

WEST HORNDON, ESSEX

BRENTWOOD DISTRICT COUNCIL

NGR TQ 631 884

AN ARCHAEOLOGICAL DESK BASED ASSESSMENT

prepared on behalf of

COUNTRYSIDE PROPERTIES (UK) LTD

October 2014

Our Ref: JLQ 0176

RPS 14 Cornhill London EC3V 3ND

Tel: 020 7280 3200 **Fax:** 020 7283 9248 **Email:** rpslp@rpsgroup.com



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FIGURE 1 - SITE LOCATION

FIGURE 2 - HISTORIC ENVIRONMENT RECORD

FIGURE 3 – EAST HORNDON TITHE MAP 1845

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APPENDIX 2 - AERIAL PHOTOGRAPHS EXAMINED

1 INTRODUCTION

a) Introduction

- This report provides an Archaeological baseline appraisal document for a site known as Land East of West Horndon, Essex (centred NGR TQ 631 884). The Proposed Development Site (henceforth ±he Site) comprises a relatively flat area of approximately **50 ha** in comprised by five fields either side of Station Road (Fig. 1). The railway (formerly known as the East Horndon Line) borders the south side of the Site, the A128 Tilbury Road borders the east side and West Horndon itself borders the southern section of the western boundary of the Site. Further farmland is found to the north and north-west.
- 1.2 The report has been prepared on behalf of Countryside Properties (UK) Ltd in support of a forthcoming Outline Planning Application for residential development at the Site. Brentwood Borough Council has identified the option for development in their Local Development Framework.

b) Scope of Statement

- 1.3 To compile the baseline assessment, the following actions have been undertaken:
 - A search of the Essex Historic Environment Records database for all heritage assets (including archaeological sites, Listed Buildings, Conservation Areas, etc) recorded for a 1.5km radius of a central point within the Site (the Search Area);
 - An examination of national and local planning policies in relation to heritage assets;
 - A map regression exercise looking at the cartographic evidence for the Site;
 - An assessment of available historical, archaeological, documentary and cartographic evidence (web based and other sources including a visit to the Essex Record Office at Chelmsford);
 - An examination of aerial photographs held by the National Archive at Swindon;
 - Consultation with the Historic Environment Management (HEM) team regarding the scope of this assessment and implications of the scheme; and
 - Review of archaeological Research Agendas and Frameworks in relation to archaeological assets within and adjacent to the Search Area.
 - A Site visit on 26th September 2014.
- 1.4 The Institute for Archaeologists Standard and Guidance for Desk-Based Assessments (2011) sets a %tandard+for desk-based assessment as follows:

"Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area.

In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so), and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact." (IfA, 2011, 3-4)

1.5 The %Definition+of an assessment (IfA, 2011, 4) is given as:

"... a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, in England, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate."

c) <u>Limitations</u>

- 1.6 In any desk-based assessment a degree of uncertainty is attached to the baseline data sources.

 This includes:
 - The HER can be limited because it depends on random opportunities for research, fieldwork and discovery;
 - Lack of dating evidence for sites;
 - Documentary sources are rare before the medieval period, and many historic documents are inherently biased; and
 - The extent of truncation caused by previous development impacts and landscaping works can not be fully ascertained.

2 LEGAL & POLICY FRAMEWORK

a) National Policy

i. Ancient Monuments and Archaeological Areas Act 1979

- 2.1 Chapter 46 describes the purposes of the Act as to make provision for the investigation, preservation and recording of matters of archaeological or historical interest and (in connection therewith) for the regulation of operations or activities affecting such matters.
- 2.2 Monuments deemed to be of such significance that they require this level of statutory protection are placed on the Schedule; i.e. they become designated as Scheduled Monuments. All Scheduled Monuments are of national significance.
- 2.3 The Act identifies a number of activities that are not permitted, predominantly those that would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up the monument. If work is proposed that would have any such effect on a designated monument, written consent is required from the Secretary of State. Class consents enable owners to proceed with certain specified works without an application for consent.
- 2.4 For the purposes of the Act the site of a Scheduled Monument includes not only the land on which it is situated but also any land comprising or adjoining it which appears to the Secretary of State or a local authority õ to be essential for the monuments support and preservation. (61.9)

ii. Planning (Listed Buildings and Conservation Areas) Act 1990

- Listed buildings and their settings are protected under the provisions of the Town and Country Planning Act 1971, as amended by the Planning (Listed Buildings and Conservation Areas) Act 1990. These empower the Secretary of State to maintain a list of built structures of national historic or of architectural significance. Listed buildings and their settings need not be preserved unchanged, but development should in all but exceptional cases, aim to preserve the buildings historic or architectural interest.
- Conservation Areas (and their settings) are also protected under the provisions of the Town and Country Planning Act 1971 and the Planning (Listed Buildings and Conservation Areas) Act 1990. These impose on local authorities the duty to identify and protect areas worthy of preservation or enhancement. Again, development is not precluded, but it is the presumption that all development within the Conservation Area or its setting should aim to preserve or enhance the areas historic character or appearance. Local authorities are required to carry out appraisals of all of their Conservation Areas in order to define the areasqspecial characteristics/interest, to guide future development.

iii. The National Planning Policy Framework (Conserving and enhancing the historic environment)

2.7 The National Planning Policy Framework (NPPF) was published on the 27th of March 2012, and replaces the planning framework which consisted of Planning Policy Guidance and Statements (PPGs and PPS).

- 2.8 The NPPF (DCLG 2012) reflects previous planning guidance, and promotes sustainable economic development. As such the NPPF states that planning should operate to encourage and not act as an impediment to sustainable growth.
- 2.9 The NPPF (Section 12: Conserving and enhancing the historic environment) indicates that 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. (Paragraph 128)

- 2.10 In addition to the information that is required to be submitted with a planning application, NPPF indicates that 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 (Paragraph 129).
- 2.11 In determining planning applications, local planning authorities should take account of:
 - "the desirability of sustaining and enhancing the significance of heritage assets;
 - the positive contribution that conservation of heritage assets can make to sustainable communities; and
 - the desirability of new development making a positive contribution to local character and distinctiveness." (Paragraph 131)
- 2.12 NPPF also sets out that when considering the impact of a proposed development on the significance of a designated heritage asset, weight should be given to the asset conservation. The more important the asset, the greater the weighting should be. The NPPF states that the significance of a heritage asset can be harmed or lost through alteration or destruction of the heritage asset or development within its setting and sets out that:

As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional." (Paragraph 132)

- 2.13 The NPPF (Paragraph 135) also sets out that 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 affect directly or indirectly 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.
- 2.14 Paragraph 139 sets out that non-designated heritage assets of archaeological interest that are of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
- 2.15 With regard to setting, the NPPF states (Paragraph 128) that 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 assetsq importance and no more than is sufficient to understand the potential impact of the proposal on their significance.
- 2.16 Setting is described as:
 - "... 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." (DCLG, 2012 Annex 2: Glossary)
- 2.17 Significance is described as:

"The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting." (DCLG, 2012 Annex 2: Glossary)

iv. Enterprise and Regulatory Reform Act 2013

2.18 The Enterprise and Regulatory Reform Act 2013 (ERRA) has made a number of changes to heritage legislation, including;

Listed Buildings

- 2.19 The ERRA has included an amendment to the Planning (Listed Buildings and Conservation Areas) Act 1990 that provides two potential ways to be more precise about what is listed.
- 2.20 The changes allow a definitive statement about whether attached or curtilage structures are protected by the listing definition and/or to exclude from listed building consent objects that are fixed to a listed building. It also allows a definitive statement that a part or feature of a listed building is not of special interest, for the purposes of listed building consent (http://www.englishheritage.org.uk/caring/listing/listed-buildings/listing-and-the-erra/?adnetwork=af)

Conservation Areas

- 2.21 The need to obtain Conservation Area Consent for the demolition of an unlisted building in a Conservation Area in England is removed.
- 2.22 Instead, such works will require planning permission. The need to obtain the consent of the local planning authority will therefore remain, but it will no longer be necessary to make two applications (one for planning permission and one for Conservation Area Consent) for a scheme involving the demolition and replacement of a building in a Conservation Area (Planning Portal, 2013). The Thorndon Park Conservation Area (Type . Historic Park and Garden) lies immediately north of the Site.

b) Regional and Local Planning Policy

- 2.23 The ±and east of West Horndonqsite is identified on the Brentwood Borough Councils Local Development Framework. Information on the Council web-site indicates that the Brentwood Replacement Local Plan was formally adopted by the Council in 2005. Over the next two years a new Local Plan (2015 . 2030) will supersede saved policies in the current Replacement Local Plan. The Replacement Local Plan contains the following policies:
- 2.24 Policy C9 Ancient Landscapes and Historic Parks and Gardensq relates to landscapes with particular Historic Environment significance. The policy reads:

THE COUNCIL WILL SEEK TO CONSERVE, ENHANCE AND MANAGE ANCIENT LANDSCAPES AND DESIGNATED PARKS AND GARDENS OF SPECIAL HISTORIC INTEREST. DEVELOPMENT WHICH WOULD DAMAGE THE CHARACTER OR APPEARANCE OF AN ANCIENT LANDSCAPE, OR OF A PARK OR GARDEN OF SPECIAL HISTORIC INTEREST OR ITS SETTING WILL NOT BE PERMITTED.

2.25 Policy C14 Development Affecting Conservation Areas reads as follows:

WHEN CONSIDERING APPLICATIONS FOR DEVELOPMENT WITHIN AND IN THE VICINITY OF CONSERVATION AREAS, SPECIAL ATTENTION WILL BE GIVEN TO THE NEED TO PRESERVE OR ENHANCE THEIR CHARACTER OR APPEARANCE. DEVELOPMENT PROPOSALS WILL BE PERMITTED ONLY WHERE

THE COUNCIL IS SATISFIED THAT:

- (i) THE PROPOSALS PRESERVE OR ENHANCE THE TOWNSCAPE CHARACTER OF THE AREA
- (ii) THE MATERIALS TO BE USED ARE SYMPATHETIC TO THE SURROUNDING BUILDINGS AND APPROPRIATE TO THE AREA
- (iii) THE MASS OF THE BUILDING IS IN SCALE AND HARMONY WITH THE ADJOINING BUILDINGS AND THE AREA AS A WHOLE
- (iv) THE DESIGN OF THE BUILDING IS SUCH THAT THE PROPORTIONS OF THE PARTS RELATE SATISFACTORILY TO EACH OTHER AND TO ADJOINING BUILDINGS

- (v) THE PROPOSAL DOES NOT AFFECT ANY BUILDINGS, OPEN SPACES, TREES, VIEWS OR OTHER ASPECTS WHICH CONTRIBUTE TO THE SPECIAL CHARACTER OF THE AREA
- (vi) WHERE DEMOLITION IS PROPOSED, THE STRUCTURE TO BE DEMOLISHED MAKES NO MATERIAL CONTRIBUTION TO THE CHARACTER OR APPEARANCE OF THE AREA, AND THERE ARE SATISFACTORY PROPOSALS FOR THE RE-USE OF THE SITE INCLUDING ANY REPLACEMENT BUILDING OR OTHER STRUCTURE
- (vii) WHERE A CHANGE OF USE IS PROPOSED, THE NEW USE WILL NOT REQUIRE ANY CHANGES IN THE APPEARANCE OR SETTING OF THE BUILDING OTHER THAN THOSE WHICH WILL PRESERVE OR ENHANCE ITS CONTRIBUTION TOWARDS THE CHARACTER OR APPEARANCE OF THE AREA
- (viii) WHERE AN ALTERATION IS PROPOSED, IT IS APPROPRIATE AND SYMPATHETIC IN DESIGN, SCALE, MATERIALS AND COLOUR TO THE REST OF THE BUILDING.

