

**FORD ENERGY RECOVERY FACILITY AND
WASTE SORTING AND TRANSFER FACILITY,
FORD CIRCULAR TECHNOLOGY PARK**



ENVIRONMENTAL
STATEMENT
CHAPTER 10
CULTURAL
HERITAGE

10 Cultural heritage

Introduction

- 10.1 This chapter has been prepared by Terence O'Rourke Ltd and assesses the likely significant effects of the proposed ERF and WSTF development with respect to impacts on the historic environment, covering designated and non-designated heritage assets such as archaeological remains, historic buildings and conservation areas, and registered parks and gardens. This chapter and its associated figures and technical appendix should be read in conjunction with chapter 2 (site description), chapter 3 (proposed development), chapter 12 (landscape and visual effects) and the information submitted in support of the planning application.

Legislation and policy

Legislation

- 10.2 National legislation recognises the value and significance of cultural heritage and the public interest in the preservation of particular assets, and sets out mechanisms to ensure that it is taken into account in planning decision-making. Sites and features of identified interest are protected by the Ancient Monuments and Archaeological Areas Act 1979 (as amended) and within the planning system through the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990.
- 10.3 Section 66(1) of the 1990 act states that, in considering whether to grant planning permission for development that affects a listed building or its setting, the local planning authority or Secretary of State "*shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses*". Section 72(1) in respect of conservation areas states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area. Case law has made it clear that it is necessary to give any harm to the setting of a listed building considerable importance and weight when making planning decisions.

National policy

- 10.4 National planning policy and guidance on conserving and enhancing the historic environment is contained within the National Planning Policy Framework (NPPF), the online National Planning Practice Guidance, and the Good Practice Advice published by Historic England (GPA1 Local plan making, GPA2 Managing significance in decision-taking in the historic environment and GPA3 The setting of heritage assets). Heritage assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations (NPPF, paragraph 184).
- 10.5 The detailed policies in the NPPF on development management concern the need to clearly define the significance of any potentially affected site or area, the pre-application information requirements for any proposals, including for archaeological field evaluation, and the principles to be considered in determining any proposal for change potentially affecting heritage assets. There

is an overall requirement to gather sufficient information to ensure an adequate understanding of the significance of an asset before any decisions affecting its future are made. The objective is to avoid or minimise conflict between a heritage asset's conservation and any aspect of the proposal (paragraph 190).

10.6 Paragraph 192 states that in determining planning applications:

Local planning authorities should take account of:

- *The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- *The positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- *The desirability of new development making a positive contribution to local character and distinctiveness.*

10.7 "Great weight" should be given to the objective of conserving designated heritage assets, irrespective of the degree of harm, and local planning authorities are required to take the significance of an asset into account when considering proposals (paragraph 193). All harm requires "clear and convincing justification" (paragraph 194).

10.8 Paragraphs 195 and 196 define the judgement to be made in cases of harm to designated heritage assets, based on public benefits that could outweigh the harm, taking into account the weight to be given to conservation, and whether the conflict between the provision of such public benefits and heritage conservation is necessary. A key concept in the NPPF is proportionality; that the information required, efforts to preserve, and degree of public benefits necessary to justify any harm or loss of an asset should be based on an understanding of its significance.

10.9 The National Design Guide: Planning practice guidance for beautiful, enduring and successful places, 2019, provides the following guidance at C2 in relation to context:

Value heritage, local history and culture

45 *When determining how a site may be developed, it is important to understand the history of how the place has evolved. The local sense of place and identity are shaped by local history, culture and heritage, and how these have influenced the built environment and wider landscape.*

46 *Sensitive re-use or adaptation adds to the richness and variety of a scheme and to its diversity of activities and users. It helps to integrate heritage into proposals in an environmentally sustainable way.*

47 *Well-designed places and buildings are influenced positively by: the history and heritage of the site, its surroundings and the wider area, including cultural influences; the significance and setting of heritage assets and any other specific features that merit conserving and enhancing; the local vernacular, including historical building typologies such as the terrace, town house, mews, villa or mansion block, the treatment of façades, characteristic materials and details – see Identity.*

- 10.10 The setting of an asset is not a heritage asset or a designation in itself, and its importance lies in what it contributes to the significance of the heritage asset. The approach to identifying those heritage assets likely to be affected by a development proposal is given in the guidance by Historic England, which states that, “ *(The setting of a heritage asset is ‘the surroundings in which a heritage asset is experienced’ NPPF, Annex 2: Glossary). Where that experience is capable of being affected by a proposed development (in any way) then the proposed development can be said to affect the setting of that asset.*” (GPA3, paragraph 20). The guidance aims for a consistent approach to the assessment of setting and the range of historic, visual and functional relationships that can define the contribution of adjoining land to the significance of any single asset or group of assets. These include physical attributes and perceptual values, depending on the nature of an asset and its past and present surroundings. Potentially significant views can be deliberately designed or incidental, or the result of later changes.

Local policy

- 10.11 The relevant local planning policy in relation to heritage assets is provided by the West Sussex Waste Local Plan (adopted April 2014), policy W15 Historic Environment, and the Adoption Arun Local Plan 2011-2031 (July 2018), policies HER SP1 – The Historic Environment and HER DM3 – Conservation Areas. The site is a strategic allocation in the West Sussex Waste Local Plan under policy W10. The attached development principles refer to the need for assessment and potential mitigation of effects on listed buildings to the north and the need for archaeological mitigation.

Methodology

Baseline

- 10.12 This chapter assesses the cultural heritage resources of the site and its environs as they are identified through designation, the national or local archaeological record, documentary sources or other studies. The Historic Environment Record (HER) maintained by West Sussex County Council was consulted¹ for information on known archaeological features and designated assets and the West Sussex Historic Landscape Characterisation (HLC) data.
- 10.13 In consultation with the West Sussex County Archaeologist a site-specific geoarchaeological desk-based assessment was commissioned with the report by Archaeology South East (ASE) appended to this chapter (Technical Appendix F). This consultation also highlighted the alignment and underground former course of the Chichester and Arundel canal and the benefits of considering its alignment in the design proposals if possible.
- 10.14 The study area covers the 7.11 hectare application site (excluding the external grid connection) and a 1 km radius from the boundary. The assessment has been extended to consider assets beyond 1 km where necessary to ensure all potential effects are considered and to integrate with the landscape and visual effects assessment in chapter 12. Figure 10.1 shows all recorded non-designated and designated heritage assets in the study area and figure 10.2

¹ Data received 15 January 2020.

shows the historic landscape characterisation data. The gazetteer in Technical Appendix F lists the sites and built heritage in the study area and provides extracts from the HER and the National Heritage List for England. Ordnance Surveys maps dated 1873 and 1980 are included as figures 10.3a and b to illustrate change through time. The geotechnical site assessment results are presented at figure 10.7 and the report by ASE in Technical Appendix F. The data sources consulted for the assessment are outlined in table 10.1.

Arun District Council, 2001 Conservation areas SPD
Arun District Council, 2005, Buildings or structures of character
Chartered Institute for Archaeologists, 2014, Standards and guidance for historic environment desk based assessments
English Heritage, 2008, Conservation principles – policies and guidance for the sustainable management of the historic environment
Historic England, 2015, Good Practice Advice notes GPA1 Local plan making; GPA2 Managing significance in decision-taking in the historic environment
Historic England, 2017, GPA3 The setting of heritage assets
Historic England, 2017, Conservation principles for the sustainable management of the historic environment, consultation draft
Magnitude Surveys, 2018, Geophysical survey report of land at Ford Airfield, West Sussex, for and on behalf of Wates Development and Redrow Homes
Ministry of Housing, Communities and Local Government, 2019, National Planning Policy Framework
Ministry of Housing, Communities and Local Government, 2019, Planning Practice Guidance (online)
Moles Archaeology, 2020, Archaeological Watching Brief on a Proposed New Access Road, Circular Technology Park (ref. M-122; site code FWT-WB-19)
Nairn, I & Pevsner N, 1973 Buildings of England: Sussex
Sussex Industrial History, 1973, J A Bagley, Shoreham and Ford: A history of two Sussex Airfields
Sussex Industrial History, 1990, P Chaplin, The Ford Trimotor and Ford Aerodrome
Sussex Local, 2019, A Misselbrook, Sir William Garway, MP of Ford Place
Websites
www.british-history.ac.uk for historic background and documentary sources including Victoria County History
http://list.historicengland.org.uk for the National Heritage List for England
www.pastscape.org.uk/ for records in the Historic England Archives database
Yapton and Ford Local History Group yaptonhistory.org.uk

Table 10.1: References and data sources

10.15 This chapter makes use of the zone of theoretical visibility (ZTV) and representative viewpoint photographs and visualisations produced for the landscape and visual effects assessment in chapter 12, figures 12.14 to 12.62. The methodology for the production of these images is outlined in Technical Appendix H. A plan showing the ZTV and viewpoints in relation to heritage assets within 5 km of the site is at figure 10.8 and additional photographs illustrating the setting of heritage assets are included as figure 10.9a-g. All photographs were taken from publicly accessible locations.

Scope of work

10.16 This assessment provides a description of the likely value, extent, state of preservation and potential significance of heritage assets within the site and the wider study area that could potentially be affected by the proposals. It includes consideration of all nationally and locally identified buildings and areas and their settings. The archaeological element of the study was undertaken with

reference to the Chartered Institute for Archaeologists' Code of Conduct and appropriate standards (revised 2014).

Scoping opinion

- 10.17 The scoping opinion from West Sussex County Council was issued on 13 March 2020. This generally accepts the proposed scope of the assessment of effects on heritage assets. Additional information was requested to assess the geoarchaeology of the site (see Technical Appendix F) and to consider several assets beyond the 1 km study area, namely the conservation area at Lymminster, the scheduled monument at Tortington Priory and the designated assets at Arundel Castle. The council also requested consideration of the fall-back position of the implementation in full or in part of the extant planning consent (WSCC/096/13/F).

Impact assessment

- 10.18 The definitions of the importance or sensitivity of the heritage assets that may be affected by the proposed development, and the magnitude or scale of the predicted change, are shown on figures 10.4 and 10.5 respectively. The generic definitions of the degree of the potential effects can then be generated by feeding the results into the degree of effect matrix (figure 10.6). Effects of moderate degree and above are classed as significant effects for the purposes of the EIA. Chapter 5 explains the assessment methodology used throughout this ES. The assessment in this chapter is a qualitative one and the evaluation of significance is ultimately a matter of professional judgement.
- 10.19 This chapter first makes an assessment of the components, qualities and level of importance or value of all heritage assets identified within the chosen study area, and the contribution to their significance made by their settings. The contribution of the surroundings in which an asset is experienced and the range of historic, functional or visual relationships, as evident in both physical attributes and perceptual values, to the significance of any single asset or group of assets will depend on the nature of the asset and its past and present setting. The importance of the setting of an asset, or of particular views or vistas (both deliberately designed, and the result of incidental or fortuitous changes over time), to its significance, and to how it is understood and appreciated, can therefore vary greatly.
- 10.20 The assessment of value, coupled with reference to national and local legislation, relevant policy statements and best professional practice, allows a judgement to be made of the significance of the asset and its sensitivity as a receptor. The focus is the inherent value and importance of the historic asset itself, which is clearly separated in the assessment from any public amenity value particular sites may have, or potential contribution to tourism or other interests.
- 10.21 The judgement of the magnitude of change likely to occur is based on available information on the attributes of the proposed development: for example, immediate changes such as ground disturbance for site preparation and construction, the removal of existing structures, routes or trees; changes to drainage and land form, or the addition of new structures and transport networks; and changes to views of, from or across heritage features, or to

perceptions of their priority in the landscape. The likely effects of development on the settings of heritage assets depend primarily on the fundamental characteristics of the development, although detailed design can also have an influence.

- 10.22 Guidance produced by Historic England (2015, 2017) provides advice on a consistent framework for the assessment of the effects of development on heritage assets and their settings. The assessment in this chapter encompasses the identification of assets that may be affected, of the contribution of setting to the value of those assets, the description of the attributes of the proposed development and the assessment of likely significant effects.

Limitations and uncertainties

- 10.23 Professional judgement is an important consideration in the determination of the overall cultural heritage effects and even with qualified and experienced professionals there can be differences in the judgements made.
- 10.24 The assessment was affected by unprecedented travel and access restrictions resulting from the COVID-19 pandemic and it was not feasible to undertake all of the photography for the views requested by WSCC in their scoping response. The production of visualisations was also affected (see chapter 12 and technical appendix H). For heritage assessment purposes this has resulted in no visualisation or present view from Arundel Castle only. This element of the assessment has therefore followed the approach given in chapter 12 in making use of the pre-existing photographs taken for The Landings planning application (ref. F/4/20/OUT).

Baseline

Geology

- 10.25 The West Sussex Coastal Plain is known to have a complex succession of raised beaches. These are generally split into two groups, the Upper Coastal Plain and the Lower Coastal Plain, with those on the Upper Coastal Plain older and generally richer in archaeology. According to the BGS map the solid geology at the site is chalk overlain by river terrace deposits with raised beach deposits and 'brickearth' with alluvial deposits existing just to the east of the site. Two phases of geotechnical work at the site comprising of test pits and boreholes have shown approximately 4 m of superficial deposits overlying chalk at depth. The chalk appears to form a fairly flat platform with some evidence of downcutting. The superficial deposits consist of sands overlying the chalk and fine grained sandy clays. The sequence is capped by variable made ground.

The heritage resource

- 10.26 The evidence is presented in chronological order in broadly accepted chronological periods such as Palaeolithic–Neolithic. A total of 55 records and non-designated assets are listed in the HER data for the site and 1 km radius study area, one of which lies on the site boundary. The data also includes information on 14 previous archaeological investigations. Four locations within the study area are identified as Archaeological Notification Areas (figure 10.1).

The closest designated heritage assets are the listed buildings on Ford Lane to the north.

