

CHAPTER 12:

ARCHAEOLOGY AND BUILT HERITAGE

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12.0 ARCHAEOLOGY AND BUILT HERITAGE

12.1 Scope of Assessment

- 12.1.1 This chapter of the ES assesses the likely significant effects of the Proposed Development in terms of archaeology and built heritage (heritage assets) and is supported by (**Volume 4, Appendix H1: Desk-Based Assessment & Heritage Statement and Appendix H2: Geophysical Survey Report**) which contains the detailed assessment, and with which this chapter should be read.
- 12.1.2 In particular, it considers the effects of the Proposed Development on buried archaeological deposits and the fabric and setting of designated and non-designated heritage assets within the surrounding area.
- 12.1.3 The chapter describes: the assessment methodology; the baseline conditions currently existing at the Site and in the surrounding area; the likely significant environmental effects; the mitigation measures required to prevent, reduce or offset any significant adverse effects; the likely residual effects after these measures have been employed; and the cumulative effects associated with the Proposed Development in combination with four major consented and committed developments identified within 3 km of the Site.

12.2 Key Legislation, Policy and Guidance Considerations

- 12.2.1 The archaeology and built heritage assessment has been undertaken within the context of relevant planning policies, guidance documents and legislative instruments. These are summarised below.

Legislation and Regulation

- 12.2.2 The applicable legislative framework is summarised as follows:
- Ancient Monuments and Archaeological Areas Act (AMAAA) 1979; and
 - Planning (Listed Buildings and Conservation Areas) Act 1990.

Planning Policy

National Planning Policy

- 12.2.3 Government policies relating to planning are given in the National Planning Policy Framework (NPPF). Section 16 (paragraphs 184–202) of the framework (“*Conserving and enhancing the historic environment*”) outlines policies relating to the historic environment and the key role it plays in the Government’s definition of sustainable development, the principle which underpins the document.
- 12.2.4 The NPPF requires that local planning authorities should set out in their Local Plan “a *positive strategy for the conservation and enjoyment of the historic environment*”, recognising that “*heritage assets*” are “*an irreplaceable resource*” and should be conserved “*in a manner appropriate to their significance*” (Section 16, paragraphs 184–185). The NPPF is supported by Planning Policy Guidance, launched in April 2014

(updated in 2018)¹. Further guidance, in specific relation to historic environment issues, is provided by Historic Environment Good Practice Advice in Planning Notes 1 to 3 which is issued by Historic England and the Historic Environment Forum².

Local Planning Policy

- 12.2.5 Reading Borough Council (RBC) adopted the Reading Borough Local Plan in November 2019. It contains the following relevant policies:

Policy EN1: Protection and Enhancement of the Historic Environment

- 12.2.6 *Historic features, areas of historic importance and other elements of the historic environment, including their settings, will be protected and where possible enhanced. This will include:*
- *Listed Buildings;*
 - *Conservation Areas;*
 - *Scheduled Monuments;*
 - *Historic parks and gardens; and*
 - *Other features with local or national significance, such as sites and features of archaeological importance, and assets on the Local List.*
- 12.2.7 *All proposals will be expected to protect and where possible enhance the significance of heritage assets and their settings, the historic character and local distinctiveness of the area in which they are located. Proposals should seek to avoid harm in the first instance. Any harm to or loss of a heritage asset should require clear and convincing justification, usually in the form of public benefits.*
- 12.2.8 *Applications which affect Listed Buildings will not have an adverse impact on those elements which contribute to their special architectural or historic interest including, where appropriate, their settings.*
- 12.2.9 *Applications which affect Historic Parks and Gardens will safeguard features which form an integral part of the special character or appearance of the park or garden. Development will not detract from the enjoyment, layout, design, character, appearance, features or setting of the park or garden, key views out from the park, or prejudice its future restoration.*
- 12.2.10 *Applications which affect, or have the potential to affect, the significant features of heritage assets should be justified by a Heritage Statement.*
- 12.2.11 *The Council will monitor buildings and other heritage assets at risk through neglect, decay or other threats, proactively seeking solutions for assets at risk including consideration of appropriate development schemes that will ensure the repair and maintenance of the asset, and, as a last resort, using its statutory powers.*

¹ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>, accessed February 2020.

² <http://historicengland.org.uk/advice/planning/planning-system/>, accessed February 2020.

