



Cascades Leisure Centre, Gravesend, Kent

Archaeological Desk-Based Assessment



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Front cover Entrance to Cascades Leisure Centre with RAF Gravesend memorial area.



Summary

Wessex Archaeology was commissioned on behalf of Gravesham Borough Council to prepare an Archaeological Desk-Based Assessment of land at Cascades Leisure Centre, Gravesend, Kent, centred on NGR 567109 171771. This study is intended to inform a planning application for the demolition of the existing leisure centre and public house and redevelopment of the site to provide a new leisure centre with associated facilities.

The aims of this study were to assess the known and potential archaeological resource within the site and the surrounding area, and to assess the likely impacts of the development proposals on this resource.

The effect of the development proposals on the archaeological resource will be a material consideration in the determination of the planning application. This study has identified no overriding archaeological constraints which are likely to prohibit development.

This assessment has established that there is an archaeological interest within the site. This is defined as the potential for the presence of buried archaeological remains, in particular the potential for buried later prehistoric and Romano-British remains, and remains relating to Gravesend Airport which served as a RAF aerodrome in the Second World War (including the Battle of Britain). No known military aircraft crash sites that would constitute protected military remains are recorded within the Site based on the information from the Kent Historic Environment Record.

As shown by aerial photography spanning the wartime period, the area of the former aerodrome presently occupied by the Cascades Leisure Centre (the Site) was mainly built during the period 1940-1945 where the airfield was expanded east of Thong Lane with a new south-west to north-east oriented runway crossing Thong Lane. This expansion also saw the addition of dispersal pans around the airfield's perimeter track (including several within the Site), and auxiliary facilities. Structures visible on 1940s aerial imagery within the Site include three structures, two round open topped structures (one large and one small), and one rectangular roofed structure with embanked sides. These appear to represent a Bofors 40 mm light anti-aircraft (LAA) battery and were situated within an area now occupied by grass to the rear of the present Leisure Centre Buildings.

Due to a lack of previous archaeological investigation, the presence, location and significance of any buried heritage assets within the site cannot currently be confirmed on the basis of the available information. As such it is possible that additional archaeological investigations may be required by the planning archaeologist for Kent County Council. The need for, scale, scope and nature of any further assessment and/or archaeological works should be agreed through consultation with the statutory authorities.

The masterplan indicates a proposed car parking area is to be located on the site of the current leisure centre buildings, which includes a WWII memorial. Due to its role in highlighting and memorialising the Site's significance in the Second World War, the retention or relocation of the memorial area would be recommended for inclusion in the proposed scheme. Additionally, the proposed development represents an opportunity to enhance the provision of heritage interpretation resources (such as information boards) to further commemorate on the Site's heritage value with regards to the Second World War.



Cascades Leisure Centre, Gravesend, Kent

Archaeological Desk-Based Assessment

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned on behalf of Gravesham Borough Council (the client), to prepare an Archaeological Desk-Based Assessment of the Cascades Leisure Centre, Gravesend, Kent (hereafter 'the Site', **Fig. 1**), centred on NGR 567109 171771.

1.1.2 This study will inform a full planning application for a proposed redevelopment of the Cascades Leisure Centre within the Site, to be submitted to Gravesham Borough Council. The proposals will comprise the demolition of the existing Cascades Leisure Centre and public house and redevelopment of the site to provide a new leisure centre with community pool, training pool, leisure water, café, soft play, 'clip n climb' facility, a six court sports hall, fitness suite, spin studio, 2 no. fitness studios and 2 no. squash courts.

1.2 The Site

1.2.1 The Site comprises a parcel of land of approximately 4.5 ha located 3.3 km south-east of the centre of Gravesend, Kent, and 750 m north-west of the hamlet of Thong. The Site is currently occupied by the Cascades Leisure Centre (**Photos 1-6**) which was built in the later 1960s and 1970s. The leisure centre buildings are situated within a wider area of lawns and grounds which the Site partially extends across (**Photos 7-12**).

1.2.2 Mid-20th century residential development lies to the south-west of the Site across Thong Lane, whilst the Southern Valley Golf Course lies to south of the Site. Extensive grounds including a golf driving range lie to the north and east of the Site, beyond which are agricultural fields.

1.2.3 The Site is situated within a relatively flat area of land at an elevation of approximately 60 - 65 m above Ordnance Datum (aOD). Local topography falls gently to the north towards the Thames Estuary.

1.2.4 The bedrock geology throughout the Site is mapped as the Lewes Nodular Chalk Formation with an area of Thanet Formation sand immediately south-west. This bedrock geology is overlain to the north by a limited area of superficial geology comprising of Head: clay, silt, sand and gravel alluvium (British Geological Survey, Geology of Britain Viewer, 2022).

1.3 Development proposals

1.3.1 Proposals involve the construction of a new leisure centre complex to the south of the existing complex of buildings. The present leisure centre will be demolished and replaced with an area of car parking. The proposed leisure centre will include a swimming pool, along with other indoor sports and recreational facilities. In addition, the masterplan outlines an area for outdoor fitness and an active play zone within the premises of the leisure centre.

1.3.2 Associated works are likely to include soft and hard landscaping along with the excavation of trenches for buried services for the proposed buildings and car park area. The draft

design proposals indicate that the existing hedgerows at the boundaries of the Site will be retained.

1.4 Scope of document

1.4.1 This assessment was requested by the Client in order to determine, as far as is possible from existing information, the nature, extent and significance of the archaeological resource within the Site and its environs, and to provide an initial assessment of the potential impact of development on the heritage assets that embody that significance.

1.4.2 The Historic Environment, as defined in the *National Planning Policy Framework* (NPPF 2021): Annex 2, comprises:

'all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.'

1.4.3 NPPF Annex 2 defines a Heritage Asset as:

'a building monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).'

1.5 Aims

1.5.1 The specific aims of this assessment are to:

- outline the known and potential heritage assets within the Site based on a review of existing information within a defined study area;
- assess the significance of known and potential heritage assets through weighted consideration of their valued components;
- assess the potential impact of development or other land changes on the significance of the heritage assets; and
- make recommendations for strategies to mitigate potential adverse impacts arising from the proposed development.

2 PLANNING BACKGROUND

2.1 Introduction

2.1.1 There is national legislation and guidance relating to the protection of, and proposed development on or near, important archaeological sites or historical buildings within planning regulations as defined under the provisions of the *Town and Country Planning Act 1990*. In addition, local authorities are responsible for the protection of the historic environment within the planning system.

2.1.2 The following section summarises the main components of the national and local planning and legislative framework governing the treatment of the historic environment within the planning process. Further detail is presented in **Appendix 2**.

2.2 Designated heritage assets

2.2.1 A designated heritage assets is defined in NPPF Annex 2 as:

'A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.'

2.2.2 Statutory protection is provided to certain classes of designated heritage asset under the following legislation:

- *Planning (Listed Buildings and Conservation Areas) Act 1990;*
- *Ancient Monuments and Archaeological Areas Act 1979; and*

2.2.3 The *Historic Buildings and Ancient Monuments Act 1953* makes provision for the compilation of a register of gardens and other land (parks and gardens, and battlefields).

2.2.4 The United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage Committee inscribes World Heritage Sites for their Outstanding Universal Value (OUV); 'cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. The United Kingdom is a signatory of the *UNESCO Convention Concerning the Protection of the World Cultural and National Heritage 1972*. England protects its World Heritage Sites and their settings, through the statutory designation process and through the planning system.

2.2.5 Further information regarding heritage designations is provided in **Appendix 2**.

2.3 The Protection of Military Remains Act 1986

2.3.1 All military aircraft crash sites in the United Kingdom, its territorial waters, or British aircraft in international waters, are controlled sites under the *Protection of Military Remains Act 1986*. It is an offence under this act to tamper with, damage, move or unearth any items at such sites, unless the Ministry of Defence (MOD) has issued a licence authorising such activity.

2.3.2 Given the known history of the Site as part of a former WWII airfield, the possibility exists that military aircraft crash sites may be present. As a consequence, the *Protection of Military Remains Act 1986* may be directly relevant to the development proposals.

2.4 National Planning Policy Framework

2.4.1 The *National Planning Policy Framework* (NPPF) was published in July 2021 and sets out the government's planning policies for England and how these are expected to be applied.

2.4.2 Section 16 of the NPPF, entitled *Conserving and enhancing the historic environment*, sets out the principal national guidance on the importance, management and safeguarding of heritage assets within the planning process.

2.4.3 The aim of NPPF Section 16 is to ensure that Local Planning Authorities, developers and owners of heritage assets adopt a consistent and holistic approach to their conservation and to reduce complexity in planning policy relating to proposals that affect them.

2.4.4 To summarise, government guidance provides a framework which:

- recognises that heritage assets are an irreplaceable resource;
- requires applicants to provide proportionate information on the significance of heritage assets affected by the proposals and an impact assessment of the proposed development on that significance;
- takes into account the desirability of sustaining and enhancing the significance of heritage assets and their setting;
- places weight on the conservation of designated heritage assets, in line with their significance; and
- requires developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and impact, and to make this evidence (and any archive generated) publicly accessible.

2.4.5 A selection of excerpts from NPPF Section 16: Conserving and enhancing the historic environment is presented in **Appendix 2**.

2.4.6 Further additional guidance intended to accompany the NPPF is provided in the Planning Practice Guidance (PPG) web-based resource¹.

2.5 Local planning policy and guidance

2.5.1 The Site is situated within the administrative boundaries of Gravesham Borough Council, which adopted the *Gravesham Local Plan* in September 2014.

2.5.2 The Core Strategy forms the basis of the local plan for the borough and sets targets for the provision of new housing and employment for a period up to 2028, as well as setting out general policies in relation to provision of facilities, transport, and protection of natural and historic features. Within the Core Strategy the policy CS20: Heritage and the Historic Environment is of particular relevance.

2.5.3 Local planning policies that relate to the historic environment and may be relevant to the proposed development are presented in **Appendix 2**.

2.5.4 Gravesham Borough Council has prepared detailed studies of each of the Conservation Areas within the district, one of which (Thong Conservation Area) coincides with the Study Area (see **Section 4.2**). These Conservation Area appraisals have been adopted by the Council as Supplementary Planning Guidance (Gravesham Borough Council, 2017).

3 METHODOLOGY

3.1 Introduction

3.1.1 The methodology employed during this assessment was based upon relevant professional guidance, including the Chartered Institute for Archaeologists' *Standard and guidance for historic environment desk-based assessment* (CIfA 2014, revised 2020).

¹ <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>

3.2 Study Area

- 3.2.1 A Study Area was established within a 1 km radius of the Site boundary. The recorded archaeological resource within the Study Area was considered in order to provide a context for the discussion and interpretation of the known and potential resource within the Site.

3.3 Sources

- 3.3.1 Several publicly accessible sources of primary and synthesised information were consulted. These comprised:

- the National Heritage List for England (NHLE), which is the only official and up to date database of all nationally designated heritage assets;
- the Kent Historic Environment Record (KHER), comprising a database of recorded archaeological sites, find spots, and archaeological events within the county;
- relevant national, regional and thematic Research Frameworks (e.g., South East Research Framework);
- national heritage datasets including the Archaeological Data Service (ADS), Heritage Gateway, OASIS, PastScape and the National Record of the Historic Environment (NRHE) Excavation Index;
- historic manuscripts, surveyed maps, and Ordnance Survey maps held at the Kent History and Library Centre; and
- relevant primary and secondary sources held at the Kent History and Library Centre, and in Wessex Archaeology's own library. Both published and unpublished archaeological reports relating to excavations and observations in the vicinity of the Site were studied.

- 3.3.2 Sources consulted during the preparation of this assessment are listed in the references section of the report.

3.4 Site visit

- 3.4.1 The Site was visited on 09 November 2022. Weather conditions were dry and overcast. A fieldwork record comprising digital photography is held in the project archive.

- 3.4.2 The aim of the Site visit was to assess the general aspect, character, condition and setting of the Site and to identify any prior impacts not evident from secondary sources. The Site visit also sought to ascertain if the Site contained any previously unidentified features of archaeological, architectural or historic interest.

- 3.4.3 Two war memorials relating to the former RAF Gravesend were noted during the Site visit. Firstly, a memorial area within the Site consisting of an engraved stone, benches decorated with Spitfires and two flagpoles which sit outside the entrance to the leisure centre (**Photos 15-18**). In addition, within the entrance foyer of the leisure centre, several information boards were present. A second memorial sits just outside the Site boundary on Thong Lane next to the Site's north-west entrance (**Photo 14**). These relatively modern memorials are not recorded on local or national databases of heritage assets although they are of importance in relation to the Site's heritage and dissemination of information to the public.

3.5 Significance

3.5.1 Significance (for heritage policy) is defined in NPPF Annex 2 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.'

3.5.2 The interests as listed in the NPPF are further defined in Historic England's (2019) *Statements of Heritage Significance: analysing significance in heritage assets*. These are:

- Archaeological Interest: there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point;
- Architectural and Artistic Interest: these are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture; and
- Historic Interest: An interest in past lives and events (including prehistoric). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

3.5.3 This assessment was also informed by the advice published by Historic England in the document entitled *Managing Significance in Decision-Taking in the Historic Environment: historic environment good practice advice in planning note 2* (2015a).

