



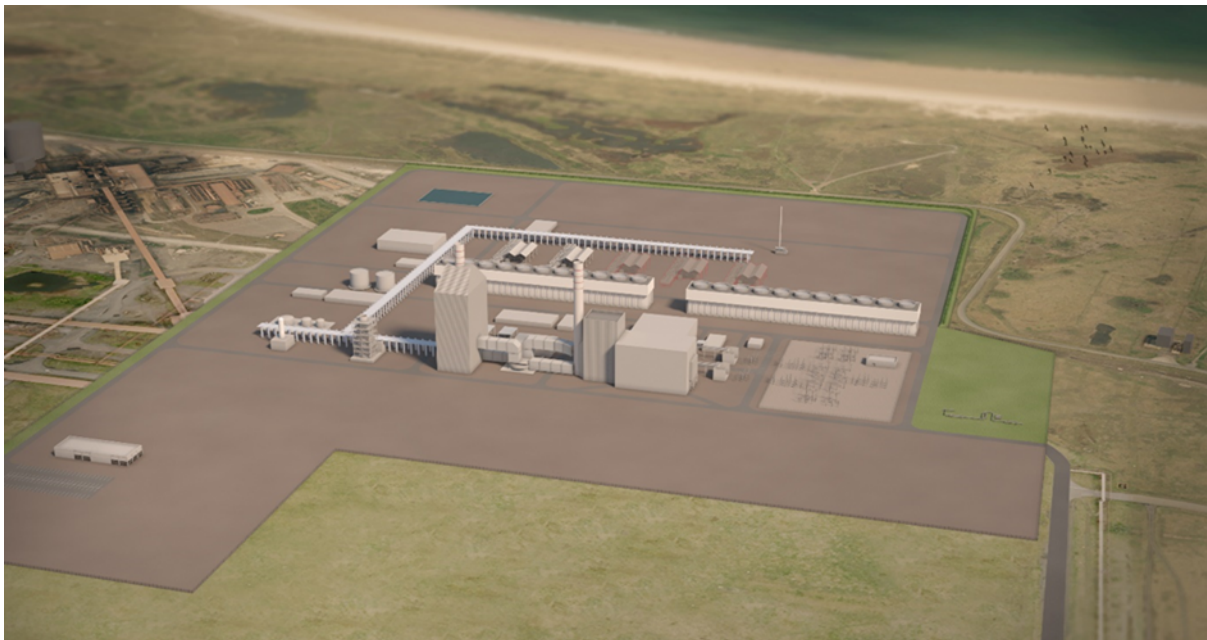
Net Zero Teesside – Environmental Statement

Planning Inspectorate Reference: EN010103

Volume III – Appendices

Appendix 18A: Cultural Heritage Baseline Report

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)



Prepared by: **AECOM**

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18A. Cultural Heritage Baseline

18.1 Introduction

Background

- 18.1.1 The purpose of the baseline assessment is to identify known heritage assets within the proposed Site boundary and the proposed Study Areas as fixed for the preparation of the Preliminary Environmental Information (PEI) Report. The assessment maps the location of all known heritage assets and assesses the potential for previously unrecorded heritage assets to be present. A map regression exercise and review of available geotechnical data has informed the assessment of modern disturbance and identify the potential for archaeological deposits to survive. An assessment of the significance of known and potential cultural heritage assets has been undertaken, informed by research agendas and the results of consultation.
- 18.1.2 The information presented in this assessment has established the cultural heritage baseline conditions and has informed the assessment reported in Chapter 18 of the Environmental Statement (ES) prepared to support the Application for the Proposed Development.
- 18.1.3 The Study Area and Site boundary as referenced in this report denotes the proposed study area and the proposed Site boundary as it was at the time of writing. The Site boundary has continued to be further refined as the design and assessment of the Proposed Development progressed, reducing the overall extent of the Site boundary. The final distances of receptors from the current Site boundary are set out in Chapter 18: Archaeology and Cultural Heritage (ES Volume I, Document Ref. 6.2).

Site Description

- 18.1.4 The Site is located on the south bank of the River Tees and comprises parts of the former Redcar Steelworks site and also includes a series of connection corridors over a wider area within Teesside for gas, electrical, water and a carbon dioxide gathering and export.

Scheme Description

- 18.1.5 The Proposed Development, which is described fully in Chapter 4: Proposed Development (ES Volume I, Document Ref. 6.2), comprises a Combined Cycle Gas Turbine (CCGT) Station, Electricity Connection, Natural Gas Connection, Water Supply and Discharge Connections, a CO₂ Gathering Network, and a CO₂ Export Pipeline to an offshore geological storage site in the North Sea.

Aims

- 18.1.6 The requirement for assessment and its scope is guided by policy contained within the National Planning Policy Framework (NPPF) (MHCLG, 2012, updated 2019), specifically paragraph 189 which seeks an assessment

proportionate to the asset's importance and sufficient to understand the potential impacts of development and to appraise the nature and extent of any impact upon setting and significance.

- 18.1.7 This report conforms to the requirements of the NPPF. It describes the Study Area, including the heritage assets within the proposed Site boundary and the wider Study Area (defined in Chapter 18, ES Volume I Document Ref. 6.2), and assesses their significance and how their setting affects this significance.
- 18.1.8 The aims of the assessment are:
- to identify designated heritage assets within the Site, connection corridors and Study Area and assess components of their setting that contribute to their significance;
 - to place the Power Capture and Compressor (PCC) Site and Connection Corridors within a full historic and archaeological context through the collection of baseline information;
 - to identify known non-designated heritage assets within the PCC Site and Connection Corridors; and
 - to identify the potential for previously unrecorded heritage assets within the PCC Site and Connection Corridors.

18.2 Legislation, Planning Policy and Guidance

- 18.2.1 Relevant legislation, policy and guidance are reported in Chapter 18: Archaeology and Cultural Heritage, ES Volume I, Document Ref. 6.2.

18.3 Assessment Methodology

Data Sources

- 18.3.1 This assessment has collated cultural heritage data from a number of sources, including:
- Tees Archaeology Historic Environment Record (HER) for information relating to non-designated heritage assets and fieldwork events;
 - Redcar and Cleveland HER for information relating to non-designated heritage assets and fieldwork events;
 - National Heritage List for England (NHLE) for designated heritage assets datasets (Historic England, 2019a);
 - Ordnance Survey historic mapping data;
 - Teesside archives in Middlesbrough for further historic mapping and documentary sources;
 - National Collection of Aerial Photographs for aerial photographs;
 - Cambridge Air Photos, University of Cambridge
<https://www.cambridgeairphotos.com/areas/redcar+and+cleveland/page3.html>;

- the results of previous archaeological assessment and investigations;
- the results of previous geotechnical investigations;
- local authority data including conservation area appraisals and buildings on the local list; and
- online sources, including British Geological Survey <https://www.bgs.ac.uk/> for geotechnical borehole and geological data.

18.3.2 The designated heritage assets within this assessment are identified with their National Heritage List for England (NHLE) reference number (Historic England, 2019a). The non-designated heritage assets are identified with their HER reference number. Assets are located on Figures 18-1: Location of designated heritage assets in the 5 km Study Area, 18-2: Location of non-designated heritage assets in the 1 km Study Area, and 18-3: Historic Landscape Character (ES, Volume II, Document Ref. 6.3). The full gazetteer of heritage assets is presented in Appendix 18B (ES, Volume III, Document Ref. 6.4).

Study Areas

- 18.3.3 The Study Areas have been defined to include areas where it is considered that there is potential for significant impacts on cultural heritage assets arising from the construction and future operation phases of the Proposed Development.
- 18.3.4 The Study Area for designated heritage assets is defined as a 5 km zone from the proposed Site boundary in order to capture changes to the setting of heritage assets that may result in an impact to their heritage value. However, the Study Area is not fixed. Assets beyond the Study Area are included in the assessment where the site walkover and review of the Zone of Theoretical Visibility (see Figure 17-4: Zone of Theoretical Visibility and Potential Viewpoint Locations, Volume II, Document Ref. 6.3) suggest that their setting may change as a result of the construction, operation and decommissioning phases of the Proposed Development.
- 18.3.5 The Study Area for non-designated assets, including historic landscape, is defined as a 1 km zone from the proposed Site boundary. This Study Area was deemed appropriate to provide the archaeological context of the PCC Site and its surroundings in order to predict the likely nature of archaeological remains that may exist within the Site.