OUTLINE PLANNING PERMISSION WILL NOT BE GIVEN FOR NEW BUILDINGS IN A CONSERVATION AREA.

2.26 There are no Listed Buildings that would be physically impacted by residential development of the Site. In terms of setting Policy C16 Development within the Vicinity of a Listed Buildinggstates:

PROPOSALS FOR DEVELOPMENT IN THE VICINITY OF A LISTED BUILDING WILL NOT BE PERMITTED WHERE THE PROPOSALS WOULD BE LIKELY TO DETRACT FROM ITS CHARACTER OR SETTING.

2.27 A single policy is provided in relation to Scheduled Monuments and known/currently unknown archaeological sites and features. Policy C18 Ancient Monuments and Archaeological Sitesq states:

ARCHAEOLOGICAL WHERE **IMPORTANT** SITES AND MONUMENTS, WHETHER SCHEDULED OR NOT, AND THEIR SETTINGS ARE AFFECTED BY A PROPOSED DEVELOPMENT, THERE WILL BE A PRESUMPTION IN FAVOUR OF THEIR PRESERVATION IN SITU. IN SITUATIONS WHERE THERE ARE GROUNDS FOR **BELIEVING** THAT THE **PROPOSED DEVELOPMENT** WOULD **AFFECT IMPORTANT** ARCHAEOLOGICAL SITES AND MONUMENTS, DEVELOPERS WILL BE REQUIRED TO ARRANGE FOR AN ARCHAEOLOGICAL FIELD ASSESSMENT TO BE CARRIED OUT BEFORE THE APPLICATION CAN BE DETERMINED THUS ENABLING AN INFORMED AND REASONABLE PLANNING DECISION TO BE MADE. IN CIRCUMSTANCES WHERE PRESERVATION IS NOT POSSIBLE OR FEASIBLE, THEN DEVELOPMENT WILL NOT BE PERMITTED UNTIL SATISFACTORY PROVISION HAS BEEN MADE FOR A PROGRAMME OF ARCHAEOLOGICAL INVESTIGATION AND RECORDING PRIOR TO THE COMMENCEMENT OF THE **DEVELOPMENT.**

3 DEVELOPMENT PROPOSALS

- 3.1 The proposals are for a residential development of the c.50ha Site with associated infrastructure, community facilities and landscaping associated with growth of West Horndon village.
- 3.2 Formal master-planning is not yet available but Rummy Design (2013) have emphasised that a masterplan will be produced that contains a local character enhances certain topographical/cultural aspects of the landscape. The planned gateway to the Site would be via the A128 via its junction with Station Road. A proposed masterplan conceptq (ibid) indicates states that:

'Our proposed masterplan concept...shows a clear landscape structure with the creation of a new gateway to West Horndon, centrally located public open space, wetlands and new residential blocks arranged in a rectangular layout. The concept plan provides for...

61.26 Ha Land east of West Horndon

37.26 Ha (61%) Land for open space, community facilities and infrastructure

24 Ha (39%) proposed housing development areas

This provide for up to 720 houses...'

(NB 61.26ha noted relates to a previous red line incorporating land to the west and therefore these figures require adjustment)

3.3 The strategy draws upon a strong fenland character dominated by north-south woodland corridors (shaws) some of which follow natural drainage. In addition the report confirms the intention to minimise the visual impact on the immediately adjacent Conservation Area and Historic Park and Garden via new woodland planting along the northern edge of the Site.

4 BASELINE DATA

a) Site Description

- 4.1 The Site is at centred at NGR TQ631 884 directly to the east of West Horndon. The Site is bordered by the A128 to the west and the railway line to the south, whilst the A128 runs approximately east-west to the north. The wider setting includes Thorndon Country Park with urban centres at Upminster and Langdon Hill to the west and east respectively.
- 4.2 The Sit1 is situated over five fields of low grade arable separated by hedgerows and with the main access to West Horndon (Station Road) dividing the northern and southern areas.

b) Heritage Planning Background

Scheduled Monuments

- 4.3 Scheduled Monuments within the Study Area comprise the following conjoining medieval sites from c.0.8km to the north of the Site, immediately west of Thorndon Country Park South;
 - Former Parish Church and Churchyard of St Nicholasq. SM 1021225 (formerly 32471)
 (RPS 1 on Fig. 2); and
 - (Former) Dld Thorndon Hall and Gardensq. SM 1021226 (formerly 32473). (RPS 2).

Registered Park and Garden

4.4 Thorndon Hall Registered Park and Garden is located from the immediate north of the north-western area of the Site (RPS 10) and is Grade II* listed (Fig. 2).

Conservation Area

Listed Buildings

- 4.6 The closest Statutorily Grade I Listed Building within West Horndon Parish is:
 - The Church of St Peter of the 15th & 16th century (and later) at Little Warley Lane c. 2.5 km to the west (beyond the HER Study Area)
- 4.7 Grade II* Listed Buildings within the Parish of West Horndon comprise;
 - The Church of All Saints to the NW of the A127/A128 junction to the north-east (RPS 5);
 and
 - Little Warley Hall . 16th century+ hall and service unit of the former house . c.2.5km to the west (beyond the HER Study Area).

- 4.8 There are six Grade II Listed buildings within the Parish of West Horndon. These comprise;
 - Barnards (RPS 3) 18th century house c.170m south of the Site
 - East Horndon Hall (RPS 4) . 16th and 18th century+ brick clad timber framed house on NE side of A127/A128 junction to the north-east of the Site;
 - Stabling at Church of All Saints (RPS 6) . 17th century . location as above
 - Freman Monument in churchyard of All Saints (RPS 7) . 18th century railed enclosure and x3 Portland stone monuments to the NW of the A127/A128 junction to the north-east of the Site:
 - Dunton Hills (RPS 8) . 17th century and later house and cottage 0.7km to the east of the Site: and
 - Field House (RPS 9) a 16th century house situated 0.75km to the south-east.

c) Topographic and Geological Background

- The underlying geology in the vicinity of the Site (BGS Sheet 257, 1996) is Head, undifferentiated: variable pebbly sandy clay of the Anglian to Flandrian above London Clayq The Mar Dyke Thames tributary runs c.1.6km to the south-west and west and one of its tributary streams runs north-south through the centre of the Site. This now minor stream is associated with a band of Alluvium: mainly sand, silt and clay with some gravelq Notably the character of the relatively flat landscape within the Site has more in common with the Fenlands around the Thames Estuary than the rising clay hillsides to the immediate north and east (Rummy Design 2013).
- 4.10 The landscape of the Site is gently sloping from c.10m above Ordnance Datum (aOD) in the central southern area up to c.16m-18m aOD in the north, with the gentle valley through the centre slightly lower than corresponding level to the east and west. The Head geology capped surrounding landscape to the west and south is generally similarly level and low-lying with the board alluvial flood plain of the Mar Dyke. The Site is located just south of an enclosing horseshoe of higher ground (including exposures of London Clay) shaped and scoured by a series of north-south valleys and rising to 65m aOD at Thorndon Country Park. The land also rises up to 40m aOD to the east at Dunston Hills and to c.0.6km to the north-west.

d) Cartographic Background

4.11 Map evidence obtained from a number of sources provides the following information regarding the Site.

Table 1: Cartographic Evidence

Мар	Information
Walker Map of 1598	Shows the manor of Thorndon with the former Old Thorndon Hall in depicted in red to represent its red brick Elizabethan build. Manor as owned by 1 st Lord Petre with the formal gardens and numerous outbuildings around the hall shown. Map does not extend south to the Site.
1773 map of Essex	No detail of field layouts but shows Thorndon Park Estate at its greatest extent (before Capability Browns landscaping) just to the north of the Site extending to East Horndon.
Survey of the Parish of East Horndon in the County of Essex, Henry Clayton . 1845 (Tithe Map) (Fig 3)	As the parish boundary between East and West Horndon lies within the eastern portion of the Site rather than along the current road (as would be expected) both East and West Horndon Tithe Maps are relevant. The East Horndon map has only a slither of land within the east area of the Site with the notional (rather than physical) boundary cutting through open fields in the layout seen today. There are slight variances in field division. This includes the south-eastern field to the south of Station Road is subdivided into a northern and southern field via a curving east-west boundary whilst the currently straight boundary to the north-eastern field shows a kink. Ponds are shown in the south-east field and the southern area of the north-eastern field (adjacent to a kink in the southern boundary which is still present). In terms of adjacent farms and buildings a Barnards farm layout is depicted south of the south-east field (now south of railway), a windmill (no longer present) is shown on the east side of the road bordering the east side of the Site, and Horndon Hall is shown within its compounds to the north-east. There are no buildings within the Site.
Map of the parish of West Horndon in the County of Essex, 1863 (Tithe Map) (Fig 4)	The map shows the layout of fields in Qwest Horndon virtually unchanged from those of the present day (with the exception of the severing effect of the railway). The apportionment indicates multiple owners. The woodland fingers to the immediate north and north-east of the Site (<code>Bottom</code> Shawqand <code>Straight</code> path Shawqare present (NB these currently form the east-and west sides of the southern extent of Thorndon Park Conservation Area). There are no buildings within the Site.
OS First Series 1:63360, 1856-1887	The Site is shown as landscape (no detail of fields). Most of the present lanes and roads (including Station Road and the A128 alignment) are present. £. Horndonqand £he Hallqlabelled to the NE. £unton Hallqto the NE, £unton Hill Farmqto the E, £Bernardsqto the south (beside the current A128), Dunton hamlet to the south-east, Tillington Farm to the south-west and Little Warley to the west (and west of the river).
OS 1:10,560 1872 (surveyed 1865) First Edition (Fig 5)	Shows Site before the railway with no major changes in field layout since the tithe map. The east-west aligned northern boundary (north-eastern fields) appears to show a bank or slope parallel with the field-boundary on the south side. Barnardsqfarm enclosures shown to the south of the south-east extent of the Site, East Horndon Millsqwindmill enclosure to the east side and East Horndon Hallqto the north-east. Woodland shaws (fingers of north-south woodland) are depicted to the north and west, leading north towards Mill Wood and the remains of the Dld Hallq(Thorndon Hall) and £t Nicholasqs Churchqto