3.6 Assumptions and limitations

3.6.1 Data used to compile this report consists of secondary information derived from a variety of sources, only some of which have been directly examined for the purposes of this Study. The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.

3.6.2 The records held by the KHER are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

3.7 Copyright

3.7.1 This report may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of the report.

4 BASELINE RESOURCE

4.1 Introduction

- 4.1.1 The following section provides a summary of the recorded historic environment within the Study Area, compiled from the sources summarised above and detailed in the references section of this report. The aim is to identify the known and potential components of the historic environment (heritage assets) that could be affected by the proposed development.

4.2 Designated heritage assets

Site

- 4.2.1 There are no designated heritage assets within the Site.

Study Area

- 4.2.2 Designated heritage assets within the Study Area comprise of one Grade II Listed Building and the Thong, Shorne Conservation Area.

- 4.2.3 The Grade II Listed Building is White Horse Cottage (NHLE: 1083901) a 17th century timber framed dwelling on Thong Lane located 950 m south of the Site.

- 4.2.4 The Thong Conservation Area encompasses the hamlet of Thong (approximately 600 m south of the Site). As stated in the appraisal (adopted 2017), the hamlet retains its historic form along Thorne Lane, and possess two distinct areas: one area in the south incorporating historic farms and surrounding dwellings, whilst the second area in the north of the village represents more recent planned development (Gravesend Borough Council 2017).

- 4.2.5 The crash site of a Hawker Hurricane MK1 which crashed on the 15th of October 1940 is designated under the *Protection of Military Remains Act 1986* and recorded by the KHER (DKE17248) and at a location approximately 300 m to the north of the Site (**Figure 3**).

- 4.2.6 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens or Registered Battlefields within the Study Area.

- 4.2.7 Designated heritage assets located within the Study Area are depicted in **Figure 1**.

4.3 Previous studies

Site

- 4.3.1 No records of any previous intrusive archaeological investigations within the Site have been identified during the preparation of this assessment.

Study Area

- 4.3.2 The KHER contains entries referencing several investigations which have been carried out within the Study Area. These include several wide scale environment and landscape investigations such as the Hoo Peninsula Historic Landscape Project (EKE13239, EKE15020, EKE15021) and a paleoenvironmental review of the Hoo Peninsula carried out by Historic England (EKE15400).

- 4.3.3 Other investigations within the Study Area include investigations (EKE11483, EKE11482) associated with the Shorne to Farningham gas pipeline (750 m south-east of the Site), and historical excavations of two possible barrows southeast of the Site (EKE3946, EKE3952). Several investigations also relate to recent development in and around Gravesend to the

west of the Site at Hillview (EKE12960, EKE19262, EKE19261) and Michael Gardens (EKE8248), and to the north-west at Thamesview School (EKE16749, EKE5345).

- 4.3.4 Archaeological trenching has been undertaken as part of the Development Consent Order application for the Lower Thames Crossing. Sites 76, 77, 80 and 81 lie within or partially within the Study Area. As these investigations have only been conducted recently, they are not yet included on the HER and as such are not shown on the Figures. The results of the investigations are included below from the evaluation reports which are publicly available.
- 4.3.5 The results of these investigations are discussed in further detail in **Section 4.5**. Previous archaeological investigations carried out within the Study Area are illustrated in **Figure 4**

4.4 Archaeological and historical context

- 4.4.1 The following section summarises the archaeological and historical development of the Site and the Study Area, compiled from the sources listed above. The potential for as yet unrecorded archaeological remains within the Site is informed by the consideration of the known heritage assets within the Study Area, in conjunction with the geology and topography of the area.
- 4.4.2 Records obtained from the NHLE, KHER and other sources are listed in **Appendix 3** and illustrated in **Figures 1–7**
- Prehistoric – Romano British (970,000 BC–AD 410)*
- 4.4.3 The Site is situated within a landscape which contains several extensive areas of remains relating to prehistory and the following Romano-British period which are recorded by the KHER, Hoo Peninsula Landscape Project and the Lower Thames Crossing investigations.
- 4.4.4 Data from the KHER and Hoo Peninsula Landscape Project does not identify any sites from the Neolithic or earlier within the Study Area, although the findings from the broader area of the Hoo Peninsula Landscape Project (Historic England, 2015b) indicated that settlement was likely established on the peninsula by the late-neolithic. In addition, evidence from gravels along the Thames and Medway indicates activity in the surrounding Thames-Medway region from the Early-palaeolithic onwards.
- 4.4.5 The Hoo Peninsula Landscape Project records a number of features identified from aerial imagery of likely prehistoric date (**Figure 5**) which are predominantly located to the north and east of the Site. The data from the project records many of these sites as dating from the Bronze Age through to the Romano-British period, whilst further Sites are recorded under the broader category of 'prehistoric'. A further note is that some sites recorded as uncertain may also be of prehistoric date. Overall, these features identified by the project represent probable field boundaries and enclosures, along with several possible burial mounds (barrows) and settlements.
- 4.4.6 Data from the KHER (**Figure 2**) duplicates many of the Sites identified by the Hoo Peninsula Landscape Project (**Figure 5**), although it lists a number of further records relating to finds and Sites which are not listed in the national mapping programme data from the Hoo Peninsula Landscape Project. These further records primarily reference findspots and similarly span a general period from the Bronze Age through to the Romano-British period.
- 4.4.7 Sites 76 and 77 of the Lower Thames Crossing investigations (Oxford Cotswold Archaeology 2021a) located 550-700m to the south/south east of the Site found struck flint which provided evidence of early Mesolithic activity, and also an adze, sharpening flake, blades and bladelets of later Mesolithic or early Neolithic date. A backed knife and a

Levallois core are Later Neolithic or early Bronze Age, and denticulates probably of Bronze Age date were also found.

- 4.4.8 The evaluation also provided evidence for middle Bronze Age activity that included a deliberately buried pottery vessel, possibly within a posthole structure. Parallel ditches containing pottery of later Bronze Age or early Iron Age date possibly formed an enclosure. Evidence for a later Bronze Age cemetery comprised two unurned and undated cremations and two cenotaph. Middle Iron Age evidence consisted of a square enclosure, a pit and an adjacent but undated four-post structure containing evidence for domestic activities such as charred grain. Roman activity included an enclosure and a large pit in the west of the site (Oxford Cotswold Archaeology 2021a).
- 4.4.9 Sites 80 and 81 of the Lower Thames Crossing (Oxford Cotswold Archaeology 2021b) located 380-700m to the south and south west of the Site provided evidence for Neolithic worked flint, including one spread of flint on a buried land surface in the base of a dry valley sealed by colluvium. Several other groups of flint in fairly fresh condition came from pits scattered across the site, one also including pottery of early Neolithic date, and radiocarbon dated to 3640-3365 cal BC. Other residual groups in later pits, a sinkhole or quarry and a ditch show other former foci of Neolithic activity. Some of the flintwork could alternatively be later Mesolithic.
- 4.4.10 A pit of middle Bronze Age date was found in the southern part of the site, and a NW-SE boundary crossing the southern end of the site may have been dug in the late Bronze Age. Another significant linear boundary on the western side of the site was formed by two parallel ditches 4-6m apart and aligned NNW-SSE along the north edge of the main dry valley that lay north of Claylane Wood. This boundary may also have its origins in the late Bronze Age. Pottery suggests that it continued in use throughout the early Iron Age, and middle Iron Age pottery was found in the top in one trench. Beyond the end of the cropmark of these ditches to the south, the western ditch continued southward as a smaller ditch with a bank on the east (upslope) side to the edge of another dry valley running in from the ENE.
- 4.4.11 Where the cropmark ended, a pair of smaller ditches continued ENE along the northern edge of the second dry valley across several trenches, but then appeared to stop. Where the dry valley ended, another pair of large ditches—this time representing successive, intercutting boundaries—continued eastwards and effectively formed a boundary between the plateau areas to the north and south.
- 4.4.12 North of these boundaries there was a concentration of pits and postholes of late Bronze Age/early Iron Age date. Two of the pits contained briquetage, suggesting that salt manufacturing was taking place on the site during these periods. Middle Iron Age activity on the site was sparser, but included a pit south of the boundaries described above, together with a rectangular enclosure.
- 4.4.13 A pair of linked enclosures were found west of the focus of earlier Iron Age pits and postholes, thought to date to the mid-1st century AD. A cremation burial found within the enclosure was accompanied by two brooches dating AD 20-80. A second cremation burial to the north-east of the enclosure contained several iron nails and may indicate that the cremated remains were placed in a box. Activity within and around the enclosure continued into the 2nd-3rd centuries AD. A probable trackway extended south from the northern end of the site towards the focus of Roman occupation, and at the very north-western edge of the site was a cremation-burial pit containing an adult interred with three pottery vessels, including a samian dish suggesting a date of c AD 70-100/110. This was probably related

to an early Roman farmstead excavated below the Gravesend suburb of Hillside to the west of the site (Oxford Cotswold Archaeology 2021).

- 4.4.14 Evidence indicates that by the Romano-British period the Site was sat within a widely settled landscape with extensive areas of field systems and dispersed settlements, which was likely well connected to surrounding areas by the nearby Watling Street (1.5 km south of the Site) and the Thames Estuary (2.5 km north of the Site).
- 4.4.15 Overall, within the vicinity of the Site, evidence from a range of sources indicates the presence of relatively extensive settlement and activity in the landscape around the Site during later-prehistory and the Romano-British period. In particular the Bronze Age, Iron Age and Romano-British periods are well represented by field systems and settlement which are predominantly concentrated in a sizable area approximately 300-700 m south of the Site. In addition, the nearest two of the records listed by the KHER relate to this period, with an Iron Age copper alloy coin (MKE37323) and set of Romano-British pots (MKE1569) all recovered from a location approximately 225 m north of the Site boundary.

Early-medieval and Medieval (AD 410–1500)

- 4.4.16 The KHER lists a limited selection of records (**Figure 3**) relating to the medieval period predominantly referencing several findspots relating to coins and other metallic artefacts recovered from across the Study Area. A further record references the site of the former “Monkin Tithe Barn” (MKE11109) in Thong which has likely origins as a settlement in the medieval period. Linking Thong and the village of Chalk, the route of Thong Lane which passes immediately west of the Site is highly likely to have been established by the medieval period, with the Site itself situated within the fields to the south of Chalk. The village of Chalk which retains its medieval church is listed in the Domesday Book of 1086 as a settlement comprising of 24 Households with its Tennant in Chief: Bishop Odo of Bayeux. The Domesday Book also indicates that the village was established by the close of the early-medieval period listing the lord at the time of the Norman conquest (1066) as Godwin son of Dudemann.
- 4.4.17 Sites 76-77 of the Lower Thames Crossing investigations located 550-700m to the south/south east of the Site revealed an early-middle Saxon large pit on the eastern edge of the evaluation area. Its upper levels contained a significant quantity of pottery dated to c 550-750, together with an antler comb and iron debris.
- 4.4.18 Medieval evidence included the remains of a probable corn-dryer or malting kiln, together with several ditches and pits, all near to the eastern edge of the site. A boundary ditch evident on historic maps was traced, and at one point also contained medieval pottery, just possibly indicating a medieval origin.

Post-medieval and 19th century (AD 1500–1900)

- 4.4.19 The KHER (**Figure 3**) and data from the Hoo Peninsula Landscape Project (**Figure 7**) lists a selection of records relating to sites from the post-medieval period. A number of cropmark sites identified by the Hoo Peninsula Landscape Project reflect medieval and post-medieval field boundaries in the form of rectilinear enclosures, predating the present field boundaries which appear to have been established by the 1841 Tithe Map (**Figure 8a**). This map depicts the area between Chalk and Thong Lane primarily occupied by several large fields and a number of smaller fields. The accompanying tithe apportionment lists the owner of the field in which the Site is now located as The Right Honourable John Stewart Earl of Darnley.

- 4.4.20 Through the latter half of the 19th century, the Site and its vicinity appears relatively unchanged with the only noticeable change being the addition of West Wood Farm (MKE84359) during the period spanning the 1869 6-inch Ordnance Survey map and the 1897 25-inch Ordnance Survey map (see **Figure 8b** 1909 6-inch OS map). The KHER also lists several further outfarms within the Study Area which date to the post-medieval period and 19th century. In addition, a number of findspots are recorded which further evidence activity in the Study Area during these periods.