Archaeology

- 10.27 Although more abundant Palaeolithic material is generally known from the Upper Coastal Plain, some 'Palaeoliths' are recorded as coming from Ford, although no description or location is recorded within the HER data (TOR 36). Further to this a hand axe is recorded as being found in a field to the west of Ford church which would place it close to the site. Investigations associated with the wastewater treatment works in 1999 located in the north quadrant of the disused airfield (EV14), revealed Mesolithic worked flint evidence; a Neolithic leaf-shaped arrowhead and a Bronze Age enclosure with an Iron Age cremation (TOR 7). Early prehistoric finds in the form of five Neolithic / Bronze Age flint flakes and seven burnt flints (TOR 40) and nine flint flakes with retouched tools and a flint core (TOR 41) were also recovered, with one prehistoric flake and five burnt flints recovered c.400m to the north of the site (TOR 42). A Neolithic hand axe and stone rubber is recorded at Ford, c.500 m to the north east of the site (TOR 28) but little else is known or recorded about how it was discovered.
- 10.28 Further prehistoric evidence was revealed during archaeological investigations (geophysical survey followed by geotechnical test pitting) along the central part of the eastern boundary in 2003 (EV10 & 12). Subsequent trench evaluation and excavation (TOR 9) revealed three Bronze Age cremations and prehistoric ditches that extend into an organised Iron Age field system seen in the wastewater treatment investigations (EV14). A small assemblage of residual Mesolithic and Early Neolithic struck flint; Bronze Age pottery vessels which appeared intentionally placed along with burnt material within an organised field system with a number of posts and pits were also recorded.
- 10.29 Chance discovery of sherds of pottery from three separate vessels have been recorded to the south of the site (TOR 37). The excavations in association with the Southern Water works on the former airfield have added the most to the late Iron Age / Romano-British record in the study area. Investigations revealed a possible trackway; an enclosure feature, with pits, two cremation burials and a possible shelter for iron(metal) working (TOR 7). There are no Romano-British settlement remains within the study area.
- 10.30 While not currently part of the HER records that informed this assessment, there has been extensive geophysical survey undertaken as part of an outline planning application for a 1500 unit residential development referred to as The Landings (ref. F/4/20/OUT). This proposed development comprises land to the north west of the site up to Ford Lane and south east of the site within the airfield as far as Yapton Road. The cultural heritage assessment submitted as part of the supporting environmental statement included a comprehensive geophysical survey by Magnitude Surveys (2018), but no targeted trial trenching was undertaken to evaluate the assumptions of this survey. However the geophysical survey results highlighted the following:
- The survey responded well to the geology but revealed extensive ferrous disturbance from the site's previous military use

- Four distinct areas produced probable and possible archaeological features, and based on the survey lying within the Archaeology Notification Area with recognised prehistoric and Romano-British origins, the surveyors considered the new findings to probably correlate and be contemporary
- The geophysical survey revealed the E-W alignment of the former canal and identified the width to vary from 4.9 m to 30 m depending on the extent of its backfilling
- The majority of probable archaeology features were revealed in the survey areas between Rudford Industrial Estate and Yapton Road to the southwest of the site

10.31 While there are no Anglo-Saxon sites or findspots recorded on or in the vicinity of the former airfield or in the study area, there is an early medieval record pertaining to six skeletons placed in a circle with no pottery or other dateable remains that were uncovered during works at Ford church in 1990. The site is recorded as a possible pagan burial plot or possibly a gallows cemetery of Late Saxon date (TOR 34).

Built heritage and historic landscape

10.32 The study area was characterised by a dispersed and sparse settlement pattern of Saxon origin and is crossed by The Ryebank Rife in the south, which may be a pre-medieval estate boundary. Based on the parish boundaries, Yapton may have been part of a larger Saxon territory, and Ford and Climping were a single pre-Conquest estate. In the Domesday Survey the estate at Climping also included Ford, and Yapton was also not described individually, appearing as part of the very large holdings of the rape of Arundel.

10.33 The River Arun was tidal and navigable beyond Arundel, which was recorded as a port at Domesday and through the medieval period. The area was strongly influenced by the river, its course shifting eastwards over time, the estuary and the wide areas of seasonally flooded saltmarshes. There are records of reclamation of land from the river by the 13th century, creating large areas of pasture, and to the construction and repairs to the river defences and sea walls. In the south of Climping parish large areas of land were being lost to coastal erosion into the 19th century.

10.34 Until the 13th century Ford was considered as part of Climping parish, and they continued to be assessed together for taxation in 1332 and in 1524. The church at Ford may have been a Saxon foundation, and a small section of interlace sculpture is set in the wall above the door (TOR 27). The present church of St Andrew at Ford (LB3, grade I) has been described as “*One of Sussex’s prettiest churches*”² and is set within a small walled graveyard on a slight high point close to the river. It originates as a two-cell church of late 11th century date, with a later chancel. There were frequent later changes including after fire at the end of the 14th century, when the belfry was either added or rebuilt. The distinctive south porch with the brick Dutch gable was added in 1637 (see figure 10.9d).

² Nairn & Pevsner, Buildings of England; Sussex pg 225.

- 10.35 The village was located to the north and west of the church (TOR 29, 35). A stone manor house was in existence before 1273, built on a platform surrounded by a ditch. The presence of gardens are recorded in 1284, and a park of c.80 - 100 acres had been created by 1297. The location of a rectory is recorded to the north of the church. The HER also notes the possible location of a medieval dock or wharf on the river (TOR33). By 1608, the settlement was deserted and the manor house had been demolished. The former village location is an Archaeological Notification Area.
- 10.36 A church was in existence at Climping by 1080. The present St Mary's Church (LB4, grade I) consists of the tower of c. 1170, with carved chevrons and dogtooth around the door and window surrounds, "*an extreme example of Latest Norman ornamental wildness*"³. The main body of the church was rebuilt in the early 13th century for a later Bishop of Chichester, and is notable for the consistent style and the lack of later alteration.
- 10.37 The village to the east and south of the church had been abandoned by the late 14th century. It survives as two areas of earthworks and underground remains including house platforms and a trackway (TOR 6). These are a scheduled monument (SMWS424) and an Archaeological Notification Area. The probable location of the medieval manor is the present Church Farmhouse which was reported to have been refronted in the early 18th century and was rebuilt in 1783 (LB6). The later settlement areas in the parish developed at a distance from the church, to the south on the main road at Climping Street and at Horsemere Green.
- 10.38 At Yapton the church was in existence in 1086, attached to the minster church at Arundel. The present Church of St Mary (LB7, grade I) is "*a complete church of 1180-1200*"⁴ that incorporates material from an earlier church that is visible in masonry at the base of the tower. A window of c.1100 may also be part of an earlier church. The low square tower is visibly leaning and is supported by buttresses added in 1671.
- 10.39 The medieval settlement was focused on the area around the church, and the adjacent manor house, with a looser pattern of sporadic development around a square formed by the roads to the south. North End developed later, as an area of linear settlement encroaching onto the roadside waste. The site of the medieval manor house, the extant 17th century dovecote (LB8) and an area of earthworks of the medieval village (TOR 25) are an Archaeological Notification Area.
- 10.40 The land of the study area was divided between areas of common and seasonal pasture associated with the river and the open field arable. The open fields of Climping were divided into three, named as Inlands, Town Field and West Field. The latter was enclosed by agreement in 1541 and the separate existence of the others was also not recorded after this date. The consolidation and piecemeal enclosure of the open fields of Yapton and Ford was also largely complete by the end of the 16th century. The early enclosure and the

³ Ibid. pg 189.

⁴ Ibid. pg 394.

depopulation of Ford and Climping villages was associated with process of amalgamation of holdings and the later dominance by a few farms.

- 10.41 One of the principal farms was at Place Farm (Atherington House, Ford Place, Southdown House and The Lodge) (LB1) on Ford Lane. The large brick house was built in the late 17th century for the London-based Garway family who had purchased the manor in 1614. The house was in existence before 1670 and was probably the house of nine hearths that William Garway, MP for Chichester and Arundel, was taxed on in that year. The oldest part of the house is on the south side and additions were made in several phases in the 18th and 19th centuries. The house was remodelled and divided into four in 1952. The high walls surrounding the garden in the south side includes some reused stone that may have come from the demolished manor house close to St Andrew's church. The related farmstead to the east on the lane (TOR 20) is of 18th century date creating four sides of a courtyard.
- 10.42 Improvements to navigation on the River Arun where made in the 1540s and the 1570s, to Arundel and beyond to Pallingham, though later use was restricted by the multiple channels and the spit across the mouth of the river created by its eastward deflection. The present cutting at Littlehampton and the estuary were made under an act of 1733, and harbour commissioners were appointed for the lower section of the river to the port of Arundel. An embankment had been created along the river by 1736, which was extended 1770s and 1780s, until the present high embankment was constructed under an act of 1793.
- 10.43 The dispersed settlement pattern and prevailing land use are shown on the Yeakell & Gardner map of Sussex published in 1778-83⁵. This shows some isolated holdings and the three very small settlements, the largest of which is at Yapton, with the church and a large square block identifiable as the manor house on the north east edge, within a number of walled enclosures and an area of parkland to the north. Ford consists of only the church and the sequence of farm buildings along Ford Lane to the west. An inlet to the north is marked as Ford Dock. The river is shown within a sinuous line of embankments and with wide areas of meadows extending along the tributaries to the north around Tortington, and across the broad valley floor to Arundel. The three separate settlement areas at Climping are a cluster at the church, a linear group along the road south from Yapton, some encroaching on the roadside commons, and with narrow closes behind, and the larger more nucleated area to the south. The site area is depicted as an irregular pattern of small square fields, crossed by several tracks.
- 10.44 A large part of the land in the study area was owned from beginning of 18th century to the early 20th by Christ's Hospital London, which had inherited the Garway estates, and the dominance is visible in the badges and datestones that appear on several buildings. The second farm in Ford parish was Newhouse Farm (LB2) built in the late 18th century, at a location on the corner of Ford Lane and the main road to Climping that may have been a former medieval house site. It is detached from the contemporary farm courtyard on the opposite site of the road (TOR15) and an additional 19th century courtyard to the west (TOR 24). Church Farmhouse, Climping was rebuilt at the end of

⁵ <http://www.envf.port.ac.uk/geo/research/historical/webmap/sussexmap/Yeakelllarge16.html>

the 18th century (LB6), and again the associated farmstead (TOR10) is away from the house. At Yapton the principal manor next to the church, that was referred to as the “*great farm*” in 1621, was rebuilt or enlarged in the later 18th century as a formal seven-bay house. Except for the dovecote to the south (LB8) the whole complex was demolished in 1836, and the site integrated into the adjacent fields.

- 10.45 The site is crossed by the course of the Portsmouth and Arundel Navigation which was authorised in 1817 and opened in 1823 as a barge canal to link the River Arun to Langstone Harbour as part of an alternative inland route from London to Portsmouth. The canal (TOR 51) was disused by the 1830s and closed in 1855. There is evidence of the dock and locks on the river by St Andrew’s Church, Ford, and the surviving sections of the brick arches of Burndell Bridge (TOR 48). It was considered for listing in 2014 but was rejected on the grounds of the standard construction, the late date and limited use of the canal and the loss of context including the farm that the bridge accessed (TOR 8). Just outside the study area at Yapton are two other bridges at Tack Lee Bridge and the listed Merston Bridge within the housing area at The Pines.
- 10.46 By the mid to late 19th century much of the farmland at Ford had been amalgamated into a single very large farm of around 1,000 acres, and there were very few dwellings in the parish. The HER records the results of a survey of the historic farmsteads based on maps from the end of the 19th century, which notes the sites of extant farm buildings of 19th century date at Northwood Farm to the south (TOR 16) and at Wicks Farm (TOR 21) on Ford Lane. The large farm group is based on two courtyards and the adjacent yards to the east (TOR 22, 23) and includes several cottages that are identified as buildings of local character. The HER also records the former locations of farmsteads at New Barn (TOR 3), Burndell Farm and to the west (TOR 8, 13) and the numerous outfarms (TOR 1, 2, 12, 14, 18 19).
- 10.47 The Ordnance Survey map dated 1876 (figure 10.3a) shows the varied field patterns across the area, with the very large fields of the site, the result of the amalgamation of earlier holdings, contrasting with the surviving groups of small enclosed strips and irregular fields to the south at Climping and the long curved boundaries of the fields to the north of Ford Lane. The settlement of Ford consists of the isolated church on the river and the principal farms on Ford Lane with their associated yards and orchards. The site area is crossed by the line of the disused canal marked by the towpath embankments and leading to the locks by the older dock at St Andrews Church. The area at the turn of the 20th century had seen little change to the agricultural economy except for the brickworks at Yapton (TOR 31).

Ford Airfield

- 10.48 The airfield initially known as Ford Junction Airfield after the railway station to the north was established in 1917 for the Royal Flying Corps as a training airfield. The grass flying field was laid out the south of the banked alignment of the former canal, and the airfield buildings were established to the west, and included the standard War Office design barracks, the HQ and officers mess and seven hangars, formed of standard general service sheds, arranged in three double ranges and one single. The airfield was closed in 1920 and returned to agriculture, some of the airfield buildings being converted to use

after the war by a local farmer. It reopened 10 years later as a private civilian airfield and was used by a variety of companies and for display flying.

- 10.49 A separate initiative in the inter-war period was the development of the line of semi-detached houses at Nelson Row on the main Ford to Climping road to the east of the airfield. It was intended as the first phase of more major development (similar to that then being constructed along much of the coast), but was prevented by the new owners of the Bailifscourt estate to the south, which has preserved the undeveloped Climping gap. The rest of the planned development had not begun before the expansion of the airfield into one of the permanent stations created as part of the process of rearmament.
- 10.50 The former airfield was acquired by the Air Ministry in 1937 for use by the Royal Navy Air Service. The area of the airfield was expanded and the new hangars, the technical buildings and hutted accommodation were laid out on the east side at Ford. The airfield opened in 1939 for HMS Peregrine, operated as an RAF fighter base from 1940, and reverted to the Navy in 1945.
- 10.51 The airfield was retained in use after the war and was reconstructed between 1948 and 1951. The airfield was extended, shutting off Yapton Road, and the two tarmac runways constructed in 1944 were replaced by the concrete runways, and other concrete aprons were added, obscuring the former layout of the fighter pens and taxiways. The existing hangars were supplemented by the addition of three new steel hangars, of the B1 type, one at the main building group by the control tower at the east, and two at an expanded workshop area in the north. The airfield remained in military use until 1959.
- 10.52 Immediately after, in 1960, the accommodation area and the main buildings either side of Ford Road were converted to use as an open prison. The rest of the former airfield was developed from the early 1960s as an industrial estate. By 1973 the two large B1 hangars at the north of the airfield were being used for the manufacture of concrete blocks, which continued from 1984 for Tarmac Concrete and Tarmac Topblock, who added another large building as their regional office for the south of England.
- 10.53 The influence of the industrial estate at the airfield was felt in the wider area, several of the farm courtyards on Ford Lane being converted to industrial uses as at Wicks Farm and later the detached courtyards of Place Farm and Newhouse Farm.
- 10.54 The Ordnance Survey map dated 1980 (figure 10.3b) shows the surviving elements of the layout of the airfield, the relaid and extended runways and the reopened Yapton Road, and sections of the perimeter roads. On Ford Road the former technical buildings and accommodation area are occupied by HMP Ford, the hutted layout still legible. A single hangar to the south marked as a workshop is the other B1 hangar. The site is occupied by the other two B1 hangars, marked as works and served by a curved access road around Rodney Crescent. Other areas of industrial uses are marked at Wicks Farm and at the area of WWI airfield buildings on the south edge of Yapton. The map shows the fragmentary alignment of the former canal, and sections of the older field patterns around the churches at Climping and Ford, the latter accessed only by a footpath.

