

Land at Barnham, Eastergate and Westergate (BEW Parcel SC1) Environmental Statement

Chapter J: Archaeology

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J1.0 Introduction

- J1.1 This Chapter forms part of an Environmental Statement ('ES') which sets out the findings of an Environmental Impact Assessment ('EIA') of the proposed residential led mixed use development of land near the villages of Barnham, Eastergate and Westergate ('BEW') in West Sussex. The proposals also include the realignment of the A29 strategic route south of Barnham Road.
- J1.2 The Proposed Development forms a first phase of a wider strategic allocation of land which is known for the purposes of this ES as 'BEW Parcel SC1'. A description of the background to the proposal, including its role as part of the strategic allocation; the relationship of this chapter to the wider ES; and a description of the site and the development is provided at Chapters A to C of this ES.
- J1.3 Chapter O considers cumulative effects including a review of the potential for effects associated with the development of the wider strategic allocation at BEW.
- J1.4 This chapter should be read in conjunction with Chapters A, B, C and O.
- J1.5 This Chapter reports the assessment of the potential for likely significant environmental effects arising from the Proposed Development in relation to Archaeology. It describes the baseline conditions, and the potential effects of the Proposed Development with respect to below ground deposits heritage resources, both known and the predicted potential within the Site and immediate environs.
- J1.6 The chapter sets out strategies to avoid, reduce or mitigate effects on heritage assets that could arise from alteration or destruction of the described heritage assets or development within their settings.
- J1.7 This chapter should be read in conjunction with Appendix I1 (An Archaeological Desk Based Assessment ('DBA') of Land at BEW including assessment of built heritage assets, which accompanies Chapter I of this ES.

About the Author

- J1.8 Development Archaeology Services (DAS) Limited, established for over 20 years, is a West Sussex based archaeological unit that provides heritage and archaeological consultancy and field work services to the development and local authority government sectors.
- J1.9 Operations include preliminary first order, consultancy relating to heritage aspects of land purchase and development through to full excavation and publication of results for both private individuals and public sector developments.

J2.0 Policy Context

Legislative Framework

J2.1 The statutory legislation most relevant to this report comprises:

- 1 The Ancient Monuments and Archaeological Areas Act, 1979: It is a criminal offence to carry out any works on or adjacent to a Scheduled Monument without Scheduled Monument Consent. The Act makes no reference to the setting of Scheduled Monuments. (Ref 1)
- 2 Planning (Listed Buildings and Conservation Areas) Act 1990: In considering whether to grant planning permission for development which affects a listed building or its setting, the decision maker shall have special regard to the desirability of preserving the building or its setting (section 66). Special attention shall be paid to the desirability of preserving or enhancing the character or appearance of a conservation area (section 72).

National Policy

National Planning Policy Framework (NPPF revised 2021)

J2.2 The National Planning Policy Framework (NPPF revised July 2021) includes as a planning principle (Paragraph 8) an environmental objective which is:

‘to protect and enhance our natural, built and historic environment...’

J2.3 Section 16 of the NPPF then goes on to describe provisions specifically relating to conserving the historic environment.

J2.4 Paragraph 194 advises local planning authorities to require an applicant to describe the significance of heritage assets affected by their proposal, including any contribution made to their setting. It states that:

‘the level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance’.

J2.5 The glossary to the NPPF describes significance in relation to heritage policy as:

‘The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset’s physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site’s Statement of Outstanding Universal Value forms part of its significance.’

J2.6 The setting of a heritage asset is defined as:

‘the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surrounding evolve. Elements of a setting may make a positive or negative contribution to the significance of the asset, may affect the ability to appreciate that significance or may be neutral’.

Local Policy

Adopted Arun Local Plan

J2.7 The development site lies within the administrative area of Arun District Council.