Modern (AD 1900–present day)

- 4.4.21 The KHER and Hoo Peninsula Landscape Project record a number of sites within the Study Area all relating to the former Gravesend Airport/RAF Gravesend. The Site occupies an area which was formerly part of Gravesend Airport, an aerodrome in use from the early 1930s through to the mid-1950s (MKE16159, **Figures 3, 6, 8c**). The aerodrome was initially opened as a civilian airfield first used by aviator Edgar Percival in 1932 becoming an alternative airport to London's Croydon Airport and a facility for general aviation activities and manufacture of the Percival Aircraft Company. The Royal Air Force established a presence at the airfield in 1937 utilising it as a training school.
- 4.4.22 The outbreak of the Second World War saw the RAF requisition the airfield becoming a satellite aerodrome of RAF Biggin Hill for 11 Group of Fighter Command, serving as a key aerodrome in the Battle of Britain. Following the Battle of Britain, the aerodrome was used for further operations over the south-east of England and across the Channel in Northern France. During this period the airfield was attacked on several occasions including on the September the 2nd and subsequently September 4th, 1940, causing limited damage to the airfield but killing two servicemen. To accommodate wartime operations, this period also saw the expansion of the airfield including additional hangarage, ancillary buildings and extended runways.
- 4.4.23 As shown by aerial photography spanning the wartime period, the area of the former aerodrome presently occupied by the Cascades Leisure Centre (the Site) was mainly built during the period 1940-1945 where the airfield was expanded east of Thong Lane with a new south-west to north-east oriented runway crossing Thong Lane. This expansion also saw the addition of dispersal pans around the airfield's perimeter track (including several within the Site), and auxiliary facilities (**Figure 7**). Structures visible on 1940s aerial imagery within the Site include three structures, two round open topped structures (one large and one small), and one rectangular roofed structure with embanked sides. These appear to represent a Bofors 40 mm light anti-aircraft (LAA) battery (MKE41772) and were situated within an area now occupied by grass to the rear of the present Leisure Centre Buildings.
- 4.4.24 Following the war, the aerodrome reverted to civilian operations with an RAF presence continuing at Gravesend until the aerodrome's closure in 1956. Following its closure, the western half of the aerodrome saw the construction of a new housing estate (**Figure 8d**) whilst the remaining area east of Thong Lane (including the Site) was subsequently developed as the Cascades Leisure Centre and golf course from the late-1960s onwards.
- 4.4.25 Currently the Site includes a memorial area (flag, benches and memorial stone) to the former RAF Gravesend situated near the entrance of the present leisure centre buildings (**Photos 14-18**) and several information boards in the entrance lobby (**Photo 18**). In addition, a further memorial is situated outside the western Site entrance on Thong Lane (**Photo 14**).

- 4.4.26 In addition to those Sites directly associated with the aerodrome, the KHER lists several further sites to the north of the Site where anti-invasion defences were situated in the vicinity of Rochester Road and its junction with Thong Lane (MKE41724, MKE41713).

Undated & Uncertain

- 4.4.27 The Hoo Peninsula Landscape Project records a number of Sites as uncertain in date (**Figure 4**). These predominantly relate to crop marks identified from aerial imagery, with many corresponding with the prehistoric, Romano-British (**Figure 5**) and post-medieval (**Figure 6**) features identified by the project. In addition, the national mapping programme data records a large number of monuments as undated (**Figure 7**). Many of these are duplicates of monuments assigned periods in the Hoo Peninsula Landscape Project.

4.5 Summary of known and potential archaeological resource and significance

- 4.5.1 The KHER and Hoo Peninsula Landscape Project record a number of sites and features to the east of the Site, including a large area of contiguous cropmarks relating to features of probable prehistoric (Bronze Age and Iron Age) and Romano-British dates. The presence of extensive activity and settlement is further supported by several findspots scattered across the Study Area relating to the aforementioned periods, the closest of which were recovered from a location approximately 250 m to the north of the Site. Furthermore, evidence relating to these periods has also been identified by archaeological investigations to the west and the south of the Site. Based on our understanding and calibration of the known later-prehistoric and Romano-British archaeological resource there is the potential that further presently unidentified evidence of activity relating to these periods exists within the Site and its vicinity. If present such remains are likely to possess the potential to make a meaningful contribution our understanding at both a local and regional level to our understanding of the landscape and its use during these periods.
- 4.5.2 Limited records within the Study Area evidence activity from the early-medieval period through to the post-medieval period where the Site was located within an extensive area of fields bounded to the south-west by Thong Lane and situated in the parish of Chalk. Settlement during in these periods appears to have been focused on the villages of Chalk (approximately 1.5 km north) and in the hamlet of Thong (500 m to the south). This situation within a large area of agricultural land appears to have continued through to the early-20th century with the construction of Gravesend Airport. It is possible that buried remains relating to field boundaries pre-dating the airport may survive within the Site. The likelihood is that remains if present from the early medieval period through to the 19th century primarily relate to the cultivation and division the Site and its vicinity through these periods. Any later post-medieval and 19th century remains at most are likely to possess limited local significance, whilst earlier medieval and early medieval remains if present are likely to possess would likely possess a slightly elevated local significance relative with the subsequent periods.
- 4.5.3 During the Second World War Gravesend Airport (1932-1956) served as RAF Gravesend, an important aerodrome during the Battle of Britain and later operations across the English Channel. The aerodrome initially situated on the eastern side of Thong Lane, expanded east across Thong Lane during the Second World War resulting the construction of dispersal pans, ancillary buildings, and a LAA battery within the boundaries of the Site. Any surviving buried remains relating to the aerodrome and its wartime role are likely hold significant interest at a local level given the highly limited survival of other features and structures associated with the aerodrome.
- 4.5.4 The area adjacent to the Site south-west of Thong Lane was developed from the mid-1950s onwards, whilst the Site itself was developed in the late-1960s/1970s as the Cascades

Leisure Centre clearing any surface remains and structures of the former aerodrome within the Site. It is possible that buried remains relating to the Second World War aerodrome may survive below some areas of the Site, in particular the grass areas to the rear of the present buildings where several ancillary buildings and the possible LAA battery were located.

4.6 Assessment of archaeological survival and previous impacts

- 4.6.1 A large portion of the Site is occupied by the main building complex of the Cascades Leisure Centre. Within the footprint of these buildings, it is likely that their construction has truncated or removed entirely any archaeological features which may have been present prior to the construction of the leisure centre in the latter half of the 20th century.
- 4.6.2 Modern development associated with the Cascades Leisure Centre is likely to have removed the majority of features relating to the Second World War era aerodrome although limited areas outside the footprint of the present buildings may contain buried remains from the wartime period. Further truncation and destruction of any archaeological remains which may have been present is likely to be associated with buried services, access roads and car parking areas associated with the leisure centre.
- 4.6.3 The establishment of the present car parking areas and access roads within the Site likely resulted in the truncation and, in some instances, total removal of archaeological remains which may have been present in the Site. In addition, the installation of any buried services associated with the leisure centre are also likely to have truncated or removed entirely archaeological remains which may have been present along their routes.
- 4.6.4 Overall, these areas within the Site outside the footprint of the main leisure centre buildings present a higher potential for the survival of any archaeological remains which may be present due to the restricted potential for impacts associated with the aerodrome, and the previously undeveloped nature of the Site. This includes the areas of lawns and car parking to the front (south) of the present leisure centre and further areas of lawn to the rear (north) of the present Leisure Centre buildings.
- 4.6.5 Some further truncation and removal of any archaeological features which may have been present is likely to have been associated with the expansion of the airfield during the Second World War. These impacts were likely to have been constrained to areas of hard standing and structures, although it is possible that additional levelling may have occurred with the expansion of the airfield.
- 4.6.6 At the time of writing no geotechnical investigations had taken place. As such no borehole/trial pit logs were available to assist with the assessment of previous development impacts within the Site.

5 POTENTIAL DEVELOPMENT EFFECTS

5.1 Introduction

- 5.1.1 This section provides an initial assessment of the potential effects of the proposed development in relation the archaeological resource.

5.2 Statement of potential impact

Archaeological remains

- 5.2.1 The construction of the proposed development is anticipated to entail the following sources of ground disturbance and excavations:

- preliminary site investigation works;
- setting up a secure construction compound within the Site;
- plant movement;
- topsoil stripping;
- piling and/or excavation for new foundation trenches and swimming pool;
- installation of services, drainage and other infrastructure;
- establishment of new car parking areas, roads and access points;
- establishment of outdoor fitness zone and active play zone;
- hard landscaping works (levelling, remodelling); and
- soft landscaping and environmental enhancement works, including planting.

5.2.2 The aforementioned works have the potential to result in the damage to or loss of any buried archaeological features which may be present within their footprint. This could in turn result in a total or partial loss of significance of these heritage assets.

5.2.3 Any adverse impact to buried archaeological features would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation.

5.2.4 The most destructive elements of the development proposals in terms of below ground archaeology (should any such remains be present within the Site) would be likely to be associated with excavation for foundations of the new building and the swimming pool.

5.2.5 The excavation of trenches associated with the installation of drainage and buried services is also present the potential to truncate or remove any archaeological remains which may be present along their route.

5.2.6 Topsoil removal and levelling works for the establishment of new car parks would also risk exposure and damage to any buried archaeological remains present within the affected areas.

5.2.7 In addition, should substantial landscaping or levelling works be required in order to establish the active play zone and outdoor fitness zone, these activities may also result in widespread truncation or removal of any archaeological remains present within the working areas. However, it may be possible to preserve large areas within the footprint of these zones *in situ*, depending on the construction methodology employed.

6 CONCLUSIONS

6.1 General

6.1.1 The effect of the development proposals on the known and potential archaeological resource will be a material consideration in determination of the planning application. This

study has identified no overriding archaeological constraints which are likely to prohibit development.

Archaeological remains

- 6.1.2 Based on our present understanding of the known archaeological resource there is a potential for buried remains within the Site which hold archaeological interest. This interest is generally defined by the potential presence of buried archaeological remains, in particular relating to the Second World War aerodrome, and remains dating from later-prehistory (Bronze Age and Iron Age) and the Romano-British periods. However, due to a lack of previous archaeological investigation within the Site, the potential for and significance of any such remains could not be accurately assessed on the basis of the available evidence.
- 6.1.3 As shown by aerial photography spanning the wartime period, the area of the former aerodrome presently occupied by the Cascades Leisure Centre (the Site) was mainly built during the period 1940-1945 where the airfield was expanded east of Thong Lane with a new south-west to north-east oriented runway crossing Thong Lane. This expansion also saw the addition of dispersal pans around the airfield's perimeter track (including several within the Site), and auxiliary facilities. Structures visible on 1940s aerial imagery within the Site include three structures, two round open topped structures (one large and one small), and one rectangular roofed structure with embanked sides. These appear to represent a Bofors 40 mm light anti-aircraft (LAA) battery and were situated within an area now occupied by grass to the rear of the present Leisure Centre Buildings.
- 6.1.4 Any adverse impact to buried archaeological features as a result of the implementation of the development proposals would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation, in accordance with national and local planning policy.
- 6.1.5 As noted on the Site visit, the area outside the entrance into the present leisure centre buildings includes a memorial area to RAF Gravesend which served as an aerodrome during Second World War, most notably as a fighter station during the Battle of Britain. A second memorial is present outside the Site's north-western entrance on Thong Lane. These memorials are of importance in sustaining memory of the Site's wartime role and disseminating information to the public.
- 6.1.6 The presence, location and significance of any buried archaeological remains within the Site cannot currently be confirmed on the basis of the available information. As such it is likely that additional investigations may be required by the planning archaeologist for Kent County Council.
- 6.1.7 The need for, scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities.
- 6.1.8 The present masterplan indicates a car parking area is to be built on the Site of the present leisure centre buildings including the memorial area to the front of these buildings. Due to its role in highlighting and memorialising the Site's significance in the Second World War, the retention or relocation of the memorial area would be recommended for inclusion in the proposed scheme. Additionally, the proposed development represents an opportunity to enhance the provision of heritage interpretation resources (such as information boards) to further commemorate the Site's heritage with regards to the Second World War.

REFERENCES

Bibliography

- Ancient Monuments and Archaeological Areas Act 1979.*
<https://www.legislation.gov.uk/ukpga/1979/46>
- Chartered Institute for Archaeologists 2014 (revised October 2020). *Standards and guidance for historic environment desk-based assessment.* <https://www.archaeologists.net/codes/cifa>
- Gravesham Borough Council, 2017. *Thong, Shorne Conservation Area Appraisal.*
<https://www.gravesham.gov.uk/heritage-conservation/conservation-areas/2>
- Gravesham Borough Council, 2014. *Gravesham Local Plan.* <https://www.gravesham.gov.uk/local-plan-policy/local-plan>
- Historic Buildings and Ancient Monuments Act 1953.*
https://www.legislation.gov.uk/ukpga/1953/49/pdfs/ukpga_19530049_en.pdf
- Historic England 2015a. *Managing Significance in Decision-Taking in the Historic Environment: historic environment good practice advice in planning note 2.*
<https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/>
- Historic England 2015b. *The Hoo Peninsula Landscape.* <https://historicengland.org.uk/images-books/publications/hoo-peninsula-landscape/>
- Historic England 2017. *The Setting of Heritage Assets: historic environment good practice advice in planning note 3.* <http://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>
- Historic England 2019. *Statements of Heritage Significance: analysing significance in heritage assets.* <https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/>
- Ministry of Housing, Communities and Local Government (MHCLG) 2021. *National Planning Policy Framework.*
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
- National Heritage Act 1983.* <http://www.legislation.gov.uk/ukpga/1983/47/contents>
- Oxford Cotswold Archaeology, 2021a. *Lower Thames Crossing, Archaeological Evaluation Report for Trial Trenching of Land Parcels 76 and 77, Shore Ifield Road, Shorne, Kent.* Unpublished report.
- Oxford Cotswold Archaeology, 2021b. *Lower Thames Crossing, Archaeological Evaluation Report for Trial Trenching of Land Parcels 80 and 81, Land West of Thong Lane, Thong.* Unpublished report.
- Planning (Listed Buildings and Conservation Areas) Act 1990.*
<https://www.legislation.gov.uk/ukpga/1990/9/contents>
- Protection of Military Remains Act 1986.* <https://www.legislation.gov.uk/ukpga/1986/35/contents>



Town and Country Planning Act 1990. <https://www.legislation.gov.uk/ukpga/1990/8/contents>.