Мар	Information			
	its west side. Dld Hall Laneqis labelled as a north-south routeway running two fields to the west of the Site.			
OS 1:2,500, 1896 Second Edition (Sheets LXXV.4, LXXVI.1. LXVIII.13 & LXVII.16.)	There is no 1 st edition 1:.2500 scale map for West Horndon. The 2 nd Edition shows the layout of fields at the Site as virtually unchanged. A dotted line labelled £Jnd Boundaryqruns north/south though currently open areas of the fields in the eastern area of the Site parallel with the road that borders the eastern side (now followed by the A128). Station Road is on its current course. Ponds were formerly located within the south-eastern field and north-eastern fields. There is no woodland within the Site with the current woodland areas of £Round Shawqand £traight Path Shawqrunning approximately north-south to the west of the Site and ±lollow Bottom Shawqsimilarly aligned as a narrow band from just north of the central northern extent of the Site. The railway to the south is shown and labelled ±ondon Tilbury & Southend Railwayq The rectilinear fields are numbered sequentially from 70 to 73 north of Station Road and 84 and 85 to the south.			
OS 1:2,500, 1899	East Horndon Line opened in 1886 (south boundary of the Site). West Horndon station situated at intersection with St Mary Lane/Station Road.			
OS 1:10,560, 1921	No significant changes			
OS 1:10,000, 1960	No significant changes within the Site although the residential development of West Horndon has now been completed to the immediate west.			
OS 1:10,000, 1977- 1991	No significant changes			

e) Heritage Asset Background

4.12 The background is provided by recognised archaeological periods, as follows;

Prehistoric

•	Palaeolithic	500,000 to 10,000 BC
•	Late Glacial/Mesolithic	10,000 to 4,000 BC
•	Neolithic/Early Bronze Age	4,000 to 1,600 BC
•	Middle to Late Bronze Age	1,600 to 800 BC
•	Iron Age/Roman Transition	800 to AD 43

Historic

•	Roman	AD 43 to 410
•	Saxon	AD 410 to 1066
•	Medieval	AD 1066 to mid-C16th
•	Post-Medieval	circa AD 1550 to present

4.13 The archaeological background, as reflected in the 1.5km radius search of the Essex HER database (see Fig. 2 and Appendix 1 for the full search) provides evidence of human occupation and activity from the Neolithic/Bronze Age onwards (at present there is no evidence for Palaeolithic archaeological evidence in the vicinity, although Lower-Middle Palaeolithic handaxes are known from the Mar Dyke valley near Purfleet). Early settlement was almost certainly attracted to the area due to its advantageous topographical location on well drained and easily tilled gravel subsoil with higher ground suitable for upland pasture to the north.

Neolithic and Bronze Age

- The Sites location within a horseshoe of low-lying landscape between c.10m and 17m OD to the south-east, south and south-west of higher ground rising to c.65m OD suggest the possibility of exploitation by prehistoric farmers for seasonally driven upland/lowland stock management systems. As such it is possible that livestock were grazed on the low ground in the drier months and moved upslope at other times. Stream corridors were also favoured by Mesolithic huntergatherers as route corridors and for the exploitation of fish, fowl and other resources.
- A short stretch of UK Powercs Basildon-West Horndon-Cranham power lineqc.1km to the south of the Site was subject to archaeological monitoring (RPS 47 on Fig. 2; Albion Archaeology 2012). A 0.45m deep and 1.48m wide ditch was identified. The feature contained a sherd of Late Bronze Age pottery and was sealed below a layer containing a further seven such sherds. The ditch probably formed part relate of a field-system on a north-north-west/south-south-east alignment (similar to the present landscape). The presence of pottery was taken to indicate the possibility of nearby settlement (*ibid*). The laying out of co-axial field-systems in low lying areas of southern England especially near major rivers and watercourses is a recurrent theme of Middle and Late Bronze Age period (Yates 2007). The phenomenon appears to reflect an intensification of agriculture associated with an increasingly hierarchical society concerned with parcelling the landscape into defined blocks (*ibid*). Although the evidence is slight the area occupied by the Site may have been defined as bounded farmland at this time.
- A fieldwalking survey of 96 hectares of the Thorndon Country Park (RPS 27) collected a thin scatter of 62 pieces of worked flint of prehistoric date (45 flakes, 10 cores and 7 tools). The majority of pieces were concentrated at TQ 620895 and TQ 618900. In addition 10 sherds of prehistoric pottery (early Neolithic to late Bronze Age) were found by the survey at Jury Hill (RPS 28). Other findings of prehistoric date from the survey included a dense concentration of burnt flint to the immediate south of the Old Hall (RPS 29) which may have derived from a £burnt moundqof possible Bronze Age date.
- 4.17 Two undated but potentially Bronze Age ring-ditches that are typical of burial mound (barrow) are located to the immediate south-west of the Site (RPS 25) and at the edge of the Study Area (RPS 26). The former is about around 15 metres in diameter. However, the National Mapping Project (NMP) has interpreted the feature as a pond (as shown on OS 1st edition 6' sheet 75 dated 1872). The latter comprises a possible dual concentric ring ditch approximately 10 metres in diameter that is visible on a 1995 aerial photograph. However, it is uncertain whether either or both are prehistoric in origin.
- 4.18 The geology mapping (BGS 1996) shows the Site containing alluvium within a slight north south stream valley of the Mar Dyke. Such valleys provide one possible route corridor for stock movement but also provide water for their management and potentially to support human

occupation in its vicinity. The Mar Dyke itself has produced Bronze Age implements including a leaf shaped sword and spearhead (Historic Landscape Management 2002). Alluvium is likely to be primarily of Neolithic and Bronze Age date. Elsewhere such deposits have been shown to contain peat levels with particular potential to contain well-preserved environmental remains and/or worked wood, in addition to artefacts (although presence of peat is not known for the present Site).

Iron Age

4.19 There are currently no Iron Age sites or finds recorded within the Study Area, although sites of the period elsewhere within the region suggest a well-populated landscape of dispersed farms and hamlets. For example an Iron Age (as well as Roman the Saxon) sites are known from Aveley closer to the Mar Dyke (Historic Landscape Management 2002).

Romano-British

Roman archaeological evidence from the Study Area in the form of artefacts and artefact scatters is likely to represent habitation areas. Most has come from the Thorndon Country Park but absence elsewhere may similarly reflect a paucity of fieldwork. A concentration of c.30 sherds of 1st to 2nd century Roman pottery was found by the fieldwalking at Jury Hill within Thorndon Country Park (RPS 30). Another concentration of c,.45 Roman sherds, this time of late 2nd to mid 3rd century date was found to the north-west near Childerditch Brook (RPS 32). This is likely to relate to below ground archaeological remains. Also within the Park to the north of the Site is single Roman brooch find (RPS 36) whilst fragments of Roman brick (along with burnt flint of prehistoric date) were recovered from Park works associated with the halfway House to Herongate Reservoir Triplication Scheme (RPS 37-40).

Anglo-Saxon & Medieval

- 4.21 Both East and West Horndon were within the administrative Hundred of Barstable. The north-south linear parish of West Horndon was divided between three manors in the medieval period with Tillingham Hall manor the largest.
- 4.22 Prior to conquest in the reign of Edward the Confessor the estate was held by two feemen (one possibly Edmund, son of Algot http://www.thorndonhall.co.uk/thorndon-hall-history.htm). At conquest the manor was held by a freewoman, Alwin, but by the Domesday Book compilation of 1086 had been granted to Swain (or Suain) a sheriff of Essex in 1075, with the Tillingham family in possession of the hall for several centuries after.
- Although there is currently no Victoria County History coverage for East and West Horndon the History of Thorndon Hallq(*ibid*) and Everson (2001, 49-52) provide a historical framework. The original village of Thorndon i.e. East Horndon (known as Torinduna in 1086. note slightly differently spelling to that of Torninduna = West Horndon) was built around the hill to the northeast of the Site where All Saints (RPS 5, 20 &21) stands. The current 15th century church is at least the third built there following buildings founded around AD807 and a Norman style building by the Neville family at c.1200 (Wikipedia). In 1185 the manor was under the ownership of Henry de Cornhill at which time it was known as Torindone. By 1228 it was known as Esthornedon. For a time it was under the ownership of the Abbot of Waltham and was known as the manor of Thorndon Magna under John de Breazun in 1275. Later in the early 15th century the name changed to Great Horndong and by the early 16th century and in 1593 as Thornedon Magna

(Everson 2001, 52). Hordon was preferred to Thorndon by 1800 when the current £ast Horndonq was coined.

- 4.24 According to Wikipedia the manor was owned by Sir William Bawd, who conveyed it to Coggeshall Abbey and it remained under its control until the Dissolution. Under control of the Abbey the rights to commons appear to have been may have been restricted as there are records from manor-courts rolls of people being prosecuted for trespass on land belonging to the lords (http://en.wikipedia.orgwiki/West_Horndon). These former commons were then left as woodland and wild heath for hunting, and probably correspond to equivalent landuse areas today (*ibid*) and therefore probably not commensurate with the Site.
- The majority of the Site lies within West Horndon parish whose main manor was known as Torninduna with name changes including Tornindone in the early 13th century and Thorndun and then Thorendon later in the century. By 1317 it was known as West Thornedon and by 1432 as Westthornedon (Everson 2001, 52). The Domesday Book records that Torininduna was assessed as five hides and 15 acres (*ibid*). The manor later became the seat of the Thorndon Estate of the Lords of Petre (below).
- 4.26 The buried remains of the Scheduled Monument of Old Thorndon Hall (RPS 2, 12 & 13) on the ridge to the north of the Site date from 1414 with the Manor House finally demolished in 1763. According to the HER 1957-1959 excavations in the woodland area of the site have confirmed three main periods of construction comprising massive brickwork with outer bastions and buttresses forming a central rectangular block in 1414, the addition of a west wing c.1450 and a post-medieval phase (the Walker map of 1598 shows Old Thorndon Hall after 16th century remodelling). Construction materials associated with the gatehouse and stables have been found in the fields south of Old Hall Wood and foundation alignments were confirmed by geophysical survey in 1997. In particular the perimeter wall of Old Thorndon Hall with associated gatehouse, which appears to comprise of three circular structures, were identified. The site was Scheduled in 2004.
- 4.27 Conjoining Thorndon Hall SM on its south side (south of the modern hedge line) is the site of the medieval church of St Nicholas (RPS 1, 14 & 15). The SM includes the churchyard area with its cemetery foundations and internal human remains and archaeological remains of the church itself. Other medieval finds from the area include sherds of pottery found by the fieldwalking at the top of Jury Hill within Thorndon Country Park (RPS 31) and to the east of Childerditch Brook (RPS 33).
- The issue of why the boundary between the parishes runs through the centre of fields of the Sites landscape, and not along the road line now followed by the A128, is of clear interest. According to Everson (*ibid*) the ancient route from Brentwood to the Thames that marked the division between the medieval manors of Torinduna and Torninduna was followed by the present road alignment, for the most part, apart from within Herongate hamlet where both sides of the road fall within East Horndon. The reasons for this are unclear. Herongate and Ingram were the other two hamlets along with East and West Horndon that are considered to have functioned as a dispersed village (*ibid*).
- 4.29 The landscape of Essex is characterised by dispersed moated sites representing the elaborated homesteads of rural landowners. Extant remains of moated sites are located between Friern Manor and Dunton Hall to the east, whilst Little Warley Hall is located c.2.5km to the west. A third

moated site is located adjacent to Little Tillington Hall Farm (RPS 18) c.1km to the south-west of the Site. Although the hall itself (RPS 19) comprises an 18th century timber-framed brick clad house its earlier incarnation was no doubt within the platform still partially demarked by the remnants of the medieval moat. A possible moated site is also recorded within Thorndon Country Park to the north of the Site (RPS 41). The spacing of these moated sites and in relation to Thorndon Hall supports a conclusion that the Site area was within manorial ownership as working farmland. However, it remains possible that lower status occupation sites (for example of estate workers), or other sites dating to before the High Medieval heyday of the moated sites, could be present within the Site.

