern buildings and structures including electricity pylons. There are also views to the south from the rear of the former farmhouse, again taking in modern buildings within what was previously the backlands of the

NHLE No.	Name/designation	Setting
		properties here, as well as open farmland that may once have been associated with the former farmhouse. The views of farmland to the south make a minor contribution to the heritage significance of the listed building, but the majority of the setting comprises residential development that makes a much more limited contribution to its heritage significance.
1164155	Dagger Cottage, Newtown-with-Scales. Grade II listed building.	This is a cruck-framed cottage with a date of 1653 recorded in an internal cupboard. It is one and a half storeys in brick with a thatched roof. The cottage is adjacent to, and east of, Dixon's Farmhouse, similarly facing north onto Grange Lane. There may have been an association with the former farmhouse and with the older buildings opposite, but the buildings to the east on both sides of the road are of late 20th century date. There may formerly have been views across farmland to the south from the listed building due to the elevated location of the settlement here, but the land immediately to the rear of the cottage is now very overgrown and any such views are obscured. The setting of the listed building makes very little contribution to its heritage significance, most of which derives from the architecture of the structure.
1361663	Old Lea Hall Farmhouse, Blackpool Road, Lea. Grade I listed building.	This farmhouse was probably adapted from the surviving range of a later Medieval manor house, probably late 17th or early 18th century in date with an early 19th century addition. On the 1st edition Ordnance Survey 6'' map the complex of buildings here is named as Old Lea Hall. The listed building is timber-framed and clad with later hand-made bricks and has a steeply-pitched slate roof. The principal façade of the building faces north, where it looks directly on to the A583 road which at this point is a busy dual carriageway with the westbound lanes passing within 25 m of the farmhouse. A new junction has just been constructed to the east of here, with the A582 Edith Rigby Way providing a link to the M55 motorway. To the south of the farmhouse are further farm buildings with a mixture of older and modern structures. Beyond here is more open farmland to the west, south and east, much of which is likely to be associated with the farm. The setting of the listed building makes some contribution to its heritage significance, with key elements being the older farm buildings and also the farmland beyond. The major detractor is the adjacent dual carriageway and new road junction, also the modern farm buildings. Much of the heritage significance of the listed building (and hence its Grade I listing) derives from its history and architecture rather than its setting.
1073511	Stable block *c*. 50 m south of Old Lea Hall Farmhouse. Grade II listed building.	This stable block is of probable early 17th century date or perhaps even earlier, in hand-made brick on a plinth of sandstone blocks. The roof is now modern corrugated sheeting. The listing notes group value with the

NHLE No.	Name/designation	Setting
		farmhouse as one of two farm buildings surviving from the former manor house site. The setting of the stable block includes the farmhouse, although there is a modern extension on the north side of the stable block which affects this relationship. The setting also includes the other farm buildings which comprise a mixture of older and modern structures. The setting of the listed building makes some contribution to its heritage significance, with the key elements being the farmhouse and the other older farm buildings. Detractors include the modern farm buildings and the nearby dual carriageway.
1317477	Barn *c*. 120 m south east of Old Lea Hall Farmhouse. Grade II listed building.	The barn is of probable early 17th century date or perhaps even earlier but part demolished and reconstructed in the 20th century. It is built in hand-made brick on a plinth of sandstone blocks. There are modern flat roofed extensions at each end. The listing notes group value with the farmhouse as one of two farm buildings surviving from the former manor house site. The setting of the barn includes the farmhouse, along with the other farm buildings which comprise a mixture of older and modern structures. There are large modern farm buildings to the east and west of the barn. The setting of the listed building makes some contribution to its heritage significance, with the key elements being the farmhouse and the other older farm buildings. Detractors include the modern farm buildings and the nearby dual carriageway.
1073060	Hesketh Farmhouse, Howick Cross Lane, Penwortham. Grade II listed building.	This is a former farmhouse, now in residential use. There is a datestone of 1700 but the building may well be earlier and the datestone records an extension at that time. The former farmhouse is T-shaped in plan and is two storeys (with attic) in red brick and with a slate roof. The house faces north onto the unclassified Howick Cross Lane, with other residential properties across the road and to the west and north west. The ranges of former farm buildings to the rear are now separate to the farmhouse and are all converted to residential use. Approximately 75 m to the east of the listed building is the current National Grid Penwortham Substation. The substation, and the pylons carrying cables from the substation, are very dominant in views of the listed building from the road. The setting of the listed building makes very little contribution to its heritage significance, most of which derives from the architecture of the structure. Key detractors comprise the electricity substation and pylons carrying overhead cables.
1072002	Treales Windmill. Grade II listed building.	This former windmill, now a house, was probably built in the late 18th century. It comprises a tapering circular tower now four storeys, with windows on the south, east and west sides. The modern flat-roofed extensions on the north and west sides of the tower are excluded from the listing.