UNESCO Convention Concerning the Protection of the World Cultural and National Heritage 1972.
<https://whc.unesco.org/en/conventiontext/>

Historic Environment Records

Kent Historic Environment Record (KHER)

Cartographic and documentary sources

1841 Chalk Tithe Map (copy available at Kent Heritage Centre)

1863 First Edition Ordnance Survey 6-inch map (1:10,560)

1897 First Edition Ordnance Survey 25-inch map (1:2,500)

1909 Edition Ordnance Survey 6-inch map (1:10,560)

1936 Oblique Aerial Photo: Aerial Photo - EPW049886 (<https://historicengland.org.uk/images-books/archive/collections/aerial-photos/record/EPW049886>)

1938 Edition Ordnance Survey 25-inch map (1:2,500)

1946 Edition Ordnance Survey 6-inch map (1:10,560)

1946 aerial imagery orthomosaic Kent County Council
(<https://webapps.kent.gov.uk/KCC.HeritageMaps.Web.Sites.Public.Default.aspx>)

1946 aerial orthophotos: raf_cpe_uk_1789_rp_3124 (https://historicengland.org.uk/images-books/archive/collections/aerial-photos/record/raf_cpe_uk_1789_rp_3124)

1950 aerial orthophoto: raf_541_591_rp_3040 (https://historicengland.org.uk/images-books/archive/collections/aerial-photos/record/raf_541_591_rp_3040)

1960 Aerial imagery orthomosaic (12/1960) – Google Earth

1966 Edition Ordnance Survey 6-inch map (1:10,560)

Online resources

<https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/> – BGS Geology Viewer

<http://www.domesdaymap.co.uk> – Domesday survey information

<http://www.historicengland.org.uk/listing/the-list> – information on designated assets

<http://www.nationalarchives.gov.uk> – documentary resources

<http://www.british-history.ac.uk> – documentary resources

<http://www.pastscape.org.uk> – data on sites, find-spots and excavations

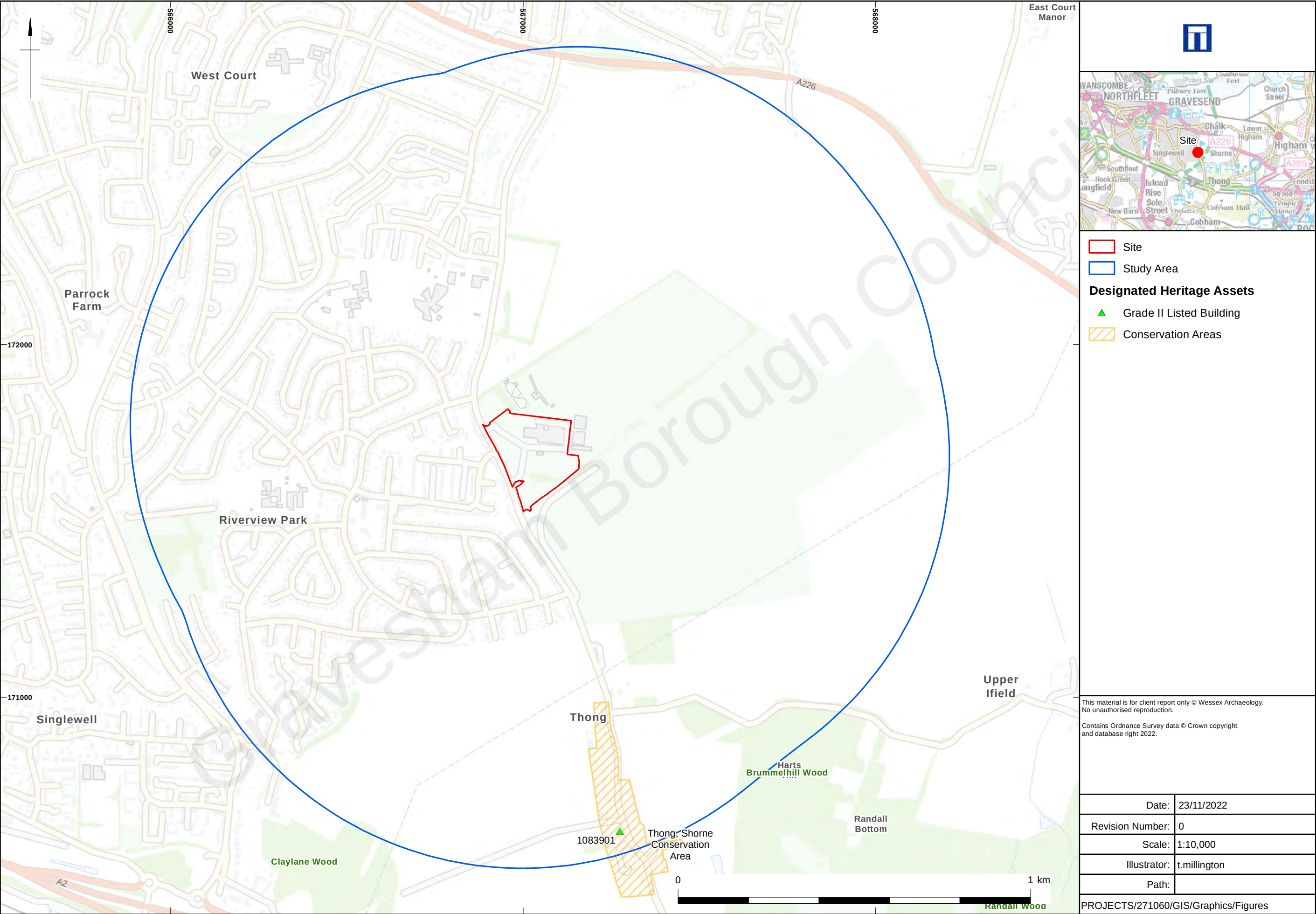


<http://archaeologydataservice.ac.uk/archives/view/romangl/map.html> – The Rural Settlement of Roman Britain

<https://archaeologydataservice.ac.uk/archives/view/dob/> – Defence of Britain database