Site Visit

- 18.3.6 The information gathered from the data sources listed above has been supplemented by information gathered from a walkover of the Study Area. A site visit and visual appraisal of heritage assets within the Study Area were undertaken on 19 September 2019. The aims of the site visit were to:
- identify known heritage assets within the PCC Site and Connection Corridors;

- identify historic buildings and related assets including listed buildings, conservation areas and locally listed buildings within the application site and its surrounding Study Area;
- identify areas with the potential to contain any previously unidentified archaeological or historical remains;
- identify and assess the setting of heritage assets within the Study Area; and
- identify the location, extent and severity of modern ground disturbance and previous construction impacts.

Consultation

- 18.3.7 Pre-application consultation has been carried out with Historic England and Redcar and Cleveland Council. A summary of all consultation undertaken in the preparation of this assessment is set out in Table 18-1 of Chapter 18 (ES Volume I, Document Ref. 6.2).

Assessment of Archaeological Potential

- 18.3.8 The potential for an area to contain archaeological remains is rated 'high', 'medium', 'low', 'negligible', or 'unknown'. This rating is based on an understanding of the archaeological resource as a whole and its national, regional and local context. This includes the number, proximity and significance of known and predicted archaeological/historical sites or find spots within the proposed Site boundary and its surrounding Study Area.

Previous Ground Disturbance

- 18.3.9 The proposed Site boundary including connection corridors are located on land that has seen a degree of previous development. A visual appraisal of these areas plus a review of available geotechnical data has allowed an assessment of the extent of impact caused by previous development. The potential impact to buried archaeological remains caused by historic development has been assessed using a five-point scale of 'very high', 'high', 'medium', 'low' and 'very low', the definitions of which are set out in Table 18A-1.
- 18.3.10 Each identified heritage asset can be assigned a value in accordance with the criteria set out in Table 18A-2. This table provides guidance, but professional judgment will be applied in all cases regarding the appropriate category for individual heritage assets. Where it is assessed that an asset is of greater or lower value than noted in the guidance table, justification will be provided. For example, the nature and character of conservation areas varies greatly, and the special character of these areas comes not only from the quality of their buildings but also from elements that provide value and character to the wider landscape. In consideration of this, conservation areas feature in both the High and Moderate asset categories and professional judgement has been applied in order to determine to which asset category a conservation area belongs.

Table 18A-1: Level of Ground Disturbance

Magnitude of previous disturbance	Description
Very High	Deep level basement/sub-basement excavated into the underlying natural geology resulting in the removal of all subsurface archaeological deposits.
High	Extensive and deep disturbance resulting in the removal of all but the deepest archaeological deposits such as wells or quarry pits, deep foundations, quarrying and large utilities.
Medium	Moderate previous disturbance which may extend to some depth, but where there remains the potential for archaeological remains to survive either between or beneath existing impact levels such as building foundations and utility trenches.
Low	Shallow previous disturbance such as areas of car parking and surfacing where archaeological remains may survive with limited truncation beneath the level of impact.
Very Low	No known historic development impacts to subsurface archaeological remains. Potential for the survival of archaeological horizons from Prehistory to the Post-medieval period.

Table 18A-2: Criteria for Assessing the Value of Heritage Assets

Value	Criteria
High	Grade I and Grade II* Listed Buildings Grade I and Grade II* Registered Parks and Gardens Scheduled Monuments Conservation Areas (as appropriate) Non-designated heritage assets that can be shown to have demonstrable national or international importance
Medium	Grade II listed Buildings Grade II Registered Parks and Gardens Conservation Areas (as appropriate) Locally listed buildings included within a conservation area Non-designated heritage assets of regional resource value
Low	Non-designated heritage assets of a local resource value as identified through consultation Locally listed buildings Historic landscape character areas whose value is limited by poor preservation and/or poor survival of contextual associations
Negligible	Assets whose values are compromised by poor preservation or survival or of contextual associations to justify inclusion into a higher grade. The site of a former asset removed from its place and with no surviving contextual associations

Limitations and Assumptions

- 18.3.11 This baseline assessment is based on a Proposed Site boundary and Proposed Study Area that was fixed during the preparation of the Stage 2 PEI Report for data capture. Subsequent to this, the Site boundary reduced in size and the Study Area contracted accordingly. As a result, the gazetteer presented in Appendix 18B (ES, Volume III, Document Ref. 6.4) contains some assets that are located outside of the current Study Area.
- 18.3.12 The majority of the proposed Site comprises areas of hardstanding, dense vegetation, made ground and existing utility infrastructure which would impede certain archaeological evaluation methods. As such, a walkover survey and visual assessment has been carried out, however, non-invasive techniques such as a geophysical survey have not been carried out as part of this baseline assessment.

18.4 Site Baseline Conditions

Overview

- 18.4.1 There are no scheduled monuments, protected wrecks, registered parks and gardens, or conservation areas within the proposed Site boundary.
- 18.4.2 The baseline assessment has identified 491 designated heritage assets within the 5 km Study Area. Designated assets mentioned in the baseline are prefixed with 'NHLE'. The assets include 23 scheduled monuments, one registered park and garden and one protected wreck, and 17 conservation areas. The number of designated assets also include 451 listed buildings, of which 10 are Grade I listed, 37 are Grade II* listed and 404 are Grade II listed.
- 18.4.3 The majority of listed buildings are concentrated within areas of existing settlement and particularly within conservation areas. Only five of the listed buildings are located within 1 km of the Site boundary. All five buildings are Grade II listed; two are located within the built-up area of Dormanstown, and the remaining three comprise a group of buildings at Marsh Farm, approximately 560 m east of the PCC. The location of designated assets is shown on Figure 18-1 (ES, Volume II, Document Ref. 6.3).
- 18.4.4 There are 184 non-designated assets within the 1 km Study Area. Of this number, 23 are located within the Site boundary and include standing structures and sites of former industrial buildings, and former historic landscape features that are no longer extant. The location of non-designated heritage assets is shown on Figure 18-2 (ES, Volume II, Document Ref. 6.3).
- 18.4.5 Designated and non-designated heritage assets are listed in a gazetteer presented at Appendix 18B (ES, Volume III, Document Ref. 6.4).

Site Topography and Geology

- 18.4.6 The topography of the proposed Site boundary is generally flat, which reflects the geomorphology of the River Tees and its tributaries. The bedrock geology at the proposed Site boundary comprises Redcar Mudstone Formation with Mercia Mudstone and Sherwood Sandstone to the north of

the proposed Site boundary and extending towards the Tees River. Superficial geology across the proposed Site boundary comprises tidal flat deposits of sand and silt and windblown sand deposits to the north of the Site.

Paleoenvironmental Potential

- 18.4.7 At least three glacial episodes affected the region during the Pleistocene, and at the end of each glacial period the climate would have warmed, resulting in surface processes that would have significantly modified the landscape. Human activity occurred at the limits of the ice sheets during the interglacial periods, and archaeological material discarded within the limits of the glacier would have been incorporated within the tills and glacio-fluvial deposits left behind. During the warmer periods rivers eroded and then redeposited large quantities of glacial material in major valleys. Subsequent rivers incised into this material and created terraces of older river terrace sand and gravel deposits, while more recent alluvium accumulated on the low-lying ground immediately surrounding and within the river channels. Alluvium deposits can overlie or contain earlier archaeological remains and palaeoenvironmental data which could provide information about previous environments.
- 18.4.8 A palaeochannel located between South Gare and Coatham Rocks has been recorded adjacent to the Site boundary and just beyond the northern edge of the Study Area (6396). The palaeochannel represents an earlier course of the River Tees, or one of its tributaries, and has the potential to contain palaeoenvironmental data which could provide important evidence relating to the environmental conditions of the area during the early prehistoric period.
- 18.4.9 Despite not being recorded in available borehole data, there is potential for organic material such as peat to be present within the alluvium deposits that are present on either side of the estuary and along the coastline.

18.5 Archaeological and Historical Background of the Study Area

Palaeolithic – Up To 10,000 BC

- 18.5.1 The Palaeolithic period in Britain saw several changes in the environment, comprising glacial (cold periods) and interglacial (warm periods). As the ice sheets retreated during the warmer interglacial periods, humans would have been able to travel through the area and would have represented the periphery of human settlement within Britain.
- 18.5.2 Palaeolithic activity is represented in the archaeological record by concentrations of worked flints, particularly around the confluence of rivers, as these intersections were important places for transport and communication systems¹. Flint as a raw material can be manipulated easily to form sharp tools, such as axes and spear heads, and therefore the

¹ Lang, A. and Buteux, S. (2007), *Lost but not forgotten: the Lower and Middle Palaeolithic occupation of the West Midlands*. in Garwood, P. ed., *the Undiscovered Country: the Earlier Prehistory of the West Midlands*

identification and interpretation of flint tools provides most of our understanding of this period. The only known asset from this period within the Study Area comprises a worked flint tool (6212) which is dated to the Lower Palaeolithic period and was found at South Gare. It is suggested from the Redcar and Cleveland HER description that the item had washed out of a submerged layer and was deposited upon the beach.