Post-Medieval

- As noted above the Walker Map of 1598 provides detailed information on the layout of the post-medieval Manor House of Thorndon as owned by the 1st Lord Petre. The map shows the red brick Elizabethan building within its walled compound and associated with outbuildings. The Scheduled Monument area (RPS 2) reflects the 1598 layout with Old Hall Pond still extant to the east side. The information board at the SM provides information on the extant earthwork mound (RPS 17) known as ±he Pigeon Mountq within the SM as a 1600¢ base for a former octagonal tower affording those within of views over the Thames Estuary. The former structure appears to have functioned as both a summer house and dovecot. By 1713-1742 the 6th Lord Petre had planned very elaborate gardens although it is not clear whether these were built out. Nevertheless he is credited with early attempts at growing exotic fruit within hothouses creating a menagerie with exotic animals including elks.
- His Octagon Plantation of 1733 (RPS 23) enabled the early growth of 20,000 American trees for planting on the estate. The HER records that this embanked enclosure was c.150m with an extant ditch that skirts the outside of c.1m high surviving bank (in places) to the north side. Excavations in 1992 consisted of six small machine trenches but no sign of the internal but no trace of (the designer Bourghtons) internal design other than paths was found.
- 4.32 The 9th Lord Petre built the new mansion to the north of the original site in 1770 in the Georgian style. This phase necessitated the demolition of the Elizabethan version that would have overlooked the Site (the remains of the red brick foundations are located within £uin Woodq within the SM). As noted in the map regression the 1773 map of Essex shows the full extent of the Thorndon Park Estate extending just north of the Site.
- 4.33 A large quantity of post-medieval pottery and brick has been found east and west of the Old Hall at Thorndon Country Park (RPS 34) whilst post-mediaval tile has been recovered from the area of St NicholasqChurch (RPS 35). A possible watermill site on Walkers map of 1598 (RPS 43) is also recorded on the HER within the park area.
- 4.34 In terms of agriculture within the wider landscape Mill Wood to the north of the A127 relates to the former location of a mill, whilst a windmill is shown on the 1845 East Horndon Tithe Map to the east of the Site (Fig. 3). The landscape is divided by a series of straight north-south lanes leading towards the Thames Estuary, although the curvilinear Station Lane may be earlier in origin.
- 4.35 In 1870-72, John Marius Wilson's Imperial Gazetteer of England and Wales described West Horndon as:

'HORNDON (WEST), or WEST THORNDON, a parish in Billericay district, Essex; 2 miles SE of Brentwood r. station. Post town, Brentwood. Acres, 470. Real property, £653. Pop., 94. Houses, 12. Thorndon Park here, was formerly the seat of the Fitzwalters; is now the seat of Lord Petre; and has some good portraits and a Roman Catholic chapel. The living is a rectory, united with the rectory of Ingrave, in the diocese of Rochester. Value, £347.* Patrons, Representatives of the late Rev. R. A. Johnston. The church is a brick edifice of 1734, with a tower; and has a brass of 1400.'

(after A Vision of Britain Through Time online; http://www.visionofbritain.org.uk/place/6805)

- The £ast Horndongrailway otherwise known as the £ondon Tilbury & Southend Railwayqwas built in 1886. In 1930 farm workers occupied three houses commensurate with the 1950¢s development of Thorndon Avenue to the west of the Site, one of which survives (Number 18 which has been restored to its original condition). The rest of Thorndon Avenue was constructed during the 1950¢s. It should be noted that although the Site lies within Brentwood District the southern area of the parish of West Horndon now lies in the unitary authority of Thurrock.
- 4.37 In terms of other post-medieval archaeology an area of burnt clay associated with a thick glass wine bottle, post-medieval pottery and tile was found within the A127 road cutting (RPS 22). In addition two rectangular enclosures as crop-marks at Fieldhouse some 1.75km to the south of the Site (RPS 25) were investigated in 2011 (Albion Archaeology 2012). These were found to be post-medieval/modern in date.
- 4.38 Finally a large area to the north-west of the Site within Thorndon Park was used in WWII as a camp (RPS 45). The camp extent can be seen on aerial photographs and by March 1944 around 50 huts were visible before removal by October 1946. The facilities included a practice zig-zag trench along with a bombing range, firing range, D-Day marshalling area and prisoner of war camp.
- 4.39 **Undated**: As noted above two other aerial photographic sites are recorded and plotted on the HER, These comprise a ring-ditch just to the south-west of the Site (RPS 24) and a bomb crater, rectangular enclosure and the small double ring-ditch further to the south-west still (RPS 26).

f) Additional information

- Research Aims for archaeological fieldwork in the Eastern Counties of England have been set out (Brown & Glazebrook, eds, 2000) following on from an earlier Resource Assessment (Glazebrook 1997). These documents have been updated more recently by Research and Archaeology Revisited: a revised framework for the East of Englandq(EAA Occ. Paper No 24, 2011).
- The Essex Thames Gateway Historic Environment Characterisation (ECC 2007) provides a further tool in the assessment of the Historic Environment of the Site. The report was designed ±o serve as a tool for the management and enhancement of the historic environment.q And in particular to:
 - Provide the opportunity to safeguard and enhance the historic environment as an integrated part of development within Thames Gateway

- Provide Guidance to Planners at the early stages of development proposals &
- Provide a means for local communities to engage with their historic environment.
- 4.42 The project involved creation of a number of Historic Environment £haracter Zonesqwithin wider Character Areas. The characterisation was informed using a range of criteria:
 - Diversity of historic environment assets
 - Survival
 - Documentation
 - Group Value Association
 - Potential
 - Sensitivity to change, &
 - Amenity Value
- Each is scored from 1 to 3 for the identified zones with 1 lowest and 3 highest. The Site lies immediately south of the two Historic Environment Character Areas (HECAcs). The boundary between the two is meets the railway just to the south. The report contains the following characterisation for eastern zone HECA Zone 112_1 Bulphan and Orsett Fenqand western zone HECA 112_2 Land between Bulphan and Langdon Hillsg

"HECA Zone 112_1 Bulphan and Orsett Fen

Summary: This is a predominantly rural zone, which retains some of its historic features. The field system of small, rectilinear enclosures probably relates to the early enclosure of former fenland. The zone includes the upper reaches of the Mar Dyke Basin which has palaeo-environmental potential.

Geology: The underlying bedrock of the zone consists mostly of London Clay Mudstone bordered at the south by band of Harwich Formation Sand and Gravel and then Lambeth Group Sandstone and Mudstone. These are overlain by Boyn Hill Gravel at the west, colluvial head deposits across the zone and alluvium in the Mar Dyke Basin.

Historic Landscape Character: This zone includes the medieval village of Bulphan, and contains a number of medieval moated sites indicative of the dispersed settlement pattern. Much of the area is a low-lying basin rising steadily to the east, which is intensively farmed and strongly rural in character. The fields are generally regular in shape, with long slightly sinuous boundaries running down from high ground to the north, possibly reflecting the enclosure of fenland common. In the low lying areas they are bounded by drains. Distinctive hawthorn/elm hedgerows follow wide, verged historic lanes and tracks across the area. The area contains a scattering of smaller ponds along with some small reservoirs.

Archaeological Character: The zone includes the Mar Dyke Basin, characterised by Holocene alluvial clays and silts, with high potential for palaeo-environmental deposits. Its archaeological character is also derived from small concentrations of archaeological deposits and sites, including an excavated Iron Age/Romano-British farmstead in the southern tip of the zone, and evidence of medieval settlement. The zone, therefore, has archaeological potential relating to a long history of occupation, and it is possible that significant archaeological sites may lie undisturbed within the 'bowl-like' landscape.

HECA Zone 112 2 Land between Bulphan and Langdon Hills

Summary: The area comprises the eastern part of Bulphan Fen and the slopes rising to higher ground at Dunton, Langdon and Horndon. This is a predominantly rural zone, which retains much of its historic landscape. The dispersed settlement pattern in the area has a long history of occupation, and the field system of rectilinear enclosures is of ancient origin.

Geology: The underlying bedrock of the zone consists of London Clay Mudstone, which is overlain by colluvial head deposits and alluvium.

Historic Landscape Character: This zone contains a number of medieval moated sites, as well as timber-framed farmhouses and barns of 15th-18th century date, that demonstrate the survival of a dispersed settlement pattern. It has retained its historic field system of rectilinear enclosures, although suffering some boundary loss. It is intensively farmed and strongly rural in character. Distinctive hawthorn/elm hedgerows follow wide verged historic lanes and tracks across the area. The area contains a scattering of smaller ponds and some small reservoirs.

Archaeological Character: The clay land is unconducive to cropmark formation and there has been little development led excavation. However, localised concentrations of archaeological deposits and sites indicate prehistoric, Romano-British and medieval settlement activity in this zone. These indicate the long history of occupation and landuse, and the potential for undisturbed archaeological sites within the landscape. The built environment, consisting of various historic timber structures form an important part of the historic character, as well as a WWI and WWII airfield."