- 10.55 The buildings of the site continued in use for Tarmac until 2010, and since December 2015 have been in the current use as the waste transfer station run by Grundon. The extant military features on site are the concrete surfaces and the two B1 type hangars built as part of the 1948-51 reconstruction. Elsewhere, the airfield buildings remain in use as part of the prison, there is one surviving blister hangar to the south of the site (TOR C) the other B1 hangar is in use within the industrial estate, and alignments remain in use, including the service roads. The locations of the WWII fighter pens and taxiways are visible on aerial images as cropmarks.
- 10.56 The HLC data, figure 10.2, illustrates the surviving influence of historic patterns on the present study area. It shows the fragmentation resulting from the creation and expansion of the airfield and the subsequent redevelopment. Areas of older patterns survive in the group of fields to the north of Ford Lane which retain the layout of shared alignments of medieval and later planned enclosure. Smaller areas of the informal field patterns also survive around the church at Ford and along the river towards Climping. Modern amended fieldscapes are shown across much of the centre of the study area, and a small areas of planned enclosure types at Yapton.

Results of an archaeological watching brief of a proposed access road to Circular Technology Park by Moles Archaeology, April 2020

- 10.57 Grundon commissioned the archaeological monitoring of a new access road in accordance with condition 7 of planning consent ref. WSCC/027/18/F (see figure 10.9b). The watching brief was undertaken by Moles Archaeology in line with their consultation with WSCC Archaeologist and an approved written scheme of investigation (WSI). The excavation work for the access road was carried out between mid-September and 1st October 2019 and measured 8 m wide x 180 m long x 0.25 m deep. Two definite features of archaeological interest were revealed, both of which are probably former ditches associated with (pre) historic field boundaries. Many Mesolithic – Neolithic flints with some small fragments of Neolithic pottery were recorded as residual finds within the ditches that are of Bronze Age to Late Iron Age in date. One fragment of Roman tegula was recovered from the subsoil layer with the remainder of finds of medieval/post-medieval date and some modern airfield debris.
- 10.58 Despite the archaeological potential of the surrounding area, as indicated by the Archaeology Notification Area and several phases of investigation that dominate the archaeological record, few buried archaeological remains were present within the excavated area of the access road. This was primarily due to truncation by services and their easements reducing the undisturbed area by around 50% (Moles Archaeology 2020, 13). This archaeological event and its findings did not form part of our HER results and therefore is a useful indication of the occurrence of prehistoric evidence within the site, albeit fragmentary due to modern services.

Results of geoarchaeological desk-based assessment (ASE 2020; figure 10.7 and technical appendix F2)

- 10.59 On the recommendation of the WSCC Archaeology Officer in his scoping response and subsequent consultation, the clients commissioned a site specific geoarchaeological investigation of all available and historic geotechnical data in

order to assess, analyse and ultimately create a lithostratigraphic model of deposits across the site. The geotechnical investigation logs and subsequent lithostratigraphic model created describes up to 4.5 m of superficial deposits across the site. A solid chalk platform exists at around 4 m AOD across the entire site. This seems to be broadly flat, albeit with some boreholes showing that it is possibly a little lower at some points. Overlying the chalk platform across the majority of the site is a deposit of sands and gravel, likely to relate to a raised beach deposit (as discussed above).

- 10.60 In the north east part of the site no sands and gravels are recorded, instead an alluvium deposit exists. It is possible that this deposit is formed of silts related to marine transgression, alternatively this deposit could be an alluvial deposit related to the River Arun. It must not be discounted that this deposit occurs over a greater proportion of the site and was unrecorded due to the coarseness of the geotechnical records. Overlying this is the fine grained Head deposit ('brickearth'), with a significant thickness of approximately 3 m across the entire site. At the top of the sequence is made ground covering the entire site with a thickness varying between 0.5 - 2 m.

Designated heritage assets beyond the 1 km study area

- 10.61 The baseline information has been extended to consider three assets or groups of assets beyond the 1km study area requested as part of WSCC's scoping response (see figure 10.8).
- 10.62 The village of Lyminster is of Saxon origin and was the location of a minster church, which survives in the late 10th century nave and chancel of the existing church of St Mary Magdalen (listed grade I). The church was altered in the late 12th century and the low tower was added in the 13th century and extended in the 15th century. The adjacent Church Farm is on the site of a nunnery recorded in the Domesday survey. Other principal buildings are Lyminster House and Lyminster Court, set overlooking the important open space of The Paddock at the centre of the village on the A284.
- 10.63 The conservation area boundary is tightly defined around the cluster of buildings on Church Lane and The Paddock. The brief statement of character in the Conservation Areas SPD (2001) refers to the informal layout of the village and notes the importance of the central open space at The Paddock, which then leads to Church Lane towards the terminating feature of the church to the west. There are open views across the river valley from the edge of the conservation area, and north towards Arundel, otherwise the village form is intricate and enclosed, with long lengths of high flint walls along the roads and extensive vegetation on property boundaries.
- 10.64 To the north of the site (c.4.25km adjacent to Ford Road) at Priory Farm, Tortington are the earthworks of the former Augustinian priory (SM 28897) and the 17th and 18th century barn, that incorporates part of the nave of the priory church (listed grade II*). Following dissolution material from the other priory buildings was reused elsewhere, for example at Tortington House to the south. The scheduled monument area includes the below ground remains of the priory layout located through aerial photo survey and small scale excavations and an area of fishponds. The present buildings on the site include the 19th century farmhouse of Priory Farm, modern farm buildings and an award-winning house

built in 1999 that incorporates the converted barn and an enclosing wall of a courtyard, along with significant new building (see figure 10.9g).

- 10.65 Arundel is set into the rise in the land to the high ground of the South Downs and lies c.4 km north – north east of the site. The Norman Castle (SM 12888), c.4.4 km distant from the site, was established on the site of a Saxon predecessor on a strategic point allowing wide views across the flat land to the south. The town grew up alongside the castle, and was a significant port on the River Arun from the medieval period until the 19th century. The later occupation of the castle by the Howard Dukes of Norfolk saw its expansion and conversion to a residence and the creation of a deer park and in the late 18th-early 19th century of the c.450 ha parkland and woods extending 3 km to the north of the house and along the River Arun. The parkland is registered at grade II* and allows views both south across the castle, park structures and towards the coast and north across the river valley towards the South Downs. The present form of the castle is the result of the extensive rebuilding in 1890-1903 as are the large areas of walled gardens closely integrated into the town centre. The other major landmark in the town is the Roman Catholic Cathedral with its high roof and pinnacles constructed in 1870 at a vantage point on London Road.

Assessment of importance

Archaeology

- 10.66 There are no nationally designated archaeology assets (scheduled monuments) anywhere within the site. The site lies within part of an Archaeological Notification Area (ANA) (DWS 8485), which encompasses c.94 ha that has been locally identified and designated due to the evidence revealing prehistoric worked flint indicating activity; Bronze Age settlement activity in the form of ditches, gullies and postholes indicating a possible roundhouse and Iron Age ditches possibly indicating field boundaries and divisions. The only recorded archaeological site within the HER is the east – west alignment of the former Portsmouth - Arundel canal (TOR 51) that traverses the site below ground and has been identified to the west and east of the site during the wider geophysical survey undertaken for the adjacent residential proposal, The Landings (Magnitude Surveys 2018).
- 10.67 Based on the geoarchaeological sequence established on site during previous investigations and considered by ASE in the appended specialist assessment (see technical Appendix F and figure 10.7), there is a low to moderate potential for archaeological deposits or other land surfaces to be present within the site boundary. The fine grained deposits with organics, described as alluvium, in the north east of the site should be considered as having high geoarchaeological potential. It is not known whether this is a marine, fluvial, or other deposit, but it has the potential to preserve organic remains. The fine grained Head or 'brickearth' layer should currently be considered to have moderate archaeological or geoarchaeological potential. The significance of any non-designated heritage assets that may exist on the site cannot be determined in advance of confirmatory fieldwork, especially as the extent of disturbance and truncation from the construction of modern buildings and earthmoving for the airfield is not known. However, from the available evidence from the site, the specialist geoarchaeological assessment and the archaeology recorded in the

immediate vicinity that led to the ANA local designation, in accordance with figure 10.4, the archaeological resource within the site is of low importance.

- 10.68 The study area contains three further ANA local designations: at Ford to the east focussed on the castle, canal, Church of St Andrew and the extent of the shrunken medieval village; to the south east on the limit of the 1 km study area at Climping comprising the extent of the deserted medieval village and two areas of its earthworks are the closest scheduled monuments to the site; and at Yapton to the west, again including a deserted medieval village area, but also includes the site of a Bronze Age hoard and possible Roman villa. Overall, the archaeological resource in the study area is rich in predominantly former medieval villages with the majority of the prehistoric evidence of settlement arising from a limited number of investigations. In accordance with figure 10.4 the archaeological resource within the study area is of low - medium importance.

Built heritage and historic landscape

- 10.69 The two former hangars on the site are both type B1 aircraft sheds, a Ministry of Aircraft Production pre-fabricated building constructed of steel stanchions with corrugated iron cladding (see figure 10.9a). They were built in the immediate post-war period of reconstruction of the airfield, between 1948 and 1951, and functioned until the military use ended in 1958. They were converted to industrial uses along with other airfield buildings from the 1960s and were in use from the 1970s until 2010 for concrete block manufacture by Tarmac. Changes made over that time included subdivision of the large interiors, various extensions and alterations to the doors. They are currently vacant and the surrounding spaces are used as part of the waste transfer station (see photographs in figure 10.9). The two B1 hangars are examples of a standard and common building type, have been extensively altered and are in the greatly changed setting of the redeveloped airfield. In accordance with figure 10.4 they are non-designated assets of low - negligible importance.
- 10.70 The closest listed building to the site is the former Place Farm (c.210 m north north east), now Atherington House, Ford Place, Southdown House and The Lodge (LB1; see figure 10.9c). The large 17th century house was the centre of the principal farm that dominated Ford parish until the early 20th century. The house was subdivided into four in 1964. The connection to the former farm courtyard (TOR 20) remains legible although it has been converted to commercial uses.
- 10.71 The heritage value of the listed building lies principally in the architectural and historic value of the fabric and high status appearance of the buildings, and the immediate setting of the walled garden (which connects to the earlier history of the parish in the probable reuse of material from the medieval buildings at Ford). The functional connection to the landholding of the farm has been lost, though the wider setting of the series of former farms along Ford Lane, now in use as industrial site, and the open fields either side of the house is of value in allowing appreciation of the agricultural history of the area. The airfield, its buildings and activity and its redevelopment for industrial uses is a long established and visually prominent aspect of the setting of the house, (see figure 10.9 and VP26, figure 12.41 in chapter 12).

- 10.72 Newhouse Farm (LB2; c.490m north east of the site) is a late 18th century house of formal appearance, separate from the two associated courtyards, one to the south of the lane and one to the west of the house. The heritage value of the listed building lies principally in the architectural and historic value of the fabric, and the setting that contributes to appreciation of the house is confined to the domestic curtilage, and the large, mature garden, with well screened boundaries. The house is aligned to the east and has little remaining connection to the former farm landholding.
- 10.73 St Andrew' Church at Ford (LB3; c.725 m east of the site) is of exceptional historic and architectural value for its fabric, as reflected in the grade I listing. The immediately surrounding land includes extensive areas of related archaeological remains of the former village, and the setting is of value in allowing appreciation of the aesthetic and scenic qualities of the church within its walled graveyard, with its distinctive Dutch-gabled south porch, and the landmark white-painted belfry (see figure 10.9d). The church is still relatively isolated from surrounding development and vehicular access was first provided as part of repair works in 1997. The setting to the east and south is expansive, consisting of the open fields and the dominant form of the embankment along the river, and is crossed by several public rights of way. The developed areas to the west include the industrial estates, the prison, the houses of Nelson Row and the Ford Road and are a strong presence in the setting. The existing buildings at the site are visible as part of this developed edge (see figure 10.9 and VP14, figure 12.29 in chapter 12).
- 10.74 St Mary's Church, Climping, c.1 km south east of the site) is of exceptional historic and architectural value for its fabric, as reflected in the grade I listing. The large church of c.1300 with its very distinctive earlier tower is enclosed within its walled graveyard and set back from Ford Road behind a grassed area (figure 10.9e). Associated assets are the earthworks of the former village (SM WS424) and the adjacent 19th century rectory (LB5). The church has no remaining physical or visual relationship to the former farmland to the west, and the setting is defined by the later development of the prison and industrial estate occupying the former airfield buildings and additional development. The adjacent rectory (LB5) and Church Farmhouse (LB6) are of architectural and historic value, illustrated by their obvious difference from the more modern development (see figure 10.9 and VP25, figure 12.40 in chapter 12). The setting of each of these heritage assets is restricted to their immediate surroundings.
- 10.75 St Mary's Church, Yapton (LB7; c.1.1km west of the site) is also listed grade I for the exceptional historic and architectural value of its fabric (see figure 10.9f). The immediate setting of the walled churchyard allows appreciation of the aesthetic and scenic values of the church and is enclosed by mature trees and the high flints and cobble walls of the adjacent properties (see viewpoint 35, figure 12.46 in chapter 12). The value of the setting is restricted to the close views on Church Lane and the church has a limited physical and visual relationship to the surrounding farmland, which appears as a peripheral part of its setting (VP24, figure 12.39 in chapter 12). The dovecote at Binsted Farm (LB8) is one of the surviving buildings of the demolished manor at Yapton Place that later developed into two modern farms. The principal value is the historic interest of the vernacular building type, and the setting is restricted to the modern farm that surrounds it.