NHLE No.	Name/designation	Setting
		The windmill is situated approximately 35 m from the unclassified Treales Road with the settlement of Treales approximately 500 m to the west. It is separated from the road by a garden containing mature trees and other vegetation, such that views towards the listed building from the road are quite restricted in summer but more open in winter. The immediate setting of the windmill comprises the adjoining modern flat-roofed extensions on the north and west sides of the tower along with the surrounding garden. To the north east are additional residential buildings. The wider setting takes in open farmland in all directions as well as settlements, roads and a railway. The full extent of the views from the upper floors of the windmill are not known, but as with many other tall structures it forms a focal point in the landscape and visibility of the upper part of the windmill is possible from many locations in the area at a distance of up to 2 km. As such the setting is considered to be quite extensive. The setting makes some contribution to the heritage significance of the listed building. The majority of its significance derives from its history and architecture, but its location and position as a visible focal point adds to that significance. The views towards the windmill are therefore more important than the views from the building in terms of how the setting contributes to its significance.

1.7 Measures adopted as part of the Transmission Assets (Commitments)

1.7.1.1 Measures have been identified and adopted as part of the Transmission Assets (referred to as Commitments). Refer to Volume 1, Chapter 5: Environmental assessment methodology of the ES and Volume 3, Chapter 5: Historic environment of the ES for more details on the Commitments adopted specific to historic environment. For immediate reference, the Commitments relevant to the settings assessment are set out in **Table 1.3**.

1.7.1.2 Mitigation measures that have been identified and adopted as part of the project are set out in **Table 1.3**.

Table 1.3: Measures (Commitments) adopted as part of the Transmission Assets

Commitment number	Measure adopted	How the measure will be secured
Embedded measures		
CoT08	Post-construction, the working area will be reinstated to pre-existing condition as far as reasonably practical in line with the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298), Institute of Quarrying (IQ) Good Practice Guide for Handling Soils in Mineral Workings (IQ, 2021) and British Society of Soil	DCO Schedules 2A & 2B, Requirement 18 (Restoration of land temporarily used for construction); DCO Schedules 2A & 2B, Requirement 8 (Code of Construction Practice).

Commitment number	Measure adopted	How the measure will be secured
	Science (BSSS) Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (BSSS, 2022).	
CoT13	Where hedgerows and/or trees require removal, this will be undertaken prior to topsoil removal. Sections of hedgerows and trees which are removed will be replaced using like for like hedgerow species, subject to landowner agreement.	DCO Schedules 2A and 2B, Requirement 8 (Code of Construction Practice); and Requirement 12 (Ecological Management Plan).
CoT27	All temporary compounds will be removed and sites will be reinstated when construction has been completed.	DCO Schedules 2A and 2B, Requirement 8 (Code of Construction Practice). DCO Schedules 2A and 2B, Requirement 16 (Restoration of land used temporarily for construction).
CoT35	An Outline Code of Construction Practice (CoCP) has been prepared and submitted with the application for development consent. Detailed CoCP(s) will be developed in accordance with the outline CoCP. The Outline CoCP will include measures to maintain and address: • flood protection and control measures; • water environment and drainage; • pollution prevention; • geology and ground conditions; • ecology and nature conservation (including protected species and invasive species); • historic environment; • soil management; • traffic and transport; • noise management measures; • air quality and dust management; • landscape and visual; • recreation; and • bentonite breakout.	DCO Schedules 2A and 2B, Requirement 8 (Code of Construction Practice).
CoT36	An Onshore Decommissioning Plan will be developed prior to decommissioning. The Onshore Decommissioning Plan(s) will include provisions for the removal of all onshore above ground infrastructure and the decommissioning of below ground infrastructure (if and where relevant and practicable), and details relevant to flood risk, pollution prevention and avoidance of ground disturbance. The Onshore Decommissioning Plan(s) will be in line with the latest relevant available guidance.	DCO Schedules 2A and 2B, Requirement 22 (Onshore decommissioning)