- 12.2.12 *Where there is evidence of deliberate neglect or of damage to a heritage asset, the deteriorated state of the heritage asset should not be taken into account in any decision.*

Policy EN2: Areas of Archaeological Significance

- 12.2.13 *Applicants should identify and evaluate sites of archaeological significance by consulting the Historic Environment Record. This will require an assessment of the archaeological impacts of development proposals to be submitted before the planning application is determined. Planning permission will not be granted in cases where the assessment of the archaeological impacts is inadequate.*
- 12.2.14 *Where remains cannot be preserved 'in situ', remains should be properly excavated, investigated and recorded. This will require adequate provision for the identification, investigation, recording and publication of the archaeological resource. Where appropriate, Section 106 agreements will be negotiated to protect, enhance and interpret archaeological remains.*
- 12.2.15 *Development proposals which will have an adverse effect on scheduled monuments and other nationally important archaeological remains and their settings will not be allowed unless there is clear and convincing justification in the form of overriding public benefits.*

Technical Standards and Guidance

- 12.2.16 The assessment presented within this chapter has been carried out in accordance with the standard and guidance for historic environment desk-based assessment issued by the Chartered Institute for Archaeologists (CIfA)³ and representing accepted best practice.
- 12.2.17 The chapter was also prepared in accordance with the Planning Policy Guidance issued to support the NPPF. In specific relation to heritage issues, further guidance is provided by Historic Environment Good Practice Advice in Planning Notes 1 to 3, issued by Historic England and the Historic Environment Forum.

12.3 Assessment Methodology

- 12.3.1 The study was undertaken by means of a baseline assessment of the heritage potential of the Site and a walkover survey conducted on 28th March 2019 to determine the presence of archaeological features or artefacts, and to understand the setting of heritage assets. A geophysical survey was carried out in May 2020.
- 12.3.2 For the purposes of the baseline assessment the Site has been taken to be that defined in Chapter 2.

Determination of Baseline

- 12.3.3 In order to determine the baseline, the resources listed below were consulted. The nature of these resources is presented in further detail under the relevant headings.
- Heritage assets listed in the Berkshire and Oxfordshire Historic Environment Records (HER).

³ Chartered Institute for Archaeologists, 2017. *Standard and guidance for historic environment desk-based assessment.*

- Historic maps and aerial photographs held by the Berkshire Record Office and publicly available online resources.
- Historic Landscape Characterisation (HLC) data held by Berkshire HER.
- LiDAR data held by the Environment Agency.
- Relevant online databases including: National Heritage List for England and MAGIC.

Heritage Assets and the Historic Environment Record

- 12.3.4 Heritage Assets are defined in the NPPF as a site, building, place, area or landscape of heritage interest and thus include buildings, archaeological sites and landscape features such as ancient woodland and hedgerows. Designated heritage assets are designated by statute, while non-designated heritage assets can be locally listed by the planning authority and / or listed on county historic environment databases.
- 12.3.5 Heritage assets of archaeological interest are considered a place where material remains of human activity are present or have the potential to be present, typically (although not exclusively) below ground. The scale and type varies, for example from the findspot of a single artefact to landscapes of interlinked sites, monuments and findspots.
- 12.3.6 The Historic Environment Record (HER) is a GIS-based database of known heritage assets held at county level.

Historic Mapping

- 12.3.7 Historic mapping typically includes historic maps of estate lands, 18th or early 19th century county maps, mid-19th century tithe maps and late 19th century and modern Ordnance Survey maps. These provide information about historic land use, enclosures and former field divisions, and non-extant structures or features.

Historic Landscape Characterisation

- 12.3.8 A formal process of historic landscape characterisation has been undertaken for Berkshire and defines the known history of land use throughout the former county. This information is provided with HER data as a GIS and PDF dataset.

Aerial Photographs and LiDAR

- 12.3.9 Aerial photographs provide additional information about recent and sometimes transient historic land use within the 20th and 21st centuries. It also provides information regarding below ground archaeological potential in the form of soil/cropmarks. Some cropmarks have been previously identified and classed as heritage assets.
- 12.3.10 LiDAR (Light Detection and Ranging) is an aerial remote sensing methodology capable of detecting archaeological features present above ground but not easily visible to the naked eye. LiDAR technology can also detect features through tree canopy cover.

Prediction Methodology

- 12.3.11 The prediction methodology has been determined by using the following criteria, derived from an original approach developed by the Highways Agency as presented in the Design

Manual for Roads and Bridges Volume 11: Environmental Assessment (DRMB)⁴. It also draws on published Historic England guidance relating to assessing the significance and setting of heritage assets (*Conservation Principles; Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment; Historic Environment Good Practice Advice in Planning Note 3: The Settings of Heritage Assets*).