- 18.5.3 The River Tees floodplain would have provided a suitable environment for hunting, and it is likely that the proposed Site boundary was located on marshy land on the edge of the channel. The profile of the river has changed significantly as a result of large-scale land reclamation and, while it is likely that any archaeological evidence associated with estuarine water edge activities has been lost, there remains a potential for deeply buried deposits containing palaeoenvironmental data to be present.

Mesolithic 10,000 – 3,500 BC

- 18.5.4 The Mesolithic period is typified by the change in technology to smaller, more-refined stone artefacts called microliths, and the change from early Holocene hunter-gatherer societies which hunted large game, to a society that exploited a wider range of resources. The material record is largely represented by collections of worked flints and evidence of tool making for hunting activities, with limited evidence for how people lived. Towards the end of the period, groups became more settled, leading into the transition to the Neolithic period.
- 18.5.5 During this period, the Tees Estuary was occupied by extensive saltwater marsh and would have been a focal point for hunting and fishing activities². Intertidal peat beds and a submerged forest dating from the mid-Holocene (Late Mesolithic), along with evidence of Mesolithic occupation³, have been recorded to the north of the Tees Estuary along the coast at Hartlepool and Seaton Carew. Intertidal peat beds have also been recorded at Redcar at exceptionally low tides and a rapid appraisal of wood remains and tree stumps identified possible tool marks and evidence of coppicing⁴.
- 18.5.6 There are no known assets from this period within the Study Area. In common with other areas, the material record beyond the Study Area is represented by collections of worked flints and evidence of tool making from hunting activities with limited evidence for how people lived.

Neolithic and Bronze Age

- 18.5.7 The Neolithic period is defined by advances in agricultural technologies and the emergence of a range of substantial material culture including monumental architecture, ceramics, and evidence for complex mortuary rituals. The period is also typified by the presence of settled communities in the landscape and the emergence of farming. The only asset dating to this period to have been identified within the Study Area comprises 'Coatham Man' on Redcar Beach (6798), approximately 450 m north of the PCC Site.

² Daniels, R, (2014), *An introduction to the Archaeology and Heritage of the River Tees Rediscovered Landscape Partnership Area*. Tees Archaeology.

³ Batchelor, C., R, & Green, C., P, (2012), *A Report on the geoarchaeological deposit modelling on land at the Teesside Renewable Energy Plant Site*. Quaternary Scientific unpublished report.

⁴ Carter, S., D, (2014), *intertidal Prehistoric Peat Beds at Redcar, North-East England*, in Teescapes.

The human remains consisted of fragments of skull and were radiocarbon dated to the Early Neolithic.

- 18.5.8 Neolithic monuments have been recorded beyond the Study area in the upland areas of the North-East, and polished stone axes have been found in Yarm and Preston beyond the Study Area. Just beyond the Study Area, three stone axes have been found, two near to Kirkleatham (1002 and 1066) and one at Maggitts Lane between Dormanstown and Kirkleatham (2848).
- 18.5.9 The Bronze Age in the archaeological record is mostly represented in the region by funerary monuments, with settlement sites being comparatively rare. There are no assets from this period within the Site, but there are several non-designated and designated heritage assets in the 1 km and 5 km Study Areas. Archaeological excavation in the Eston Hills has recorded activity on the hilltop dating to the Early Bronze Age, and the funerary monuments present on the hill date to this period, the majority of which are scheduled monuments. The settlement at Eston Nab (NHLE 1011273), a palisaded settlement and also a scheduled monument, are dated to the Late Bronze Age although archaeological excavation has identified activity within the proposed Site boundary dating to the Early Bronze Age. The hillfort is a rare regional example of a settlement site from this period and the only surviving hillfort in the county of Cleveland.
- 18.5.10 The hillfort on Eston Nab is well preserved and although it has been subject to partial excavation, the extent of disturbance is relatively limited, and its archaeological deposits remain largely intact. Its immediate setting is dominated by the remnants of its outer defensive circuit and by its visually prominent position on the escarpment. The importance of its highly visible location is reinforced by the site's later 19th century use as a beacon. The monument's setting is also defined by its position within a remnant prehistoric landscape and its association with contemporary settlement and funerary monuments within the historic landscape of Eston Hills.
- 18.5.11 The hillfort on Eston Nab is the only surviving hillfort of any date in Cleveland; the potential archaeological evidence and the information it could provide relating to Bronze Age settlement and activity in the area could increase knowledge of Bronze Age society and contributes to its value.
- 18.5.12 Further evidence for domestic settlement and crop growing is suggested by a complete saddle quern stone⁵ (3404) and animal remains (1817 and 4870) which were found in Cowpen Marsh in the 1 km Study Area.

Iron Age 700 BC – AD 43

- 18.5.13 During this period, this area of Britain was within the territory of the Brigantes tribe. Recent research in the Tees Valley has identified the Iron Age settlers as comprising a discrete cultural group within the larger Brigantes tribe, with a cultural identity that was distinctly different to the tribes to the north and south of the valley⁶.
- 18.5.14 There are no known assets from this period within the Site boundary, but there is evidence of Iron Age domestic settlement just beyond the Study

⁵ A stone used for grinding corn

⁶ Sherlock, S, (2012) Late Prehistoric Settlement in the Tees Valley and North-East England

Area, including a farmstead at Foxrush Farm in Dormanstown (159), and part of a beehive quern stone found at Kirkleatham (1043). This archaeological evidence demonstrates that the valley and floodplain of the River Tees continued to be used for settlement and crop growing. Other evidence just outside of the 1 km Study Area relates to chance finds, including a bronze bracelet (238) found in a field near Yearby. The hillfort at Eston Nab continued to be in use during this period and archaeological excavations confirmed that the fort was enlarged substantially in the mid-5th century BC⁷.

Roman

- 18.5.15 The Brigantes tribe, and their leader Queen Cartimandua, were supporters of the Romans during the early years following the invasion, however, this changed after AD 69. Venutius, the former husband of Cartimandua, led a successful rebellion against her and assumed control of the now anti-Roman Brigantes. The Roman Ninth Legion was marched from Lincoln to face the Brigantes and Venutius was eventually defeated following a series of campaigns between AD 71-74, with the last stand of the Brigantes posited as the Iron Age stronghold of Stanwick, near Darlington⁸.
- 18.5.16 The most tangible evidence of the Roman presence is often marked by the road network and the presence of military establishments. However, there are no major roads or forts in the Study Area and the nearest known route is the road from Barmby on the Moor to Durham. The site of a purported route, Cleveland Street, which runs from possibly Girsby to Huntcliffe signal station on the coast, does pass through the southern part of the Study Area, however, there is no substantive evidence to confirm the route as Roman⁹.
- 18.5.17 The Roman army had total control of north Yorkshire and the north-east of England by the early part of the 2nd century AD. This resulted in very little real change for the Iron Age farming communities of the Teesside area, and the archaeological record demonstrates that local traditions and building styles, such as the building of roundhouses, continued throughout this period.
- 18.5.18 There are no known assets from this period within the proposed Site boundary. Assets identified within the 1 km Study Area do indicate domestic settlement in the area during this period. The archaeological evidence comprises pottery fragments, including mortaria from kitchen vessels, found during excavation of the Lackenby gas pipeline near Greystone Road (1573). Further evidence of Roman activity within the 1 km Study Area comprises the site of an enclosure at Saltholme near Cowpen Bewley (9068), and a brooch (4857) found in Grangetown. Beyond the 1 km Study Area, further evidence includes a coin hoard (463) near Wilton Castle, and further fragments of mortaria from the walled garden in Kirkleatham (7201) and from Lackenby (1079). Known archaeological sites beyond the Study Area, such as at Catcote in Hartlepool, demonstrate that Romano-British

⁷ Tees Archaeology, (2002), *Iron Age Teesside*.

⁸ Phillips, J., and Rowe, P., (2004), *Roman Teesside*. Tees Archaeology Publication.

⁹ <http://www.romanroads.org/yorkshiregazetteer.html> [accessed 10 January 2020].

communities had established extensive trade networks throughout the region and along the east coast of the country¹⁰.