Commitment number	Measure adopted	How the measure will be secured
CoT38	An Outline Construction Traffic Management Plan (CTMP) has been prepared and submitted with the application for development consent. CTMP(s) will be developed in accordance with the outline CTMP prior to construction. The detailed CTMP(s) will set out measures to include: 1. managing the numbers and routing of HGVs during the construction phase; 2. managing the movement of construction worker traffic during the construction phase; 3. details of measures to manage the safe passage of HGV traffic via the local highway network; and 4. details of localised road improvements if and where these may be necessary to facilitate safe use of the existing road network.	DCO Schedules 2A and 2B, Requirement 9 (Traffic and Transport).
CoT79	An Outline Construction Noise and Vibration Management Plan has been prepared as part of the Outline CoCP submitted as part of the application for the development consent. It will include measures to mitigate noise from construction activities associated with the Transmission Assets. Detailed Construction Noise and Vibration Management Plan(s) will be developed in accordance with Detailed CoCPs. Bespoke method statement(s) will be developed to ensure suitable noise limits can be met on specific sensitive noise receptors.	DCO Schedules 2A and 2B, Requirement 8 (Code of Construction Practice).
CoT80	Operational Noise Management Plan(s) for the onshore substations will be prepared and submitted for approval prior to the commencement of operations. The Plan(s) will identify the noise limits for the operation of the onshore substations and the measures for how these limits would be monitored.	DCO Schedules 2A and 2B, Requirement 18 (Control of noise during operational stage).
Secondary measures		
CoT15	Detailed Landscape Management Plan(s) will be developed in accordance with the Outline Landscape Management Plan. Detailed Landscape Management Plan(s) will include details of mitigation planting at the onshore substation sites, including the number, location, species and details of management and maintenance of planting. Where practicable, landscape mitigation planting will be established as early as reasonably practicable in the construction phase.	DCO Schedules 2A and 2B, Requirement 6 (Provision of landscaping).
CoT28	Construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination to residential properties, sensitive ecological receptors and footpath users, and minimise glare to users of	DCO Schedules 2A and 2B, Requirement 8 (Code of Construction Practice).

Commitment number	Measure adopted	How the measure will be secured
	adjoining public highways. Construction site lighting will be designed in accordance with latest relevant available guidance and legislation and the details of the location, height, design and luminance of lighting to be used will be detailed within the Outline Construction Artificial Light Emissions Management Plan. The design of construction site lighting will accord with the details provided in the Outline Code of Construction Practice (CoT35) and Outline Ecological Management Plan (CoT76).	DCO Schedules 2A and 2B, Requirement 12 (Ecological management plan).

1.8 Key parameters for assessment

1.8.1.1 The assessment presented in **section 1.9** in relation to designated heritage assets within the settings study area represent a maximum design scenario for each individual asset.

1.8.1.2 In terms of change in the contribution that setting makes to the heritage significance of heritage assets, factors to be considered are the magnitude of change as influenced by height, proximity and extent of the Transmission Assets or other infrastructure as well as composition. Relatively minor changes to design could, in some cases, make substantial differences to the assessed magnitude of change. Conversely, large changes within the setting can be acceptable where there is no or minimal loss in the contribution of that setting to the heritage significance of the asset, and no consequent reduction in that asset's overall heritage significance, nor in the way that it is understood and appreciated.