- J2.8 The Arun Local Plan covers the period 2011-2031 for the area of Arun District (excluding the area covered by the South Downs National Park Authority) and was adopted on the 18th of July 2018.
- J2.9 Policies on building conservation and archaeological heritage are contained within Section 16: Building & Conservation and Archaeological Heritage of the Local Plan.
- J2.10 With specific reference to:
- Policy HER SP1. (Historic Environment)
 - Policy HER DM 1 (Listed Buildings).
 - Policy HER DM2 (Locally Listed Buildings or Structures of Character).
 - Policy HER DM3 (Conservation Areas).
 - Policy HER DM4 (Areas of Character).
 - Policy HER DM5 (Remnants of the Portsmouth and Arundel Canal)
 - Policy HER DM6 (Sites of Archaeological Interest).
- J2.11 Building Conservation and Archaeological Heritage references include:-
- 16 Building Conservation & Archaeological Heritage (page 188)
 - 16.1 Built Heritage (page 188)
 - 16.2 Listed Buildings (page 190) and
 - 16.3 Locally Listed Buildings or Structures of Character (page 195)
 - 16.4 Conservation Areas (page 96)
 - 16.5 Areas of Character (page 199)
 - 16.6 Portsmouth and Arundel Canal (page 201)
 - 16.7 Archaeological heritage (page 201)
- J2.12 There is supporting guidance within the Local Plan which requires any development involving ground disturbance to have a desk based archaeological assessment and potentially field evaluation.
- J2.13 Notice is also taken of the ADC's Report and decision of Planning Policy Sub-Committee (30th June 2020) regarding compilation of new list of non-designated heritage assets).

Guidance

- J2.14 Best practice guidance notes and standards relevant to the historic environment, and consulted in the production of this report comprise:
- Chartered Institute for Archaeologists Code of Conduct and Standard Guidance documents;
 - National Planning Practice Guidance (as updated);
 - Historic England (2015) Historic Environment Advice Note 2 Making changes to Heritage assets;
 - Historic England (2017), Historic Environment Advice Note 3, 2nd Edition, The setting of Heritage Assets;
 - Historic England (2008), Conservation Principles; Policy Guidance for Sustainable Management of the Historic Environment; and
 - WSCC, ESCC, CDC 2017, (updated 2019) Sussex Archaeological Standards.

- J2.15 Conservation Principles (Historic England, 2008) sets out Historic England's approach to understanding heritage significance, and describes four groups of heritage 'values' which are referred to below:
- Evidential value: the potential of a place to yield evidence about past human activity.
 - Historical value: the ways in which past people, events and aspects of life can be connected through a place to the present-it tends to be illustrative or associative.
 - Aesthetic value: the ways in which people draw sensory and intellectual stimulation from a place.
 - Communal value; the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.
- J2.16 Historic Environment Advice Note 3, 2nd edition, The Setting of Heritage Assets (HE 2017) recommends a staged approach to assessing effects on setting comprising the following stages:
- 1 Identify which heritage assets and their settings are affected;
 - 2 Assess the degree to which these settings make a contribution to the significance of the heritage assets(s) or allow significance to be appreciated;
 - 3 Assess the effects of the Proposed Development, whether beneficial or harmful, on that significance or the ability to appreciate it;
 - 4 Explore ways to maximise enhancement and avoid or minimise harm;
 - 5 Make and document decision and monitor outcomes.

J3.0 **Assessment Methodology and Significance Criteria**

Assessment Methodology

- J3.1 The primary document to inform this assessment is an archaeological desk-based assessment (DBA), which forms Appendix I1 of this ES. The DBA provides information on the baseline conditions of the site.
- J3.2 The archaeological DBA included a review of below ground archaeological records and previous archaeological investigations within a 2.5km radius from the centre of the site (site centres at NGR TF 9456 0440). This study area allowed known and likely archaeological assets and features to be placed in, and assessed as regards, their local, regional and national context.
- J3.3 The assessment is also based on information derived from the following data sources:-
- The vertical and oblique aerial photographic collections of the National Monuments Record Centre of English Heritage at Swindon;
 - The National Heritage List for current data on designated heritage assets;
 - The National Monuments Record (Historic England);
 - The West Sussex Historic Environment Record (HER) (WSCC);
 - The Chichester Local Studies Library;
 - The West Sussex Record Office, (including local studies published reference sources and maps held in their collections);
 - British Geological Survey mapping; and
 - A walkover survey of the site area and proximal Conservation Areas and key surrounding areas, by Christopher Pine and Neville Hall of Development Archaeology Services Limited.
- J3.4 A search of the West Sussex Historic Environment Record (HER) was undertaken for listed buildings and other designated sites such as scheduled monuments, historic battlefields and historic parks and gardens, archaeological sites and findspots and previous archaeological investigations within a 2.5km radius that was centred on National Grid Reference TF 9456 0440.
- J3.5 Copies of selected published Ordnance Survey maps of the area of the assessment site were obtained from the West Sussex Record Office and comprise Figures 3-7 within the DBA (Appendix I1 to this ES). The results of the historical map regression are similarly presented within the DBA. Published reference sources were also consulted at the Record Office and the Chichester Local Studies Library.
- J3.6 A number of digital photographs of the assessment site were taken during the site walkover survey, which are reproduced in Appendix 2 of the DBA (Appendix I1 to this ES). The results of the site walkover survey are presented in Section 6.3 of the DBA (Appendix I1 to this ES). In addition, a more detailed and thorough description of built heritage assets is presented in Appendices 4,5 & 6 of the DBA (Appendix I1 to this ES).
- J3.7 A search was also commissioned of the vertical and oblique aerial photographic collections of the National Monuments Record Centre of English Heritage at Swindon. This search was undertaken for a 2.0km radius which was centred on National Grid Reference SU 9456 0440. The results are submitted in full at Appendix 3 of the the DBA (Appendix I1 to this ES).