4.44 The associated scoring is tabulated area follows:

Table 2: HECA 112_1 (After Essex CC 2007)

Diversity of Historic Environment Assets	Diverse historic rural environment	
Survival	Good survival of archaeological and palaeo- environment deposits in all areas	3
Documentation	HER date, historic mapping, NMP	3
Group Value Association	Historic landscape of fields village and farms	3
Archaeological Potential	High potential for surviving archaeological and palaeo-environment deposits	3
Sensitivity to change	Historic rural and landscape and potential below ground archaeological deposits are sensitive to change.	3
Amenity Value	Potential to use the surviving elements of the historic landscape and settlement pattern together with archaeological evidence to enhance appreciation of the historic development of the zone.	3

Table 3: HECA 112_2 (After Essex CC 2007)

Diversity of historic environment assets	Multi period settlement pattern.			
Survival	Good survival of archaeological and palaeo- environment deposits. Historic landscape survives well.	3		
Documentation	HER data, historic mapping.	2		
Group Value Association	Historic field and settlement pattern			
Archaeological Potential	Good potential for discovering archaeological and palaeo-environment deposits	3		
Sensitivity to Change	Rural landscape is highly sensitive to development and change	3		

Amenity Value	Potential to use the surviving elements of the historic	3
	landscape and settlement pattern together with	
	archaeological evidence to enhance appreciation of	
	the historic development of the zone	
	·	

- 4.45 The adjacent Character Areas are therefore extremely similar to one another. The scoring for Diversity of historic environment assets suggests the areas contain a range of assets of different date and characterg(ibid) and in particular a multi-period settlement pattern (HLCA 112_2). In terms of £urvivalqthe document suggests there is a evidential basis for concluding that there is known and potential archaeological survival across the zones, in part due to a low level of disturbance in the area from development or quarrying, allowing the conclusion that the ⊀one contains known assets which are well preserved In particular both areas contain good potential for palaeo-environmental remains, whilst both archaeology and historic landscape are highlighted for 112_2. For Documentationq(results of archaeological fieldwork, NMP, historical documents etc) HLCA 112 2 suggests that that a range of documents...gexist whilst for HLCA 112 1 a wide range of documentationgis available reflecting variations in the evidence base to the south of the Site. In terms of £roup valueqboth contain aspects of historic landscapes of fields villages and farms that can be seen as integrated elements of landscape management and exploitation. These are given the highest group value (i.e. £ontains a range of historic assets which are
- Archaeological Potentialq as defined in the report is also at level 3 with an emphasis on a high potential for both archaeological and a plaeo-environmental remains. The latter associated with the Mar Dyke, its flood plain and tributaries (which include the watercourses present at the Site). In level 3 for Potential the basis is that £urrent evidence and little disturbance indicates that a range of high quality assets probably survive within the zoneq However, a high potential will not always correlate with an actual presence of high quality archaeology at any one site (including the present Site).
- £ensitivity to Changeqaspects for the two zones are slightly different within the document with below ground archaeological deposits cited as sensitive to change in 112_1 and historic rural landscape as sensitive to change in both. Both areas are scored at 3, defined as £he zones historic environment is highly sensitive to medium to large scale development.qHowever in the case of the Site the distance from the known medieval sites reduces the sensitivity to change, whilst there has been loss of field-boundaries and these may in any case be of Inclosure rather than medieval date. Finally Amenity Value is at 3 for both which is an acknowledgement that there is good potential for explanation and interpretation of historic remains (i.e. £The historic environment plays or could play a key role in the zones sense of place for the local people and visitorsq. Contains assets which are, or could be promoted for the benefit of local people or visitors.qThis noted there are currently no such sites known within the present Site and these issues apply more widely to the zone to the south. They are equally, if not more apt for the Old Thorndon Hall and gardens Scheduled Monument site to the north, where there are initiatives to enhance its profile (see SM description).

g) Aerial Photographs

- The HER includes aerial photographic information which has been cited above and is shown graphically on Fig.2. An addition search of aerial photographs held by the English Heritage Archive was made by RPS for the assessment of this Site. This comprised 80 verticals between 1944 and 1995 and 9 oblique shots between 1948 and 1995. A list of the sorties examined is provided as Appendix 2.
- The earliest vertical and oblique photographs examined date to the 1940¢s. RAF oblique photographs of the area of Barnards Farm to the south of the Site and railway taken on 28th September 1948 show two circular features (east of RPS 24) that appear fresh and of modern in derivation. However they seem to confirm that the ring-ditch at RPS 24 is a pond (water is observable on a number of frames (e.g. RAF_540_109_PFF0_102). The 1940¢s shot shows the A127 extant but of course the new alignment of the A128 is yet to be constructed and Tilbury Road is a straight thoroughfare. The Site¢s fields appear to have been under cultivation throughout. They chart the residential development of West Horndon with the southern east-west aligned area in existence, although incomplete, by 1946 and the complete development including the north extension of the village by 1961.
- A diagonal route from the SE corner of the Site aligned NW is not shown on the 1940¢s frames but appears as an active straight dirt track by 1955. Subsequently and up to the latest sorties the modern alignment is shown as a dark linear suggesting an effect on soil compaction when returned to agriculture.

h) Consultation

- 4.51 RPS has discussed the scope of this document and the archaeological background to the site with the LPAs Archaeology Officer at Essex County Council HEM team on 25th September 2014. The HEM team recommended the above reference to the HLCAs.
- 4.52 English Heritage will be consulted in due course due to the proximity of the Historic Park and Garden and with regard to the visual setting of the Scheduled Monuments to the north. The Brentwood Conservation Officer will be consulted with regard to the adjacent conservation Area and visual aspects in relation to Listed Buildings.

i) Site Walkover

A site walkover survey was conducted on 26th September 2014. The weather conditions were overcast but visibility was good. The walkover commenced at the west end of Station Road. All of the fields to the south side were ploughed and harrowed with no earthworks visible. The land slopes down from the railway to Station Road in the south-eastern field. A high hedge borders the north side of Station Road and although of diverse species composition including hawthorn, maple, hazel and blackthorn it lacks mature trees (particularly oaks) of a mature boundary and probably not an ancient hedge (although this does not preclude the road itself from being ancient). Views were also observed of the fields to the north of Station Road from the road-side. The eastern field was similarly ploughed and harrowed with no visible earthworks, whilst the two fields adjacent (the larger eastern field bordering the A128) were fallow and presently under grass. A small stream/ditch runs north/south between the arable and fallow fields. The stream line also forms the boundary between the eastern and western fields to the south of Station Road

where it is bordered by an immature and broken hedge line. There are distant views of Thorndon Country Park and the SM area and of All Saints Church from breaks in the hedge, looking north and north-east respectively.

- The walkover route then followed the A128 north past Dunton Hills Farm to the east of the Site. The hedgerow bordering the A128 and Tilbury Road (that borders the north-eastern edge of the Site) is high but of recent planting (fast grown maple and hawthorn species with low species diversity) and offers good screening. The hedge bordering the northern side of the pasture (fallow) field north of Station Road has an S-curve, although it is not clear whether the curve was due to a meander in a concurrent minor stream at the boundary, or indicative of a medieval, rather than Inclosure period origin. However, the hedge is noticeably more mature than the roadside hedges and field hedges described elsewhere within the Site. The north-eastern field of the Site was also currently under scrub pasture, having previously been used as arable (plough lines still visible beneath grass). The wide hedge bordering the northern edge of the field comprised of blackthorn/hawthorn. This may reflects a later age for this straight east-west boundary in comparison to the parallel S-curve boundary to the south. Following the road north past East Horndon Hall it was noticeable that this Listed Building was well screened from the Site by high hedgerows of Tilbury Road.
- The walkover then followed the A127 past Woodside Farm (a stud farm with surrounding paddocks). The footpath was then taken south to the west side of a finger of woodland known as £straight Path Shawqon the 19th century mapping. The woodland finger lies to the north-west side of the western arable field of the Site but is of interest as it borders the main stream through the area which flows south towards to the west of the Site. A 0.8m high linear bank within the woodland, between the stream and the field edge, probably marks one side of a former c.15m wide drove route following the stream course. The longevity of the woodland, which continues as £Round Shawqto the south, as shown by historic mapping, suggests at least a post-medieval derivation to the course. The north-west field of the Site was visible from the footpath as being ploughed and harrowed and was bordered on all sides by relatively immature hedgerows typical of Inclosure landscape. The playing field to the west of the field was accessed and views onto the field confirm that there are no prominent earthworks within the field (as would be expected of a frequently ploughed landscape).
- It is also worth noting that the tithe and OS mapping shows that the former boundary between East Horndon and West Horndon ran north-south to the west side of the modern A128/Tilbury Road and that routes former incarnations. In terms of the modern field layout there is no sign of this boundary, although it is likely that it had originally been laid out to respect a boundary of some kind (route or field boundary). In particular there were no earthworks (e.g. a linear depression) visible from the public access viewpoints running to the west of the present road.
- 4.57 Views to/from the Site were considered. As noted All Saints Church to the north-east is visible from the Site due to its elevated location. However, when standing beside the church views of the Site are obscured by an enclosing hedge. The brick built church is not currently in use but is cared for by the Churches Conservation Trust. Although not in regular use it remains consecrated. The tower windows are boarded over.
- 4.58 Similarly the Site is inter-visible with the Scheduled Monument of Thorndon Hall on the high ground to the north. Although there are areas of the Site screened by vegetation the southern and central fields of the Site are visible from the higher areas within the SM. There are very few

remaining traces of the hall itself above ground within the pasture areas of the SM, apart from the two tier circular earthwork mound known as the Pigeon Mountq There are ruins within the woodland area to the south side of the SM which do not have inter-visibility with the Site. The views from the SM will need to be assessed in more detail and the potential impacts and means of mitigating visual impacts will need to be developed in consultation with English Heritage in terms of development for design and screening.

j) <u>Truncation</u>

4.59 Map regression indicates that the Site has been located within fields since at least the 19th century and given the landscape setting were probably under the plough from at least the medieval period. Aerial photographs confirm that the Site has been under the plough since at least the 1940¢s. Modern deep ploughing will have truncated upper levels of any archaeological features within the Site and may have entirely or partially removed associated occupation layers. However cut features such as ditches, pits, post-holes and foundations may survive as other forms of truncation, such as quarrying, appear absent within this rural landscape.

5 ASSESSMENT CRITERIA/METHODOLOGY

5.1 The following approaches to assessing significance, impact and effect in relation to archaeology have been utilised.

a) Significance

5.2 Significance is described in NPPF (Annex 2) as:

"The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting."

- 5.3 There are no national government guidelines for evaluating the significance of all types of heritage asset. For archaeological remains, DCMS has adopted a series of recommended (i.e. non-statutory) criteria for use in the determination of national importance when scheduling ancient monuments. These are expressed in DCMS (2013).
- The criteria include period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity and potential, and can be used as a basis for the assessment of the importance of historic remains and archaeological sites. However the document also states that these criteria £hould not be regarded as definitive; but as indicators which contribute to a wider judgment based on the individual circumstances of a case.q
- These criteria can be used as a basis for the assessment of the importance of archaeological remains/heritage assets of national importance. However the categories of regional and district / local importance are less clearly established than that of national importance, and implicitly relate to local, district and regional priorities which themselves will be varied within and between regions.
- Clearly a degree of professional judgement is necessary, guided by acknowledged standards, designations and priorities. It is also important to understand that buried archaeological remains may not be well-understood at the time of assessment, and can therefore be of uncertain importance.
- 5.7 The following table assists in assessing the significance of archaeological assets.