1.8.1.3 The maximum design scenarios identified in **Table 1.4** have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. These scenarios have been selected from the Project Design Envelope provided in Volume 1, Chapter 3: Project description of the ES. Effects of greater adverse significance are not predicted to arise should any other development scenario, based on details within the Project Design Envelope (e.g., different infrastructure layout), to that assessed here be taken forward in the final design.

Table 1.4: Maximum design scenario considered for the assessment of impacts

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
The impact of the Transmission Assets on designated heritage assets as a result of change within their setting.	✓	✓	✓	**Construction phase: onshore export cable corridor** • The maximum number of trenches will be six, with a target trench depth of 1.8 m. Typical trench width at surface of 4 m and 1.5 m at the base. • Construction corridor width 100 m, with a length of up to 17 km. Width will include two haul roads. There will be a total of 110 joint bays and 110 link boxes, with 1,000 m^3 and 8 m^3 of material excavated for each joint bay and link box respectively. • In a sequential scenario, there are three construction compounds of 150 m x 100 m each, with a further compound of 100 m x 100 m. Duration of installation of up to 66 months. • The maximum number of HDD locations is 120. Each major HDD location will have a compound, measuring up to 150 m x 100 m. The duration of the main HDD works will be 66 months (sequential). **Construction phase: onshore substations** • Maximum footprint of the onshore substations 223,500 m^2, including landscape planting, access, drainage and attenuation. • Maximum number of main buildings will be eight, with a maximum length of 140 m, maximum width of 80 m and maximum height of 15 m. The maximum height of lightning protection will be 30 m. • Two temporary access roads at 20 m width (each, including passing bays). • Temporary substation compound footprint: 122,500 m^2 (additional to permanent footprint). Duration: enabling works 12 months (concurrent), main construction 30 months (concurrent), testing/commissioning 15 months (concurrent). **Construction phase: 400 kV grid connection cable corridor** • Open cut trenching: The maximum number of trenches will be four, with a target trench depth of 1.8 m. There will be a maximum of 60 joint bays and 60 link boxes.	The sequential scenario for the construction of the onshore export cables represents the greatest duration and, therefore, the greatest potential for impacts on the setting of heritage assets. The largest footprint and greatest number of buildings at the onshore substations represents the greatest potential for impacts on the setting of heritage assets. The sequential scenario for the construction of the 400 kV grid connection cables represents the greatest duration and, therefore, the greatest potential for impacts on the setting of heritage assets. The largest footprint and greatest number and height of buildings at the onshore substation represents the greatest potential impact on above ground heritage assets as a result of change within their setting. Vehicle movements and demolition activity are anticipated to be limited in comparison to construction phase.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
				• The working area will include a maximum construction corridor width of 76 m, with a length of up to 13 km. Width includes two haul roads. • In a sequential scenario there are three construction compounds of 150 m x 100 m each, with a further compound of 100 m x 100 m. Duration of installation of up to 66 months. • The maximum number of HDD locations is 45 (excluding the River Ribble crossing). HDD compounds will measure up to 76 m x 50 m. The duration of the main HDD works will be 66 months (sequential). **Operation and maintenance phase: Onshore substations** • Maximum footprint of the onshore substations 219,000 m^2, including landscape planting, access, drainage and attenuation. • Maximum number of main buildings will be eight, with a maximum length of 140 m, maximum width of 80 m and maximum height of 15 m. The maximum height of lightning protection will be 30 m. • The onshore substations will be monitored remotely but will involve regular visits. Lighting will comprise security lighting around the perimeter fence and standard lighting, with task-related lighting where necessary. **Decommissioning phase** • Demolition of the onshore substations and removal of access roads, in addition to removal of onshore export cables via the link boxes.	

1.9 Assessment of effects

1.9.1 Introduction

1.9.1.1 The assessment methodology is set out in section 5.10 of Volume 3, Chapter 5: Historic environment of the ES. It is a two-stage process that involves defining the magnitude of the impact and the sensitivity of the receptor in order to reach a conclusion on the significance of any effect.

1.9.1.2 The impacts arising from the construction, operation and maintenance, and decommissioning phases of the Transmission Assets are listed in **Table 1.4**, along with the maximum design scenario against which each impact has been assessed.