12.3.12 The prediction methodology employs the notions of significance (value) of heritage assets coupled to a definition of magnitude of the impact on the heritage assets to result in an understanding of the significance of the effect of the Proposed Development, as outlined below.

Significance (Value) of Heritage Assets

12.3.13 The significance (value) of heritage assets.

- High: World Heritage Sites, Scheduled Monuments, Grade I/II* Listed Buildings, Grade I/II* Registered Historic Parks and Gardens, Conservation Areas containing very important buildings and non-designated assets that contribute to national research objectives.
- Medium: Grade II Listed Buildings, Grade II Registered Historic Parks and Gardens, Registered Historic Battlefields, Conservation Areas containing buildings and non-designated assets that contribute to regional research objectives.
- Low: Locally listed buildings, locally listed historic parks and gardens and other non-designated assets that contribute to local research objectives.

Definition of Magnitude of Impacts

12.3.14 The magnitude of impacts on heritage assets is determined using the following criteria:

- Major: changes to most or all key archaeological elements or settings, such that the asset is completely altered.
- Moderate: changes to many key archaeological elements or settings, such that the asset is noticeably altered.
- Minor: changes to key archaeological elements or settings, such that the asset is slightly altered.
- Negligible: minor changes to archaeological elements or settings that hardly affect the asset.

Significance of Effects

12.3.15 The following matrix has been used to define the significance of the effects identified (which can be adverse or beneficial):

⁴ Highways Agency, 2007. *Design Manual for Roads and Bridges, Volume 11, Section 3, Part 2 (Cultural Heritage)*. London: Highways Agency.

Table 12.1: Significance of Effects

Magnitude	Value / Sensitivity		
	High	Medium	Low
Major	Major	Major-moderate	Moderate-minor
Moderate	Major-moderate	Moderate-minor	Minor
Minor	Moderate-minor	Minor	Minor-negligible
Negligible	Negligible	Negligible	Negligible

- 12.3.16 Effects can be adverse or beneficial; short or long term; permanent or temporary; and direct or indirect.

Limitations and Assumptions

- 12.3.17 The approach outlined above is inherently subjective, and relies on the application of professional judgement in line with the applicable legislation, guidance and policy. Key limitations and assumptions are outlined below.

Archaeological Assessment

- 12.3.18 A desk-based assessment can generally only consider the potential of the Site in principle. Its conclusions usually require testing by fieldwork in order to confirm whether remains are present and, if this is the case, to establish their character, condition and extent and thus indicate the weight that ought to be attached to their preservation. It must always be acknowledged that remains of a type for which there is no prior evidence may be found on a site by fieldwork.
- 12.3.19 The significance of any heritage assets that may exist on the Site cannot be determined in advance of confirmatory fieldwork, but available evidence for the Site and the surrounding area provides a useful indication of the potential significance of certain categories of heritage assets should they be identified on the Site.

Assessment of Heritage Setting

- 12.3.20 The key issue to bear in mind when assessing potential impacts on the settings of heritage assets is that the setting has no intrinsic importance or value in itself, only the extent to which it contributes to the significance of the heritage asset in question. A proposed development does not necessarily have to be visible from a heritage asset to affect its setting or significance; equally, a proposed development can be fully visible from or even directly adjacent to an asset but will not have a significant effect if the setting does not contribute to the significance of the asset or if the development does not fall within that setting. Consequently, general issues of visual impact and views are not directly relevant to this assessment unless they have heritage significance.

Geophysical Survey

- 12.3.21 Geophysical survey is the collection of data that relate to subtle variations in the form and nature of soil and which relies on there being a measurable difference between buried archaeological features and the natural geology. Geophysical techniques do not specifically target archaeological features and anomalies noted in the interpretation do not necessarily relate to buried archaeological features. As a result, magnetic and earth resistance detail survey may not always detect sub-surface archaeological features. This

is particularly true when considering earlier periods of human activity, for example those periods that are not characterised by sedentary social activity.

Consultation

- 12.3.22 The desk-based assessment which underpins this chapter was submitted to Berkshire Archaeology (archaeological advisors to RBC) on 6th December 2019. A response was received on 12th December 2019, in which Berkshire Archaeology requested pre-determination fieldwork to accompany the application, namely geophysical survey followed by, if appropriate, trial trenching. This advice was confirmed on 17th January 2020. A geophysical survey was carried out by Magnitude Surveys Ltd in May 2020. Further consultation will be carried out with Berkshire Archaeology once the geophysical survey is completed to determine the necessity for, and scope of, any additional pre-determination work.
- 12.3.23 The Applicant submitted a scoping report for the Proposed Development to Reading Borough Council. The local planning authority's response was delivered on 15th April 2020.