Early Medieval AD 450 – 1066

- 18.5.19 The early medieval period is one of the least archaeologically visible across Britain, but the historical and documentary evidence suggests a period of intense activity in a landscape that was closely-settled and developed. It was during this period that new settlements and settlement patterns emerged, many churches and towns were established, field systems changed and open-field agriculture was introduced.
- 18.5.20 The majority of the evidence relating to settlement during this period is linked to place name evidence that has Anglo-Saxon and Scandinavian origins, such as Eston which derives from Anglo-Saxon for ‘settlement to the east’, Lackenby which is ‘Lochlan’s farm’ in Scandinavian and Lazenby which translates in Scandinavian as the ‘settlement of freemen’¹¹.
- 18.5.21 Assets from this period within the Study Area comprise find spots of a bone pin at South Gare (4796), and an iron spearhead with a leaf-shaped blade (239) found near Warrenby. Assets from this period found beyond the Study Area include a ring mount found near St. Cuthbert’s Church in Wilton (4811) and pottery sherds found in Kirkleatham (5133). Human remains (234) dating to this period were also found in Kirkleatham in 1902, but there is no information relating to whether the bones were in a grave or were disarticulated.

Medieval

- 18.5.22 The north of England was not conquered quickly by the Normans and following the Norman victory at the Battle of Hastings in 1066, it was closer to 1100 before they could fully control the region¹². The Domesday Survey of 1086 reflects some of the changes in land ownership following the Norman Conquest and records show that some lands within the Study Area were granted to the Brus family, with other land within the ownership of the Abbeys at Guisborough and Whitby¹³.
- 18.5.23 The Norman re-organisation of northern England included the construction of planned villages, using a blueprint of two rows of properties either side of a village green, such as at the medieval villages of Cowpen Bewley and Lackenby. The settlement at Kirkleatham is first recorded in the Domesday Survey and likely had origins in the early medieval period. It is recorded as having a population of 9.1 households, which indicates a relatively small settlement, and it is listed under four owners, comprising the king, Earl Hugh of Chester, Count Robert of Mortain and William de Percy¹⁴. The location of the Domesday settlement is unknown, although it is suggested that the later

¹⁰ Phillips, J., and Rowe, P., (2004), *Roman Teesside*. Tees Archaeology Publication.

¹¹ Tees Archaeology, (2019), Historic Environment Desk-based Assessment. Energy from Waste Site, Redcar and Cleveland.

¹² Daniels, R, (2014), *An introduction to the Archaeology and Heritage of the River Tees Rediscovered Landscape Partnership Area*. Tees Archaeology.

¹³ <https://opendomesday.org/> [accessed 20 January 2020].

¹⁴ <https://opendomesday.org/> [accessed 20 January 2020]

settlement also took the traditional pattern of a two-row green village, laid out along the course of the old A174¹⁵.

- 18.5.24 The majority of known medieval activity is located within these existing settlement areas and the fields surrounding them, just outside of the 1 km Study Area. Several pottery scatters (1082 and 1083) have been recorded in fields near the village of Lackenby; fragments of early medieval and medieval worked stone have been recorded in the vicinity of St Cuthbert's Church (4807 and 1426) and settlement and further pottery scatters have been recorded within Kirkleatham (1801, 1802 and 4039). The remains of ridge and furrow cultivation and field systems are present at Lazenby Farm (1220) and clearly visible from aerial imagery.
- 18.5.25 The medieval landscape was likely to be a mixture of woodland, with areas cleared for settlement and farming. Arable farming was likely the dominant lifestyle and the fertile soils of the Tees Valley supported many settlements, many of which contracted after the 14th century to individual farmsteads¹⁶. However, industrial activities are also recorded in this period. The remains of industry relating to salt working have been recorded either side of the Tees. The sites of several salterns are located within the Study Area (3749, 3750, 3751, 3752, 3753, 3754, 3755, 3756, 3759, 3760) along with several saltmounds that are no longer extant. Earthwork remains of this early industry have been recorded at Greatham, Seaton Common and at East Coatham. East Coatham, which is located in the area of the current golf links, is first recorded in 1123. However, the exact location and extent of the original settlement is unknown. Coatham, although a small settlement, would have been an important place for local trade. It was the site of a market and fair and later developed into a port¹⁷.

Post-Medieval 1540 – 1900

- 18.5.26 The Dissolution transformed the power structures of English society and changed the rural landscape significantly. The Crown acquired the property, and wealth, of the nation's monasteries, nunneries, abbeys and friaries. In 1623 the manor of Kirkleatham was bought by John Turner and Kirkleatham Hall was constructed soon afterwards, which was originally an H-shaped house of two storeys. It was later remodelled entirely by Charles Turner.
- 18.5.27 The earliest known plan of Kirkleatham settlement is an engraved view of the estate from the north produced by L Kynff and J. Kip around 1700 (Plate 18A-1). The engraving depicts Kirkleatham Hall and extensive kitchen gardens, as well as Sir William Turner's Hospital. At the time of the engraving it appears that parts of the village were being cleared to make way for the hospital and kitchen gardens. The engraving shows the land within the Study Area to the south of Kirkleatham and demonstrates the impact that enclosure would have had upon the area's traditional farming communities. Formerly open fields, which would have been used by villagers for growing crops and grazing animals, were enclosed and converted to more productive arable and mixed farmland. This would have resulted in significant social change

¹⁵ Redcar and Cleveland Borough Council, (2011c), Kirkleatham Conservation Area Appraisal.

¹⁶ Historic England (2006) Historic Farmsteads: Preliminary Character Assessment – Yorkshire and the Humber Region, p 35

¹⁷ 'Parishes: Kirkleatham', in *A History of the County of York North Riding: Volume 2*, ed. William Page (London, 1923), pp. 371-383. *British History Online* <http://www.british-history.ac.uk/vch/yorks/north/vol2/pp371-383> [accessed 20 January 2020].

and possibly forced families to move away from the countryside and into the towns in order to find alternative employment and subsistence methods.

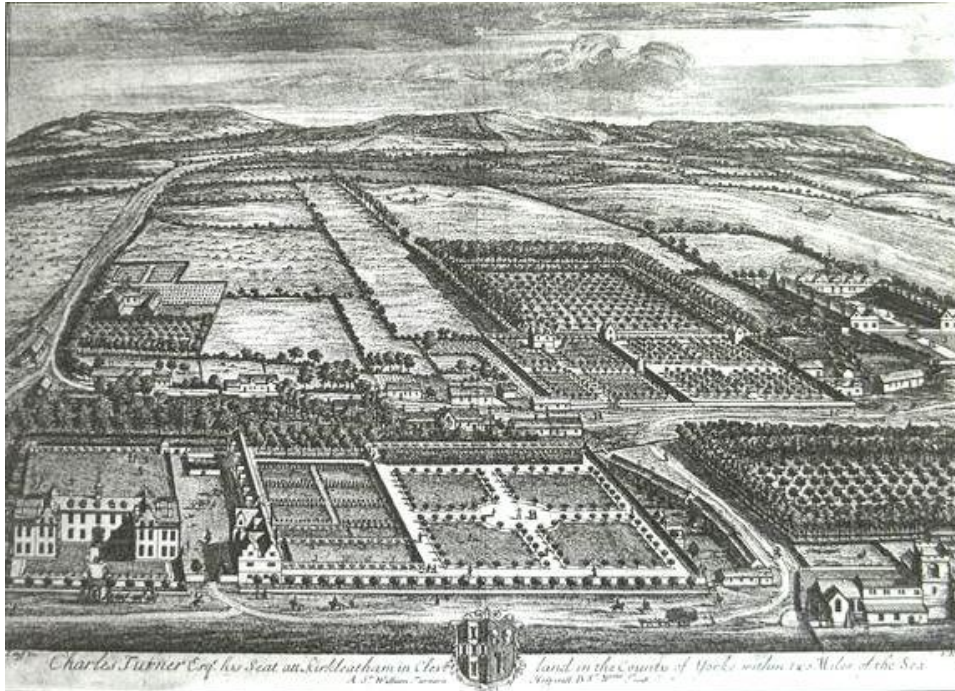


Plate 18A-1: View from the north looking south. Kirkleatham c. 1700. Kirkleatham Hall is bottom left; Turner's Hospital is on the right.