- 10.76 In accordance with figure 10.4 the listed buildings in the study area are of high importance.
- 10.77 The study area includes the edge of the Yapton Church Lane conservation area which covers a small and tightly defined area around the building group at the church. It coincides with the medieval village location, and the former manor. The designation includes the large early 19th century houses on Church Lane, and several cottages of similar date and formal appearance. The older buildings are seen in close juxtaposition with the modern houses and bungalows on the north side of Church Road (see figure 10.9f). The significance derives from the fabric of the buildings, the boundaries (including the distinctive high flint walls) and the dispersed layout of the older buildings on the intricate pattern of roads. The nature of the village means the historic areas are now a relatively small proportion of the settlement, dispersed through the large areas of modern development. The contribution of the wider rural setting of the village is limited by the landscape of modern agriculture and strong influence of modern development.
- 10.78 In accordance with figure 10.4 the conservation area is of medium importance.

Assets beyond the 1 km study area

- 10.79 Lyminster conservation area lies c.3 km from the site, separated from it by the wide floodplains of the River Arun. The interest of the asset derives from the historic and architectural interest of the fabric and appearance of the buildings, and the character of enclosure created by the road layout and orientation of the buildings, with the church of St Mary Magdalene acting as a terminating feature at the west edge of the village. The setting beyond the village is of value for the relationship to the wide floodplain of the River Arun (see VP13, figure 12.28, chapter 12) and the views of Arundel to the north.
- 10.80 The interest of the heritage assets at Priory Farm, Tortington is principally in the fabric of the barn that preserves a part of the priory church, and the evidence of the layout and use of the priory that survives in the extensive archaeological remains. The surrounding farmland provides an appropriate rural setting for the building group around the new house created from the priory remains in 1999, and allows views south towards the grounds and long façade of Tortington House (see figure 10.9g).
- 10.81 The large group of related assets at Arundel includes several that are of exceptional historic and architectural value or archaeological importance and they collectively create a historic landscape of high aesthetic and scenic value. Arundel appears as a landmark in incidental views from across a wide area, and the deliberate composition of the late 19th century rebuilt castle and cathedral on the high points dominates the town on the slopes below. Extensive views south across the farmland, river valley and developed coast are an important aspect of the setting as experienced from the parkland and from a few points within the town, although the tight urban form prevents most external views (see VP 29, figures 12.44, chapter 12).
- 10.82 In accordance with figure 10.4 Lyminster conservation area is of medium importance, the assets at Tortington Priory are of high importance, Arundel conservation area is of medium importance and the castle and parkland are of

high importance. Table 10.2 summarises the importance of the heritage assets within the site, the 1 km study area and beyond.

Receptor	Importance of receptor
On site	
Archaeology	Low
The 1948-51 hangars (B1 aircraft sheds)	Low - negligible
Study area	
Archaeology	Low - medium
Listed buildings	High
Conservation area (Yapton Church Lane)	Medium
Assets beyond the 1km study area	
Conservation area (Lyminster)	Medium
Tortington Priory SM and LBII*	High
Arundel (numerous assets)	Medium - high

Table 10.2: Summary of importance

Future baseline

10.83 In the absence of the proposed development the site will continue in its present use as the waste transfer station.

Potential effects

10.84 The proposed development could be a source of impacts on the cultural heritage value or significance of heritage assets within the application site and the surrounding area through:

- Ground disturbance during construction
- The removal of existing site features and structures
- Effects of construction processes – e.g. visual presence, noise, vibration, potential damage to trees or structures
- The presence of the new built form, its siting, scale, extent, appearance and character
- The new road layout, access and patterns of circulation
- Changes to the visual qualities of the site
- Induced effects

10.85 Mitigation of adverse effects through the developing scheme design is integral to the iterative process of EIA; these primary mitigation measures are included in the proposals described in chapter 3 and shown in the detailed plans that accompany that chapter, and are also summarised in chapter 12. The standard construction measures proposed to avoid potential effects on heritage assets, for example through accidental damage, will be presented in the outline construction environmental management plan (Outline CEMP in technical appendix L). The assessment of effects considers the effects without additional secondary mitigation. An appropriate programme of mitigation could reduce the severity of an adverse effect or remove it completely, however, potential for mitigation may be limited where impacts are caused by fundamental issues

such as the proximity, location, scale, or prominence of a development (GPA3, Historic England 2017).

- 10.86 The table below lists the viewpoint photographs, and where they have been produced, the visualisations from chapter 12 that are used in the assessment, in addition to the photographs in figure 10.9 that illustrate the character of the assets and their setting.

Heritage assets	Representative viewpoints and visualisations from chapter 12
LB1 (Atherington House, Ford Place, Southdown House and The Lodge (grade II) and TOR20	VP26 and visualisation 27
LB2: Newhouse Farmhouse (grade II) and TOR14, 24	No view closest VP36
LB3: St Andrew's Church, Ford (grade I)	VP14 and visualisation 14
LB4: St Mary's Church, Climping (grade I) and associated medieval village earthworks (SM424)	VP25
LB5: Rectory, Climping (grade II)	VP25
LB6: Church Farmhouse, Climping (grade II) and TOR10	VP25
LB7: St Mary's Church, Yapton (grade I) and Church Lane conservation area	VP24, VP35 and visualisation 24
LB8: Manor dovecote, Binsted Farm, Yapton (II) and Church Lane conservation area	VP24, VP35 and visualisation 24
Assets beyond the 1km study area	
Lyminster conservation area	VP13 and visualisation 12
Tortington Priory (SM1021459, grade II*)	No view, closest VP28
Arundel (Arundel Castle, listed grade I, SM1012500, RPG grade II*, conservation area)	VP4, VP29 and visualisation VP29

Table 10.3: Representative viewpoint/visualisation photographs

Effects during construction

Archaeology

- 10.87 The proposed development will involve groundworks, which will inevitably have an impact on below ground archaeological remains where they are yet unknown and unrecorded. The risk of impacts from the proposed development would come from the possible damage to any below ground sites / features / localised findspots, such as any contemporary deposits revealed by the survey work to the south in respect of the largescale residential proposal. However, the site area has undoubtedly suffered from the earthwork clearance and construction of the airfield and then the construction of the extant buildings on site. The damage to archaeological horizons is unquantifiable without site specific information.
- 10.88 There are no recorded archaeological records within the site. The non-designated archaeology resource (that is currently unquantified and unrecorded within the HER) within the boundary of the application site is considered to be of low importance, primarily due to the extent and unlikely survival of extensive, complex archaeology deposits. On the basis of the geoarchaeological desk based assessment (technical appendix F2) deposits that may have geoarchaeological potential could exist within 0.5m of the current land surface. Deposits with clear potential such as the alluvium are also present within 1.5 m of the surface and could potentially be impacted upon by only minimal ground reduction. On the basis of this, any process involving excavation or ground

reduction, in particular the 2 m proposed to excavate and create the bunker facility within the ERF building on the eastern side of the proposed development, could potentially impact on heritage assets within undisturbed horizons. A large physical change is predicted to occur as a result of the proposed development. The effects, without applying any form of mitigation, will therefore be moderate. This effect is classed as significant for the EIA.

Built heritage and historic landscape

- 10.89 The construction of the development will require the demolition of all of the on site buildings and any associated below ground minor features. The two B1 hangars are non-designated assets of low - negligible importance. Their removal will be a large magnitude of change which will result in a permanent slight adverse effect, which is not significant.
- 10.90 The visible construction activity, related noise and other disturbance will be evident in parts of the study area in close proximity to the site. These will be experienced in the context of the existing activity across the industrial estates within the former airfield and the smaller sites on Ford Lane, and traffic on local roads. As set out in chapter 3, all site preparation and construction related HGV vehicles will access / depart the site via the existing access road, from / to the south onto Ford Road and then onto the A259 and the wider network. No construction HGV vehicles will be permitted to leave or access the site to / from the northern stretch of Ford Lane.
- 10.91 The closest assets are the listed buildings on Ford Lane to the north. The development under construction and higher elevation construction activity such as cranes will be visually prominent (and audible) in close proximity to the listed building at Place Farm (LB1) across the open agricultural land, and along the approach from the west on Ford Lane. The resulting intrusion will be experienced in the context of an existing, active industrial location. The alteration to the qualities and character of the setting of the house will be a medium - small magnitude of change to an asset of high importance which will result in a temporary moderate adverse effect, which is significant.
- 10.92 Newhouse Farmhouse (LB2) is experienced within the restricted and enclosed setting of the gardens. The presence of construction activity will not alter the qualities and character of the setting of the house and no effects are predicted.
- 10.93 The setting of St Andrew's Church, Ford (LB3) is extensive, and is experienced from the churchyard and adjacent footpaths around the fields, and from high points along the river embankment. The cranes in use during construction will be visible above the existing development edge. There will be an increased presence of development and activity resulting in a reduced impression of separation and tranquillity. The alteration to the qualities and character of the setting of the church will be a a medium - small magnitude of change to an asset of high importance which will result in a temporary moderate adverse effect, which is significant.
- 10.94 The group of assets at Climping (LB4-6; SM WS424) are c.1 km south east of the site. The ZTV (figure 10.8) predicts no visibility of the development from St Mary's Church or the surrounding spaces. The higher elevation construction activity such as cranes will be visible in the wider area, experienced in the

context of an existing active industrial location. The presence of construction activity will not alter the qualities and character of the setting of the church and no effects are predicted.

- 10.95 St Mary's Church on north east edge of Yapton (LB7) is c.1 km west of the site. The ZTV (figure 10.8) predicts no visibility of the development from the church or churchyard, though it is predicted to be visible from the fields to the north and east. The visibility of higher elevation construction activity such as cranes or other activity from the agricultural land that forms a peripheral part of the setting of the church will be experienced in the context of an existing, active industrial location to the east. The alteration to the qualities and character of the setting of the church will be a small magnitude of change to an asset of high importance which will result in a temporary moderate - slight adverse effect, which is significant. The dovecote (LB8) is within the restricted setting of the surrounding farm buildings, no effects are predicted on this asset's setting during construction.
- 10.96 The cranes and other construction activity will be visible to varying degree (depending on the openness of the view and the screening effect of intervening development and vegetation) across the area of agricultural land which is a peripheral part of the setting of the Yapton Church Lane conservation area. The alteration to the qualities and character of the setting of the conservation area will be a small magnitude of change to an asset of medium importance which will result in a temporary slight - moderate adverse effect, which is significant.
- 10.97 For the assets beyond 1km, the visual change as a result of the construction of the development will be imperceptible and will not alter the qualities and character of the setting of these assets. No effects are predicted. Effects of the completed development are considered below under post construction effects.

Grid connection

- 10.98 The potential effects resulting from the laying of the connecting cablework (route shown in figure 5.1) have been considered and no effects on either archaeology or built heritage assets are predicted during construction as the cables will be sited underground within existing roads.

Effects post-construction

Archaeology

- 10.99 While the site does not have a rich resource of non-designated assets, it does possess elements that attest to its former use in two distinct periods of transport and military history, but which are hard to unravel or identify because of the scale of recent change. The heritage will be celebrated and its awareness increased by the implementation in a number of physical and technological interpretations within the new ERF itself, but also in the external landscape spaces. A sense of place is best fostered by a local community if the site's past historic significance is recognised within the design (building or public spaces) and they are encouraged to engage and appreciate a new awareness of its value, but in relation to the new proposals.

10.100 The historic route of the Ford to Hunston section of the Portsmouth - Arundel canal (TOR 51) is represented in the design of the proposals by a break created in both the eastern and western screening / security landforms and in a water feature near the administration wing of the ERF. The ERF building will include facilities to accommodate visitors, that will provide educational opportunities as part of raising awareness of the environmental benefits of the facility. The following measures are considered to raise the heritage awareness and future appreciation of the site's history (further detail and images can be found in the Design and Access Statement (DAS)):

- The western landscape proposals include an appropriate break to reflect the alignment of the former canal. The western facing flint wall will incorporate the historic seal of the Portsmouth - Arundel canal along with a recessed interpretation panel about the canal
- The reception area will have educational displays – some of which will reflect the aviation history of the site between 1917 and 1959 along with audio visual presentations
- Educational resources envisaged will focus a proportion of their resource on the transport history of the canal and aviation importance of the site
- The water feature proposed on the eastern site boundary will have a basic heritage interpretation board equipped with a QR code that allows further information and visualisations about the development and the history of the site to be explored. This should be produced in conjunction with any interested local history group(s)
- Opportunities either with local schools or the local history groups to get them involved in a local community art installation and design project will be explored

10.101 These measures of enhancement and heritage interpretation within the proposals will be a large change to an asset of low importance which will result in a permanent moderate beneficial effect, which is significant.

10.102 There are no scheduled monuments within the 1 km study area. However the group of designated assets at Climping lie just outside the study area to the south east (see figure 10.1). The deserted medieval village (TOR 6; SM WS424) designated area lies 160 m east south east of St Mary's Church. It has been largely undisturbed and as such has a high degree of potential for archaeological investigation. It will contain below ground archaeological and environmental information relating to the construction, use and occupation of the site and its relationship to the surrounding landscape. The ZTV (figure 10.8) predicts no visibility of the development from St Mary's Church or the surrounding spaces that form its immediate setting. The setting is strongly influenced by St Mary's Church, the adjacent farmstead development and Ford Road. The proposed development will not alter the qualities and character of the setting of these assets and no effects are predicted.