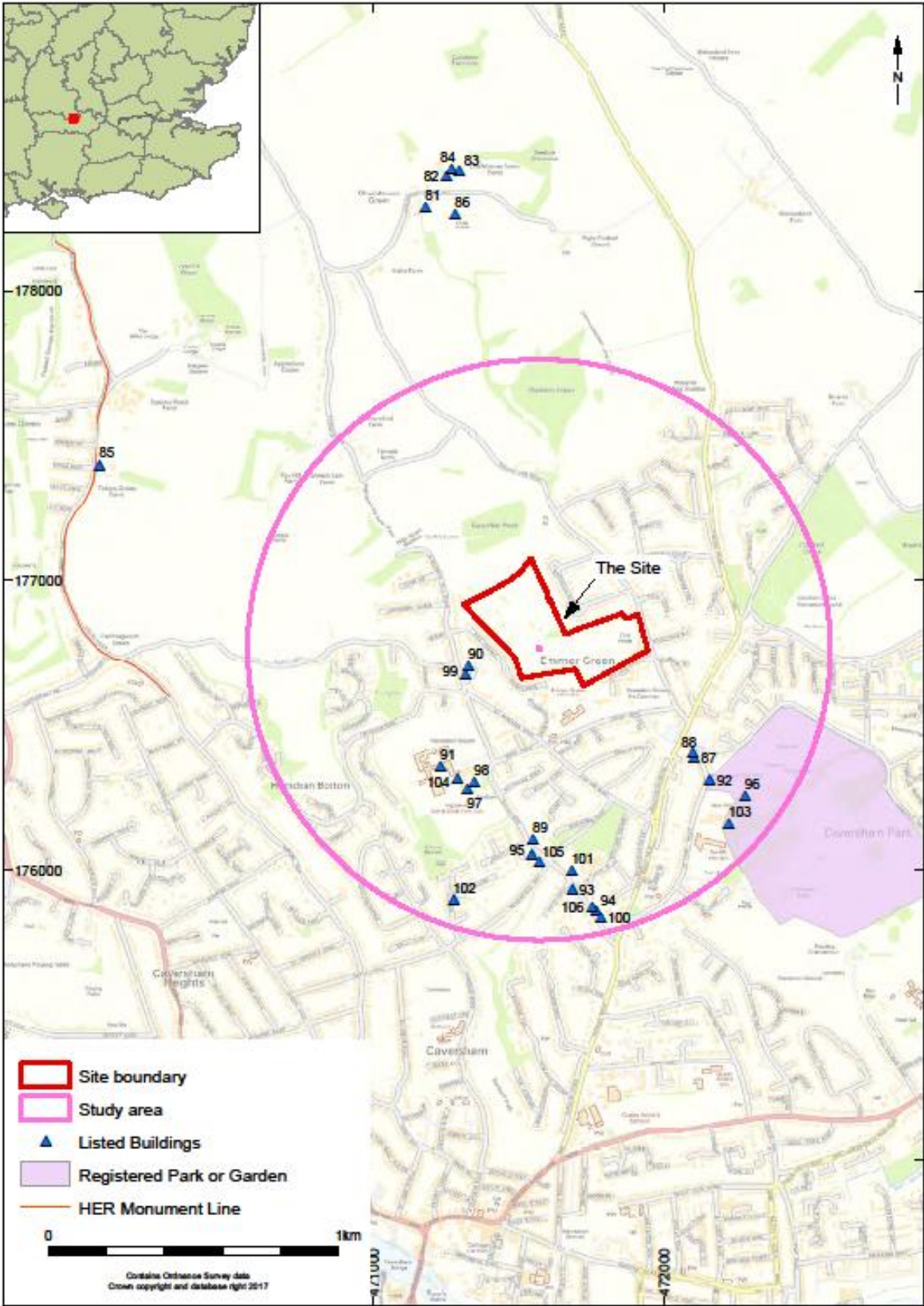
Table 12.2 Scoping Opinion Comments and Response

Topic / Section	Summary of Comment	Location within the ES where comments are addressed
Archaeology	The archaeological assessment must be informed by a geophysical survey.	Section 12.3.21

12.4 Baseline Assessment and Identification of Key Receptors

- 12.4.1 The existing baseline conditions are discussed in detail in **Volume 4, Appendix H1: Desk Based Assessment & Heritage Statement** and summarised here. The identified heritage assets have been assigned a number shown in bold in the text, and are tabulated in **Volume 4, Appendix H1: Desk Based Assessment & Heritage Statement** and shown plotted on Figures 12.1 and 12.2, which are outlined below.