Significance Criteria

Assessing Heritage Significance

- J3.8 The significance of a heritage asset is described in terms of the value of the heritage asset because of its heritage interest (architectural, archaeological, artistic or historic) and is also described in relation to the asset's heritage values (evidential, historical, communal, and aesthetic).
- J3.9 For designated assets (Listed Buildings, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, World Heritage Sites and Conservation Areas). The importance is high or very high as these assets meet the national criteria for designation under the relevant legislation. Listed Buildings and Registered Parks and Gardens are graded (I II and II*) according to relative significance.
- J3.10 The relative significance of each non-designated heritage asset within the historic environment baseline has also been determined to provide a framework for comparison. These categories do not reflect a definitive level of significance or value of a heritage asset, but a provisional one based on the asset's heritage values to provide an analytical tool that can inform later stages of assessment and the development of appropriate mitigation, where needed.

Table J3.1 Criteria for determining heritage significance

Significance	Description
Very High	Internationally and nationally important resources: World Heritage Sites, Grade I and Grade II* listed buildings and Registered Parks and Gardens. Some Scheduled Monuments, especially those associated with a World Heritage Site.
High	Nationally important resources: Grade II listed buildings, Conservation Areas, Scheduled Monuments, Grade II Registered Parks and Gardens, Registered Battlefields
Moderate	Regionally important resources: Non designated heritage assets and landscape features with high or moderate evidential, historical, aesthetic and / or communal values.
Low	Locally important resources: Non designated heritage assets and landscape features with low evidential, historical, aesthetic and / or communal value
Negligible	Assets with low to very low or no evidential, historical, aesthetic and / or communal values, or where remains are known to have been significantly altered or destroyed.
Unknown	Assets and structures of uncertain character, extent and / or date where importance cannot be readily predicted.

- J3.11 The effects of the Proposed Development have been determined by comparing the significance of the known heritage assets (or potential for heritage assets with archaeological interest) against the magnitude of likely effect. The significance of a heritage asset can be harmed or lost by alteration or destruction of the asset or development within its setting.
- J3.12 In policy terms (NPPF paragraph 195 and 196), harm to the significance of a heritage asset can be substantial or less than substantial. Planning practice guidance identifies harm is a high test. This is normally associated with total loss of a heritage asset's significance. Major adverse effects on heritage assets of moderate, high or very high heritage significance are equivalent to substantial harm, in terms of significant effects.
- J3.13 Less than substantial harm is a broader bandwidth and the degree of less than substantial harm is a professional judgement encompassing minor changes through to more significant effects.
- J3.14 Moderate and low effects are equivalent to less than substantial harm. Effects that are negligible are less than substantial and are also not significant.

J3.15 The conclusions in this report identify the overall significant effects of the Proposed Development on heritage assets in accordance with the following scale:

- **None:** no discernible change to any heritage asset, of any significance
- **Minor/Low:** minor/low adverse changes to the significance of a heritage asset of moderate or high heritage significance, or significant/moderate adverse changes or total loss of significance to a heritage asset of low or negligible heritage significance
- **Moderate:** moderate adverse changes to the significance of a heritage asset of low or moderate heritage significance.

Magnitude of Change

J3.16 Assessing the effect of the Proposed Development in relation to the historic environment baseline is considered by comparing the relative significance of the heritage asset against predicted magnitude of change. This includes an assessment of the effects on the setting of heritage assets to determine whether, and to what degree, the heritage significance of an asset may be harmed by development within its setting.

J3.17 The description of magnitude of change provided in the following table, relates to harm to or loss of significance of the asset (and not, where development only affects its setting, the degree of change within that setting).