1.9.1.3 A description of the likely effect on receptors caused by each identified impact is given below.

1.9.2 The impact of the Transmission Assets on the heritage significance of designated heritage assets as a result of change within their setting.

Construction

Hall Cross Farmhouse, Freckleton (NHLE 1072058)

1.9.2.1 The onshore export cable corridor passes through the field to the south east of the listed building, on the west side of the unclassified Kirkham Road. At this point the corridor is approximately 60 m from the former farmhouse and separated from it by the attached former barn and its grounds. The field to the rear of the listed building is not required for the construction of the onshore export cable, but the field beyond this one (to the rear of the Rowan Veterinary Centre) will be used as a construction compound.

1.9.2.2 To the east of the unclassified Kirkham Road the onshore export cable corridor diverges to become two separate corridors before converging again close to the unclassified Lower Lane. The onshore export cable corridor would be clearly visible from the listed building for most of this section from Kirkham Road through to Lower Lane.

1.9.2.3 Beyond Lower Lane the onshore export cable corridor again diverges with separate cable corridors leading to each of the onshore substations. Figures 10.5.25 to 10.5.30 (viewpoint 5) (see Volume 3, Figures) show the view from ground level adjacent to the listed building looking towards the onshore substations and include wirelines which show that the onshore substations would not be visible from this location as a result of topography and existing vegetation. However, it is possible that taller construction equipment such as cranes may be visible from this location and from the upper floors of the listed building. Indeed, some of the upper elements of the onshore substations may be visible from the upper floors of the listed building.

1.9.2.4 The Outline CoCP (CoT35) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance

caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.5 The Grade II listed Hall Cross Farmhouse is of **medium** sensitivity/value. The setting of the former farmhouse makes some contribution to its heritage significance, particularly the adjacent farmland. The setting would be affected by the construction of the onshore export cable corridor, impacts would largely be visibility of construction activities but could also include noise and dust. There may also be visibility of taller equipment used for the construction of the onshore substations. The heritage significance of the listed farmhouse would be slightly harmed as a result of these changes within its setting. The magnitude of impact is therefore considered to be **low adverse**, resulting in a medium-term, reversible **minor adverse** effect.

Dixon's Farmhouse, Newton-with-Scales (NHLE 1072035)

1.9.2.6 The 400 kV grid connection cable corridor passes approximately 550 m to the south of the listed building, whilst the onshore substations are approximately 925 m to the west and south west. Views of the 400 kV grid connection cable corridor may be possible from the upper floor of the listed building, but there would not be any views of the onshore substations.

1.9.2.7 The Outline CoCP (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.8 The Grade II listed Dixon's Farmhouse is of **medium** sensitivity/value. The setting of the former farmhouse makes a limited contribution to its heritage significance, most of this coming from views across the farmland to the south. The setting would be affected by the construction of the 400 kV grid connection cable corridor, impacts would largely be visibility of construction activities but could also include noise and dust. The heritage significance of the listed farmhouse would be barely affected as a result of these changes within its setting. The magnitude of impact is therefore considered to be **negligible adverse**, resulting in a medium-term, reversible **negligible adverse** effect. The matrix set out in Table 5.13 in Volume 3, Chapter 5: Historic environment of the ES allows for the effect to be negligible adverse or minor adverse; negligible adverse has been selected here as a result of the distance between the 400 kV grid connection cable corridor and the listed building.

Dagger Cottage, Newton-with-Scales (NHLE 1164155)

1.9.2.9 The 400 kV grid connection cable corridor passes approximately 550 m to the south of the listed building, whilst the onshore substations are approximately 940 m to the west and south west. There would be no views of the 400 kV grid connection cable corridor due to the limited

height of the cottage, nor would there be any views of the onshore substations.