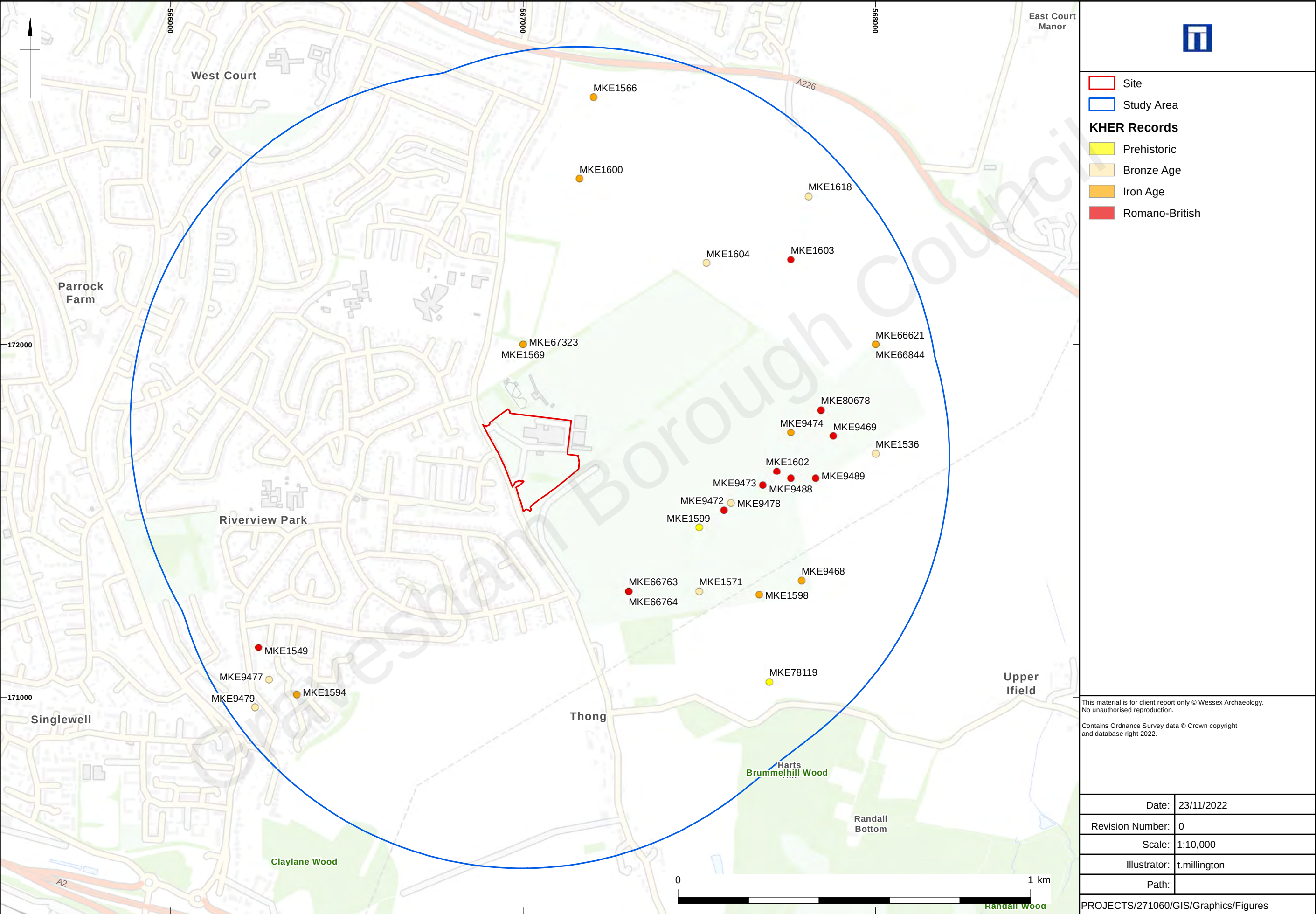
All URLs Accessed on 11/11/2022

Gravesham Borough Council

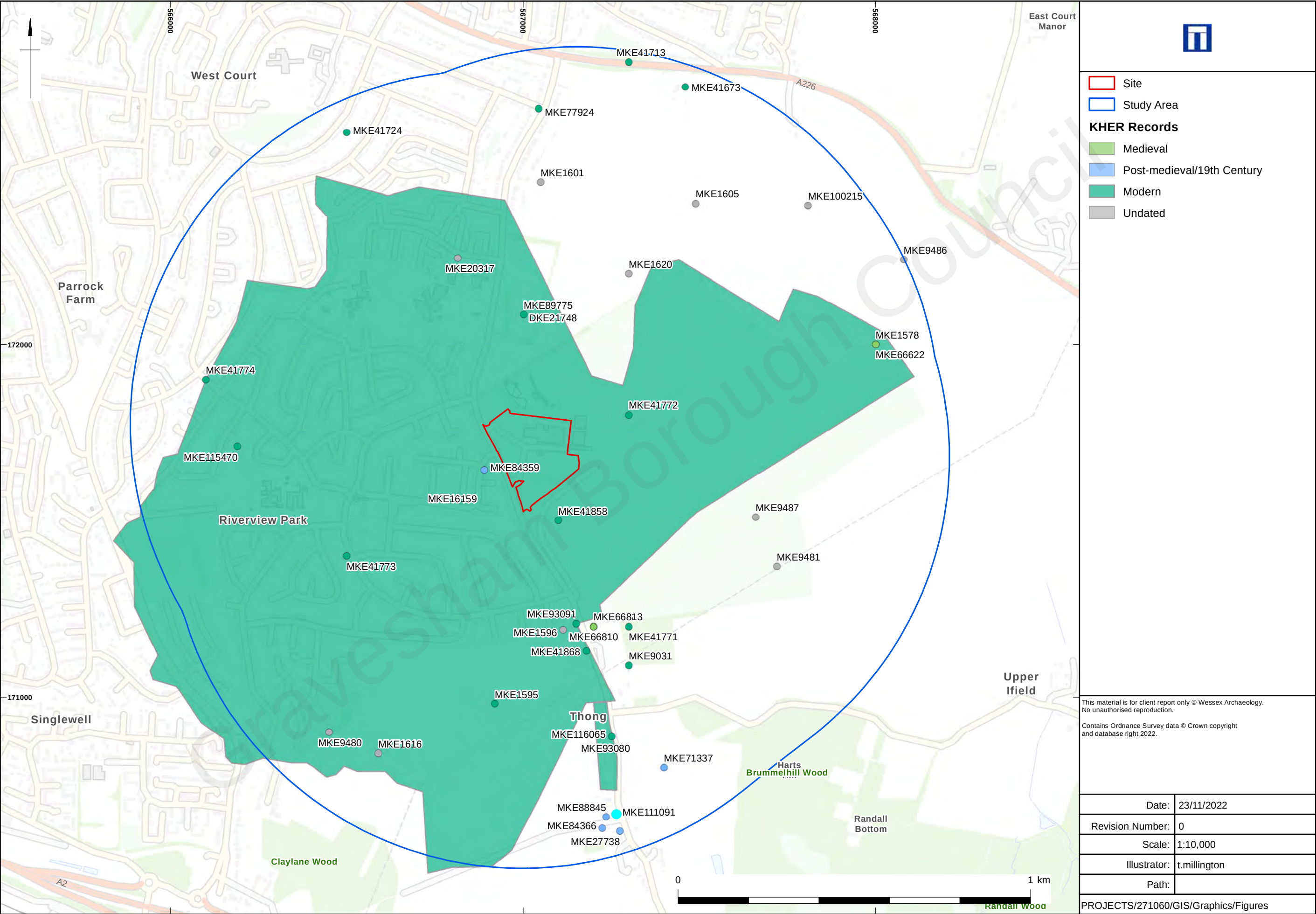


Site, Study Area and Designated Heritage Assets

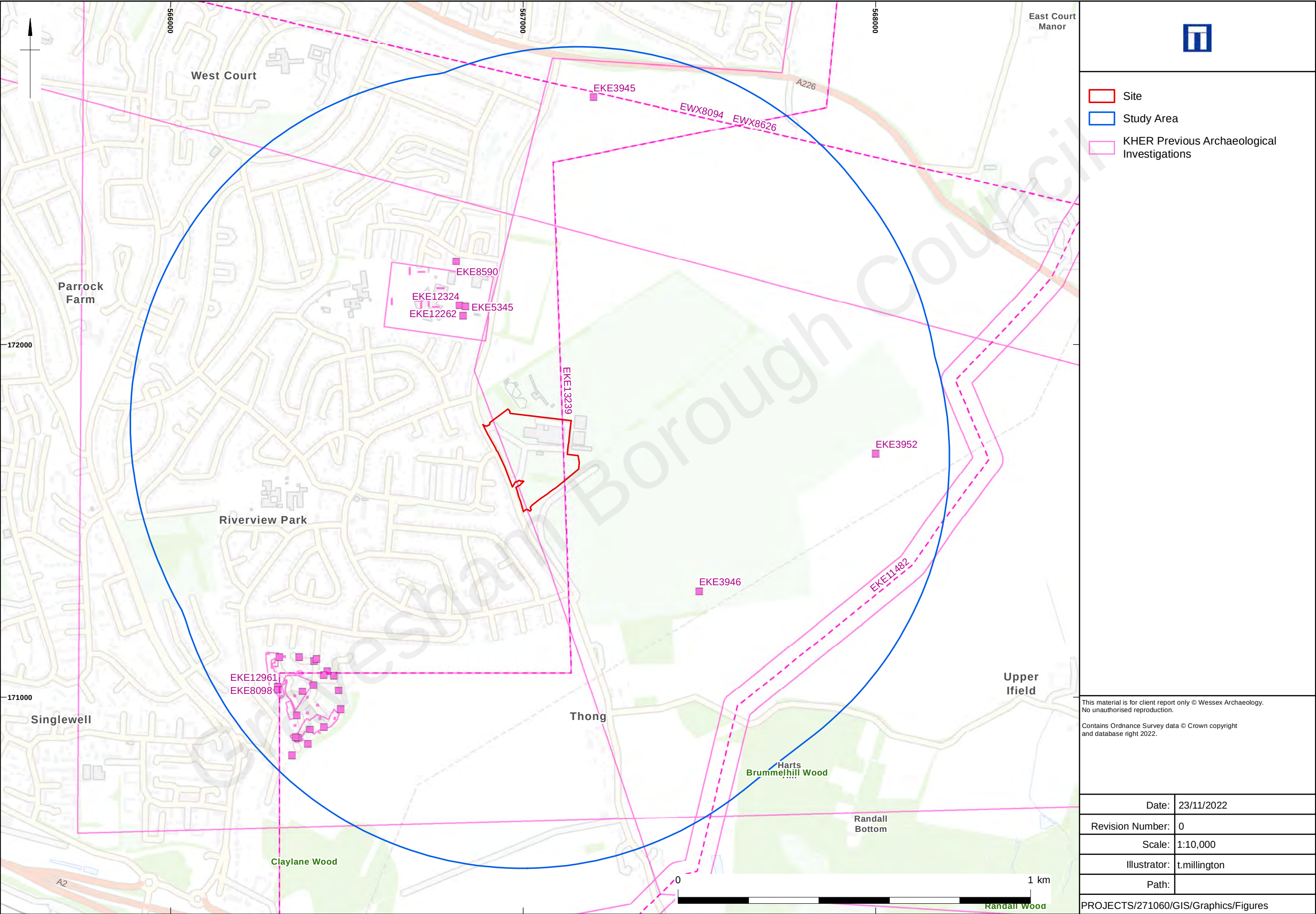
Figure 1



Site, Study Area and KHER Records (Prehistoric, Bronze Age, Iron Age & Romano-British) Figure 2

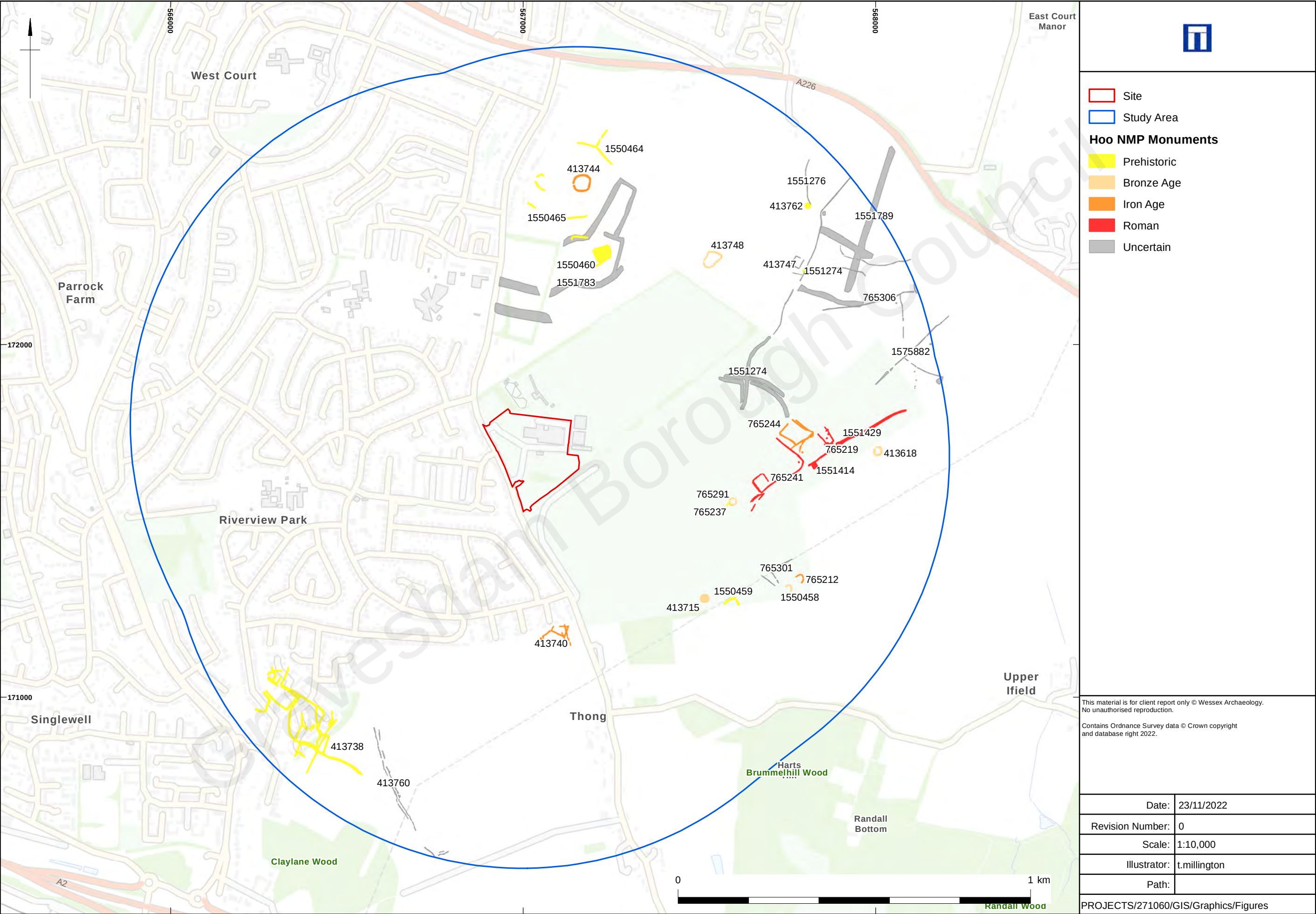


Site, Study Area and KHER Records (Medieval, Post-medieval/19th Century, Modern & Undated) Figure 3