Table J3.2 Magnitude of change

Magnitude	Definition
High	Total loss or substantial harm to key elements, or features or characteristics of the baseline (predevelopment) conditions such that post development character or composition or attributes of baseline will be fundamentally lost or changed.
Moderate	Partial loss or harm to one or more important elements or features or characteristics of the baseline (pre-development) conditions such that post development character or composition or attributes of base line will be partially changed
Low	Minor loss. Change arising from the loss or alteration will be discernible but underlying character or composition or attributes of the baseline condition will be similar to pre-development circumstances or patterns.
Negligible/ None	No loss or harm to heritage significance. Change barely distinguishable.

Significance of Effect

J3.18 Determining the overall significance of effect is then a professional judgement that compares the magnitude of effect against the relative sensitivity of the heritage asset affected.

Table J3.3 Significance of effect

Magnitude	Importance of Receptor				
	Very High	High	Moderate	Low	Negligible
High	Major	Major or Moderate	Moderate	Minor/Low	Negligible
Moderate	Major or Moderate	Moderate	Minor/Low	Minor/Low or Negligible	Negligible or None
Low	Moderate or Minor/Low	Minor/Low	Minor/Low or Negligible	Negligible	None
Negligible/ none	None	None	None	None	None

Consultation

- J3.19 DAS Ltd consulted at pre-data search stages and after compilation of reviewed data sets (supplied as a draft DBA, with ADC's appointed Archaeological Consultant Archaeology Officer (James Kenny; Chichester District Council's Archaeology Officer and advisor to ADC).
- J3.20 Consultation confirmed that a DBA should accompany any forthcoming application. The DBA should follow as a minimum WSCC, ESCC, CDC 2017, (updated 2019) Sussex Archaeological Standards.

Assumptions and Limitations

- J3.21 The assessment of the scale of effects is based on extensive professional experience gained on developments across West and East Sussex and the South East of England.
- J3.22 The information presented within the accompanying and supporting DBA (Appendix I1 to this ES) was gathered throughout 2020 and 2021 and comprises a range of both desk based and site walkover assessments.
- J3.23 The information presented provides an indication of below ground archaeological assets known to be or likely to be present. Confirmation of presence /absence and assessment of significance of any such archaeological assets requires site specific archaeological field investigation
- J3.24 Monument data from the HER and NMR consists of secondary information derived from varied sources. This data, as well as that derived from other secondary sources, is generally accurate. There are however several limitations to the data set, generic to any historic environment assessment. For example, where the known archaeological data relates to chance finds, or cropmark evidence, the full extent, date and nature of the asset is often uncertain. Also, a number of records, especially older records such as antiquarian finds, excavations or observations often fail to accurately locate assets.
- J3.25 Due to the above limitations, it is possible that previously unrecorded heritage assets with archaeological interest could survive within the proposed area of development. Additionally, due to the buried and invisible nature of archaeological assets, there is often an element of uncertainty regarding the survival, condition, nature and extent of any such assets, which a walk over survey, cannot always clarify.

J4.0 Baseline Conditions

Existing Conditions

- J4.1 The current baseline conditions are those which describe the state of the environment and specifically the archaeological resource, prior to the onset of any Proposed Development. In this case, these conditions have been assessed through searches and assessment of conditions presented within the DBA (Appendix I1 to this ES). A summary is presented below. The archaeological results are summarised (where relevant) by archaeological periods, as follows.

Table J5.1 Date range for each period

Prehistoric	Start	End
Palaeolithic	900,000-	12,000BC
Mesolithic	12,000	4,000 BC
Neolithic	4,000-	1,800 BC
Bronze Age	1,800-	600 BC
Iron Age	600-	AD 43
Historic		
Roman	AD 43	410
Anglo-Saxon / Early Medieval	AD 410	1066
Medieval	AD 1066	1485
Post Medieval	AD 1486	1799
Modern	AD 1800	Present

- J4.2 The site comprises a large area of land (total area 91.8h) which mostly consists of open lands and enclosed fields used predominantly for arable agriculture.
- J4.3 The site incorporates portions of three modern civil parishes, those of Aldingbourne, Barnham and Eastergate. To the west are the modern settlements of Woodgate and Westergate and towards the north, a third modern settlement of Eastergate, which traverses the northern portion of the assessment site.
- J4.4 The site is situated on the low-lying Lower Sussex Coastal Plain, the centre of which is located at National Grid Reference TF 9456 0440, and at heights of approximately +5mAOD to the south, rising to +9-12m AOD (Above Ordnance Datum) to the north.
- J4.5 The site is situated on well drained fine silty and fine silty over clayey soils of the Charity 1 Series to the north within the higher levels of the Lower Sussex Coastal Plain. These soils overlie flinty silty drift deposits. To the south and on the lower levels of the Plain, the central and southerly portions of the assessment site are situated on deep stoneless silty soils of the Park Gate Series. These soils in turn overlie aeolian silty drift deposits of brickearth (Soil Survey, 1983). These deposits in turn overlie Chalk of the Cretaceous (BGS, 1984).
- J4.6 The topography within the site whilst appearing predominantly flat exhibits subtle height changes with potentially significant natural drainage channels (rifes) predominantly orientated north south being present within and proximal to the site. Local topographic / drainage variations are likely to influence distribution of archaeological resources present within the site area and its immediate environs.