Figure 12.1. Site Location and Designated Heritage Assets.



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The Site does not contain any designated heritage assets, although a conservation area (Surley Row), a registered historic park and garden (Caversham Park) and 20 listed buildings (87-106) lie within 1 km of the Site, with a further six lying 1.2 km to the north at Chalkhouse Green (81-86). None of these heritage assets have intervisibility with the Site due to intervening residential developments, existing woodland/vegetation and distance, and it does not fall within their settings.

- 12.4.2 The historic landscape character of the Site, as defined by Berkshire HER, is a 20th century golf course.
- 12.4.3 A geophysical survey has been carried out within the Site. This did not locate any significant anomalies of possible archaeological origin, but the existence of archaeological deposits cannot be ruled out. A considerable amount of fieldwork has been carried out in the wider study area, of which the most relevant discoveries are a Bronze Age barrow cemetery to the south east identified by geophysical survey (25), an Iron Age gully to the south (27), Iron Age – Romano-British settlement to the south-west (38 and 39) and Roman features to the west (31, 35 and 38).

Palaeolithic and Mesolithic (c.750,000BC-c.5000BC)

- 12.4.4 The vicinity of the Site has produced a relatively rich assemblage of Palaeolithic material (7 – 16), a number of which (7, 8, 10, 12, 13, 14, 15) cluster around the line of a prehistoric ridgeway along the crest of the Chiltern ridge where it lies to the west of the Site (1). These include: six hand axes, two other flint implements and flakes. Three Palaeolithic finds lie in closer proximity to the Site, a hand axe retrieved from Cucumber Wood to the north (9), palaeoliths from a gravel pit to the south west (11) and flakes from the sands and gravels of an ancient channel of the Thames (16). No Mesolithic material has been recovered.

Neolithic (c.5000BC-c.2300BC)

- 12.4.5 The Neolithic period saw dramatic cultural and technological change with the introduction of agriculture to Britain and the gradual adoption of a sedentary lifestyle. Flintwork dated to the Neolithic (17-19), including two axes and a possible occupation site, and finds dated to the Neolithic or Bronze Age (20-23) have been have also been retrieved near the ridgeway. The latter include fragments of Neolithic (Windmill Hill Type) pottery together with two flint scrapers a worked flake and a piece of a bronze awl (20), finds retrieved from fieldwalking (21-22) and 14 struck flints and undated pit recorded during an archaeological watching brief at former Church of Our Lady (23). Other broadly dated prehistoric flints have been retrieved including hand axes (2, 3), scrapers (2, 6), a flint arrowhead (5) and an artefact scatter (4).

Bronze and Iron Age (c.2300BC-c.43AD)

- 12.4.6 Continuing technological development and rising population in the Bronze Age and Iron Age lead to craft specialisation and the evolution of complex societies. The Early Bronze Age is characterized by the introduction of metals, generally associated with new types of pottery such as Beakers, and the construction of new types of ceremonial sites, notably round barrows often forming linear cemeteries on ridges. The Middle and Late Bronze Age saw a change in emphasis away from ceremonial and monumental landscapes towards the development of large-scale agricultural landscapes, typified by blocks of field systems associated with scattered settlements. Within the region the emergence of this

more organised landscape can be seen in the construction of major linear boundary features on the chalk downs and the development of more permanent and substantial settlements. As noted above, some flintwork in the vicinity of the Site may date from the Bronze Age (20-23). A Bronze Age barrow cemetery has been identified by aerial photography and geophysical survey to the immediate south east of the Site at Emmer Green (25). This is attested by 11 circular features, the largest of which has a diameter of approximately 22m, with the external ditch being 2m wide and probably at least 0.6m deep (as demonstrated by ground penetrating radar). Internal lamination in the ditch fill suggests gradual deposition of material and multiple episodes of backfilling. It also contains an internal stakehole ring 11 m in diameter. A nearby hoard of three socketed Bronze Age axes, apparently broken up in antiquity, was recovered during the construction of Emmer Green Primary School in 1951 (24).