Significance	Type of Asset			
Very High	 World Heritage Sites 			
	 Assets of acknowledged international importance 			
	 Assets that can contribute significantly to acknowledged international research objectives 			
High	 Scheduled Monuments 			
	 Undesignated assets of schedulable quality and importance 			
	 Assets that can contribute significantly to acknowledged national research objectives 			
Medium	 Designated or undesignated assets that contribute to regional research objectives 			
Low	 Undesignated assets of local importance 			

Significance	Type of Asset			
	 Assets compromised by poor preservation and/or poor survival of contextual associations Assets of limited importance, but with potential to contribute to local research objectives 			
Negligible	 Assets with very little or no surviving archaeological interest 			
Unknown	The importance of the asset cannot be ascertained			

b) Impact

- 5.8 Impact scales to all heritage assets are defined as follows:
 - Major: Change to most or all key elements, such that the asset is totally altered and much of
 its significance is lost. Substantial change within the setting leading to alteration of
 significance of the asset.
 - Moderate: Changes to many key elements, such that the asset is clearly modified and there is some loss of significance. Change within the setting leading to some loss of significance of the asset.
 - Minor: Changes to key elements, such that the asset is slightly altered and there is a slight loss of significance. Slight change within the setting leading to a slight loss of significance of the asset.
 - **Negligible**: Very minor changes to key elements or within the setting that hardly affect the significance.
 - No change: No change to key elements or within the setting.

c) Effects

- 5.9 Effects are calculated through a matrix approach which combines the importance of the heritage asset with the magnitude of impact on that asset to provide an overall assessment of effect. Effects can be adverse or beneficial.
- 5.10 Beneficial effects are those that mitigate existing impacts and help to restore or enhance the significance of heritage assets, therefore allowing for greater understanding and appreciation. The following matrix approach is used.

Significance	Effect	Effect	Effect	Effect	Effect
Very High	Neutral	Minor	Moderate	Major	Major
High	Neutral	Minor	Moderate	Moderate	Major
Medium	Neutral	Minor	Minor	Moderate	Moderate
Low	Neutral	Minor	Minor	Minor	Minor
Negligible	Neutral	Neutral	Neutral	Neutral	Minor
	No Change	Negligible	Minor	Moderate	Major
	MAGNITUDE OF IMPACT				

6 LIKELY DEVELOPMENT EFFECT (ARCHAEOLOGY)

a) Introduction

This assessment of effect uses the Assessment Criteria/Methodology set out above. At present the information available is preliminary and a more detailed assessment would be required in the event of a full EIA process. Such a process would require detailed assessment with regard to setting (which has additional criteria not applicable to this stage of the process due to the preliminary status of the design concept) and mitigation. This section provides an initial assessment of likely levels of effect on (currently unknown) archaeology prior to the results of (likely requirements for) evaluation fieldwork. Aspects of remaining Historic Environment categories that would require visual impact assessment impact in due course are noted.

b) Significance

6.2 Significance (and potential) varies by the archaeological periods discussed.

i. Prehistoric

- The Sites location on low-lying landscape to the east, south and west of a crescent of hills suggest the possibility of exploitation by prehistoric farmers for seasonally driven upland/lowland stock management systems. As such it is possible that livestock were grazed on the low ground in the drier months and moved upslope at other times. Archaeological fieldwork has been mainly concentrated on the Thorndon Country Park area to the north where fieldwalking located several spreads of worked flint, burnt flint and pottery (mainly of Neolithic to Bronze Age date). A pipeline trench to the south-west has indentified a probable field-system ditch of later Bronze Age date. However, the dating of two possible ±ing-ditchqfeatures on aerial photographs also to the south-west of the Site as prehistoric is far from certain (one appears to have been a pond on aerial photos). Given the above there is moderate potential for the presence of currently unknown prehistoric archaeology within the Site. If present such archaeology is most likely to be related to former field-systems, although the possible presence of settlement/s or funerary remains cannot be discounted given the size of the Site.
- Fragments of prehistoric field-systems may be regarded as being of low (local) significance, whilst well-preserved and extensive archaeological landscapes are regarded as being of medium (regional) significance. Similarly surface prehistoric scatters of artefacts may be regarded as of low significance, whilst buried archaeological remains of prehistoric sites (settlements, funerary remains, industry etc) are most commonly of low to medium significance (depending on the preservation, form and rarity). There is currently no evidence for prehistoric archaeology of high significance within the wider area of the Study Area.
- The geology mapping (BGS 1996) shows the Site containing alluvium within a slight north south stream valley. Such valleys provide one possible route corridor for stock movement but also provide water for their management and potentially to support human occupation in its vicinity. Alluvium is likely to be primarily of Neolithic and Bronze Age date. Elsewhere such deposits have been shown to contain peat levels with particular potential to contain well-preserved environmental remains and/or worked wood, in addition to artefacts (although presence of peat is not known for the present Site).

6.6 Fragmentary basal remains of alluvium (of low to medium significance) might be impacted by infrastructure and/or foundations.

ii. Roman

In a similar fashion to the prehistoric periods there are hints at settlements from wider Study Area (pottery and tile scatters from Thorndon Country Park) but no current evidence from the Site itself. It is considered very likely that the Site area was farmed in the period and therefore evidence for field-systems (in the form of ditches) and associated features (such as trackways and waterholes) are considered quite likely to be present, at least in fragmentary form. There is low-medium potential for the Roman-British settlement within the Site, although it is probable the higher ground beyond the Site was favoured. Again fragmentary fieldsystem evidence would be considered to be of low significance, whilst well-preserved ±eadableqlandscapes might be of low-medium significance. Similarly surface scatters of Romano-British artefacts may be regarded as of low significance, whilst buried archaeological remains of prehistoric sites (settlements, funerary remains, industry etc) are most commonly of low to medium significance (depending on the preservation, form and rarity). There is no reason to suppose the presence of highly significant Roman period remains on the Site. There is also a low possibility of Roman period alluvium deposits containing structural evidence and/or artefacts of low-medium significance.

iii. Early Medieval (Anglo-Saxon) and High Medieval

- Elements of the framework of the modern landscape, comprising a series of north-south boundaries and routeways and to an unknown (but almost certainly lower) extent, the patchwork of field-boundaries between, are likely to originate in the medieval period. The landscape form is perpendicular to the Thorndon Country Park ridge but is part of a much wider system extending to the Thames Estuary. Fieldwork would be required to substantiate the antiquity of the landscape form, although there are hints that certain routes and boundaries have been altered between the medieval period and the present day (which reflects the mid 19th century landscape) and many boundaries are so straight that they almost certainly relate to Inclosure of open fields. Notably the north-south alignment of the parish boundary between East and West Horndon does not follow the line of Tilbury Road, as might be expected, but lies within open landscape (within the Site) to the west. As such it possible that archaeological traces beneath of this notional boundary line might be present.
- Medieval East Horndon was focussed on the high ground around the church, with the principal manor for West Horndon commensurate with the former Thorndon Hall. It is therefore unlikely that medieval hamlet/village sized archaeological sites are present within the Site. There is also a low potential for former moated sites as the extant scatter within the landscape around the Site suggest an evenly distributed dispersed settlement pattern and the Site area between is likely to have been farmland. There remains a low-medium potential for archaeological remains of lower status estate workers within the Site. These may be of low to medium significance.
- The medieval archaeological remains of Thorndon Hall and the conjoined St Nicholas Church Scheduled Monuments are of high significance. Although there are no physical impacts to the SMs any visual effect to their setting will need to be assessed in relation to English Heritage guidance on setting (EH 2011) as design principles and screening mitigation proposals are developed. Although screened to a large degree the same will apply to the Grade II* listed 15th century Church of All Saints.

iv. Post-Medieval

- Many of the surviving elements of landscape at the Site are likely to be of post-medieval rather than medieval date. This is suggested by the very straight nature of most of the field boundaries (ancient boundaries tend to exhibit irregularities) with associated immature hedgerows exhibiting low species diversity. Although the basic framework of the landscape may be more ancient most of these boundaries may reflect enclosure of former open fields. Ponds within the Site may date from the period whilst a mill was located to the east side of Tilbury Road. Given the present settlement pattern and the rural nature of the Site (that has barely changed since the 1840¢) it is considered unlikely that significant elements of post-medieval settlement or landscape are present as archaeological sites/features within the Site.
- Thorndon Hall SM has post-medieval phases, elements of which remain extant (such as the Pigeon Mount and surviving elements of the Hall foundations within £ Ruin Woodq As above the visual setting of the SMs will need assessment in accordance with EH guidance in due course given inter-visibility with parts of the Site from the monument.
- The post-medieval Grade II Listed Buildings of medium significance, within the Study Area are largely screened by high hedgerows and topography from the Site.

c) **Impact**

- There are no known archaeological sites, features or finds that would be impacted at the Site although there is potential for presence of currently unknown archaeology. It is considered likely that infrastructure, foundations and landscaping will impact presently unknown but restricted areas of archaeology to varying degrees (to be determined via evaluation).
- There are likely to be visual impacts to the setting of the SMs with a possible minor loss of significance following construction.

d) Effect

- Based on the matrix approach set out above, with the current state of knowledge there effect on archaeology is likely to be Neutral to Moderate before mitigation. Should archaeological remains be identified via evaluation (e.g. geophysics & trial trenching) they would be required to be excavated ahead of construction impact, thus providing mitigation by record. In such circumstances the overall effect on archaeology of low-medium significance following mitigation is likely to be Minor.
- 6.17 In terms of the Setting of Listed Buildings and Old Thorndon Hall/St Nicholasq Church SMos Rummy Design (2013) noted that:
 - '...the low level topography of the land combines to significantly limit visibility...from the surrounding land to the south, east and west...Open views are possible from the footpaths and public access land associated with the Thorndon County Park South. These views are sensitive and frequented by many visitors. Nonetheless the expansive views experienced from Thorndon Country Park south are defined by a mix of both rural and urban elements. Industrial elements such as chimneys and factories and infrastructure elements such as bridges and large roads define the character of the views from the park.

Existing vegetation within the east site and the Thorndon Country Park south limits the visibility...from western sections of the Country Park. In contrast, the west site is very open, lacking strong vegetation network and is highly visible when viewed from western sections of the park...

A strong network of landscape structure planting would integrate the development of the east site into the wider landscape in time. The existing hedgerow network should be retained and bolstered with new tree planting. New hedgerows and tree planting...will help to integrate the development into the landscape and reduce its visibility from the Thorndon Country Park South. It is assessed that any visual harm resulting from the development of the east site could be limited through mitigation planting...It is therefore concluded that a landscape led approach...will not give rise to any significant landscape and visual effects and will enhance landscape character and restore lost landscape features typical of the area....