- 18.5.28 There is little evidence for planned parliamentary enclosure and the only parishes in the Study Area to have a parliamentary award comprise Marske in 1756 and Kirkleatham in 1850¹⁸. It is more likely that enclosure in the Study Area was carried out by means of a Private Act which was often merely a formal recognition of a private agreement. Tithes from the villages of Wilton, Lackenby and Lazenby were included within the rectory of Kirkleatham in 1657, but from 1800 the tithes were paid to the curate at Wilton. By a Private Act of 1803 all of these lands were allotted to Sir Charles Turner, the owner of the rectory, and to the curate of Wilton in lieu of all tithes in the three villages¹⁹.
- 18.5.29 A map surveyed between 1778 and 1811 by Jonathan Teal shows the majority of the area was enclosed by the late-18th century, with small areas of common pasture, moors and wastes still present on the outskirts of settlements, such as at Coatham, and at the foot of Eston Hills²⁰. The pattern of large-scale enclosure was generally complete by the early-18th century and farming intensified during this period. The area around the Tees Valley was famed for the quality of its arable farming and for its degree of agricultural improvement, with farmers producing wheat, corn and butter, as well as good quality store cattle and horses²¹. Farms in the area were well-placed to support emerging industrial centres, such as Middlesbrough, which experienced rapid growth from the late-18th century. Marsh House Farm and

¹⁸ North Yorkshire County Council (2010), *the North Yorkshire and Lower Tees Valley Historic Landscape Characterisation*.

¹⁹ British History Online (n.d.), <http://www.british-history.ac.uk/vch/yorks/north/vol2/pp371-383> [accessed 19th January 2020].

²⁰ North Yorkshire County Council (n.d.). Wilton in Cleveland enclosure records. Accessed at North Yorkshire County Record office.

²¹ Historic England, (2006), *Historic Farmsteads: Preliminary Character Assessment – Yorkshire and the Humber Region*, p 35.

Cottage (NHLE 1160308), garden wall (NHLE 1139619) and stable and barn (NHLE 1139620), located approximately 560 m east of the PCC, date from the late-18th century and were part of the local farming communities that worked the cultivated fields around Coatham. Many other farms, within and just outside of the 1 km Study Area, including Middle Farm, East Farm, Sand Pits Farm, Town Farm and Lackenby Low Farm, all appear on the second edition OS map dated 1888 and demonstrate the importance of the arable communities. The majority of these farms existed until the mid-20th century but their sites are now occupied by residential areas and industry.

- 18.5.30 The growth of industry was due to the area's abundant mineral wealth and industries developed specifically for the extraction of minerals such as alum and ironstone. The processing of alum is considered as one of the earliest chemical industries in the British Isles²². Post-medieval alum works are visible from aerial photography in the Redcar and Cleveland area, the most impressive example being Boulby Alum Quarry (612070), a scheduled monument, which is located outside of the Study Area.
- 18.5.31 Many local landowners realised the potential of ironstone deposits in the early 1800s, and by 1847 ore was being shipped from Skinningrove to the blast furnaces at Tyneside. The discovery of ironstone at Eston Hills led to a dramatic expansion of iron and related industries, and about 80 new mines opened to the south of Teesside during the 1800s. Furnaces were built near to the mined source and Eston Iron Works, which consisted of three blast furnaces, opened in 1853²³. Identical furnaces were constructed at Lackenby in 1871, Coatham in 1873, Redcar and Skinningrove in 1874 and Cleveland Iron Works between 1874-76²⁴. The sites of Coatham Iron Works (5709) and associated reservoir (5710), along with Redcar Iron Works (5711) and Lackenby Iron Works (5659) are located within the 1 km Study Area. In addition, the sites of several tramways are located within the proposed Site boundary including tramway 5732 which is shown on the second edition Ordnance Survey (OS) map, dated 1895, running from a mine in Neptunes Wood to Coatham Ironwork and tramway 5712 which comprised multiple short spurs of rail which fed into a single tramway from Redcar Iron Works to Redcar Jetty.
- 18.5.32 During this period of intensive iron working, the north-east region of England accounted for 41% of the world's new shipbuilding²⁵. The iron ore industry was converting to bulk steel by the early 1890s, and by the end of the 19th century Teesside was one of the main iron-producing areas in the world, including around one hundred blast furnaces²⁶.
- 18.5.33 The intense industrial activity was accompanied by the reclamation of land through the dumping of slag from the iron and steel industries that occupied the banks of the River Tees. The slag was dumped on marshland and mudflats, creating a new large area of hardstanding that was soon occupied

²² Rowe, P., and Green, G. (2007), *the Nineteenth Century industrial Archaeology of Redcar and Cleveland*. Tees Archaeology Report TA07/02.

²³ Tees Archaeology, (2019), Historic Environment Desk-based Assessment. Energy from Waste Site, Redcar and Cleveland.

²⁴ Rowe, P., and Green, G. (2007), *the Nineteenth Century industrial Archaeology of Redcar and Cleveland*. Tees Archaeology Report TA07/02.

²⁵ Williams, M, (2019), *the Steel industry in England: An Historical Overview*. Historic England. P. 65

²⁶ Williams, M, (2019), *The Steel Industry in England: An Historical Overview*. Historic England, p. 27.

by further industry including concrete works (5654), quarries (5646) and brickyards (5653), as well as the River Tees Dockyard at Teesport.

Modern 1900 – Present

- 18.5.34 The use of aircraft as offensive weapons was a significant 20th-century development in the history of warfare, and provoked new systems of strategic air defence. Experiments in early warning systems started before 1920 with the new possibility of attacks by airships. Early warning was initially based on visual spotting, but acoustic detection devices were soon developed. The first operational acoustic reflectors were a pair of adjustable mirrors erected on the Kent coast in 1917, followed by a series of concrete static mirrors established on the North East coast. Acoustic mirrors were upright concave bowls between 3 m and 4 m in diameter; the walls were curved vertical structures up to 61 m in length; the disc system used horizontal concave bowls designed for use in pairs as aircraft passed overhead to measure speed. At their most sophisticated, the devices could identify the sounds of surface vessels or aircraft up to 40 km away. The First World War early warning acoustic mirror 650 m north-west of Bridge Farm within the 5 km Study Area (NHLE 1020311), is only one of four known surviving examples in the north-east of England and is a scheduled monument. It survives well and makes a significant contribution to the study of early-20th century air defences in England.
- 18.5.35 World War I left very little evidence on the north-east coast, but the few extant features which are still present, either as earthworks or cropmarks, include a large concrete structure which has been interpreted as a rifle butts, a target used for shooting practice (3655). This asset is located within the proposed Site boundary and although it was not observed during the site walkover survey, a gazetteer of First World War buildings in the Tees Valley records the structure as, ‘present, but buried beneath the sand’²⁷.
- 18.5.36 During World War II Kirkleatham formed a rearward defended locality of the North Riding Coastal Area which was defended by the 176th Infantry Brigade of 59 Division. Old Kirkleatham Hall (demolished in 1956) was requisitioned and became the battalion (Bn) headquarters for the 16th Bn. South Staffordshire Regiment followed by the 6th Bn. North Staffordshire Regiment, and the 12th Bn. Green Howards²⁸. The defence of Kirkleatham was based on nine pillboxes or infantry posts, four roadblocks, and an anti-tank ditch and included the re-use of existing structures, including an 18th century Grade II* listed bastion-style garden feature, conveniently located at the roadside (NHLE 1160124) (Plate 18A-2).

²⁷ Teesside Archaeological Society. Recording the First World War in the Tees Valley. Available at: <https://teesarchsoc.files.wordpress.com/2018/01/gazeteer1.pdf>

²⁸ Foot, W, (2009), *Defence Area 57, Kirkleatham*. in; Defence Areas: a national study of Second World War anti-invasion landscapes in England.



Plate 18A-2: A Grade II*listed mid-18th century bastion, pierced through to be utilised as a defensive structure during World War II.