Conservation Areas

- J4.7 The Site lies in proximity to three Conservation Areas, including include: The Square Eastergate; Church Lane Eastergate; and Church Lane Barnham. A small part of the Linear Park just to the south of Church Lane sits within the Eastergate Church Lane Conservation Area however no built development is proposed within these areas.

Recorded archaeology

- J4.8 The DBA records an archaeological evaluation on Church Lane, Eastergate in 2000 and just outside the area of the assessment site located fragments of worked and burnt flint of prehistoric date. This comprises very limited and fragmentary evidence of archaeological activity and finds and so it is considered that the potential for general prehistoric archaeological activity and finds to be made on the site is also **low**.
- J4.9 The DBA has recorded widely scattered, very limited and fragmented archaeological activity and finds from the Bronze Age period. Within the area of the assessment site, this comprised a hoard consisting of eight celts and a palstave axe which were found during the excavations for a railway cutting on the Bognor railway branch line in the 19th century and a Bronze Age urn found off Eastergate Lane in 1954 to the immediate north of the assessment site. It is considered that the potential for Bronze Age archaeological activity and finds to be made on the site is **low to possibly moderate**.
- J4.10 No archaeological activity or finds from the Iron Age period have been made within the area of the assessment site. To the immediate north-east, an archaeological evaluation in 2010 at Barnham Manor identified a boundary ditch which yielded two residual sherds of Iron Age pottery. Given this very limited evidence, the potential for Iron Age archaeological activity and finds to be made on the site is **low to possibly moderate**.
- J4.11 There is some evidence for archaeological activity and finds from the Roman period which have been made within the area of the assessment site. This consists of the site of a possible villa, which has been plotted from prior aerial photographic analysis to the north-west of New Barn. A large assemblage of pottery, fragments of roof tile, oyster shell and animal bone have also been found at this location, supporting this interpretation. To the north-east of the assessment site, an archaeological evaluation in 2010 at Barnham Manor identified a boundary ditch of Roman date. An archaeological evaluation on Church Lane, Eastergate in 2000 and just outside the area of the assessment site found a fragment of Roman roof tile. However, this still represents scattered, fragmented and limited evidence of such activity and finds, so this potential is also considered to be **moderate**.
- J4.12 No evidence for archaeological activity and finds from the Anglo-Saxon period have been made within the area of the assessment site; though settlements such as Eastergate and Barnham appear to have had Anglo-Saxon origins from place name evidence. Despite this, it is considered that the potential for archaeological activity and finds from the Anglo-Saxon period to be made on the site is **low**.
- J4.13 There is similarly very limited, widely scattered and fragmentary evidence for medieval archaeological activity and finds here also. Within the area of the assessment site, this has comprised sherds of medieval pottery that were found on the surface of a ploughed field in 1952 to the north-west of New Barn and the site of a chapel at Lidsey to the south-west. The site of a second medieval chapel is situated to the immediate south of the assessment site at Sack Lane, Lidsey. An archaeological evaluation on Church Lane, Eastergate in 2000 and just outside the area of the assessment site located medieval boundary ditches which produced sherds of 11th-

13th century pottery. It is thus similarly considered that the potential for archaeological activity and finds from the medieval period to be made on the site is **low**.

J4.14 There is slightly more substantial (but still limited) evidence for archaeological activity and finds from the post-medieval and early modern periods that have been made within the area of the assessment site. The most obvious of this is the line of the former Chichester-Arundel Canal, which survives on the ground as fragmentary earthworks. The site of an associated canal bridge shown on the 1880 map has also been identified here. The impact of potential development on the line, curtilage and setting of this site should be a material consideration in respect of any Proposed Development on the site.