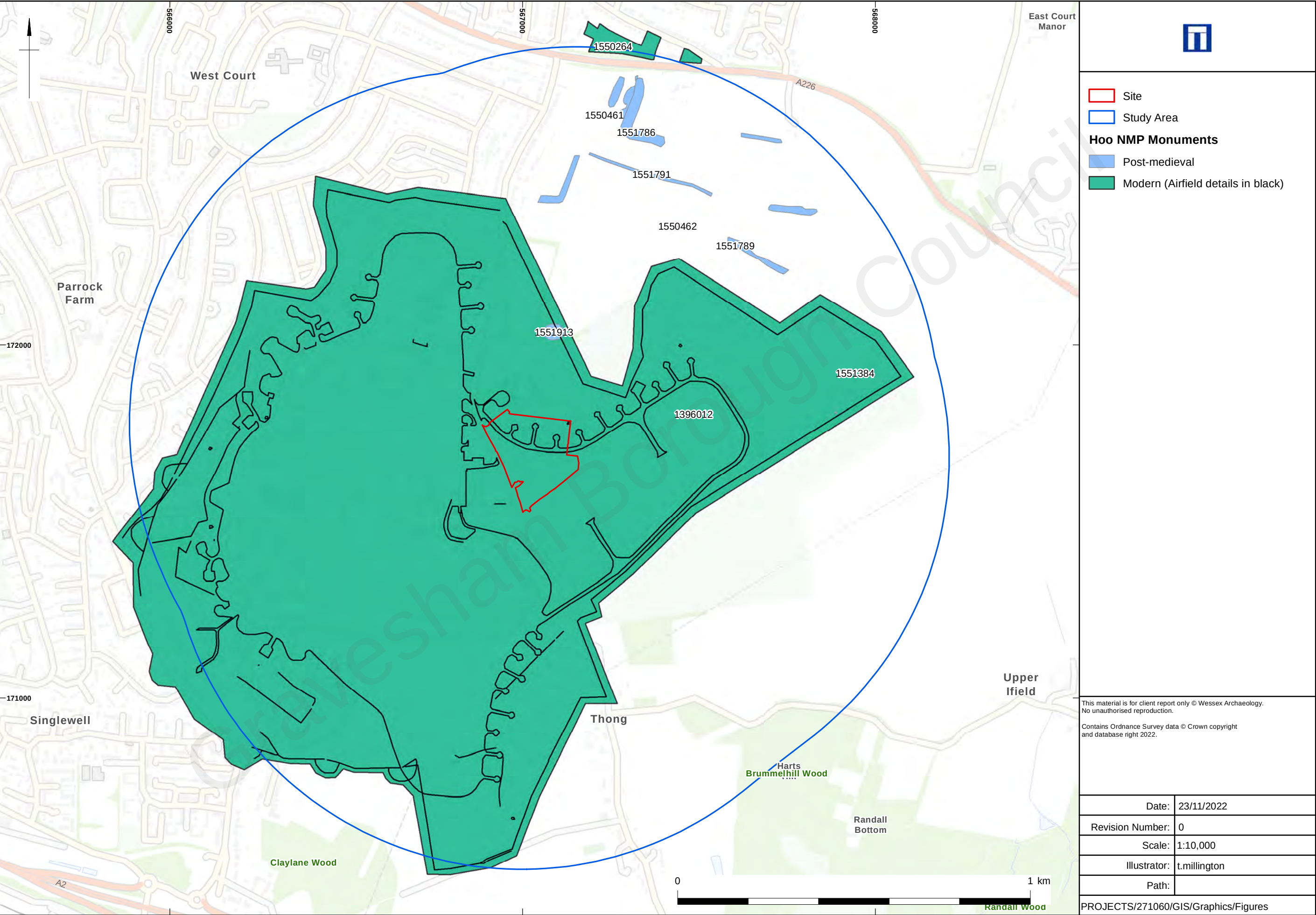


Site, Study Area and KHER Previous Archaeological Investigations

Figure 4

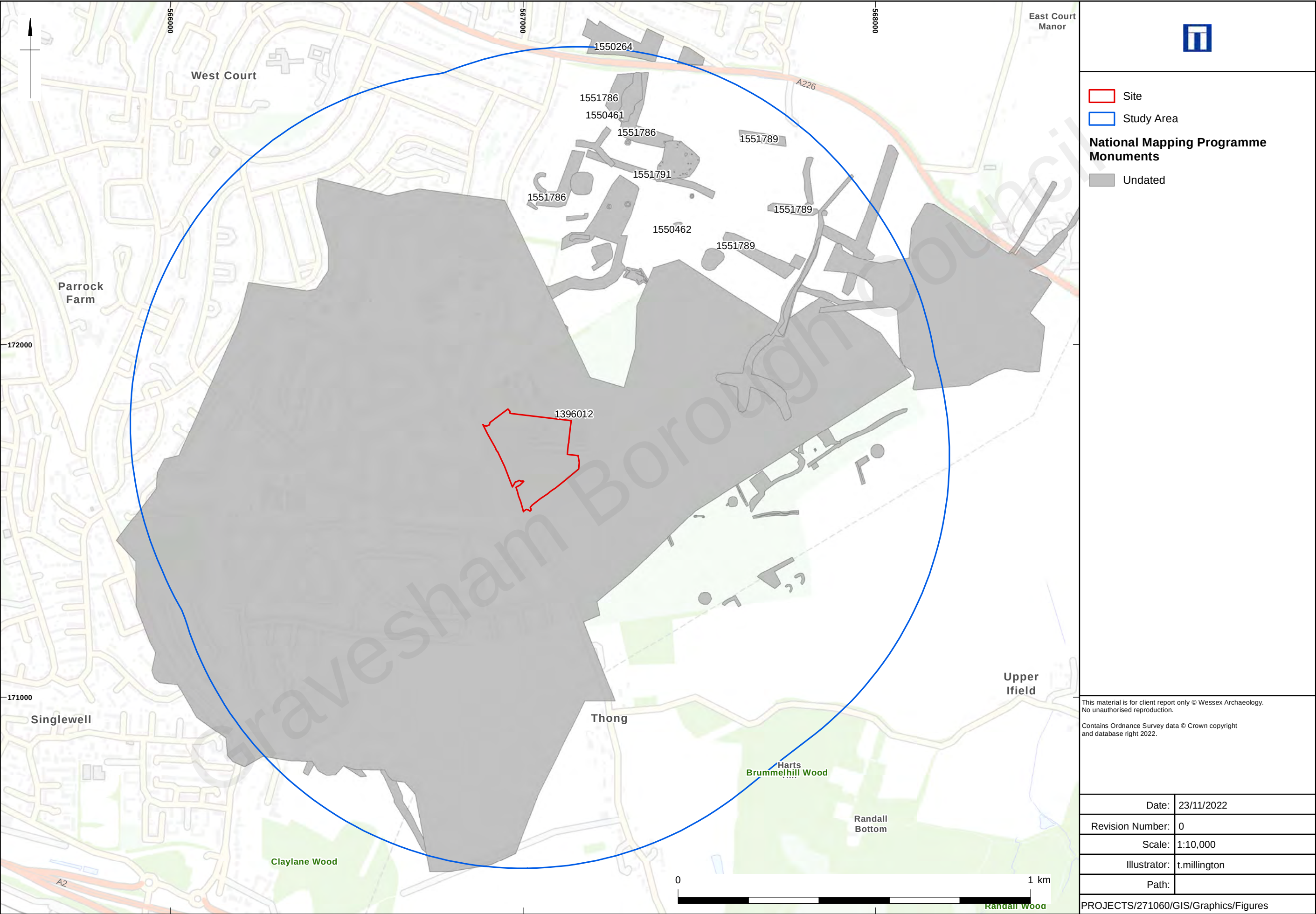


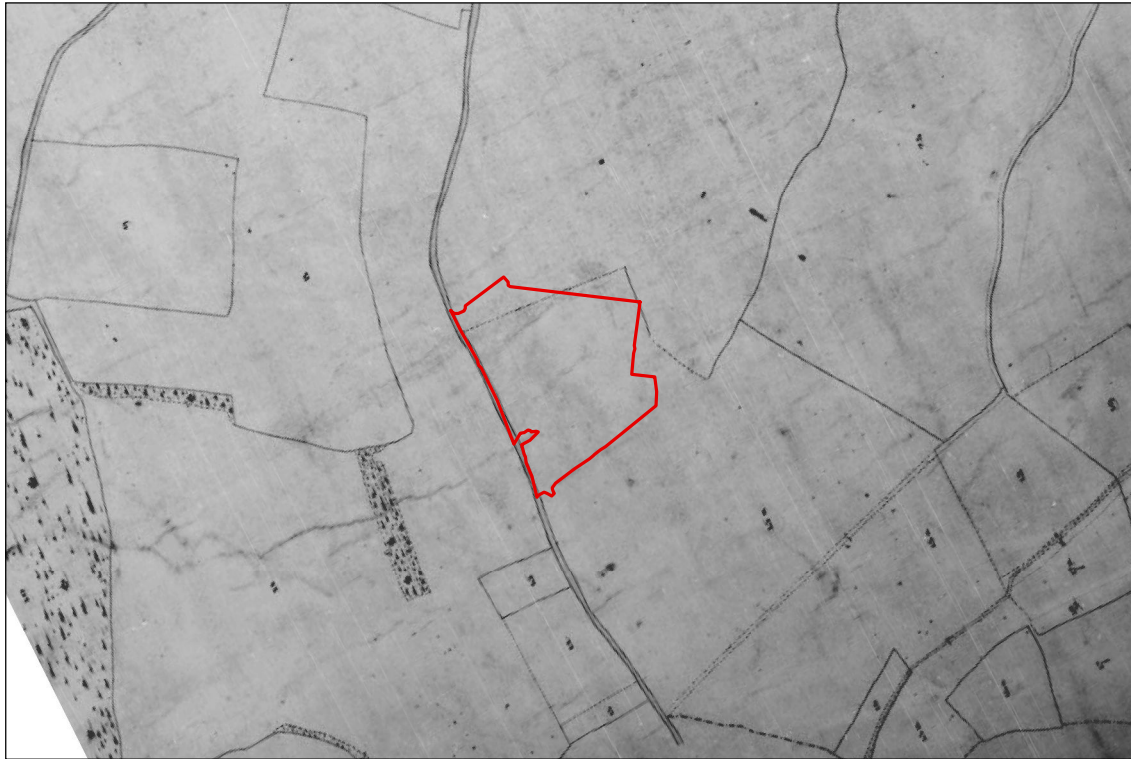
Site, Study Area and Hoo National Mapping Programme Monuments (Prehistoric, Bronze, Age, Iron Age, Romano-British & Uncertain)



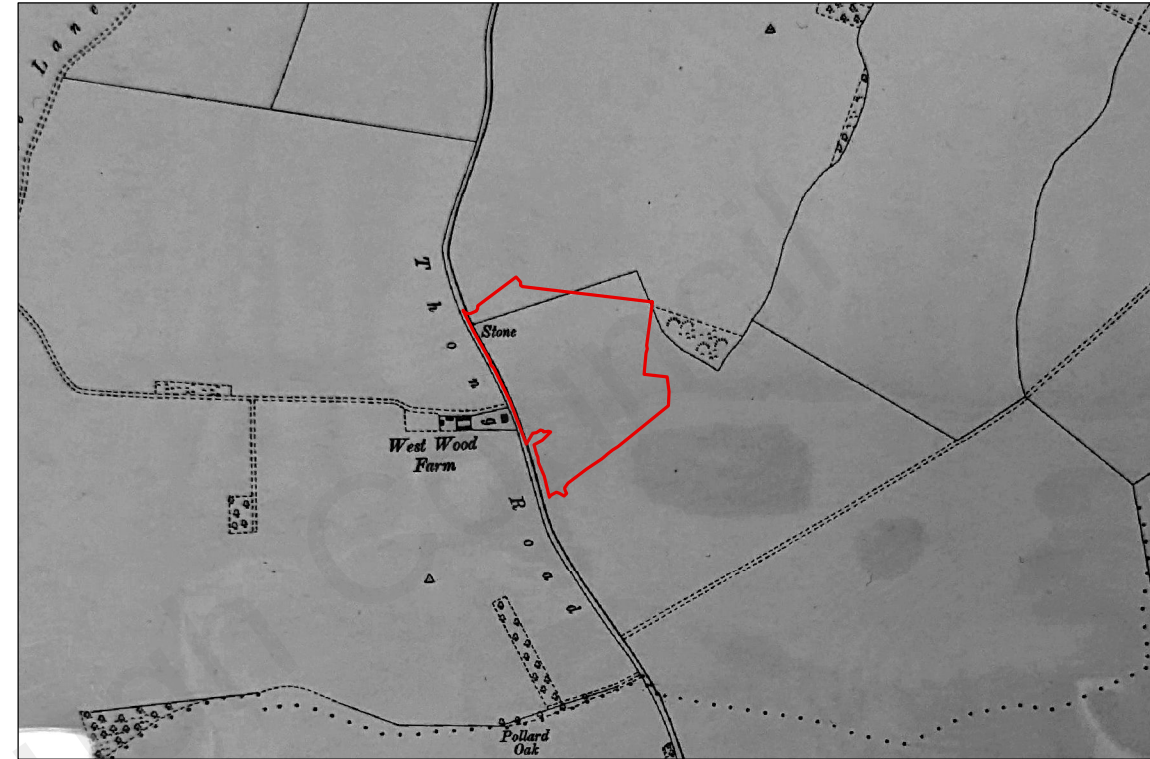
Site, Study Area and Hoo National Mapping Programme Monuments (Post-medieval and Modern)

Figure 6





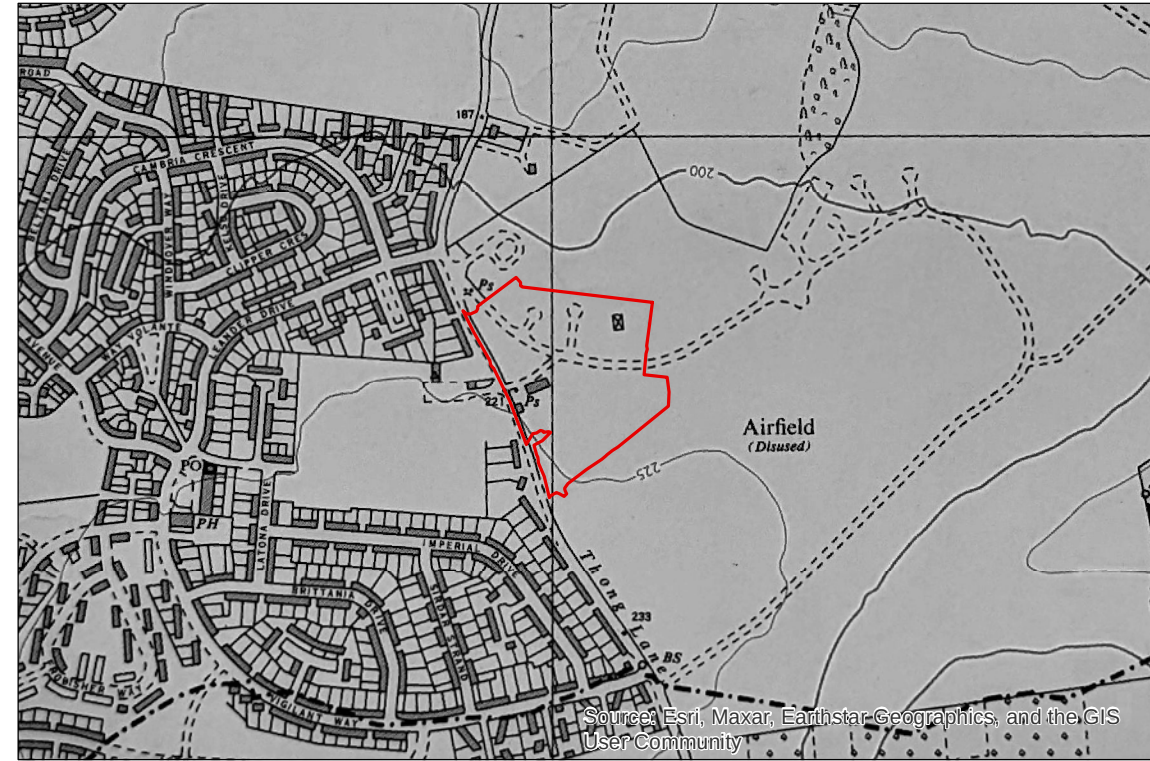
A) 1841 Chalk Tithe map



B) 1909 OS 6-inch map



C) 1946 revision OS 6-inch map



D) 1966 OS 6-inch map



Site

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Photo 1) Entrance to Cascades Leisure Centre with memorial area.



Photo 2) Western end of the present leisure centre buildings viewed from south side.



Photo 3) Cafe building between leisure centre buildings and car park viewed from the north.