Drivers for the masterplan

- strengthen the existing network of landscape structure to mitigate development on the site
- selectively add additional hedgerows to further assist in mitigating development impact'
- The report notes that the heavily trafficked A127, a major east-west corridor, separates the SM from the Site. However, the Thorndon Country Park Conservation Area and Historic Park and Garden extend to the south of the A127 to immediately north of the Site, they conclude; #he site is adjacent to a protected landscape and therefore should have boundary protection to retain the character of the park.q
- The proposals are therefore likely to promote a woodland buffer to the southern edge of the Thorndon County Park (and commensurate Conservation Area/Historic Park & Garden).

7 SUMMARY AND CONCLUSION

- 7.1 Review of a range of archaeological and historical sources has provided information on the archaeological background to the Site. Geological information indicates that the Site area was situated within Pleistocene Head Clay with Holocene alluvium within a slight valley through the central area.
- There are no known prehistoric, Roman or medieval sites or finds recorded on the HER within the Site. This is likely to reflect a lack of formal archaeological investigation. However, settlement of these periods is most likely to have been focussed, although not exclusively, on the adjacent higher ground. The current landscape form is likely to incorporate aspects of medieval as well as post-medieval date and buried evidence for landscapes of several periods is likely to survive in at least fragmentary form archaeologically. Archaeological fieldwork such as geophysics may be required to assist in the identification of any sites present, subject to further consultation with the Historic Environment Management (HEM). This may lead to further stage of evaluation and/or mitigation in the event of planning consent.
- 7.3 The most significant heritage asset within the vicinity of the Site is the Thorndon Hall/St Nicholasq Church Scheduled Monuments located to the north of the A128. The visual effects on the SMqs will require further assessment as the masterplanning process is developed and in consultation with English Heritage. Although some effects on the immediately adjacent Registered Park and Garden and Conservation Area are likely these may be largely possible to mitigate via woodland planting. The setting effects on these assets and to Listed Buildings (in particular the Church of All Saints which has inter-visibility with the Site) will also be subject to design led mitigation.

8 SOURCES

Albion Archaeology (Turner, I., Wardill, R., Wells, J.), 2012. Cranham Cable Trench, adjacent to Tillingham Hall, West Horndon, Essex: Archaeological Observation, Investigation and Recording. Albion Archaeology, 2012/2

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http://magic.defra.gov.uk/

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Rummy Design, 2013. Lane east of West Horndon, Essex. Landscape and design report

Yates, D, 2007. Land, power and prestige. Bronze Age field systems in Southern England. Oxbow Books

FIGURE 1 – SITE LOCATION

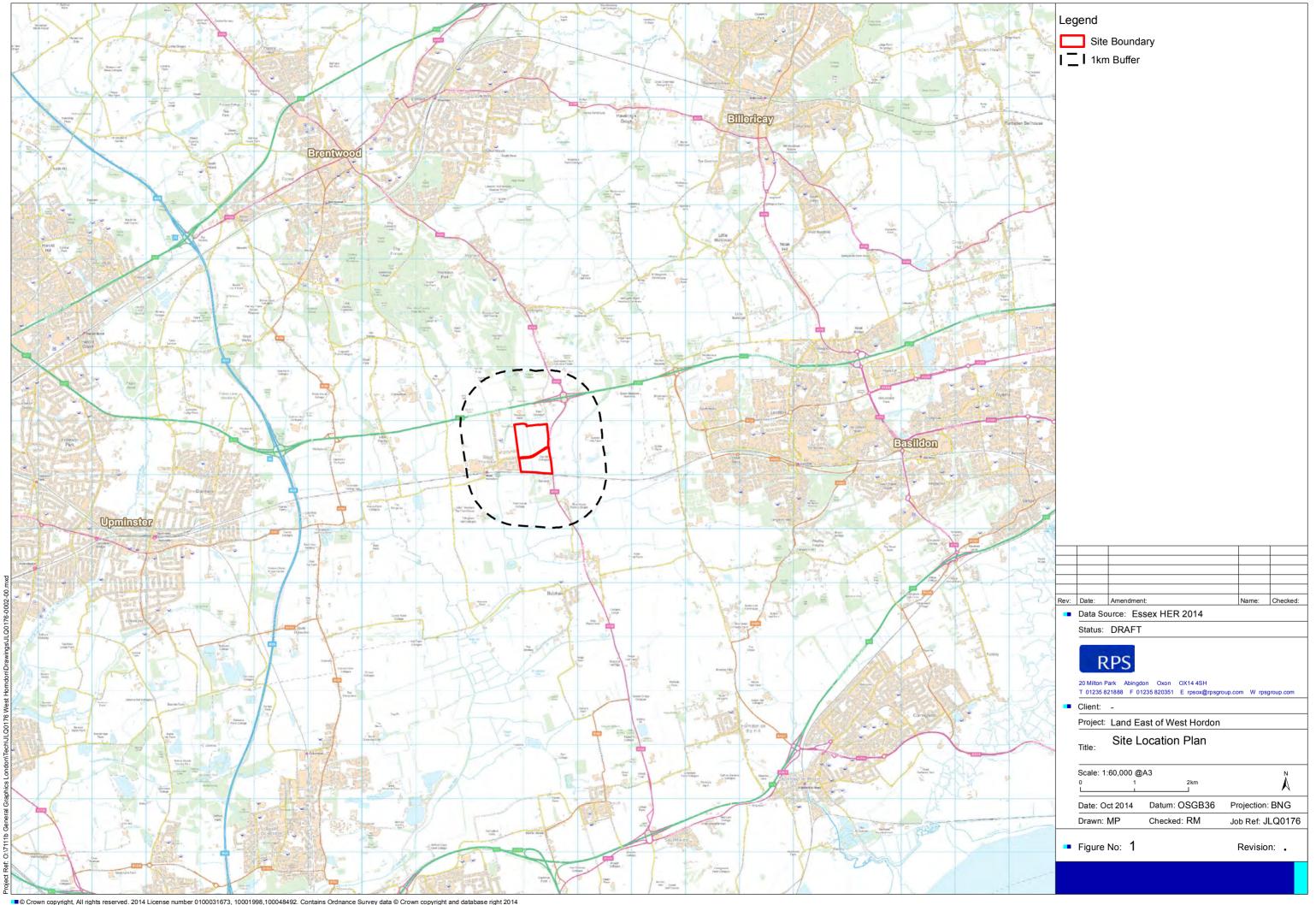


FIGURE 2 – HISTORIC ENVIRONMENT RECORD

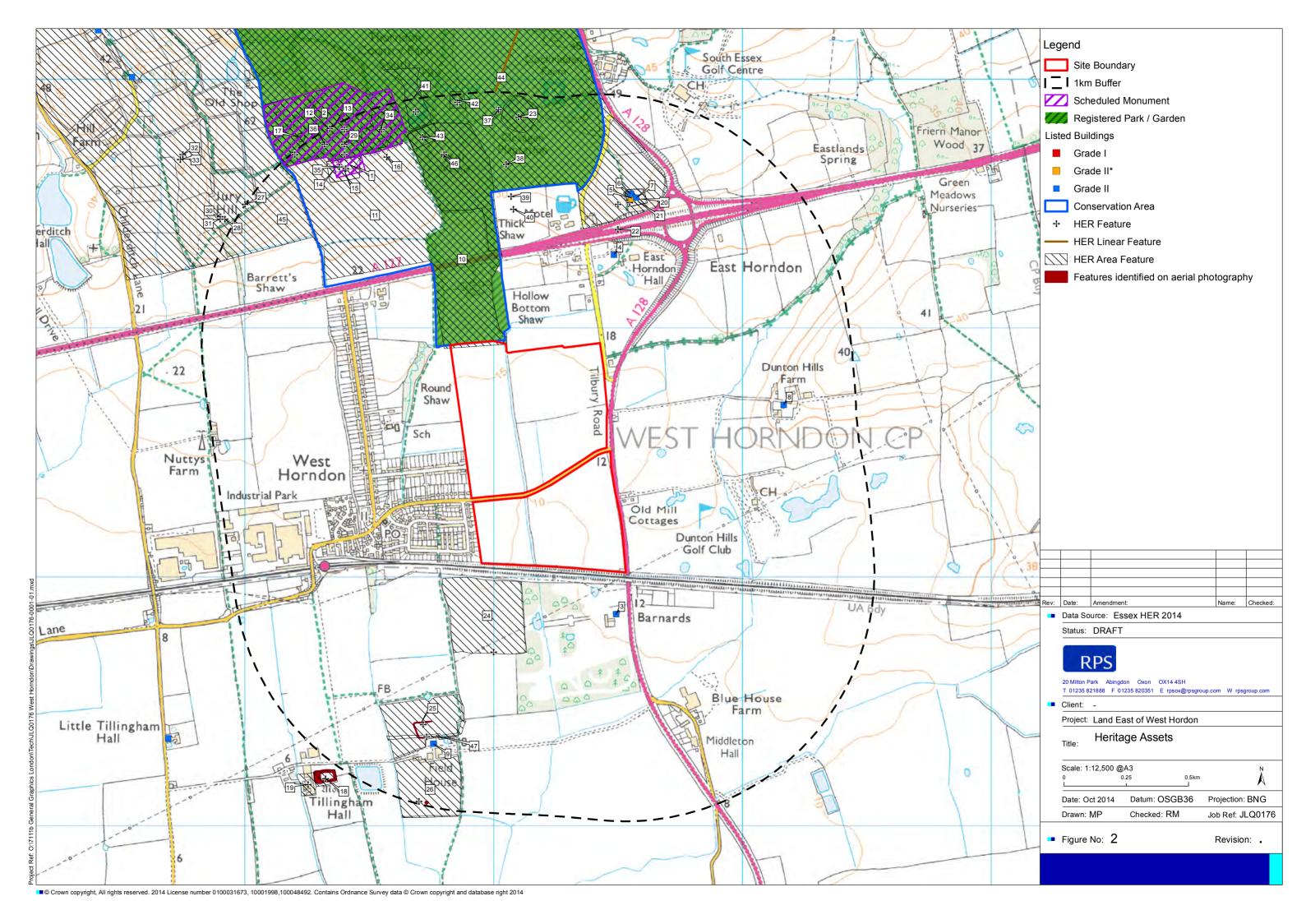
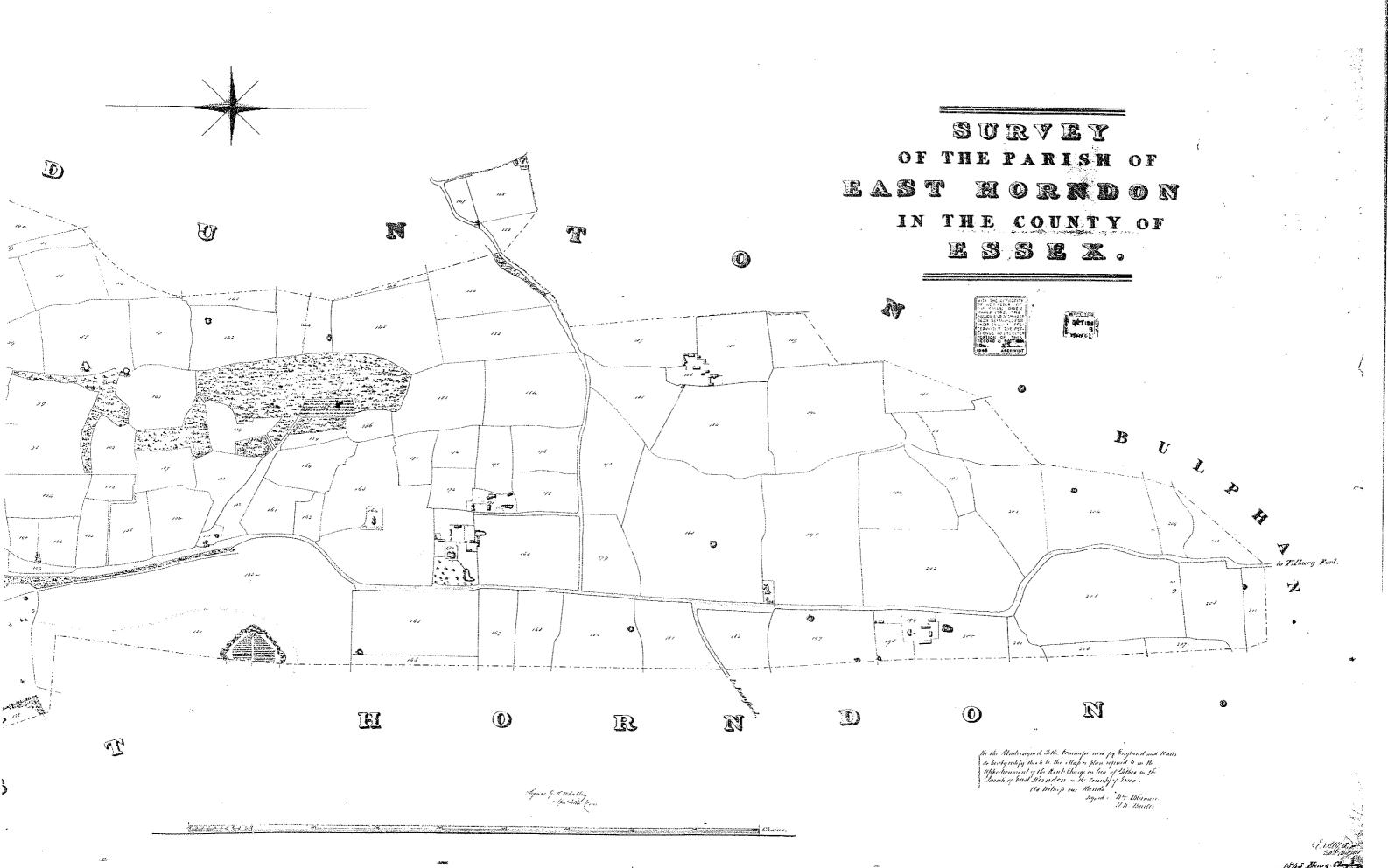