- 18.5.37 Due to the strategic importance of the North East coast in wartime home defence, World War II military remains are well represented in the area. There are two pillboxes located within the Site boundary (3650 and 1829), and a further four located just beyond the Site boundary (3649, 3647, 3648, 1828). Also just beyond the Site boundary, approximately 480 m east of the PCC, is a row of 23 concrete World War II tank traps (4024).
- 18.5.38 Industry was still growing on Teesside during the early part of the 20th century, and increased output to support the war effort was a major reason for the growth. Dorman Long steelworks, which produced material for the Tyne Bridge in Newcastle and the Harbour Bridge in Sydney, Australia, had been in operation since the 1880s, and by 1901 employed more than 3,000 people, producing 180,000 tonnes of steel a year. At the beginning of World War I, Dorman Long's workforce had increased to 20,000 and they started building a £4.5m plant at Redcar which is within the proposed Site boundary which opened in 1917²⁹. From the mid-20th century the integrated iron and steel industries on Teesside consolidated into a small number of larger firms, and in 1967 Dorman Long merged with 13 other steel manufacturers to form the nationalised British Steel. The Redcar Blast Furnace, commissioned in 1978 and opened in 1979, was erected on land within the proposed Site boundary and was the largest blast furnace in the UK and the second largest in Europe³⁰. The furnace could produce 10,000 tonnes of iron each day with the molten iron transported to Lackenby works to be converted into steel.
- 18.5.39 The industry was privatised in 1988 to form British Steel plc and production at the furnace continued until 2009 when competitive market conditions and a lack of government support forced the site to be mothballed. SSI purchased the steelworks in 2011 and reopened in 2012, however by 2015 the site was forced to close for the last time.

²⁹ <https://www.bbc.co.uk/news/uk-england-tees-34389873> [accessed 15 January 2020].

³⁰ <https://www.bcd-urbex.com/redcar-blast-furnace/> [accessed 16 January 2020].

- 18.5.40 The site of the former Redcar Steelworks survives almost intact with its ancillary buildings and infrastructure³¹. Survival of disused industrial features on this scale is relatively rare³² and this, along with the site's importance in the industrial history of the UK, contributes to its value.

18.6 Results of the Walkover Survey

- 18.6.1 The walkover survey was completed on 16 October 2019 during dry and bright weather conditions. The routes of the proposed Connection Corridors were visually assessed in order to evaluate current ground conditions, confirm the extent of known ground disturbance and to identify the potential for previously unknown heritage assets to be present. Due to access constraints, the former steelworks site was not part of the walkover; however, it was visually assessed from the Site perimeter.
- 18.6.2 In addition to the walkover of the steelworks, site visits were made to heritage assets in the Study Areas in order to assess and describe their baseline setting. The baseline settings of heritage assets are described below.

Designated Assets in the Proposed Site Boundary

- 18.6.3 There are no designated heritage assets within the Site boundary.

Designated Assets in the 1 km Study Area

- 18.6.4 There are three listed buildings located within 200 m of the proposed Site boundary, comprising Marsh House Farm and cottage (NHLE 1160308), a barn and stable circa 10 metres north west of Marsh House Farm (NHLE 1139620), and a garden wall south of Marsh House Farm (NHLE 1139619) and. The buildings are no longer in agricultural use and the barn and stable are in a poor condition and appear to be used as part of a scrap metal dealership. The setting of the buildings is dominated by a scrap yard to the north and the proximity of Warrenby Industrial Estate to the east.
- 18.6.5 The walkover survey included prehistoric funerary monuments on Eston Hills, a First World War acoustic mirror, listed buildings and conservation areas.
- 18.6.6 Eston Hills sits above the Site and long-range views towards the Proposed Development are possible from many points within the hills. The hills were a focal point for prehistoric activity and particularly funerary rites; the entire area represents a remnant prehistoric funerary landscape comprising individual barrows. Individually the monuments are scheduled monuments and are therefore of national importance and high value. As a group, with a clear level of association, the assets give value to the surrounding landscape which, in spite of the industrial landscape below, retains a significant amount of time depth and legibility.
- 18.6.7 The majority of the scheduled monuments on Eston Hills comprise bowl barrows which are funerary monuments dating from the Late Neolithic period to the Late Bronze Age, with most examples belonging to the period 2400-

³¹ As observed during the walkover survey, undertaken 16 October 2019.

³² Williams, M, (2019), the Steel industry in England: An Historical Overview. Historic England, p. 28.

1500 BC. They were constructed as earthen or rubble mounds, sometimes ditched, which covered single or multiple burials. They occur either in isolation or grouped as cemeteries and often acted as a focal point for later burials. Often occupying prominent locations, barrows are a major historical component of the modern landscape and their longevity and variation of form provide important information relating to early prehistoric beliefs and social organisation.

- 18.6.8 A description and summary of the setting of the monuments are listed in Table 18A-3. Due to the group value of the assets and their level of association, the entire funerary landscape was assessed rather than just those assets within the Study Area, therefore, some assets listed in Table 18A-3 fall outside of the 5 km Study Area.

Table 18A-3: Scheduled Monuments on Eston Hills

Asset ID and Name	Description	Setting
1011280 Bowl Barrow 550 m north-west of Court Green Farm	The monument includes a bowl barrow of Bronze Age date situated below the top of a hill near the edge of a scarp at 200 m above Ordnance Datum (aOD). The barrow mound measures 12 m across and survives to a height of 60 cm. The surrounding ditch, dug to provide the material to build the mound, is no longer visible at ground level but it survives as a buried feature measuring 2 m across.	Visually, the monument is separated from contemporary features due to intervening plantation. The wider setting of the monument is defined by the extent of the Eston Hills prehistoric landscape and the contemporary features within it.
1011283 Two Bowl Barrows, 700 m north-west of High Court Green	The monument comprises two bowl barrows of Bronze Age date situated on a south facing slope at approximately 225 m aOD. The first barrow measures 9 m across and survives to a height of 20 cm. The second mound, situated at a distance of 10 m to the north-west, measures 10 m in diameter and stands to a height of 30 cm.	The setting of the barrows is dominated by views to the south and the visual relationship with contemporary features to the east and south-east, specifically barrows 1011271 and 1011282.
1011272 Bowl Barrow 1.1 km north-west of High Barnaby Farm	The monument includes a bowl barrow of Bronze Age date currently situated within a forestry plantation, on an area of flat land with a southern aspect at approximately 225 m aOD. The barrow mound measures 22 m across and survives to a height of 1 m. The northern part of the barrow mound and ditch beyond the fence have been truncated by a track.	The setting of the monument is dominated by its location within a wooded area; however, the wider setting of the monument is defined by the extent of the Eston Hills prehistoric landscape and the contemporary features within it.
1011274 Bowl Barrow 450 m north-west of High Court Green	The monument comprises a bowl barrow of Bronze Age date situated in a coniferous plantation on a flat, south-facing terrace which lies at approximately 200 m aOD. The mound measures 13 m in diameter and survives to a height of 1 m.	The setting of the monument is dominated by its location within a wooded area, also by its group value as part of the remnant prehistoric landscape on Eston Hills.
1011271 Bowl Barrow 800 m north of High Barnaby Farm	The barrow mound measures 8 m across and survives to a height of 20 cm and is located at 225 m aOD.	The barrow is positioned on a south facing slope and its setting is dominated by views to the south and the

Asset ID and Name	Description	Setting
		visual relationship with contemporary features to the south and south-west, specifically barrow 1011283.
1011270 Three Bowl Barrows 850 m north-west of High Barnaby Farm	Three bowl barrows of Bronze Age date situated on flat land with a southern aspect at a height of approximately 225 m aOD. The western barrow measures 17 m in diameter and survives to a height of 1 m. There are signs of disturbance at the centre of the mound, the result of partial excavation in the past. The second mound, 10 m to the east, measures 16 m across and stands to a height of 1.2 m; it also shows evidence of disturbance. Abutting the north-east side of this barrow is a small barrow 8 m in diameter and 70 cm high. Each of the barrow mounds is surrounded by a ditch which survive as buried features.	The setting of the barrows is dominated by views overlooking the valley to the south. The monuments have no visual relationship with other contemporary features due to intervening vegetation, but the wider setting of the monuments is defined by their position within a remnant prehistoric landscape, and this contributes to the assets' importance.
1011282 Bowl Barrow 500 m north-west of High Court Green	A large bowl barrow situated on a south-facing slope at a height of approximately 210 m aOD. The barrow mound measures 21 m in diameter and survives to a height of 50 cm. This monument is of unusual form; at its centre there is a smaller mound measuring 4 m in diameter and standing to a height of 1 m. The platform area between the central mound and the edge of the barrow is slightly concave in profile.	The barrow is positioned on a south facing slope and its setting is dominated by views to the south and the visual relationship with contemporary features to the north and north-west, specifically barrows 1011271 and 1011283.
1011281 Bowl Barrow 1 km north-west of Court Green Farm	A bowl barrow situated on a north-facing scarp on the edge of a densely wooded plantation; at a height of approximately 200 m aOD. The barrow mound measures 12 m across and survives to a height of 50 cm.	The immediate setting of the monument is defined by its position on the edge of a plantation site, and shared views with the bowl barrow at Court Green Farm (1011269) which is to the south-east.
1011269 Bowl Barrow 600 m north-west of Court Green Farm	The monument comprises a Bronze Age bowl barrow situated on the top of a hill near the edge of a scarp. The barrow mound measures 17 m across and survives to a height of 1 m. Several hollows at the centre of the mound represent the remains of partial excavation in the 19th and early-20th century; Bronze Age pottery and several flint tools were recovered from these excavations.	The immediate setting of the monument is defined by its position on the edge of a plantation, and shared views with the bowl barrow 1011281 which is located to the north-west.
1011268 Bowl Barrow 1.1 km north-west of High Court Green	A bowl barrow of Bronze Age date situated near the edge of a scarp at approximately 230 m aOD. The barrow mound has been truncated and spread by ploughing; it measures 12 m across and survives to a height of 30 cm.	There is plantation to the north and west and the setting of the barrow is dominated by views to the south and the visual relationship with contemporary features to the east, specifically barrow