J4.15 To the east of the present Headhone Farm, and within the area of the assessment site is the site of a former 19th century farmstead which is shown on the map of 1880 also known as Headhone Farm, a precursor of the present farm. To the north-east and also within the area of the assessment site is the site of a 20th century brickfield at West Barnham. Within the northern portion of the assessment site, is the site of a second 19th century farmstead at Follyfoot Farm. At Woodgate, and to the immediate west of the assessment site is the site of a former brickworks. The aerial photographic analysis undertaken for this study identified evidence for the earthwork cultivation remains of ridge and furrow, also of probable post-medieval date. These were similarly in isolated locations and were highly fragmented and scattered in nature. This is a result of the highly intensive nature of the farming activity which has taken place within the area of the assessment site for the past century. Given all of these aforementioned factors, the potential for post-medieval and early modern archaeological activity and finds to be made on this assessment site is also considered to be **low**.

Table J5.2 Summary of Potential Heritage resources and their importance

Baseline Evidence & source	Description of resource and Potential	Comment	Importance / Sensitivity (likely importance of potential finds)
DBA/ regional site comparison	Pre-historic. Likely residual Palaeolithic evidence. Low potential	Lack of direct evidence though comparison with regional sites suggests a low potential for presence.	Probably low / Local
DBA / regional site comparison	Bronze Age. Local evidence for BA activity. Low to moderate potential	Lack of direct site area evidence though comparison with regional sites suggests potential for presence	Low to possibly moderate / Local to possibly regional
DBA / regional site comparison	Iron Age. Only local, external to the site area. Low potential possibly moderate	Lack of direct site area evidence though comparison with regional sites suggests potential for presence in the form of activity and possible occupation indicators.	Low to possibly moderate / Local to possibly regional
DBA / regional site comparison	Roman. Site area specific evidence suggested. Moderate potential	Direct site evidence in the form of tile concentrations in the area of New Barn	Moderate / Local to possibly regional
DBA / regional site comparison	Anglo Saxon. No direct site evidence. Low potential	Based only on local place name origins	Low / Local

Baseline Evidence & source	Description of resource and Potential	Comment	Importance / Sensitivity (likely importance of potential finds)
DBA / regional site comparison	Medieval. New Barn area some probably residual sherds recorded. Low potential	2 Medieval Chapels present within the study area, though external to application area. Evidence of medieval activity anticipated.	Low to moderate / local
DBA / regional site comparison	Post Medieval. Land division. Low to moderate potential	Limited to evidence for land division and residual / stray artefacts	Low / Local
DBA / walkover	Modern archaeology Moderate potential	Limited to land division / Line of Portsmouth Arundel Canal	Low / Local

Site Potential

- J4.16 Previous archaeological investigations undertaken by DAS Limited and others on the Lower Sussex Coastal Plain have yielded unexpected discoveries of archaeological activity from the later prehistoric periods (from the Bronze Age and Iron Age periods) through to the Romano-British period. There is no direct evidence to suggest this, it is possible that similar such unexpected archaeological activity and finds may be encountered on this assessment site, despite the generally low to moderate archaeological potential identified for these periods by this study.
- J4.17 If required, potential significant archaeological impacts will be offset through appropriate mitigation measures as agreed with Arun District Council. Mitigation measures will follow best practice and comprise of measures to record the archaeological resources prior to any significant impact.

Future Baseline

- J4.18 The future baseline is anticipated to be the same as that detailed under existing conditions.

J5.0 Potential Effects

During Construction

- J5.1 This chapter assesses likely significant effects on recognised archaeological assets that may occur during the construction phases associated with the Proposed Development. The assessment of potential effects and significance of effects on possible assets are characterised in the absence of mitigation measures.
- J5.2 Construction activities are considered likely to have a High Direct impact upon archaeological remains if present within the footprint of excavations associated with the construction of the Proposed Development. This impact potential includes build foundation footprints, access routes, and service infrastructure and landscaping.
- J5.3 No detailed information regarding precise site preparation, foundation, landscaping and service installations methodologies are confirmed but reasonable assumptions have been made based on experience of similar developments. The assessment regarding impacts on potential archaeological assets is made against assumed construction impacts recognised and associated with construction projects of similar scale and extent.