Built heritage and historic landscape

10.103 The new facilities will be visible from Place Farm (Atherington House, Ford Place, Southdown House and The Lodge) (LB1) across the open agricultural land, and alongside the listed building in views from Ford Lane to the west (see

Visualisation View 27, figure 12.60). The proposed buildings are significantly larger than the existing buildings on site and most of the full height of the 85 m stack and any associated plume will be visible. Although the existing industrial development is a long established feature of the setting of the listed building, the ERF development will be a prominent and intrusive addition to part of the remaining rural setting of the listed building, as experienced from the house, gardens along the adjacent lane and in views from land to the north. The alteration to some qualities and character of the setting of the house will be a medium magnitude of change to an asset of high importance which will result in a permanent substantial adverse effect, which is significant.

10.104 Newhouse Farmhouse (LB2) is experienced within the restricted and enclosed setting of the gardens. The ZTV predicts no visibility of the completed development from the former farmhouse or its garden. Although the ZTV predicts visibility from Ford Lane, the enclosure created by the existing vegetation along its boundary with Station Road will ensure that the listed building and the new facility will not be viewed in conjunction with one another. Where visible, the proposals will be a prominent new addition to the wider rural setting of the farmhouse, experienced in the context of mixed development that includes several extant large industrial sites as well as the converted surviving farm buildings. The alteration to the qualities and character of the setting of the house will be a small - negligible magnitude of change to an asset of high importance which will result in a permanent slight adverse effect, which is not significant.

10.105 The new buildings and the 85 m stack (and plume when present), will be visible above the existing development edge to the west of St Andrew's Church, at Ford (LB3; see visualisation 14, figure 12.55). This is the least distinctive part of the extensive setting of the church, which includes the site of the deserted village, the agricultural land along Ford Road, the River Arun, its embankments and the associated canal dock, and the views of more distant development at Littlehampton to the east and Arundel to the north. The church retains an impression of separation from the closest development to the north and is afforded a degree of screening by vegetation, most notably along its eastern boundary. The development will be a prominent addition to the existing development edge to the west of Station Road as seen in wide views from the embankment along the river overlooking the church within its walled enclosure and as experienced more intermittently from within the churchyard and from the adjacent footpaths. The presence of Station Road and the associated built development provides a degree of separation and the road is a constant aural presence in the setting of the church, however the development will introduce a significant new industrial landmark into the setting of the church to the west which appear in direct juxtaposition in some high-level views from the river embankment. The alteration to the qualities and character of the setting of the church will be a medium change to an asset of high importance which will result in a permanent substantial adverse effect, which is significant.

10.106 The group of assets at Climping (LB4-6, SM WS424) are c.1 km away from the site. The ZTV (figure 10.8) predicts no visibility of the development from St Mary's Church, its churchyard or the surrounding grass spaces on Ford Road that form its immediate setting. The church tower is not a landmark when seen from the west and is partially obscured by the surrounding trees and adjacent development, and the setting is strongly influenced by the adjacent

development and Ford Road. The upper elements (the stack and plume predominantly) may be discernible in views north - west from sections of the approaches to this group of assets in both directions on Ford Road, experienced in the context of HMP Ford and Rudford Industrial Estate (see figure 12.40 Viewpoint 25). The presence of the completed development will not alter the qualities and character of the setting of these assets and no significant effects are predicted.

10.107 St Mary's Church on the north east edge of Yapton (LB7) is c.1 km west of the site. The ZTV (figure 10.8) predicts no visibility of the completed development from the church or churchyard (see figure 12.46 viewpoint 35), though it is predicted to be visible from the fields to the north and east (see figure 12.39 viewpoint 24). The alteration to the qualities and character of the wider setting of the church will be a small-negligible magnitude of change to an asset of high importance which will result in a permanent slight-moderate adverse effect, which is significant. The dovecote (LB8) is within the restricted setting of the surrounding farm buildings, no effects are predicted on this asset's setting.

10.108 The areas of agricultural land c.800m west of the site from which the completed development is predicted to be visible are a peripheral part of the setting of the Yapton Church Lane conservation area. The industrial development at the airfield is an established presence in views across this area. The visual addition of the development will be perceptible primarily as a result of the vertical form of the 85 m stack and any associated plume. The alteration to the qualities and character of the setting of the conservation area will be a small - negligible magnitude of change to an asset of medium importance which will result in a permanent slight adverse effect, which is not significant.

10.109 For the assets beyond 1km the potential effects will result only from significant visual intrusion of the ERF and stack (and plume). For the Lyminster conservation area c.3km to the east (visualisation view 12, figure 12.54), the effects of distance, as well as intervening buildings, mature hedgerows, the railway line and existing road network will prevent views of the development from within the conservation area. The proposals will not create significant visual intrusion into the rural setting of the assets that contribute positively to the area and no effects are predicted. Similarly, for the heritage assets at Priory Farm, Tortington c.3km to the north of the site (visualisation view 28, figure 12.61), the effects of distance, the intervening development and the screening effect of vegetation will prevent visual intrusion into the rural setting and no effects are predicted.

10.110 The ERF sited c.4.4km south of Arundel Castle will appear in views across the coastal plain to the south as a distant large scale structure will occupy a very small part of a much wider view (see viewpoint 29 figure 12.44). The alterations to the qualities and character of the setting of Arundel Castle as a result of the development will be a small-negligible magnitude of change to an asset of high importance resulting in a permanent slight adverse effect, which is not significant. There will be no significant visual intrusion into views from within the registered parkland as a consequence of the proposals, and the character and appearance of the town's conservation area will remain unchanged.

Mitigation and monitoring

Archaeology

- 10.111 The predicted moderate adverse effect on the archaeology / geo-archaeology resource will be wholly mitigated through a programme of investigation. Preservation by record is a sufficient and policy-recognised form of mitigation that can adequately mitigate the predicted moderate adverse effect.
- 10.112 The geoarchaeological desk based assessment and deposit model produced by Archaeology South-East (Technical Appendix F) has shown several metres of possible geoarchaeologically significant deposits present at depth across the site. The report recommends that a series of geoarchaeological test pits are undertaken to properly evaluate the nature of these deposits, assess the extent of preservation and to map them in detail across the site. Test pitting would allow deposits to be assessed for the potential to contain artefacts, ecofacts, and palaeoenvironmental material and inform whether further work would be required before development.
- 10.113 Chapter 3 of the ES indicates that significant works will be required for the installation of the underground service runs (drainage, power, telecommunications) while the largest area of excavation will be within the ERF building where the proposed waste bunker will be constructed up to 2 m below ground level. The demolition works will only extend to the level of the existing concrete base of the site, such that the foundations of the existing buildings will not be removed. The phasing programme and sequencing should allow for any further requirement such as any geotechnical engineering investigation. If deemed necessary, such targeted work could be the subject of a geoarchaeological method statement, or written scheme of investigation (WSI) in consultation with WSCC Archaeology, to ensure that borehole samples and the location of test pits produce soil samples and information for archaeological and geoarchaeology interest, as well as for engineering or hydrological purposes.
- 10.114 Should geoarchaeological remains be present and assuming that they are of low (local) significance and a design solution cannot be implemented to ensure their preservation in situ, further mitigation works such as a programme of archaeological excavation and recording, along with post-excavation paleoenvironmental assessment and dating, may be required to ensure the preservation by record of any threatened remains. A commitment to the necessary future investigation of the non-designated archaeological resource will fully mitigate the predicted moderate adverse effect and will result in a moderate significant beneficial effect through the knowledge gained as a consequence of the site works.

Built heritage and historic landscape

- 10.115 The effects on the heritage assets within the study area will occur as a result of the fundamental characteristics of the development - its location and siting, and of its form and scale. With a facility of this scale and the need for an 85m stack there is limited mitigation possible beyond those expressed within the choice of materials, further detail of which is outlined within the DAS.

10.116 There are no realistic opportunities for monitoring of the effects on the designated heritage assets considered in this assessment.

Residual effects

10.117 If archaeological finds are uncovered during development, the measures set out in the mitigation section will ensure that no significant adverse residual effects will result. Any agreed archaeological investigation at the site will be, by its very nature, a destructive process, but the benefit to the current body of knowledge for this site will be effectively filled through the material and artefact assemblage uncovered. This approach is in line with best practice and the code of practice as set out by the Chartered Institute of Archaeologists. It will ensure that the archaeological resource at the site will be properly safeguarded and preserved by record a proportionate response to its likely significance.

10.118 Table 10.4 summarises the significant residual effects predicted to remain after the application of the secondary mitigation measures.

Significant residual effect	Receptor importance	Impact magnitude	Nature	Duration	Degree of effect	Level of certainty
Cultural Heritage						
Construction effects						
Place Farm (LB1); changes to the contribution of the setting to the significance of the listed building through the presence of construction activity	High	Medium-small	Adverse	Temporary	Moderate	Absolute
St Andrew's Church, Ford (LB3); effects of the presence of construction activity on the wider setting of the listed building	High	Medium-small	Adverse	Temporary	Moderate	Absolute
St. Mary's Church Yapton (LB7); effects of the presence of construction activity on the wider setting of the listed building	High	Small	Adverse	Temporary	Slight-moderate	Absolute
Yapton Church Lane conservation area; changes to the contribution of the setting to the character and appearance of the conservation area through the presence of construction activity	Medium	Small	Adverse	Temporary	Slight-moderate	Absolute
Post-construction effects						
Place Farm (LB1) changes to the contribution of the setting to the significance of the listed buildings through the presence, scale and character of the development	High	Medium	Adverse	Permanent	Substantial	Absolute
St Andrew's Church (LB3) effects of the completed development on the setting of the listed building	High	Medium	Adverse	Permanent	Substantial	Absolute
St. Mary's Church Yapton (LB7); effects of the completed development on the setting of the listed building	High	Small-negligible	Adverse	Permanent	Slight-Moderate	Absolute
Table 10.4 Significant residual effects						

Cumulative effects

- 10.119 For the purposes of assessing the cumulative effects, consideration has been given to all approved developments and additional developments scoped in that have the potential to result in significant cumulative effect alongside this proposed development. Full details on all cumulative schemes are included in chapter 5 and figure 5.2.
- 10.120 There is no potential for the proposed development to result in cumulative effects on heritage assets in combination with a number of these schemes, if they proceed, because of their location and distance from the site, their scale, or the nature of the developments. The developments that are not considered further for these reasons are:
- Land north of Barnham Road, Eastergate (BN/1222/19/EIS)
 - Land north of Toddington Lane, Littlehampton (LU/47/11 & LU/121/17/RES)
 - Land east of Tye Lane, Walberton (WA/44/17/OUT)
 - Land off Arundel Road, Angmering (A/1222/19/OUT)
 - East of Lyminster Village (WSCC/049/18/LY)
 - T.J. Waste, Burndell Road, Yapton (WSCC/037/19)
 - Reconfiguration of Ford Market (F/5/20/PL)
 - Land west of Church Lane, Climping (CM/1/17/OUT)
 - Land at Bilsham Road, Yapton (Y/91/17/OUT)
 - Land east of Drove Lane, Yapton (Y/92/17/OUT)
 - Two large multispan polytunnels/greenhouses at Wicks Farm (F/30/18/PL).
- 10.121 The proposal for 1500 dwellings as part of SD8 allocation lies immediately adjacent to the site wrapping around the north, west and south west and would result in some potential cumulative impacts on heritage assets nearby (see site 1 on figure 5.2). While the nature, scale and form of development differs from the ERF proposal, and the visual effect will be restricted to the local area, this currently forms part of the remaining open agricultural setting of Place Farm (LB1). The cumulative effect of this large residential development with the ERF, is therefore predicted to result in a substantial adverse effect on the setting of Place Farm. The remaining part of the same strategic housing allocation SD8 (site 2 on figure 5.2) would wrap around the eastern part of the site and would therefore also lie within the setting of Place Farm. The cumulative effect along with the ERF is predicted to be a moderate adverse effect recognising that a future residential scheme would be subject to design details and areas of green space that could potentially act to reduce or eliminate views of the full extent of the residential proposals.

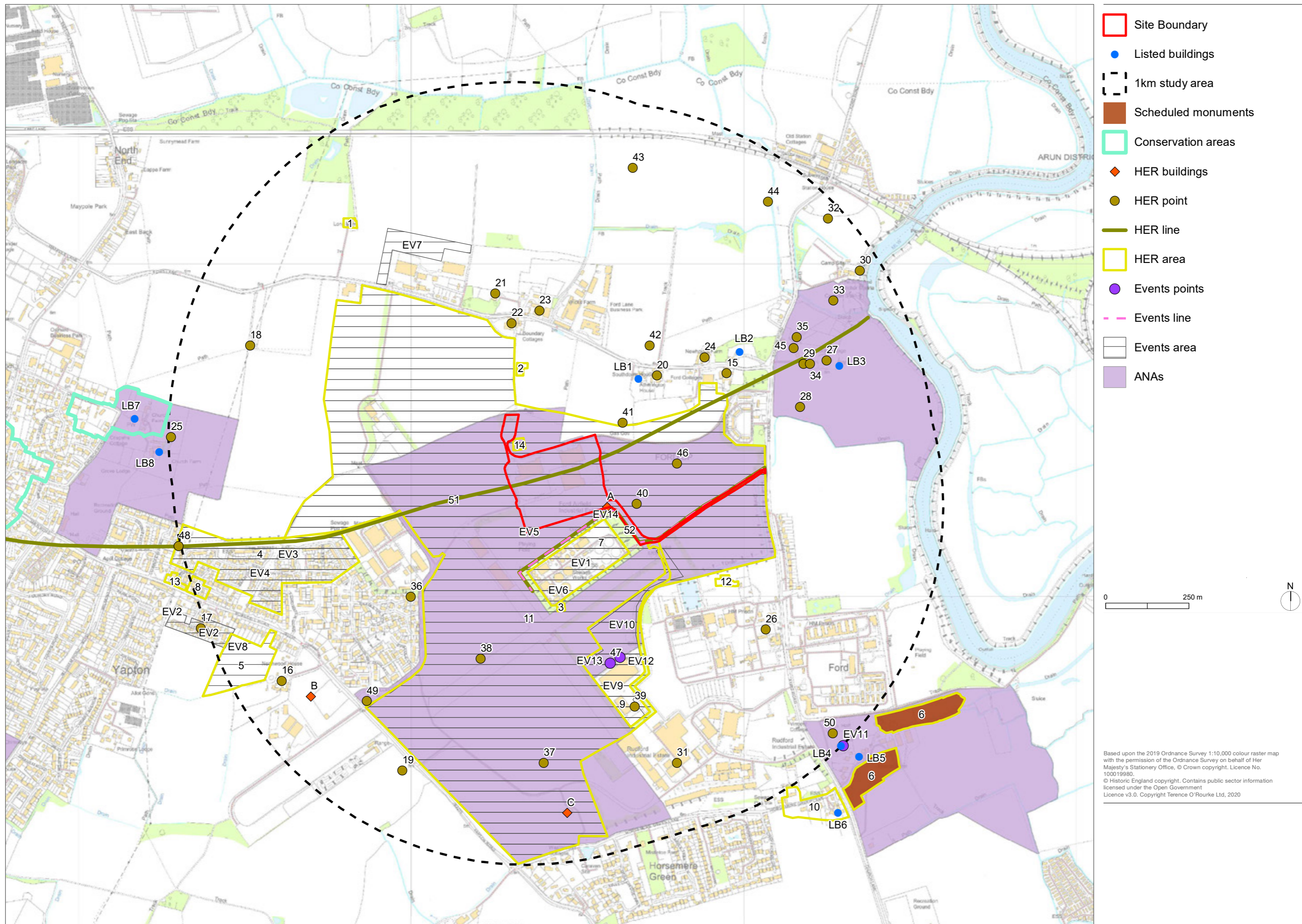
10.122 A proposal for a 10 form entry secondary school (site 7 on figure 5.2) is sited to the west of the 1500 unit scheme that wraps around the site to the north, west and south. There is no further detail of a building or site proposals other than it is a preferred site chosen by the local planning authority. It is likely however to be a large building with associated hardstanding, carparking, lighting etc. sited in the agricultural rural setting east of St Mary's Church, Yapton. The cumulative effect with the ERF is predicted to be a moderate adverse effect, recognising design measures can be implemented to reduce the degree of visual effect.