Photo 4) Western side of the present leisure centre buildings with tennis court area viewed from west.



Photo 5) Northern side of leisure centre buildings viewed from north-west.



Photo 6) Leisure centre buildings viewed from the north with adjacent lawn in northern area of the site.

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Photo 7) Car park area to front of leisure centre buildings looking north.



Photo 8) Looking north along entrance road towards leisure centre buildings.



Photo 9) Play area within western area of the Site looking north.



Photo 10) Looking east across western area of Site towards play area.



Photo 11) Western area of Site with entrance and lawn area.



Photo 12) Entrance road to the front of leisure centre buildings looking west.

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Photo 13) Lawn in southern area of the Site, looking south.



Photo 14) Memorial to RAF Gravesend outside of Site's north-western entrance on Thong Lane.



Photo 15) RAF Gravesend memorial outside main entrance to leisure centre building.



Photo 16) First of two RAF Gravesend memorial benches outside main entrance to leisure centre building.



Photo 17) Second of two RAF Gravesend memorial benches outside main entrance to leisure centre building.



Photo 18) RAF Gravesend interpretation board in entrance foyer of leisure centre.

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APPENDICES

Appendix 1: Terminology

Glossary

The terminology used in this assessment follows definitions contained within Annex 2 of NPPF:

Archaeological interest	There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
Conservation (for heritage policy)	The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.
Designated heritage asset	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.
Heritage asset	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing).
Historic environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Historic environment record	Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.
Setting of a heritage asset	The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
Significance (for heritage policy)	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.

Chronology

Where referred to in the text, the main archaeological periods are broadly defined by the following date ranges:

Prehistoric		Historic	
Palaeolithic	970,000–9500 BC	Romano-British	AD 43–410
Early Post-glacial	9500–8500 BC	Saxon	AD 410–1066
Mesolithic	8500–4000 BC	Medieval	AD 1066–1500
Neolithic	4000–2400 BC	Post-medieval	AD 1500–1800
Bronze Age	2400–700 BC	19th century	AD 1800–1899
Iron Age	700 BC–AD 43	Modern	1900–present day



Appendix 2: Legislative and planning framework

Designated Heritage Assets

Designation	Associated Legislation	Overview
World Heritage Sites	-	The United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage Committee inscribes World Heritage Sites for their Outstanding Universal Value (OUV) – <i>cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity</i> . England protects its World Heritage Sites and their settings, including any buffer zones or equivalent, through the statutory designation process and through the planning system. The National Planning Policy Framework sets out detailed policies for the conservation and enhancement of the historic environment, including World Heritage Sites, through both plan-making and decision-taking.
Scheduled Monuments and Areas of Archaeological Importance	<i>Ancient Monuments and Archaeological Areas Act 1979</i>	Under the <i>Ancient Monuments and Archaeological Areas Act 1979</i> , the Secretary of State (DCMS) can schedule any site which appears to be of national importance because of its historic, architectural, traditional, artistic or archaeological interest. The historic town centres of Canterbury, Chester, Exeter, Hereford and York have been designated as Archaeological Areas of Importance under Part II of the <i>Ancient Monuments and Archaeological Areas Act 1979</i> . Additional controls are placed upon works affecting Scheduled Monuments and Areas of Archaeological Importance under the Act. The consent of the Secretary of State (DCMS), as advised by Historic England, is required for certain works affecting Scheduled Monuments.
Listed Buildings	<i>Planning (Listed Buildings and Conservation Areas) Act 1990</i>	In England, under Section 1 of the <i>Planning (Listed Buildings and Conservation Areas) Act 1990</i> , the Secretary of State is required to compile lists of buildings of special architectural or historic interest, on advice from English Heritage/Historic England. Works affecting Listed Buildings are subject to additional planning controls administered by Local Planning Authorities. Historic England is a statutory consultee in certain works affecting Listed Buildings. Under certain circumstances, Listed Building Consent is required for works affecting Listed Buildings.
Conservation Areas	<i>Planning (Listed Buildings and Conservation Areas) Act 1990</i>	A Conservation Area is an area which has been designated because of its special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. In most cases, Conservation Areas are designated by Local Planning Authorities. Section 72 (1) of the <i>Planning (Listed Buildings and Conservation Areas) Act 1990</i> requires authorities to have regard to the fact that there is a Conservation Area when exercising any of their functions under the Planning Acts and to pay special attention to the desirability of preserving or enhancing the character or appearance of Conservation Areas. Although a locally administered designation, Conservation Areas may nevertheless be of national importance and significant developments within a Conservation Area are referred to Historic England.
Registered Parks and Gardens and Registered Battlefields	<i>Historic Buildings and Ancient Monuments Act 1953</i> <i>National Heritage Act 1983</i>	The Register of Parks and Gardens was established under the <i>National Heritage Act 1983</i> . The Battlefields Register was established in 1995. Both Registers are administered by Historic England. These designations are non-statutory but are, nevertheless, material considerations in the planning process. Historic England and The Garden's Trust (formerly known as The Garden History Society) are statutory consultees in works affecting Registered Parks and Gardens.
Protected Wreck Sites	<i>Protection of Wrecks Act 1973</i>	The <i>Protection of Wrecks Act 1973</i> allows the Secretary of State to designate a restricted area around a wreck to prevent uncontrolled interference. These statutorily protected areas are likely to contain the remains of a vessel, or its contents, which are of historical, artistic or archaeological importance.

National Planning Policy Framework (NPPF)

NPPF Section 16: Conserving and enhancing the historic environment	
Para. 194	In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. 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. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
Para. 195	Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.
Para. 197	In determining applications, local planning authorities should take account of: a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation; b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and c) the desirability of new development making a positive contribution to local character and distinctiveness.
Para. 199	When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.
Para. 200	Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of: a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional; b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional⁶⁸. ⁶⁸ Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
Para. 201	Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply: a) the nature of the heritage asset prevents all reasonable uses of the site; and b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and d) the harm or loss is outweighed by the benefit of bringing the site back into use.
Para. 202	Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.



NPPF Section 16: Conserving and enhancing the historic environment	
Para. 203	The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
Para. 205	Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible ⁶⁹ . However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted. ⁶⁹ Copies of evidence should be deposited with the relevant historic environment record, and any archives with a local museum or other public depository.
Para. 206	Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.
Para. 207	Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.
Para. 208	Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.



Local Planning Policy

Gravesham Local Plan (September 2014)		
Policy ref.	Title	Scope
CS19	Development and Design Principles	5.15.14 New development will be visually attractive, fit for purpose and locally distinctive. It will conserve and enhance the character of the local built, historic and natural environment, integrate well with the surrounding local area and meet anti-crime standards. The design and construction of new development will incorporate sustainable construction standards and techniques, be adaptable to reflect changing lifestyles, and be resilient to the effects of climate change. This will be achieved through the criteria set out below: • Using the collaborative approach advocated in Building for Life 12 and in line with the guidance set out in Kent Design, the design, layout and form of new development will be derived from a robust analysis of local context and character and will make a positive contribution to the street scene, the quality of the public realm and the character of the area. Account will be taken of the scale, height, building lines, layout, materials and other architectural features of adjoining buildings. Account will also be taken of the wider site context, including strategic views, site topography, the significance of heritage assets and features of townscape and landscape value which contribute to local character and sense of place; • New development will encourage sustainable living and choice through a mix of compatible uses which are well connected to places that people want to use, including the public transport network, local services and community facilities; encourage sustainable travel; enhance Green Grid links and encourage healthier lifestyles; • New development will be located, designed and constructed to: • safeguard the amenity, including privacy, daylight and sunlight, of its occupants and those of neighbouring properties and land; • avoid adverse environmental impacts from pollution, including noise, air, odour and light pollution, and land contamination; and • not pose an unacceptable risk or harm to the water environment, including the quality and/or quantity of ground waters, surface waters, wetlands and coastal water systems; • The design and layout of new residential development, including conversions, will accord with the adopted Residential Layout Guidelines; • New development will be designed in an inclusive way to be accessible to all



Gravesham Local Plan (September 2014)		
Policy ref.	Title	Scope
		members of the community; • New development will provide appropriate levels of private and public amenity space; • New development will include details of appropriate hard and soft landscaping, public art, street furniture, lighting and signage and will ensure that public realm and open spaces are well planned, appropriately detailed and maintained so they endure; • Car parking will be well related to the development it serves; • New development will protect and, where opportunities arise, enhance biodiversity and the Borough's Green Infrastructure network. Support will be given to environmental enhancements where opportunities arise; • New development will be fit for purpose and adaptable to allow changes to be made to meet the needs of users; • The design and layout of new development will take advantage of opportunities to build in resilience to the effects of climate change. This will include protection against flood risk, where relevant, delivering carbon reduction, provision for low carbon and renewable energy, and minimising energy consumption and water use; • New development will incorporate appropriate facilities for the storage and recycling of waste; and • The layout of new development will create a safe and secure environment and provide surveillance to minimise opportunities for crime and vandalism.
CS20	Heritage and the Historic Environment	5.16.10 The Council will accord a high priority towards the preservation, protection and enhancement of its heritage and historic environment as a non-renewable resource, central to the regeneration of the area and the reinforcement of sense of place. Particular attention in this regard will be focused on those heritage assets most at risk through neglect, decay or other threats. Securing viable, sustainable and appropriate futures for such assets at risk will need to be reconciled with the sensitivity to change that many present. 5.16.11 Proposals and initiatives will be supported which preserve and, where appropriate, enhance the significance of the Borough's heritage assets, their setting where it contributes to the significance of the asset and their interpretation and enjoyment, especially where these contribute to the distinct identity of the Borough. These include: • Gravesend Town Centre, its development as a heritage riverside town, and its setting; • The Borough's urban and rural conservation areas; and • Surviving built features and archaeology relating to the Borough's maritime, military, industrial and transport history. 5.16.12 When considering the impact of a proposed development on a designate heritage asset, the weight that will be given to the asset's conservation value will be commensurate with the importance and significance of the asset. For non-designated assets, decisions will have regard to the scale of any harm or loss and the significance of the heritage asset.



Appendix 3: Gazetteer

Designated Heritage Assets

NHLE No.	Name	Location	Grade	Easting	Northing
1083901	WHITE HORSE COTTAGE	Shorne, Gravesend, Kent, DA12	II	567274.9	170619.8

KHER Records

MonUID	PrefRef	Name	Period	Easting	Northing
DKE21748		Crash site of Hawker Hurricane I	Aircraft	567001	172084
MKE1536	TQ 67 SE 10	Site of barrow (contracted primary; 5 secondary burials), cropmark	Bronze Age	568000	171690
MKE1549	TQ 67 SE 23	Brass of Constantine I found AD 1961	Roman	566250	171140
MKE1566	TQ 67 SE 40	Late Iron Age site, Thong lane	Iron Age	567200	172700
MKE1569	TQ 67 SE 43	Five miniature pots	Roman	567000	172000
MKE1571	TQ 67 SE 45	Circular crop mark (excavated) - poss round barrow	Bronze Age	567500	171300
MKE1578	TQ 67 SE 52	Medieval Terminal Plate	Medieval	568000	172000
MKE1594	TQ 67 SE 68	Iron Age/Roman settlement site, Hillside	Iron Age	566358	171006
MKE1595	TQ 67 SE 69	Road, cropmark	Modern	566920	170980
MKE1596	TQ 67 SE 70	Cropmark of a square enclosure, SE of Gravesend	Undated	567114	171192
MKE1598	TQ 67 SE 72	Settlement Complex, Cropmark	Iron Age	567670	171290
MKE1599	TQ 67 SE 73	Circular structure - poss. hut circle (cropmark)	Prehistoric	567500	171480
MKE1600	TQ 67 SE 74	Circular enclosed settlement with entrance to west	Iron Age	567160	172470
MKE1601	TQ 67 SE 75	Linear Feature, Cropmark	Undated	567050	172460
MKE1602	TQ 67 SE 76	Rectangular enclosed settlement - cropmark	Roman	567720	171640
MKE1603	TQ 67 SE 77	Rectangular enclosed settlement - cropmark	Roman	567760	172240
MKE1604	TQ 67 SE 78	Circular enclosed settlement - cropmark	Bronze Age	567520	172230
MKE1605	TQ 67 SE 79	Pits, Cropmark	Undated	567490	172400
MKE1616	TQ 67 SE 90	Curvilinear feature - poss. trackway, cropmark	Undated	566590	170840
MKE1618	TQ 67 SE 92	Ring-ditch - poss. round barrow; pit - cropmarks	Bronze Age	567810	172420
MKE1620	TQ 67 SE 94	Enclosures and cropmarks	Undated	567300	172200
MKE9468	TQ 67 SE 101	Enclosure - cropmark	Iron Age	567790	171330
MKE9469	TQ 67 SE 102	Enclosed settlement - cropmark	Roman	567880	171740