Table J5.1 Summary of assessment of likely Construction Phase impacts

Construction Activity	Magnitude of Impact
Site set up: Contractor compound set up, associated ground levelling / temporary landscaping, temp. service installation	Low Direct (though low potential for high impact)
Site strip footprint preparation	High / Direct
Construction / all phases / elements; Foundation / pile / service installation including road construction.	High / Direct
Landscaping (to include levelling ecological element installations (ponds etc)	Medium to high / Direct
Impact on buried remains from vehicle movements landscaping bunding etc.	Low to medium / Direct
Views of construction (including any perimeter activity) from proximal assets (noise / dust / vibration).	Low / indirect

- J5.4 Within the site, the magnitude of impact of ground works associated with the Proposed Development is assessed as generally high on receptors assessed as having generally moderate to low importance. As noted in the DBA the potential exists (to be tested by site specific survey) that regionally significant remains are present at the Proposed Development area, though this potential is assessed 'at best' as low to possibly moderate.
- J5.5 Probable effects to below ground heritage assets within build impact areas should be considered as adverse. Effects should be considered as permanent and irreversible.
- J5.6 Effects as a result of construction activities on both known and unknown designated and non-designated assets outside the Proposed Development site will be negligible (insignificant).
- J5.7 An evaluation of the predicted impacts during construction and subsequent nature, scale and significance of effects is shown at Table J5.2.

Table J5.2 Evaluation of Predicted Impacts During Construction Phases

Heritage Resource Description	Importance / sensitivity	Magnitude of Impact	Scale of Effect
Pre-historic / Palaeolithic / Mesolithic / Neolithic: Low potential	Low / Local	High / Direct	Minor Adverse
Bronze Age Low to possibly moderate potential	Low / Local /possible regional	High / Direct	Minor Adverse
Iron Age Evidence only external to site area though presence of Roman may indicate earlier phase activity / occupation	Low / Local	High / Direct	Minor Adverse possibly Moderate Adverse
Roman. Possible occupation / activity / possible villa / farmstead.	Moderate / Local / possible regional	High / Direct	Minor to possibly Moderate Adverse
Anglo Saxon	Low / Local	High/ Direct	Minor Adverse
Medieval Moderate potential for land division	Low to possibly moderate	High Direct	Minor to possibly Moderate Adverse
Post Medieval Limited to land division / agricultural activity Though to include Portsmouth Arundel canal route	Low / Local	High Direct	Minor Adverse Possibly Moderate Adverse
Modern. Limited to land division and agricultural activity.	Low / Local	High Direct	Minor Adverse

J5.8 The importance of known or potential archaeological assets within the Development Site is assessed as varying between Low (Local) to Moderate (Regional). Magnitude of impact on any category of remains present within the site is assessed as High and Direct Outside the Development Site impact on any archaeological assets is assessed as Negligible.

J5.9 Application of the authors' professional judgement allows the conclusion to be reached that construction of the Proposed Development is likely to have a permanent minor adverse effect on archaeological remains. The effect on remains would not be considered significant.

During Operation

J5.10 The assessment of effects during operation has concluded the following:-

- **Direct Impacts.** No additional impacts are anticipated during the operational stage (is considered that disturbance / potential disturbance will occur during the construction phase). No mitigation is required in respect of archaeology during operation phase.
- **Indirect impacts.** It is considered that any archaeological assets external to the Development Site once the Proposed Development is completed will Be Nil / **Negligible.**

J6.0 Mitigation and Monitoring

During Construction

Pre-Construction

- J6.1 It is anticipated that a programme of archaeological investigation and recording will be required in advance of any construction works at the Development Site.
- J6.2 Archaeological mitigation will be detailed in a Written Scheme of Investigation (WSI) that will be submitted, anticipated to be secured via a condition on the permission. This is assumed to be embedded mitigation. It is anticipated the archaeological investigation works will be carried out prior to construction taking place in advance of each construction phase. The WSI for all phases of investigation will be developed in close consultation with ADC's appointed archaeology officer/ advisor.
- J6.3 Due to the phased nature of construction, the archaeological investigation will be phased. Subsequent investigation methodologies may alter to reflect results of previous investigation phases.
- J6.4 Reporting protocols will be followed as detailed in relevant ADC adopted archaeological guidelines (Sussex Archaeological Standards for Archaeological Investigations (Revised 2019)).

During Construction

- J6.5 Depending on the investigation and final design, it is possible that programmes of archaeological monitoring may be required during construction.
- J6.6 Archaeological monitoring, to ensure all required standards (WSCC and IFA) are adhered to during any phase of archaeological investigation will be undertaken by the appointed archaeological contractor in close liaison with the main build contractor and with ADC's appointed archaeological officer. Any monitoring will follow an area specific WSI for any required monitoring phase.

During Operation

- J6.7 No archaeological effects are anticipated at the operational phase, therefore no further mitigation measures are required.