1.9.2.10 The Outline Code of Construction Practice (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.11 The Grade II listed Dagger Cottage is of **medium** sensitivity/value. The setting of the former farmhouse makes a limited contribution to its heritage significance, most of this coming from nearby older dwellings. The setting would be affected by the construction of the 400 kV grid connection cable corridor, impacts would largely be noise and possibly dust. The heritage significance of the listed cottage would be barely affected as a result of these changes within its setting. The magnitude of impact is therefore considered to be **negligible adverse**, resulting in a medium-term, reversible **negligible adverse** effect. The matrix set out in Table 5.13 in Volume 3, Chapter 5: Historic environment of the ES allows for the effect to be negligible adverse or minor adverse; negligible adverse has been selected here as a result of the distance between the 400 kV grid connection cable corridor and the listed building.

Old Lea Hall Farmhouse, Blackpool Road, Lea (NHLE 1361663)

1.9.2.12 The 400 kV grid connection cable corridor passes approximately 65 m to the south of the listed building. Although there are buildings to the south of the farmhouse, there would be clear views of the 400 kV grid connection cable corridor due to the extent of the corridor to the west and east of the closest point at which it passes through this area.

1.9.2.13 The Outline Code of Construction Practice (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.14 The Grade I listed Old Lea Hall Farmhouse is of **high** sensitivity/value. The setting of the farmhouse makes some contribution to its heritage significance, particularly the older farm buildings in the farmyard but also the adjacent farmland. The setting would be affected by the construction of the 400 kV grid connection cable corridor, impacts would largely be visibility of construction activities but could also include noise and dust. The heritage significance of the listed farmhouse would be slightly harmed as a result of these changes within its setting. The magnitude of impact is therefore considered to be **low adverse**, resulting in a medium-term, reversible **minor adverse** effect.

Stable block *c*. 50 m south of Old Lea Hall Farmhouse (NHLE 1073511)

1.9.2.15 The 400 kV grid connection cable corridor passes approximately 40 m to the south of the listed building. Although there are buildings to the

south of the stable block, there would be clear views of the 400 kV grid connection cable corridor due to the extent of the corridor to the west and east of the closest point at which it passes through this area.

1.9.2.16 The outline Code of Construction Practice (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.17 The Grade II listed stable block south of Old Lea Hall Farmhouse is of **medium** sensitivity/value. The setting of the stable block makes some contribution to its heritage significance, particularly the farmhouse and older farm buildings in the farmyard but also the adjacent farmland. The setting would be affected by the construction of the 400 kV grid connection cable corridor, impacts would largely be visibility of construction activities but could also include noise and dust. The heritage significance of the listed stable block would be slightly harmed as a result of these changes within its setting. The magnitude of impact is therefore considered to be **low adverse**, resulting in a medium-term, reversible **minor adverse** effect.

Barn *c*. 120 m south east of Old Lea Hall Farmhouse (NHLE 131447)

1.9.2.18 The 400 kV grid connection cable corridor passes approximately 40 m to the south of the listed building. There would be clear views of the 400 kV grid connection cable corridor due to the extent of the corridor to the west and east of the closest point at which it passes through this area.

1.9.2.19 The outline Code of Construction Practice (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.20 The Grade II listed barn south east of Old Lea Hall Farmhouse is of **medium** sensitivity/value. The setting of the stable block makes some contribution to its heritage significance, particularly the farmhouse and older farm buildings in the farmyard but also the adjacent farmland. The setting would be affected by the construction of the 400 kV grid connection cable corridor, impacts would largely be visibility of construction activities but could also include noise and dust. The heritage significance of the listed barn would be slightly harmed as a result of these changes within its setting. The magnitude of impact is therefore considered to be **low adverse**, resulting in a medium-term, reversible **minor adverse** effect.

Hesketh Farmhouse, Howick Cross Lane Penwortham (NHLE 1073060)

1.9.2.21 One part of the 400 kV grid connection cable corridor passes approximately 180 m to the south of the listed building, with another element passing approximately 430 m to the north.

1.9.2.22 The outline Code of Construction Practice (CoT35) (document reference J1) includes mitigation in the form of noise and dust management plans, which seek to minimise the disturbance caused by the construction work. CoT28 will also ensure that light disturbance is minimised during the construction works.