Fall back position

10.123 In 2015, Grundon Waste Management Ltd secured planning permission for an energy from waste facility and a materials recovery facility, known as the Circular Technology Park (application reference: WSCC/096/13/F). The application was subject to EIA and was accompanied by an ES (October 2013) and ES Addendum (November 2013). While the approved facilities have not been built, the permission has been implemented and the site currently operates as a WTS that handles about 20-25,000 tonnes per annum (tpa).

10.124 The 2015 proposal was for a smaller development with a new building 22m high, so similar in scale to the existing site buildings and a 50m high dual stack. The resultant limited extent of visibility of the proposals is reflected in the limited 2.5km study area.

10.125 The archaeology and cultural heritage chapter (13) of the 2013 ES concluded that there would be no significant effects on the identified heritage receptors from the proposals. Whilst there are differences in the approach and methodology, especially regarding the setting of designated heritage assets within 1km of the proposals, the primary reason for the difference in assessment results is the scale of the development. The extant permission is for an additional facility on the site which is very similar to the existing building scale and heights with the exception of the stack and therefore would assimilate easily with the existing landscape and would be unobtrusive in views resulting in little or no change to setting of nearby listed buildings.



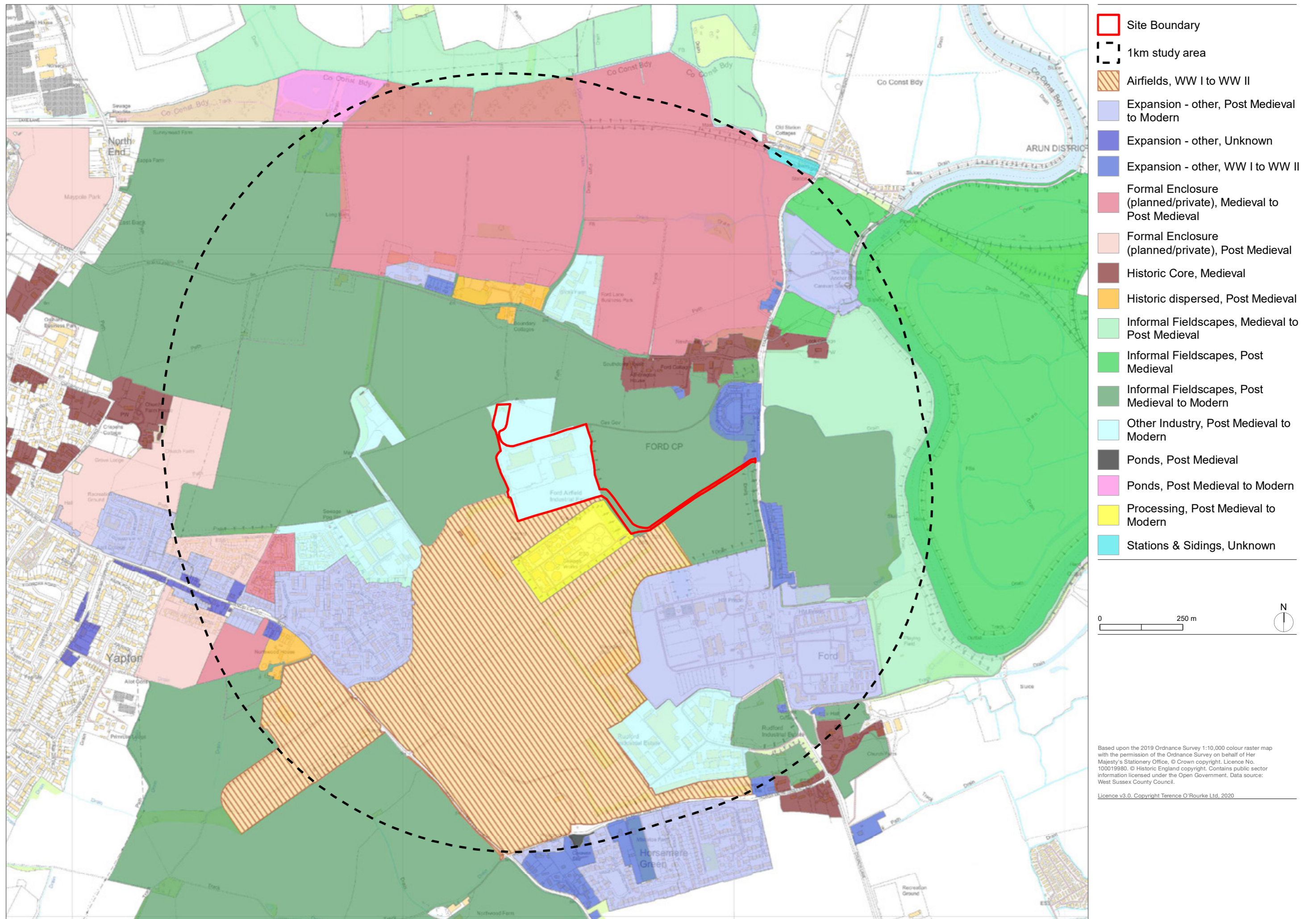
- Site Boundary
- Listed buildings
- 1km study area
- Scheduled monuments
- Conservation areas
- ◆ HER buildings
- HER point
- HER line
- HER area
- Events points
- Events line
- Events area
- ANAs

0 250 m

N

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Figure 10.1
 Designated and non-designated heritage assets in the study area



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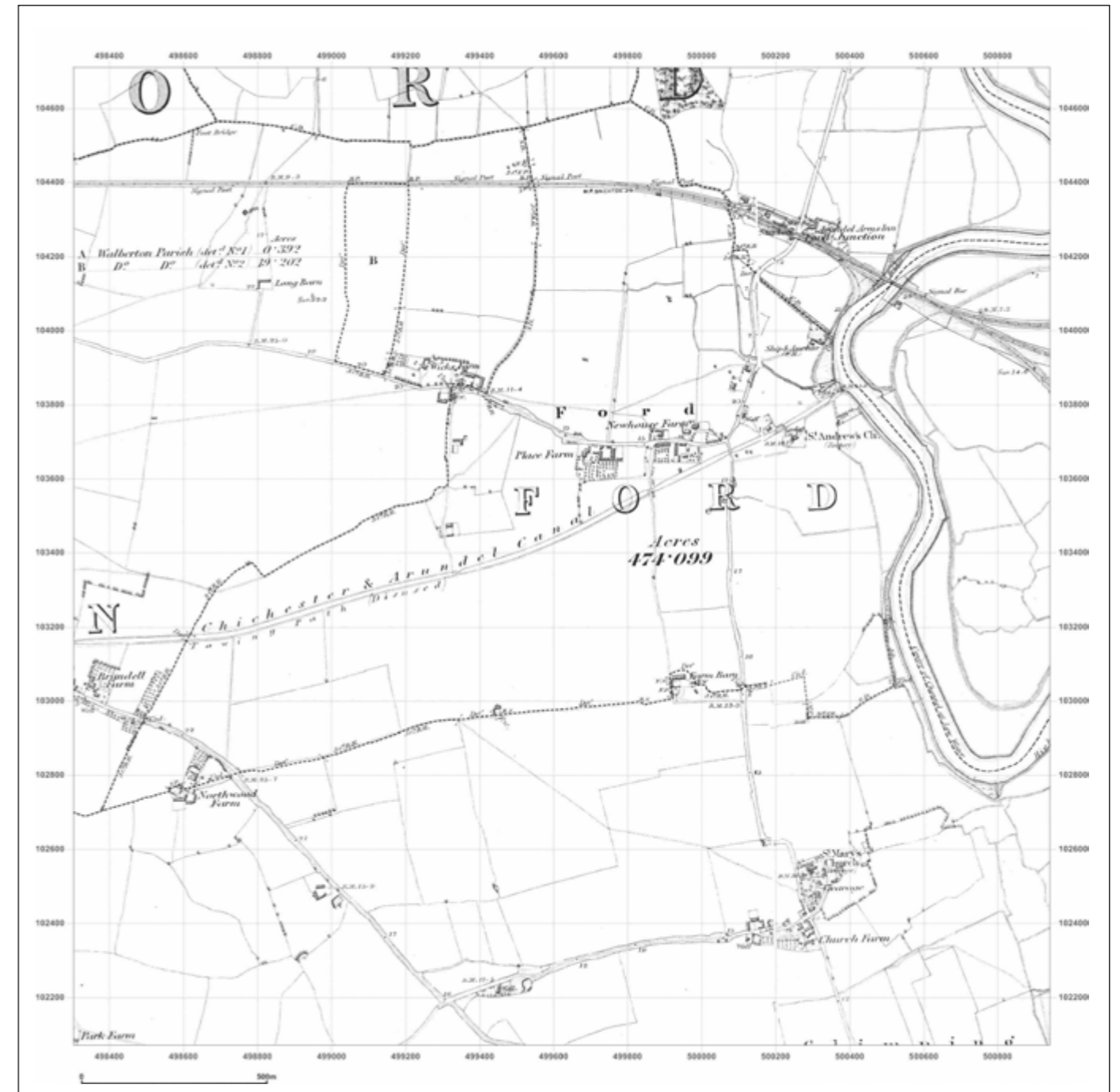
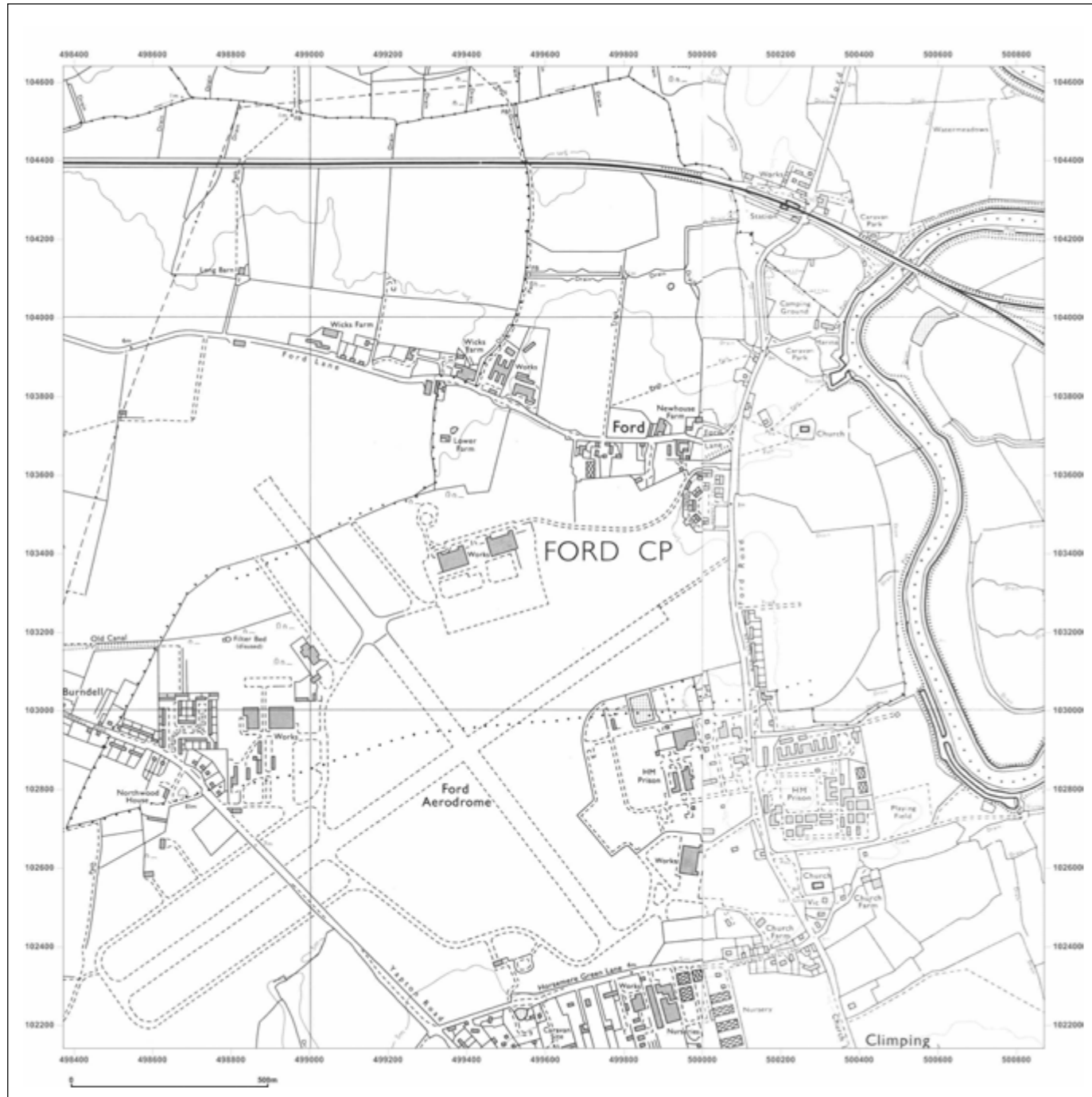
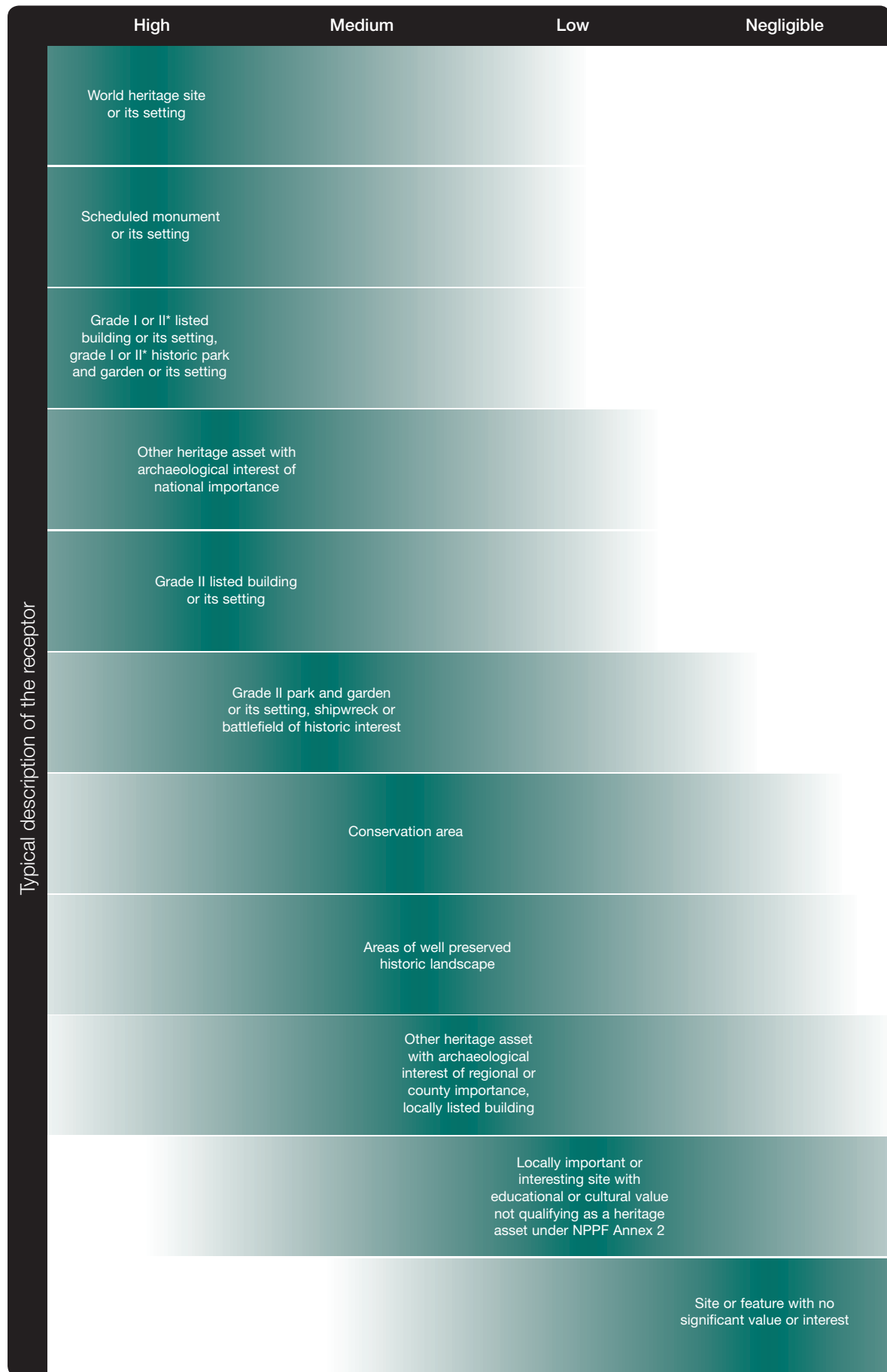