J7.0 Residual Effects

J7.1 Residual effects are those that are predicted to remain after implementation of the mitigation measures as described above. The mitigation methods are anticipated to be secured by condition and therefore there is confidence that it will be implemented.

During Construction

J7.2 Construction works have been assessed as having a generally permanent minor **adverse** effect on archaeological remains. These effects would not be considered as significant.

During Operation

J7.3 No residual effects are anticipated in respect of archaeology.

J8.0 Summary & Conclusions

- J8.1 This Chapter has summarised baseline archaeological data for the Development Site. Evidence was obtained from sources as required by accepted Industry guidelines.
- J8.2 The assessment concludes that the potential for Prehistoric (Palaeolithic, Mesolithic and Neolithic) archaeology is Low to possibly moderate. Similarly, potential for Bronze Age and Iron Age archaeology to be present within the site area is considered as Low to possibly Moderate. There is no direct indication that Anglo Saxon archaeology will present.
- J8.3 The highest potential is considered to be for Roman, Medieval, and Modern periods where potential is assessed as being Moderate.
- J8.4 Any below ground archaeological assets are assessed as likely to have local to regional significance.
- J8.5 Construction activities are considered likely to have a High Direct impact upon archaeological remains if present within the footprint of excavations associated with the construction of the Proposed Development. This impact potential includes build foundation footprints, access routes, and service infrastructure and landscaping.
- J8.6 The assessment concludes that overall, the Proposed Development would result in generally Minor Adverse effect upon archaeological remains within the Development Site. The effect would not be considered a significant effect in EIA terms.
- J8.7 To mitigate against predicted impacts, it is advised that a programme of archaeological investigation, in accordance with a Written Scheme of Investigation, should be undertaken in advance of the construction of the Proposed Development.
- J8.8 A phased investigation program, with reporting will be followed leading to publication of results. The precise methodology of investigation shall be developed in consultation with ADC's Archaeology Officer.

J9.0

Abbreviations & Definitions

Abbreviations

- 1 DAS: Development Archaeology Service Ltd
- 2 DBA: Desk Based Assessment
- 3 ADC: Arun District Council
- 4 bgl. Below Ground Level.
- 5 WSI: Written Scheme of Investigation
- 6 LPA: Local Planning Authority
- 7 PA - Palaeolithic
- 8 NE - Neolithic
- 9 ME - Mesolithic
- 10 BA - Bronze Age
- 11 IA - Iron Age
- 12 RO - Roman
- 13 EM - Anglo-Saxon
- 14 MD - Medieval
- 15 PM - Post-medieval
- 16 MO - Modern
- 17 Un - Uncertain

Definitions

J9.2

The time periods referenced in the text are as follows:

- 1 Prehistoric
- 2 Palaeolithic: 900,000 - 12,000 BC
- 3 Mesolithic: 12,000 – 4,000 BC
- 4 Neolithic: 4,000 – 1,800 BC
- 5 Bronze Age: 1,800 - 600 BC
- 6 Iron Age: 600 BC – AD 43
- 7 Roman: 43 – 410
- 8 Early Medieval and Saxon: 410 - 1066
- 9 Medieval: 1066 – 1485
- 10 Post Medieval: 1486 - 1799
- 11 Modern: 1800 – present

J10.0

References

Legislation and Policy

- 1 Ancient Monuments and Archaeological Areas Act, 1979
- 2 National Planning Policy Framework, 2019 (update 2021)
- 3 Planning (Listed Buildings and Conservation Areas) Act, 1990
- 4 Arun Local Plan 2011 to 2031
- 5 The Arun Local Plan covers the period 2011-2031 for the area of Arun District (excluding the area covered by the South Downs National Park Authority) (adopted 18 July 2018)

Best Practice and Guidance

- 6 Sussex Archaeological Standards for Archaeological Investigations (Revised; 2019)
- 7 CIfA (2019) Code of Conduct, Reading: Chartered Institute for Archaeologists
- 8 CIfA (2020) Standard and Guidance for Historic Environment Desk-Based
- 9 Assessment, Reading: Chartered Institute for Archaeologists
- 10 Historic England (2008) Conservation Principles; Policy and Guidance for the
- 11 Sustainable Management of the Historic Environment
- 12 Historic England (2015) Managing Significance in Decision-Taking in the Historic
- 13 Environment: Historic Environment Good Practice Advice in Planning Note 2
- 14 Historic England (2017) The Setting of Heritage Assets: Historic Environment Good
- 15 Practice Advice in Planning Note 3 (Second Edition)