Romano-British (c.43AD-c.410AD)

- 12.4.7 Rapid socio-economic growth occurred during the Iron Age, alongside a rise in population and the increasing exploitation of what had previously been more marginal environments. The archaeological resource generally suggests that society was becoming more organised and more tribal in its nature. As one of the nearest parts of Britain to the Continent, the south east experienced contact with Rome from an early date, first as trade and then as conquest. The HER record shows a concentration of Iron Age features to the immediate south and west of the Site. Finds located to the south include a gold stater (26), a gully with Middle Iron Age period finds and three undated postholes (27), and a late Iron Age – Roman ditch, possibly related to a long-lived north-south boundary ditch, and nearby dated posthole (28). To the west of the Site a series of postholes and a small area of collapsed clay wall (29) yielded a 1st century iron brooch, a sherd of Belgic butt beaker, burnt wattle-marked daub, part of a clay floor, pieces of millstone grit and a substantial quantity of iron clinker. Together this has been taken as evidence of a late Iron Age or Roman building (1st - 4th century) (31). Roman pits (35, 38) have been found in close proximity to this possible building and the Site and a north-south early Roman boundary ditch lies to the south west (39). Evidence of a Roman farmstead has been found to the north east of the Site (30). Several Roman findspots have been recorded: Romano-British pottery has been found further westwards, at Shripnell's Farm (32) and to the north west of the Site near the ridgeway (33, 36), single Roman coins have been found just to the south east of the Site (40) and to the north east of the Site (34) and a Roman bracelet has been found to the east (37).

Early Medieval and Medieval (c.410-1540)

- 12.4.8 The decline of Roman authority saw a return to older ways of life, and an influx of settlers from Germanic lands across the North Sea. The first mention of Reading is in the Anglo-Saxon Chronicle under the date 871. It is thought that the Danes invaded Wessex in that year, took Reading and threw up fortifications on the strip of land between the Kennet and the Thames. And there they were unsuccessfully attacked by King Ethelwulf and his brother Alfred. Again, in 1006, it is thought that Reading was burned by the Danes. A castle existed at Reading and was held by Stephen in his campaign against Matilda in 1150, after which it was destroyed. In 1121 Reading Abbey was founded by Henry I, and became an important focus for the town's development.
- 12.4.9 The early history of Caversham, to the south east of the Site, is also thought to be Saxon in date, although it is first mentioned in Domesday Book, a former manor house is thought

to been in the vicinity of the more recent Caversham Park **(43)**. As Reading developed in the medieval period, Caversham was held by high ranking noble families. The HER records no medieval monuments or findspots within the Study Area.

Post-Medieval (1540-present)

- 12.4.10 In the post-medieval period, the Site lay in the immediate surrounds of Caversham Park. This estate was owned by Lord Craven during the mid to late 17th century, who rebuilt the Elizabethan manor house after 1660, probably with William Winde as the architect. The estate was sold in 1697, passing by the 1720s into the hands of William, first Baron, and later Earl, Cadogan (d 1726). Cadogan, a soldier and friend of the Duke of Marlborough, rebuilt the manor house in grander style, probably on a new site. Extensive formal gardens were laid out. These were largely swept away by a new design by Lancelot Brown in the mid-1760s. The house was burnt down and rebuilt more than once in the following period, and was sold in the 1920s, being used as a school in the 1930s and then by the BBC during the war. Historic cartographic evidence indicates that the Site lay outside the park grounds, within an area of agricultural fields, possibly overlapping the locations of several small 18th century roadside properties. Apart from the listed buildings, the HER records three further post-medieval entries: a former donkey wheel at Grove House **(41)**, a water tower **(42)** and a general record for Caversham Park **(43)**.

Undated

- 12.4.11 Two records exist for unspecified undated features at The Hill primary school **(44 and 45)**.

Additional Sources

- 12.4.12 Historic mapping since 1761 show that the Site was originally arable fields enclosed from common waste. The golf course was created between 1914 and 1936, and removed much of the earlier landscape through landscaping.
- 12.4.13 Aerial photographs exist only for the period since the golf course was created, so no earlier archaeological features are evident. Analysis of LiDAR data showed only evidence for former field boundaries and golf course features such as bunkers and greens. No archaeological features were identified during a walkover of the Site.