1.9.2.23 The Grade II listed Hesketh Farmhouse is of **medium** sensitivity/value. The setting of the former farmhouse makes very little contribution to its heritage significance. The setting would not be affected by the construction of the 400 kV grid connection cable corridor, therefore there would be no harm to the heritage significance of the former farmhouse. The magnitude of impact is considered to be **no change**, therefore there would be no effect.

Treales Windmill (NHLE 1072002)

1.9.2.24 The onshore substations are located approximately 1.5 km to the south of the listed building. Although there are no views of the windmill from locations within the substations, it possible that taller construction equipment such as cranes may be visible from the upper floors of the listed building. Indeed, some of the upper elements of the onshore substations may be visible from the upper floors of the listed building.

1.9.2.25 The setting makes some contribution to the heritage significance of the listed building. The views towards the windmill are more important than the views from the building in terms of how the setting contributes to its significance.

1.9.2.26 The setting would not be affected by the construction of the onshore substations, as there would be no changes to any existing view of the windmill, therefore there would be no harm to the heritage significance of the windmill. The magnitude of impact is considered to be **no change**, therefore there would be no effect.

Operation and maintenance phase

Hall Cross Farmhouse, Freckleton (NHLE 1072058)

1.9.2.27 The onshore substations are located approximately 1.13 km north east and 1.09 km east of the listed building respectively. Figures 10.5.25 to 10.5.30 (viewpoint 5) (Volume 3, Figures) show the view from adjacent to the listed building looking towards the onshore substations and include wirelines which show that the onshore substations would not be visible from this location as a result of topography and existing vegetation. However, it is possible that some of the upper elements of the onshore substations may be visible from the upper floors of the listed building.

1.9.2.28 The Grade II listed Hall Cross Farmhouse is of **medium** sensitivity/value. The setting of the former farmhouse makes some contribution to its heritage significance, particularly the adjacent farmland but also the longer views to the east. The setting would be affected by the operations and maintenance of the onshore substations, but the longer views towards the Bowland Fells would not be restricted in any way. The heritage significance of the listed farmhouse would be barely affected as a result of these changes within its setting. The magnitude of impact is therefore considered to be **negligible adverse**, resulting in a long-term, reversible **negligible adverse** effect prior to further mitigation. The matrix set out in Table 5.13 in Volume 3, Chapter 5: Historic environment of the ES allows for the effect to be negligible adverse or minor adverse; negligible adverse has been selected here as a result of the distance between the onshore substations and the listed building.

1.9.2.29 Further mitigation in the form of a landscape planting plan (Outline Landscape Management Plan, document reference J2) at the onshore substations (CoT15) would ameliorate the magnitude of impact to some extent, but the residual significance of effect would remain **negligible adverse**.

Treales Windmill (NHLE 1072002)

1.9.2.30 The onshore substations are located approximately 1.5 km to the south of the listed building. Although there are no views of the windmill from locations within the substation sites, it possible that some of the upper elements of the onshore substations may be visible from the upper floors of the listed building.

1.9.2.31 The setting makes some contribution to the heritage significance of the listed building. The views towards the windmill are more important than the views from the building in terms of how the setting contributes to its significance.

1.9.2.32 The setting would not be affected by the operation and maintenance of the onshore substations, as there would be no changes to any existing view of the windmill, therefore there would be no harm to the heritage significance of the windmill. The magnitude of impact is considered to be **no change**, therefore there would be no effect.

Decommissioning phase

1.9.2.33 Following consideration of the maximum adverse design scenario associated with the decommissioning phase, in combination with the mitigation proposals, it is considered that all such effects relating to the decommissioning of the onshore substations would be the same as, or lower than, those recorded for the construction phase. The limited extent of decommissioning work along the onshore export cable corridor and the 400 kV grid connection cable corridor would not result in any impacts to designated heritage assets as a result of change within their settings.

1.10 Summary

1.10.1.1 An assessment of potential impacts and effects arising from harm to the heritage significance of designated heritage assets as a result of changes within the settings during the construction, operation and maintenance and decommissioning of the Transmission Assets has been undertaken and presented within this annex.