Asset ID and Name	Description	Setting
		1011285 which is located 110 m to the east.
1011285 Bowl Barrow 1 km north west of High Court Green	The barrow is situated at a height of 230 m aOD. The barrow mound measures 16 m in diameter and survives to a height of 1 m. The remains of what appears to be a modern field clearance cairn lie at the centre of the mound.	A visual relationship with contemporary features to the west, specifically barrow 1011268 which is located 110 m to the west, contributes to the setting of the asset.
1011284 Bowl Barrow 850 m north-west of High Court Green	The monument comprises a bowl barrow situated on the edge of a scarp. The barrow mound measures 12 m across and survives to a height of 1 m. At the centre of the mound there is a hollow measuring 3 m across, the remains of a partial excavation in recent years.	The monument is on the edge of a wooded area which restricts long-range views and contributes to an enclosed setting. The monument is located on the 230 m contour on a south-facing slope and its wider setting is defined by its relationship with contemporary assets on the moor, specifically 1011268 and 1011285 to the west, and monuments down slope to the south.
1011279 Bowl Barrow 1.2 km north-west of High Barnaby Farm	The monument comprises a bowl barrow of Bronze Age date situated on open moorland with a southerly aspect. The mound measures 10 m across and survives to a height of 1.2 m. At the centre of the mound there is a large hollow measuring 4 m across, the result of partial excavation in the 19th century by William Ord which revealed the remains of a Bronze Age cremation and Bronze Age pottery.	The setting is defined by the monument's visual and spatial relationship with contemporary monuments on the moor, specifically bowl barrow 1011278 to the west.
1011275 Bowl Barrow 1.4 km north-west of High Barnaby Farm	The monument comprises a bowl barrow situated near the top of a scarp on a south-facing slope. At the centre of the mound there is a hollow, the remains of partial excavation in the 19th century.	The setting of the barrow is defined by its position on a north-west facing slope within a remnant prehistoric landscape and by its spatial and visual relationship with contemporary monuments on the moor. The dominant visual relationship is with the hillfort at Eston Nab to the north.
1018658 Round Barrow on Upsall Moor (also referred to as Mount Pleasant)	The monument comprises a round barrow situated in a prominent position at the western end of the Eston Hills ridge. Limited excavation by E W Sockett in 1949 showed that the barrow was originally structured around two circles of stones which defined it and supported the mound. Three stones belonging to the outer circle are visible on the surface of the mound.	The barrow is in relatively open land, but wooded areas to all sides restrict views towards contemporary monuments, although there are some undated earthworks to the east which may be contemporary, but may be associated with surface quarrying. The wider

Asset ID and Name	Description	Setting
1011276 Bowl Barrow 1.45 km west of High Barnaby Farm	The bowl barrow mound measures 11 m across and survives to a height of 1 m. At the centre of the mound there is a hollow measuring 3 m across, the remains of partial excavation in the 19th century.	setting of the monument is defined by its survival within a remnant prehistoric landscape, and the spatial relationship it has with contemporary features.
1011277 Ring Cairn 1.3 km north of Mill Farm	The monument comprises a ring cairn situated on an area of flat moorland. The ring cairn measures 16 m in diameter; the annular bank, composed of small stones and earth. It encloses a hollow central area measuring 10 m in diameter.	The cairn's setting is defined by its prominent position at 210 m aOD above the valley to the south.
1011278 Bowl Barrow 1.2 km north-west of High Barnaby Farm	The mound measures 9 m across and survives to a height of approximately 1 m. At the centre of the mound there is a large hollow, the remains of partial excavation in the 19th century by William Ord which revealed the remains of a Bronze Age cremation within a stone cist.	The setting of this asset is defined by the monument's visual and spatial relationship with contemporary monuments on the moor, specifically bowl barrow 1011279 to the east.
1018659 Two Round Barrows on Patterson's Bank	The monument comprises two adjacent round barrows on Patterson's Bank. The larger of the two is to the south-west and has an earth and stone mound 17 m in diameter and standing up to 1.8 m high. It was originally surrounded by a kerb of stones which consolidated the toe of the mound, two of which were decorated with cup marks. Some of the kerb stones are visible at the base of the mound, but the remainder have been either taken away or buried by soil erosion. There is a hollow in the centre of the barrow caused by the removal of an Ordnance Survey triangulation point. The smaller barrow lies 50 m to the north east. It has a mound which is 11 m in diameter and stands up to 1.5 m high. In the centre there is a hollow caused by historical excavations.	The barrows are located on a slightly north-facing slope at a height of 170 m aOD, and their immediate setting is dominated by their position on the edge of Errington Wood. The plantation prevents long range views which would link the barrows with contemporary monuments to the west and south-west. The setting of these assets is defined primarily by each other. The proximity of these two barrows and their separation form the main groupings at Eston Hills may indicate that they derived from a different group or had a different level of status.

First World War Early Warning Acoustic Mirror

- 18.6.9 Asset 1020311 comprises an early 20th century military early warning device called an acoustic mirror. The asset is a scheduled monument and is also Grade II* listed and is therefore of national importance and high value. The asset is located in Redcar, approximately 4.7 km from the PCC.
- 18.6.10 The mirror was part of a chain of similar acoustic devices located on the North East coast extending from the River Tyne to the River Humber. They were erected to provide early warning of potential attacks on the important industrial complexes in the north east from ships and Zeppelins during the First World War. Little is currently known of the history and development of the system. Successful experiments in acoustic detection date to 1915 and it is thought that the Tees and Tyne early warning system dates to the last two years of the war. This mirror faces NNE and was positioned to cover the mouth of the Tees Estuary. There were at least two other mirrors known to be part of the Tees Estuary system; one was located at High Springwell 17 km away on the north side of the estuary and was orientated to cover the north eastern approaches. This was demolished in the 1960s. The other mirror is located overlooking the eastern approaches to the estuary 17 km to the east at Boulby and is also a scheduled monument.
- 18.6.11 The asset has an associative setting relationship with the surviving acoustic mirror at Boulby due to their shared function, but as they were not intended to be intervisible, this is not a visual setting relationship. The asset is located within the middle of a mid-late 20th century housing estate which dominates its setting. The original setting of the monument would have been defined by long-range views to the north east, towards the coast and the Tees Estuary, and possibly lines of intervisibility with other coastal defences. The asset's relationship with the coastline and associated assets has been eroded by the housing development and its setting no longer contributes to its value.

Listed Buildings

- 18.6.12 Most of the listed buildings within the 5 km Study Area are concentrated around existing settlement areas at Lazenby, Kirkleatham, Wilton, Marske, Saltburn and Skelton. The majority of the remaining listed buildings are represented by farm buildings located within the rural parts of the Study Area.
- 18.6.13 There are 10 Grade I buildings within the Study Area. Five of these are located in areas of existing settlement and their setting does not extend to the Site. These comprise Ormesby Hall and Stable-block (NHLE 1311002 and 1139662); Stockton Parish Church (NHLE 1139977); Parish Church of St. Mary the Virgin in Norton (NHLE 1140012), and the Church of St. Cuthbert in Billingham (NHLE 1139241). The remaining five buildings are located within Kirkleatham Conservation Area and are discussed as part of the conservation area below.

Conservation Areas

- 18.6.14 There are 17 conservation areas in the Study Area. The majority would not experience any change to their character or setting due to their distance from the Site boundary. The site walkover survey assessed that Kirkleatham,

Yearby, Coatham and Wilton conservation areas should be considered, as these are located within 5 km of the PCC Site.