Key Receptors

- 12.4.14 Not all the heritage assets discussed above are impacted by the Proposed Development. The following receptors (heritage assets) were assessed:
- Heritage setting of designated heritage assets (conservation area, registered historic park and garden and listed buildings) outside the Site. These vary in value, with the conservation area and one Grade II* listed building **(99)** being of High significance (value), and the remaining Grade II listed buildings and the Grade II registered historic park and garden being of Medium significance (value).
 - Buried archaeological potential relating to possible prehistoric and Romano-British funerary and settlement deposits across all areas of the Site, extrapolated from a review of the surrounding archaeological context. Although the recent geophysical survey did not locate any significant archaeological anomalies, the presence of more ephemeral deposits cannot be ruled out. Determining the significance of potential deposits is difficult in advance of confirmatory fieldwork, but it is likely that they would

be of regional significance. Consequently, they are assessed as being of Medium significance (value).

Do-Nothing Scenario

- 12.4.15 In the event that the Proposed Development were not to proceed ('do-nothing' scenario), there would be no changes to the heritage setting of designated heritage assets. The buried archaeological potential would remain largely unchanged as the Site is a golf course (assuming no significant future remodelling of the golf course).

12.5 Identification and Description of Changes Likely to Generate Effect

Construction Phase

- 12.5.1 Potential long-term effects are likely to arise from groundwork activities associated with the construction phase of the Proposed Development and will comprise complete destruction or severe truncation of buried archaeological deposits within areas of the Proposed Development by, for example, ground levelling, the construction of access roads and the excavation of footings and service trenches. Areas of Proposed Development reserved for public open space or landscaping may experience less truncation but the degree of truncation or disturbance will depend on working methodologies.
- 12.5.2 Potential effects may arise on the setting of designated heritage assets where intervisibility between the Proposed Development and the heritage asset changes the setting of that heritage asset, where that setting contributes to the significance of the heritage asset.

Operational Phase

- 12.5.3 Potential effects may arise on the setting of designated heritage assets where intervisibility between the Proposed Development and the heritage asset changes the setting of that heritage asset, where that setting contributes to the significance of the heritage asset.

12.6 Assessment of Likely Significant Effect

Construction Phase

Embedded Mitigation Measures

- 12.6.1 No embedded mitigation measures are relevant to archaeology and built heritage.

Anticipated Effects

Buried Archaeological Deposits

- 12.6.2 The anticipated effects of the construction phase of the Proposed Development on buried archaeological deposits (if present) comprises their partial or total destruction as a result of groundworks undertaken during the construction phase.
- 12.6.3 The value of potential buried archaeological deposits is considered to be Medium and the magnitude of impact is Major. Therefore, there is likely to be a direct, permanent, long-term, local effect on buried archaeological deposits of **major-moderate adverse** significance prior to the implementation of additional mitigation measures.

Setting of Designated Heritage Assets

- 12.6.4 The Site does not lie within the setting of any designated heritage asset, and intervisibility between them and the Site is screened by intervening residential developments and vegetation. Consequently, there will be no impact on them from the construction phase of the Proposed Development, and therefore the significance of effects will be **no change**.

Operational Phase

Embedded Mitigation Measures

- 12.6.5 No embedded mitigation measures are necessary for archaeology and built heritage.

Anticipated Effects

Buried Archaeological Deposits

- 12.6.6 No effects on buried archaeology are predicted during the operational phase of the Proposed Development as all works likely to generate effects such as excavation and groundworks are associated with the construction phase.

Setting of Designated Heritage Assets

- 12.6.7 The Site does not lie within the setting of any designated heritage asset, and intervisibility between them and the Site is screened by intervening residential developments and vegetation. Consequently, there will be no impact on them from the operational phase of the Proposed Development, and therefore the significance of effects will be **no change**.

12.7 Scope for Additional Mitigation Measures

- 12.7.1 The presence of buried archaeological deposits will be evaluated by a phased programme of archaeological works. A pre-determination phase of geophysical survey has identified an absence of significant anomalies with an archaeological signature, but did not rule out the existence of more ephemeral archaeological deposits. The results require confirmation by intrusive investigation (trial trench), in accordance with standard practice, which will enable identification of sub-surface anomalies indicative of potential archaeological deposits, to be carried out post-determination though pre implementation, as appropriate (this decision to be made by Berkshire Archaeology following the completion of the geophysical survey). Any post-determination archaeological mitigation will be secured through a condition attached to any planning permission.

- 12.7.2 The scope of archaeological mitigation works will be agreed with Berkshire Archaeology.
- 12.7.3 No mitigation is required in relation to the setting of designated heritage assets.

Potential Additional Mitigation Measures

- 12.7.4 Depending on the significance of any buried archaeological deposits encountered, further mitigation measures will be considered as appropriate. These could comprise design changes to allow preservation in situ of significant archaeological deposits, or a further phase of excavation, post-excavation assessment and publication to ensure their preservation by record.