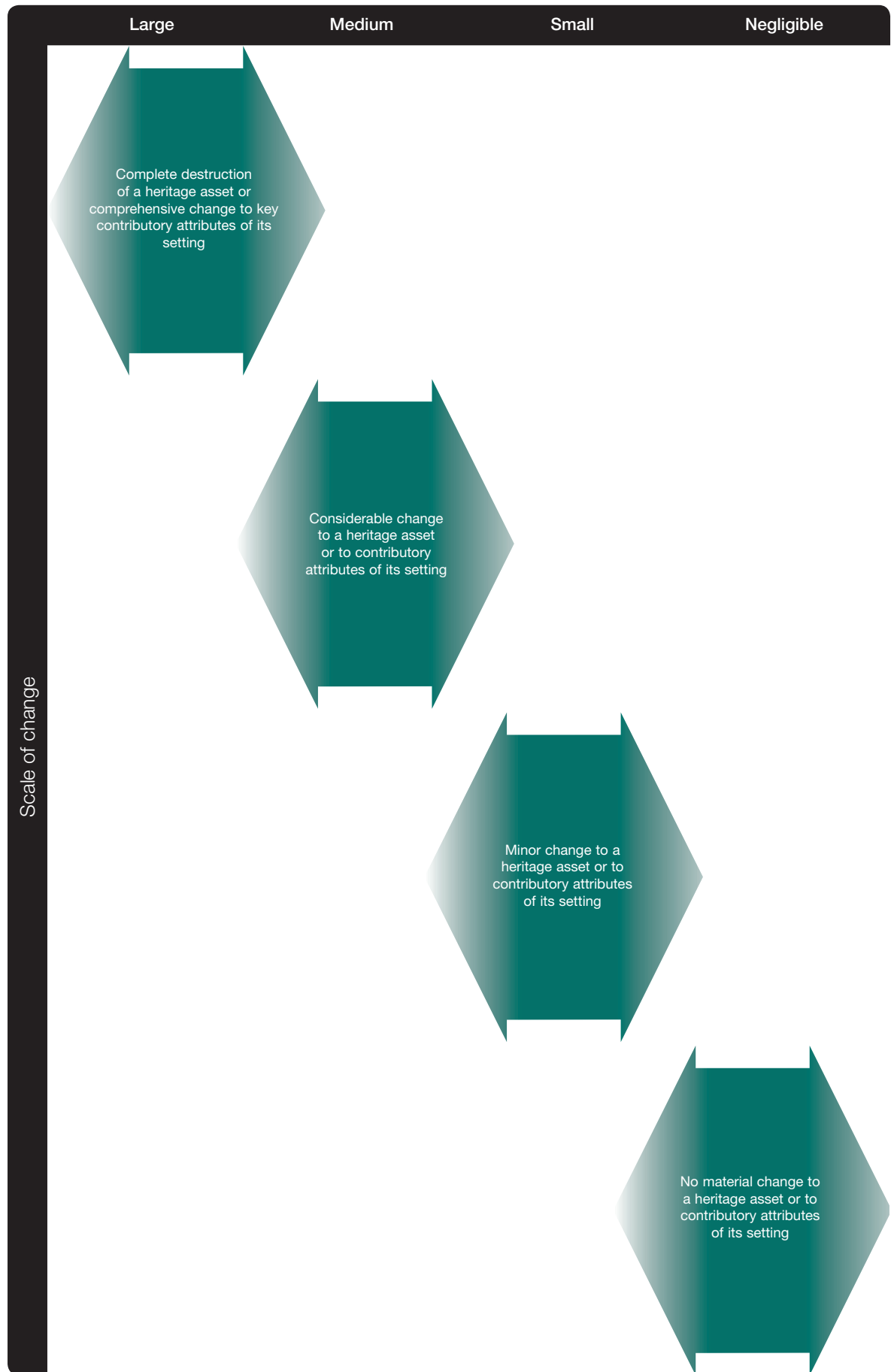
Figure 10.3a 1876 1st Edition Ordnance Survey

Figure 10.3b 1980-81 Ordnance Survey

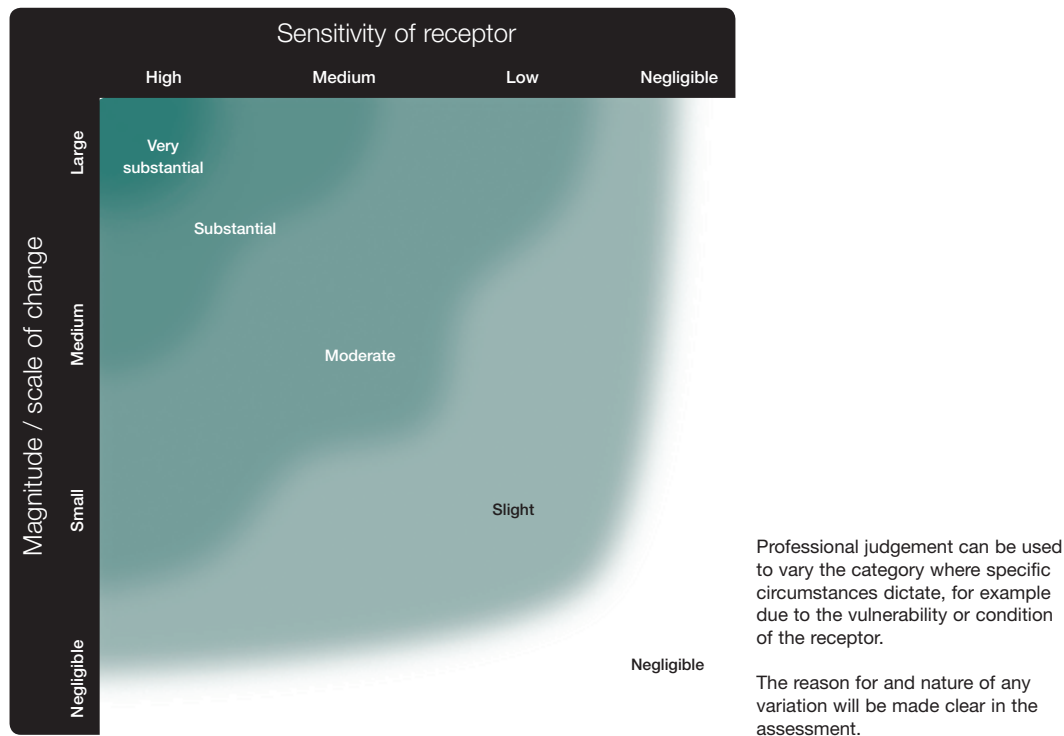
Sensitivity of receptor – Cultural heritage



Magnitude of change – Cultural heritage



Determination of significance matrix – Cultural heritage



Degree of effect

Very substantial

Adverse effects: Complete destruction of a heritage asset of high importance, or comprehensive change to its setting, so that the significance of the asset, or the ability to understand and appreciate that significance, are greatly altered or lost.

Beneficial effects: Major restoration or enhancement of a heritage asset of high importance, or comprehensive positive change to its setting, so that the significance of the asset, or the ability to understand and appreciate that significance, are revealed or greatly enhanced

Substantial

Adverse effects: Complete destruction of a heritage asset of less than high importance, or comprehensive change to its setting, or considerable change to an asset of high importance or its setting, so that the significance of the asset, or the ability to understand and appreciate that significance, are greatly altered or lost

Beneficial effects: Major restoration or enhancement of a heritage asset of less than high importance, or comprehensive positive change to its setting, so that the significance of the asset, or the ability to understand and appreciate that significance, are revealed or greatly enhanced

Moderate

Adverse effects: Considerable change to a heritage asset or its setting so that the significance of the asset, or the ability to understand and appreciate that significance, are altered

Beneficial effects: Considerable positive change to a heritage asset or its setting so that the significance of the asset, or the ability to understand and appreciate that significance, are enhanced

Slight

Adverse effects: Minor change to a heritage asset or its setting so that the significance of the asset, or the ability to understand and appreciate that significance, are altered