Kirkleatham Conservation Area

- 18.6.15 Kirkleatham Conservation Area is located approximately 3.5 km south-east of the PCC Site.
- 18.6.16 Key views and characteristics which contribute to the conservation area's importance are set out in Kirkleatham Conservation Area Appraisal³³. Kirkleatham contains five Grade I, six Grade II* and 12 Grade II listed buildings. The heritage value of the conservation area is assessed to be high due to the high number and grouping of listed buildings, the quality of architecture and its historic integrity, and the level of historical importance and intact historical context demonstrated in the area.
- 18.6.17 The variety of building forms in Kirkleatham is dictated by the diversity of building type. Buildings range from the Grade I listed Church of St Cuthbert (NHLE 1139638), the Grade II* listed Old Hall Museum (NHLE 1139641), and Grade I listed Sir William Turner's Hospital (NHLE 1310786). The building type also includes the stable block of the demolished Kirkleatham Hall, garden buildings and structures, along with detached houses and terraced cottages. The buildings date to the 17th and 18th centuries and range in architectural style from Queen Anne through to Baroque, Rococo and Palladian to Gothic.
- 18.6.18 An important component of Kirkleatham's character is its landscape setting, comprising wooded parkland, and open farmland to the south at Yearby, which once formed part of Kirkleatham Hall deer park. The character of the conservation area from within is quite enclosed due to the prominence of mature woodland and planting along its edges. This creates a secluded feeling to the area and internal views form an important part of this setting, such as the view along Plantation Road which takes in the wall of Kirkleatham Walled Garden, and views from Sir William Turner's Hospital which take in Kirkleatham Old Hall Museum.
- 18.6.19 The conservation area derives its value, which is assessed as high, from the diversity and quality of its building type. The buildings articulate the area's history and contribute to a strong sense of place.

Yearby Conservation Area

- 18.6.20 Yearby Conservation Area is located approximately 4.7 km south-east of the PCC Site.
- 18.6.21 The layout of Yearby is based on a typical medieval form; comprising two rows of houses arranged either side of a principal through road. The buildings within the village consist of single and 2-storey 18th-century cottages and farm buildings. The setting of Yearby is defined by the arable landscape it sits within, however the landscape has changed significantly and the former medieval layout of burgage plots and small strip fields have

³³ Redcar and Cleveland Borough Council. 2011a. Kirkleatham Conservation Area Appraisal

been replaced by large enclosed fields as a consequence of 18th and 19th-century enclosure and modern farming practices³⁴.

- 18.6.22 Views within the conservation area are framed by the linear layout of the buildings, although long-range views out over the surrounding fields and the Eston Hills beyond are also possible to the south. Views north towards the settlement at Kirkleatham are possible from the rear of the buildings which form the northern boundary of the village. The conservation area derives its value from the historical legibility of its planned form, and from its buildings which demonstrate local distinctiveness and character. The conservation area is assessed to be of medium value.

Coatham Conservation Area

- 18.6.23 Coatham Conservation Area is located approximately 1.7 km east of the proposed PCC Site.
- 18.6.24 The area comprises the single-row settlement of East Coatham and the better-preserved parts of the mid-to late Victorian planned settlement, the layout of which reflects the settlement's medieval origins. The buildings principally comprise two storey Victorian and Edwardian houses with bay windows, boundary walls and gate piers which are a prominent characteristic of the streetscape. The value of the area is defined by the architectural and historical interest of its individual buildings and settlement form³⁵.

Wilton Conservation Area

- 18.6.25 Wilton Conservation Area is located approximately 4.9 km south of the PCC Site.
- 18.6.26 Wilton is situated on a north-facing slope just below the steep escarpment of Eston Hills. The approach to the village is from the north up a densely wooded lane which leads through the village to Wilton Castle which is listed Grade II listed. The Church of St Cuthbert is listed Grade II* listed and is located at the end of a small drive which is set back from the main approach road. The setting of the church is defined by its position within an enclosed graveyard which is surrounded by mature deciduous and evergreen trees. A double avenue of pollarded, mature deciduous trees planted in the late 19th century line a disused west carriage drive to the Castle.
- 18.6.27 The avenue runs for half a mile towards Lazenby and is identified in the conservation area appraisal as the most important single landscape feature within the designated area³⁶. The conservation area derives its value, which is medium, from the quality of its buildings, which demonstrate Romanesque and Gothic architectural styles.

18.7 Historic Landscape Character

- 18.7.1 A 1 km Study Area was utilised to capture historic landscape datasets, as illustrated on Figure 18-1 (Volume II, Document Ref. 6.3). However, following

³⁴ Redcar and Cleveland Borough Council. 2011b. Yearby Conservation Area Appraisal.

³⁵ Redcar and Cleveland Borough Council. 2011c. Coatham Conservation Area Appraisal.

³⁶ Redcar and Cleveland Borough Council. 2011d. Wilton Conservation Area Appraisal

- the site walkover, the assessment of historic landscape was extended to take in Eston Hills due to the many prehistoric monuments that are located here.
- 18.7.2 The landscape character of the Study Area is typical for this part of Teesside and comprises a remnant medieval and post-medieval landscape that has been changed significantly by many processes, including enclosure, settlement, transport routes and predominantly by industry which now dominates the landscape character.
- 18.7.3 Eston Hills are of particular importance because of the range and quality of the archaeological and historic components they contain. There is significant time depth within this area and the legibility of the area and the associative relationship between the monuments can be readily appreciated.
- 18.7.4 Urban development in the region over the last 150 years has had a dominant influence on the major settlements. Many smaller towns and villages outside the main urban areas have only seen limited development and have retained much of their vernacular and historic character.
- 18.7.5 Industries have developed around the extraction of minerals such as alum and ironstone, and other materials have been worked to feed the services and infrastructure required by these industries, for example sand, gravel, clay and stone extraction. 'Many industrial sites have, through time, become assimilated into the countryside following their abandonment. Industrial features, such as ironstone mines, are now often remote and add a sense of history to the diverse landscapes of the Borough'. (Green and Rowe, 2007).
- 18.7.6 The region is largely a rural area despite the fact that many of the founding industries of Teesside are located within it, and 19th century farms are a characteristic of the Study Area. Enclosure has changed the landscape in the Study Area. There is evidence of post-World War II amalgamation of earlier fields into larger land parcels, but there is still a good level of survival of 19th century enclosures.
- 18.7.7 Baseline evidence reveals that the greater part of Redcar and Cleveland was enclosed before 1720, and parliamentary enclosure occurred mainly in the Teesmouth area (for example at Redcar, Coatham and Kirkleatham) and in areas of common land (for example on Easington Moor and Moorsholm Moor).
- 18.7.8 The Eston Hills are characterised by a complex of prominent steep-sided hills linked by low saddles which form a parallel series of foothills, or outliers, to the main escarpment of the Cleveland Hills, which lie within the North York Moors National Park. Open moorland and wooded hillsides and escarpments contribute to the distinctive character of this area and give it an identity unlike any other part of the Borough.
- 18.7.9 The most significant change to the landscape has been the impact of many industries, including iron and steel making, that have populated the area from the 19th century. The dominant characteristic of the landscape within the 1 km study area is industry, and as such its sensitivity to change is assessed to be low.

18.8 Assessment of Baseline

- 18.8.1 There is low potential for buried features of archaeological interest to be present within the proposed Site boundary, as previous land uses are likely to have removed or significantly truncated subsurface remains. Geotechnical data from within the Site has identified the presence of alluvium, but did not identify the presence of peat deposits, and it is likely that shallow peat deposits have been removed or significantly truncated by previous land uses.
- 18.8.2 There is a potential for organic deposits or artefacts to be present within alluvium located within former river channels, where deposits may survive at depth.
- 18.8.3 Standing structures associated with Redcar blast furnace and ancillary buildings are present within the proposed Site boundary. The buildings are indicative of the region's industrial heritage and are of local and possibly regional interest.
- 18.8.4 The North East of England has seen extensive demolition of steel and related industries, as these have been superseded by different technologies. However, the impact of the steel industry on the region is still very visible and surviving infrastructure in the proposed Site boundary, comprising ancillary structures associated with Redcar Blast Furnace, are well-preserved. The blast furnace is not located within the Site boundary and would not be physically impacted by the Proposed Development but the ancillary structures do provide the functional setting to the furnace structure. Collectively the structures represent a well-known landmark and are of value to the local community through their historical associations and contribution to local identity.
- 18.8.5 Heritage assets that may experience physical impacts or changes to their setting as a result of the Proposed Development are considered further in Chapter 18: Cultural Heritage of the ES (Volume I, Document Ref. 6.2).

18.9 References

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