1.10.1.2 **Table 1.5** presents a summary of the potential impacts, measures adopted as part of the project and residual effects. The impacts assessed comprise:

- the impact of construction of the Transmission Assets on the heritage significance of designated historic assets as a result of change within their setting;
- the impact of operations and maintenance of the onshore substations on the heritage significance of designated heritage assets as a result of change within their setting; and
- the impact of decommissioning of the Transmission Assets on the heritage significance of designated heritage assets as a result of change within their setting.

1.10.1.3 Overall it is concluded that there would be no significant effects upon heritage significance arising from the Transmission Assets during the construction, operation and maintenance, or decommissioning phases.

1.10.1.4 Short-term effects of **minor adverse** significance would occur during the construction phase in respect of one Grade I listed building and three Grade II listed buildings. Short-term effects of **negligible adverse** significance would occur during the construction phase in respect of two Grade II listed buildings.

1.10.1.5 Long-term effects of **negligible adverse** significance would occur during the operation and maintenance phase in respect of one Grade II listed building.

1.10.1.6 Effects during the decommissioning phase would be the same as, or lower than, those recorded for the construction phase in respect of the onshore substations. No effects would be experienced with regard to decommissioning works along the onshore export cable corridor and the 400 kV grid connection cable corridor.

1.10.1.7 The assessment of impacts and effects presented above represents a maximum design scenario, with a precautionary approach taken for the magnitude of any impacts.

Table 1.5: Summary of likely effects arising from changes within the settings of designated heritage assets

Asset	Phase[a]			Commitment number	Sensitivity of the receptor	Magnitude of impact	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Hall Cross Farmhouse, Freckleton. Grade II listed building. NHLE 1072058	✓	✓	✓	CoT35, CoT28 and CoT15	Medium	C: Low adverse O: Negligible adverse D: Low adverse	C: Minor adverse C: Negligible adverse D: Minor adverse	CoT15	C: Minor adverse O: Negligible adverse D: Minor adverse	C: None C: None D: None
Dixon's Farmhouse, Newton-with-Scales. Grade II listed building. NHLE 1072035	✓	×	×	CoT35 and CoT28	Medium	C: Negligible adverse O: No change D: No change	C: Negligible adverse O: No change D: No change	Not required	C: Negligible adverse O: No change D: No change	C: None O: None D: None
Dagger Cottage, Newton-with-Scales. Grade II listed building. NHLE 1164155	✓	×	×	CoT35 and CoT28	Medium	C: Negligible adverse O: No change D: No change	C: Negligible adverse O: No change D: No change	Not required	C: Negligible adverse O: No change D: No change	C: None O: None D: None
Old Lea Hall Farmhouse, Blackpool Road, Lea. Grade I listed building. NHLE1361663	✓	×	×	CoT35 and CoT28	High	C: Low adverse O: No change D: No change	C: Minor adverse O: No change D: No change	Not required	C: Minor adverse O: No change D: No change	C: None C: None D: None
Stable block *c*. 50 m south of Old Lea Hall Farmhouse. Grade II listed building. NHLE 1073511	✓	×	×	CoT35 and CoT28	Medium	C: Low adverse O: No change D: No change	C: Minor adverse O: No change D: No change	Not required	C: Minor adverse O: No change D: No change	C: None C: None D: None
Barn *c*. 120 m south east of Old Lea Hall Farmhouse. Grade II listed building. NHLE 1317447	✓	×	×	CoT35 and CoT28	Medium	C: Low adverse O: No change D: No change	C: Minor adverse O: No change D: No change	Not required	C: Minor adverse O: No change D: No change	C: None C: None D: None
Hesketh Farmhouse, Howick Cross Lane. Grade II listed building. NHLE 1073060	✓	×	×	None required	Medium	C: No change O: No change D: No change	C: No change O: No change D: No change	Not required	C: No change O: No change D: No change	C: None C: None D: None
Treales Windmill. Grade II listed building. NHLE 1072002	×	×	×	None required	Medium	C: No change O: No change D: No change	C: No change O: No change D: No change	Not required	C: No change O: No change D: No change	C: None C: None D: None

a C=construction, O=operation and maintenance, D=decommissioning

1.11 References

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