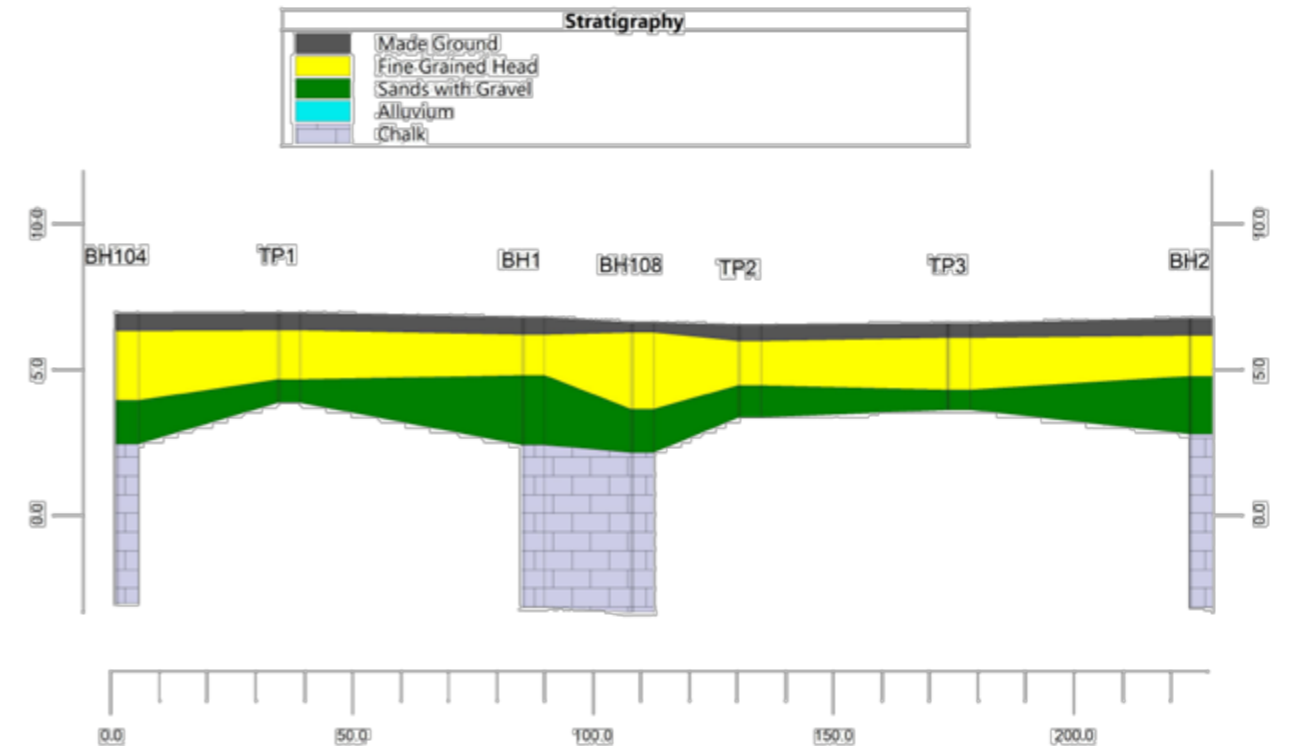
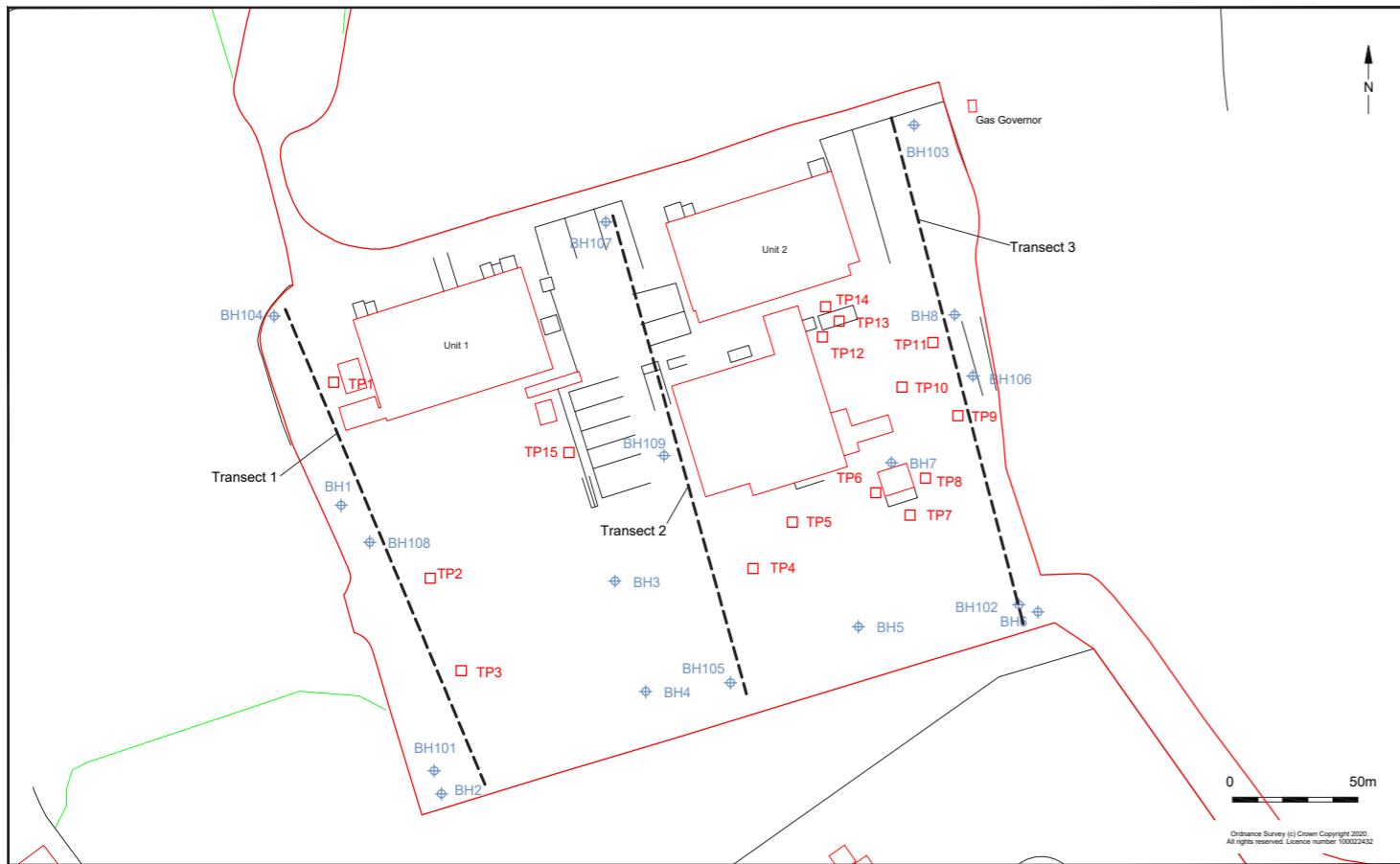
Beneficial effects: Minor positive change to a heritage asset or its setting so that the significance of the asset, or the ability to understand and appreciate that significance, are enhanced

Negligible

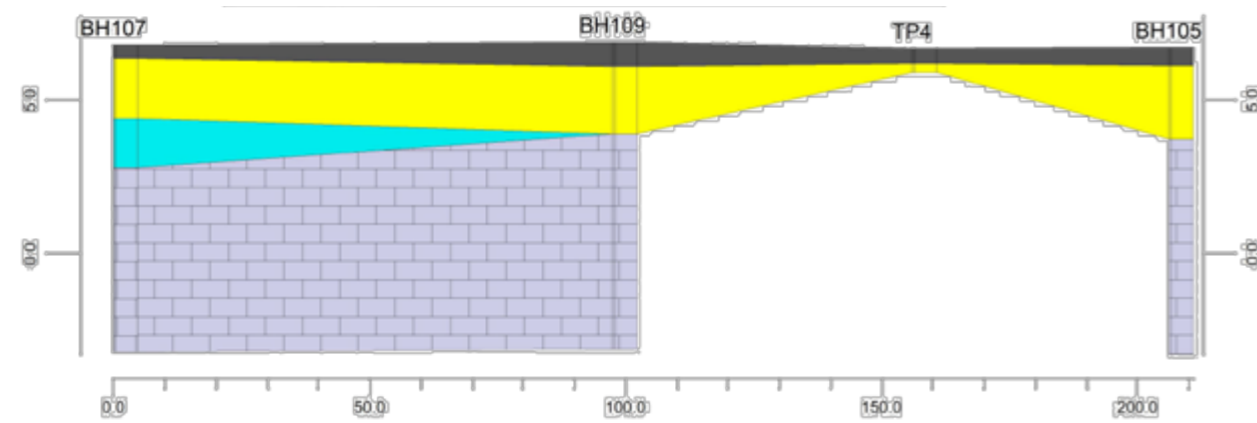
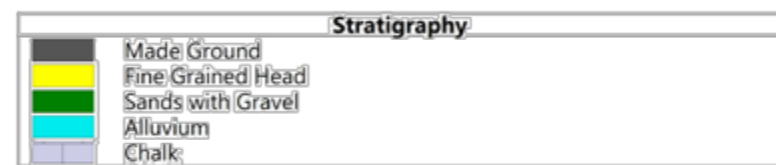
No material change to a heritage asset or its setting or to the ability to understand and appreciate its significance

Significance of effects

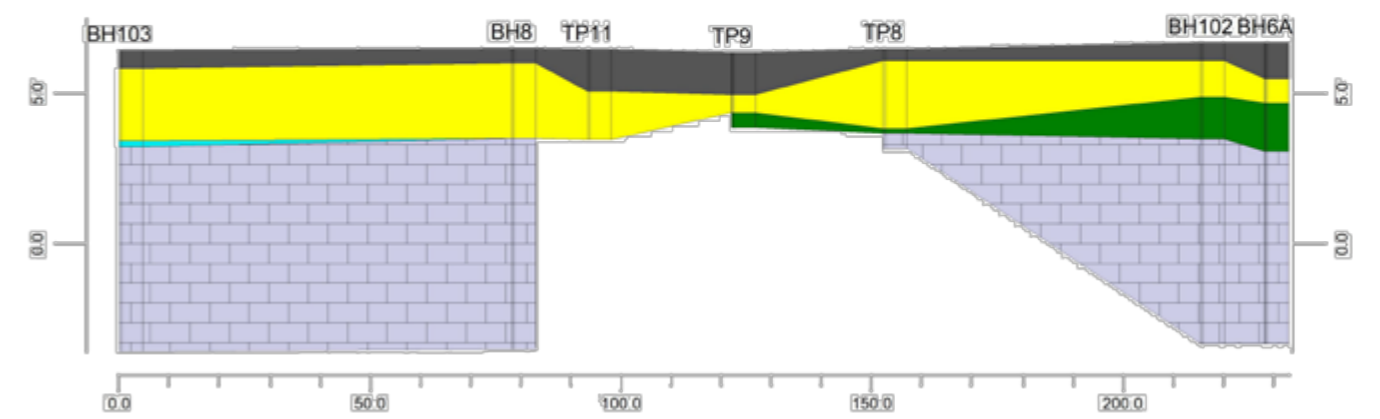
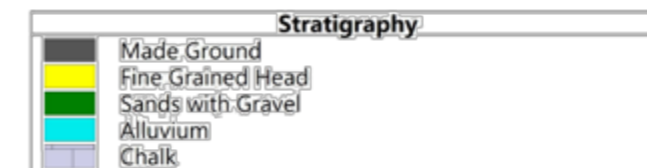
If the degree of effect is moderate or above, then the effect is considered to be significant. When adverse these effects correspond to substantial or less than substantial harm as defined in the NPPF.



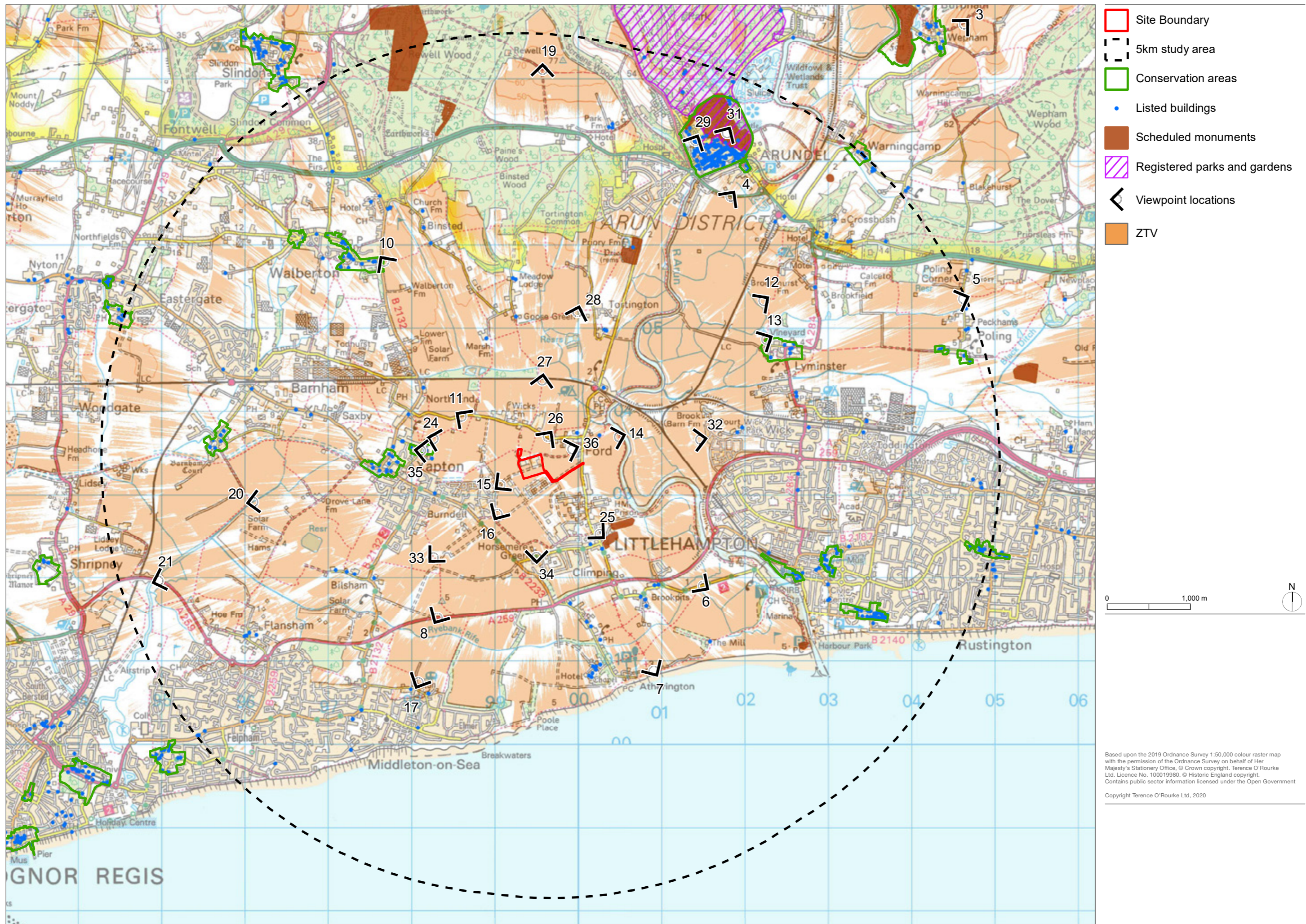
Transect 1



Transect 2



Transect 3





The B1 hangars and other buildings on the site



View from the old access road by Rodney Crescent, the garden of Ford Place Farm (Atherington House, Ford Place, Southdown House and The Lodge) on the right.



The new access road under construction, and view towards the rear of the buildings along Ford Lane



Ford Place Farm (Atherington House, Ford Place, Southdown House and The Lodge), seen from Ford Lane (top) and from the north edge of the site



St Andrew's church and its setting, seen from the edge of the churchyard



The church and its setting seen from the river embankment



View of St Mary's Church and its setting seen from the lychgate



View of Church Farmhouse and along Ford Road including glimpses of the church tower



Approach to St Mary's Church along Church Road, within the Yapton conservation area



Two views of St Mary's Church and churchyard



The farm and the recently built house incorporating the former Augustinian priory buildings, seen from the lane to the west of Priory Farm, Tortington