MKE9472	TQ 67 SE 105	Enclosed settlement - cropmark	Roman	567570	171530
MKE9473	TQ 67 SE 106	Enclosed settlement - cropmark	Roman	567680	171600
MKE9474	TQ 67 SE 107	Enclosed settlement - cropmark	Iron Age	567760	171750
MKE9477	TQ 67 SE 110	Probable Bronze Age barrow, Hillside	Bronze Age	566280	171050
MKE9478	TQ 67 SE 111	Enclosed settlement - cropmark	Bronze Age	567590	171550
MKE9479	TQ 67 SE 112	Enclosed settlement - cropmark	Bronze Age	566240	170970
MKE9480	TQ 67 SE 113	Possible enclosure fragment - cropmark	Undated	566450	170900
MKE9481	TQ 67 SE 114	Possible enclosure fragment (angled) - cropmark	Undated	567720	171370
MKE9486	TQ 67 SE 119	Trackway - cropmark	Undated	568080	172240
MKE9487	TQ 67 SE 120	Possible boundary ditch - cropmark	Undated	567660	171510
MKE9488	TQ 67 SE 121	Possible boundary ditch - cropmark	Roman	567760	171620
MKE9489	TQ 67 SE 122	Possible boundary ditch - cropmark	Roman	567830	171620
MKE9031	TQ 67 SE 212	Aa battery, Gravesend	Modern	567300	171090
MKE16159	TQ 67 SE 221	Gravesend airport (site)	Modern	566800	171564
MKE20317	TQ 67 SE 237	Undated Linear Features, Cervia Way, Gravesend	Undated	566815	172245
MKE27738	TQ 67 SE 1123	WHITE HORSE COTTAGE	Post-medieval	567275	170620
MKE41673	TQ 67 SE 1214	'Polperro' Second World War, anti-aircraft headquarters, Rochester Road, Chalk	Modern	567460	172730
MKE41713	TQ 67 SE 1158	Chalk Second World War Defended Locality DL20	Modern	567300	172800
MKE41724	TQ 67 SE 1176	Dust Heap Second World War Defended Locality, Gravesend	Modern	566500	172600
MKE41771	TQ 67 SE 1203	Thong Second World War light anti-aircraft battery, Thong Lane, Gravesend	Modern	567300	171200
MKE41772	TQ 67 SE 1205	Thong Lane Second World War light anti-aircraft battery, Nr. Gravesend	Modern	567300	171800
MKE41773	TQ 67 SE 1207	Riverview Park Second World War light anti-aircraft battery, Gravesend	Modern	566500	171400
MKE41774	TQ 67 SE 1210	Riverview Park Second World War anti-aircraft battery, Gravesend	Modern	566100	171900
MKE41858	TQ 67 SE 1159	RAF Gravesend, Thong Lane, Gravesend	Modern	567100	171500
MKE41868	TQ 67 SE 1151	Thong Lane Second World War roadblock, Gravesend	Modern	567180	171130
MKE66621	MKE66621	Iron Age copper alloy stud	Iron Age	568000	172000
MKE66622	MKE66622	Post Medieval pewter bell	Post-medieval	568000	172000
MKE66763	MKE66763	Roman base silver coin	Roman	567300	171300
MKE66764	MKE66764	Roman copper alloy plate brooch	Roman	567300	171300
MKE66809	MKE66809	Medieval copper alloy coin weight	Medieval	567200	171200
MKE66810	MKE66810	Medieval silver coin	Medieval	567200	171200



MKE66811	MKE66811	Medieval copper alloy coin	Medieval	567200	171200
MKE66812	MKE66812	Medieval copper alloy jetton	Medieval	567200	171200
MKE66813	MKE66813	Medieval silver coin	Medieval	567200	171200
MKE66844	MKE66844	Iron Age copper alloy coin	Iron Age	568000	172000
MKE67323	MKE67323	Iron Age copper alloy coin	Iron Age	567000	172000
MKE71337	MKE71337	Post Medieval copper alloy coin	Post-medieval	567400	170800
MKE77924	TQ 67 SE 322	George VI pillar box, Barr Road East / Thong Lane	Modern	567045	172668
MKE78119	TQ 67 SE 300	Prehistoric flint, Harts Hill	Prehistoric	567699	171043
MKE80678	TQ 67 SE 331	Rectilinear parchmarks, Southern Valley Golf Course	Roman	567845	171814
MKE84359	MKE84359	West Wood Farm	Post-medieval	566890	171644
MKE84366	MKE84366	White Horse Cottage	Post-medieval	567225	170628
MKE88845	MKE88845	Outfarm north of White Horse Cottage	Post-medieval	567236	170660
MKE89775	TQ 67 SE 357	Crash site of Hawker Hurricane I	Modern	567002	172084
MKE93080	TQ 67 SE 367	WW1 Homes for Heroes scheme houses, Thong Lane, Shorne, Gravesham	Modern	567234	170854
MKE93091	TQ 67 SE 368	Caves converted to air raid shelters, Thong Lane, Shorne, Gravesham	Modern	567151	171208
MKE100215	TQ 67 SE 385	Possible round barrow seen in aerial photographs	Undated	567809	172394
MKE111091	TQ 67 SE 386	Former site of 'Monkin Tithe Barn', Thong	Medieval	567265	170667
MKE115470	TQ 67 SE 1257	Second World War Type 23 Pillbox visible on a 1946 vertical AP. Still extant in the back garden of a house.	Modern	566190	171710
MKE116065	TQ 67 SE 388	Second World War roadblock buoys, Thong Lane, Thong	Modern	567252	170887

Historic England National Mapping Programme Data (Hoo Peninsula Landscape Project and The Classification of Cropmarks in Kent)

	Period	Easting	Northing
413618	Undated	568005	171697
413618	Bronze Age	568000	171689
413715	Undated	567516	171280
413715	Bronze Age	567515	171280
413715	Bronze Age	567516	171280
413715	Bronze Age	567517	171280
413715	Bronze Age	567516	171280
413738	Undated	566373	170934



413738	Prehistoric	566457	170919
413738	Prehistoric	566272	170968
413738	Prehistoric	566365	170873
413738	Prehistoric	566372	170837
413738	Prehistoric	566462	170827
413738	Prehistoric	566428	170896
413738	Prehistoric	566368	170862
413738	Prehistoric	566360	170840
413738	Prehistoric	566359	170846
413738	Prehistoric	566404	170916
413738	Prehistoric	566456	170927
413738	Prehistoric	566425	170905
413738	Prehistoric	566399	170905
413738	Prehistoric	566398	170910
413738	Prehistoric	566387	170916
413738	Prehistoric	566388	170912
413738	Prehistoric	566382	170925
413738	Prehistoric	566420	170909
413738	Prehistoric	566459	170942
413738	Prehistoric	566430	170941
413738	Prehistoric	566294	171076
413738	Prehistoric	566333	171079
413738	Prehistoric	566289	171043
413738	Prehistoric	566295	171044
413738	Prehistoric	566293	171054
413738	Prehistoric	566404	170823
413738	Prehistoric	566313	170975
413740	Undated	567102	171182
413740	Iron Age	567135	171149
413740	Iron Age	567134	171153
413740	Iron Age	567133	171156



413740	Iron Age	567117	171167
413740	Iron Age	567112	171179
413740	Iron Age	567128	171166
413740	Iron Age	567052	171163
413740	Iron Age	567065	171179
413740	Iron Age	567115	171201
413740	Iron Age	567107	171201
413740	Iron Age	567124	171200
413740	Iron Age	567104	171178
413744	Undated	567167	172457
413744	Iron Age	567167	172435
413747	Undated	567778	172234
413747	Uncertain	567790	172229
413747	Uncertain	567778	172250
413747	Uncertain	567765	172223
413748	Undated	567537	172242
413748	Bronze Age	567551	172236
413749	Undated	567479	172421
413749	Undated	567297	172399
413749	Undated	567244	172392
413749	Undated	567297	172572
413749	Undated	567436	172517
413749	Undated	567388	172506
413749	Undated	567390	172507
413749	Undated	567444	172479
413749	Undated	567437	172557
413749	Undated	567439	172565
413749	Undated	567445	172571
413749	Undated	567404	172572
413749	Undated	567429	172491
413749	Undated	567429	172487



413749	Undated	567465	172486
413749	Undated	567453	172483
413749	Undated	567396	172516
413749	Undated	567476	172513
413749	Undated	567469	172513
413749	Undated	567479	172539
413749	Undated	567447	172479
413749	Undated	567464	172481
413749	Undated	567471	172494
413749	Undated	567496	172523
413749	Undated	567474	172498
413749	Undated	567460	172484
413749	Undated	567244	172393
413749	Undated	567297	172572
413749	Undated	567297	172399
413749	Undated	567462	172539
413749	Undated	567385	172472
413749	Undated	567479	172422
413760	Undated	566651	170729
413760	Uncertain	566593	170892
413760	Uncertain	566649	170719
413760	Uncertain	566630	170762
413760	Uncertain	566605	170835
413760	Uncertain	566636	170730
413760	Uncertain	566609	170793
413760	Uncertain	566594	170843
413760	Uncertain	566585	170879
413760	Uncertain	566579	170906
413760	Uncertain	566736	170564
413760	Uncertain	566774	170555
413760	Uncertain	566769	170562



413760	Uncertain	566691	170633
413760	Uncertain	566666	170681
413760	Uncertain	566659	170679
413762	Undated	567808	172395
413762	Prehistoric	567808	172394
413762	Prehistoric	567808	172394
413764	Undated	567322	172194
413764	Undated	567336	172180
413764	Undated	567325	172179
413764	Undated	567347	172180
413764	Undated	567298	172210
413764	Undated	567296	172198
765212	Undated	567785	171347
765212	Iron Age	567784	171346
765219	Undated	567829	171701
765219	Undated	567861	171738
765219	Undated	567829	171701
765219	Roman	567866	171745
765219	Roman	567860	171755
765219	Roman	567864	171721
765219	Roman	567862	171733
765219	Roman	567864	171759
765219	Roman	567889	171719
765219	Roman	567894	171722
765219	Roman	567858	171721
765219	Roman	567861	171713
765237	Undated	567584	171547
765237	Prehistoric	567584	171549
765241	Undated	567682	171605
765241	Roman	567782	171667
765241	Roman	567653	171538



765241	Roman	567675	171568
765241	Roman	567667	171570
765241	Roman	567688	171623
765241	Roman	567662	171570
765241	Roman	567669	171584
765241	Roman	567659	171598
765241	Roman	567760	171631
765244	Undated	567775	171748
765244	Iron Age	567800	171730
765244	Iron Age	567792	171694
765244	Iron Age	567765	171708
765244	Iron Age	567786	171705
765244	Iron Age	567795	171722
765244	Iron Age	567820	171740
765244	Iron Age	567790	171773
765291	Undated	567595	171554
765291	Bronze Age	567595	171545
765301	Undated	567711	171349
765301	Uncertain	567697	171330
765301	Uncertain	567722	171328
765301	Uncertain	567718	171367
765306	Undated	568237	172128
765306	Uncertain	567864	172211
765306	Uncertain	568112	172156
765306	Uncertain	568070	172235
765306	Uncertain	568044	172132
765306	Uncertain	567903	172264
765306	Uncertain	567935	172245
765306	Uncertain	567995	172225
765306	Uncertain	567947	172207
765306	Uncertain	568059	172116



765306	Uncertain	568087	171957
765306	Uncertain	568108	171942
765306	Uncertain	568135	171926
765306	Uncertain	568112	171881
765306	Uncertain	568111	171880
765306	Uncertain	568112	171874
765306	Uncertain	568115	171899
765306	Uncertain	568111	171924
765306	Uncertain	568156	172001
765306	Uncertain	568182	171898
765306	Uncertain	568079	172035
765306	Uncertain	568078	172070
765306	Uncertain	568074	172115
765317	Undated	567716	171519
765317	Undated	567757	171523
765317	Undated	567692	171518
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1550458	Undated	567754	171317
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1550459	Prehistoric	567609	171269
1550459	Prehistoric	567595	171279
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1550460	Prehistoric	567213	172225
1550460	Prehistoric	567226	172257
1550460	Prehistoric	567226	172257
1550461	Undated	567306	172699
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1550462	Undated	567435	172336
1550462	Post-medieval	567429	172332
1550462	Post-medieval	567440	172339
1550464	Undated	567213	172561
1550464	Prehistoric	567230	172595
1550464	Prehistoric	567228	172536
1550465	Undated	567158	172305
1550465	Undated	567155	172360
1550465	Undated	567025	172395
1550465	Undated	567048	172444



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1550465	Prehistoric	567149	172306
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1550465	Prehistoric	567041	172452
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1551786	Post-medieval	567309	172597
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1551786	Post-medieval	567103	172413
1551789	Undated	567877	172132
1551789	Undated	567968	172344
1551789	Undated	567764	172383
1551789	Undated	567679	172584
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1551789	Post-medieval	567678	172584
1551789	Post-medieval	567666	172252
1551789	Uncertain	567875	172132
1551789	Uncertain	567894	172302
1551791	Undated	567362	172484
1551791	Post-medieval	567367	172482
1551913	Undated	567089	172036
1551913	Post-medieval	567090	172037
1575882	Undated	568265	172150
1575882	Uncertain	568176	172054
1575882	Uncertain	568045	171930
1575882	Uncertain	568021	171908
1575882	Uncertain	568099	171979

Gravesham Borough Council



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