Likely Effectiveness of Additional Mitigation Measures

- 12.7.5 This is a standard and effective mitigation approach in relation to buried archaeological deposits. Effects on buried heritage assets would therefore be reduced to **negligible**.

12.8 Residual Effects

- 12.8.1 No residual effects are predicted resulting from the Proposed Development after effective implementation of the additional mitigation measures proposed above.

12.9 Cumulative Effects

- 12.9.1 Cumulative effects are the combined effects of several development schemes (in conjunction with the Proposed Development) which may, on an individual basis be insignificant but, cumulatively, have a significant effect.
- 12.9.2 The ES has given consideration to 'Cumulative 'Effects' for committed developments listed in **Volume 2, Chapter 3: EIA Methodology** Table 3.8.
- 12.9.3 No cumulative effects are predicted in relation to archaeology and built heritage. Cumulative schemes are sufficiently far away from the Site and are also downhill from the Site as to not have any intervisibility with the Site, and to not share buried heritage assets.
- 12.9.4 Cumulative schemes considered are also in the context of urban Reading, therefore although they may be visible from the Site and Caversham, they are unlikely to change the overall setting.

12.10 Summary and Conclusions

Summary of the Baseline

- 12.10.1 This chapter assessed the potential impacts of the Proposed Development on archaeology and built heritage. The assessment considered the possible impacts on potential multi-period buried archaeological deposits, and on the settings of designated heritage assets (conservation area, registered historic park and garden and listed buildings).

Summary of the Methodology and Consultation

- 12.10.2 The assessment was carried out in accordance with standards and guidelines for historic environment desk-based assessment produced by the Chartered Institute for

Archaeologists. Existing archaeological, historical and cartographic data relating to the Site and a 1 km radial study area around it was analysed to determine the archaeological potential of the Site and assess the likely impacts on it from the Proposed Development. An assessment of likely impacts on the setting of nearby heritage assets was also carried out in accordance with guidance published by Historic England. A geophysical survey was carried out.

Summary of Impacts Including Cumulative

- 12.10.3 A major-moderate adverse impact was predicted on buried archaeological deposits during the construction phase, though with additional mitigation applied the residual effect was considered to be negligible. No impacts were identified during the operational phase.
- 12.10.4 No impacts were predicted on the setting of any designated heritage assets from either the construction or operational phases.
- 12.10.5 No cumulative effects were identified on archaeology and heritage.

Summary of Mitigation and Residual Effects

- 12.10.6 The presence of buried archaeological deposits will be evaluated by a phased programme of archaeological works. A pre-determination phase of geophysical survey has been carried out. The results will inform subsequent trial trench evaluation, to be carried out pre- or post-determination, as appropriate (this decision to be made by Berkshire Archaeology following the completion of the geophysical survey). Any post-determination archaeological mitigation will be secured through a condition attached to any planning permission.
- 12.10.7 Depending on the significance of any buried archaeological deposits encountered, further mitigation measures will be considered as appropriate. These could comprise design changes to allow preservation in situ of significant archaeological deposits, or a further phase of excavation, post-excavation assessment and publication to ensure their preservation by record.
- 12.10.8 No residual effects are predicted following the completion of mitigation measures.
- 12.10.9 **Table 12.3** summarises the topic effects resulting from the Proposed Development.

Table 12.3: Summary of Residual Effects

Receptor/ Affected Group	Value or Sensitivity (Significance) of Receptor	Activity or Impact	Embedded Design Mitigation	Magnitude/ Spatial Extent/ Duration/ Likelihood of Occurrence	Significance of effect	Additional Mitigation	Residual Magnitude of Impact	Significance of Residual effect
Construction								
Buried archaeological deposits	Medium	Complete removal	None	High	Major- Moderate Adverse	Recording prior to loss	Negligible	Negligible
				Direct				
				Local				
				Permanent				
				Likely				
				No change.				
				Indirect				
				Local				
Built heritage assets	Medium	Effect on the setting of heritage assets	None	Temporary	Negligible	None	Negligible	Negligible
				Likely				
Operation								
Buried archaeological deposits	No potential for significant effects.							
Built heritage assets	Medium	Effect on the setting of heritage assets	None	None	Negligible	None	Negligible	Negligible
				Indirect				
				Local				
				Permanent				
				Likely				
Cumulative Effects – Construction								
No cumulative effects								
Cumulative Effects – Operation								
No cumulative effects								