FIGURE 3 – EAST HORNDON TITHE MAP 1845



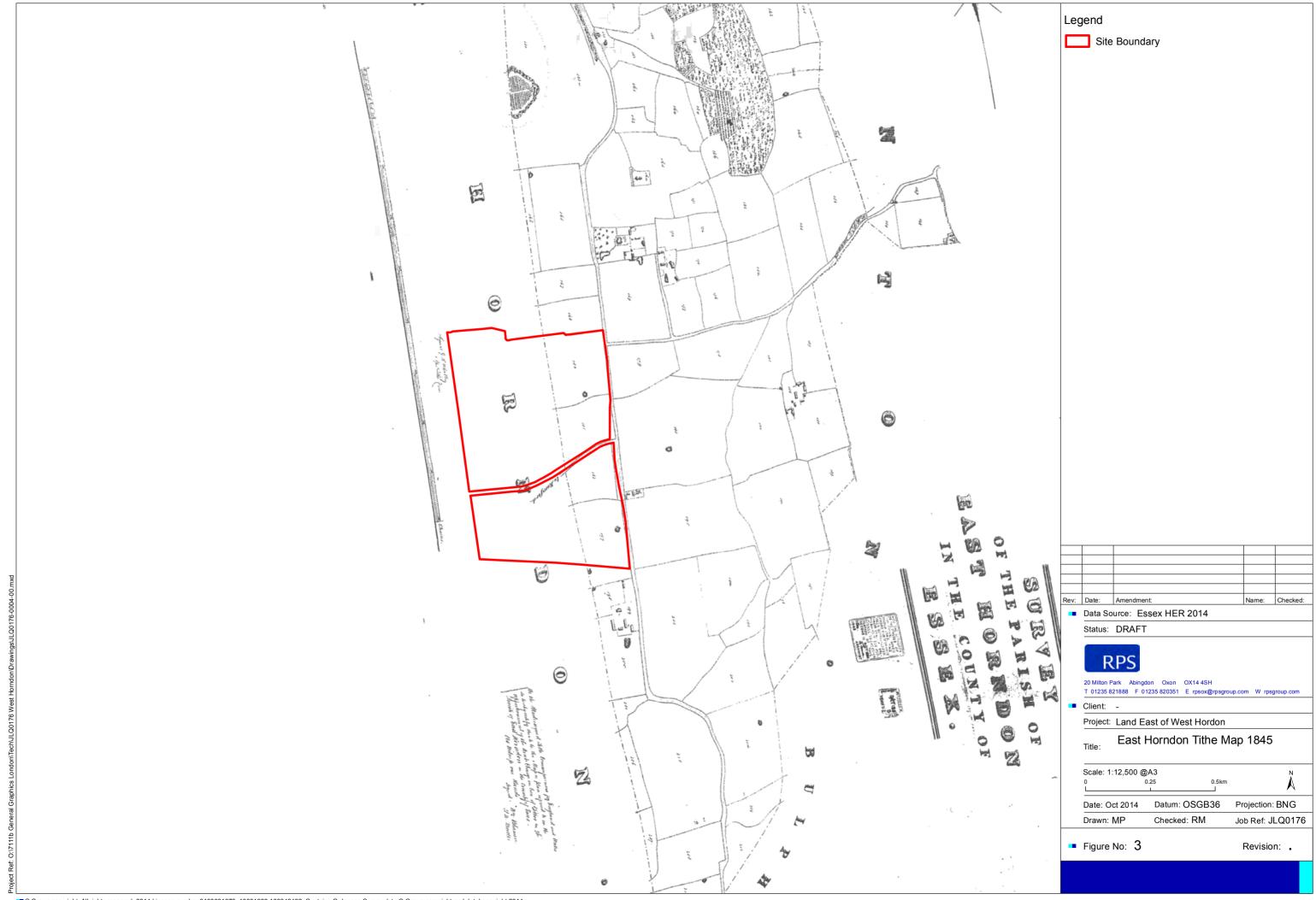
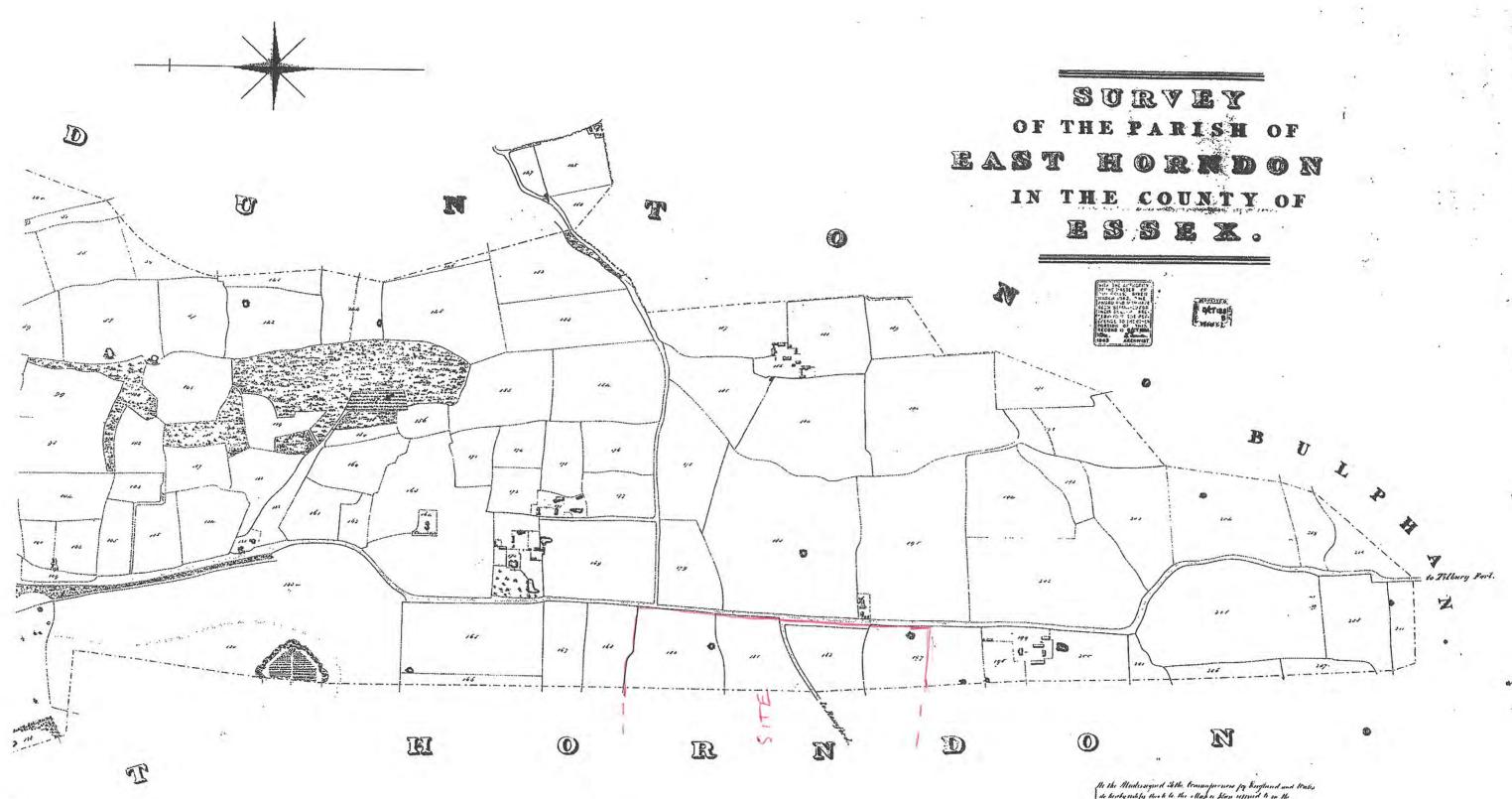


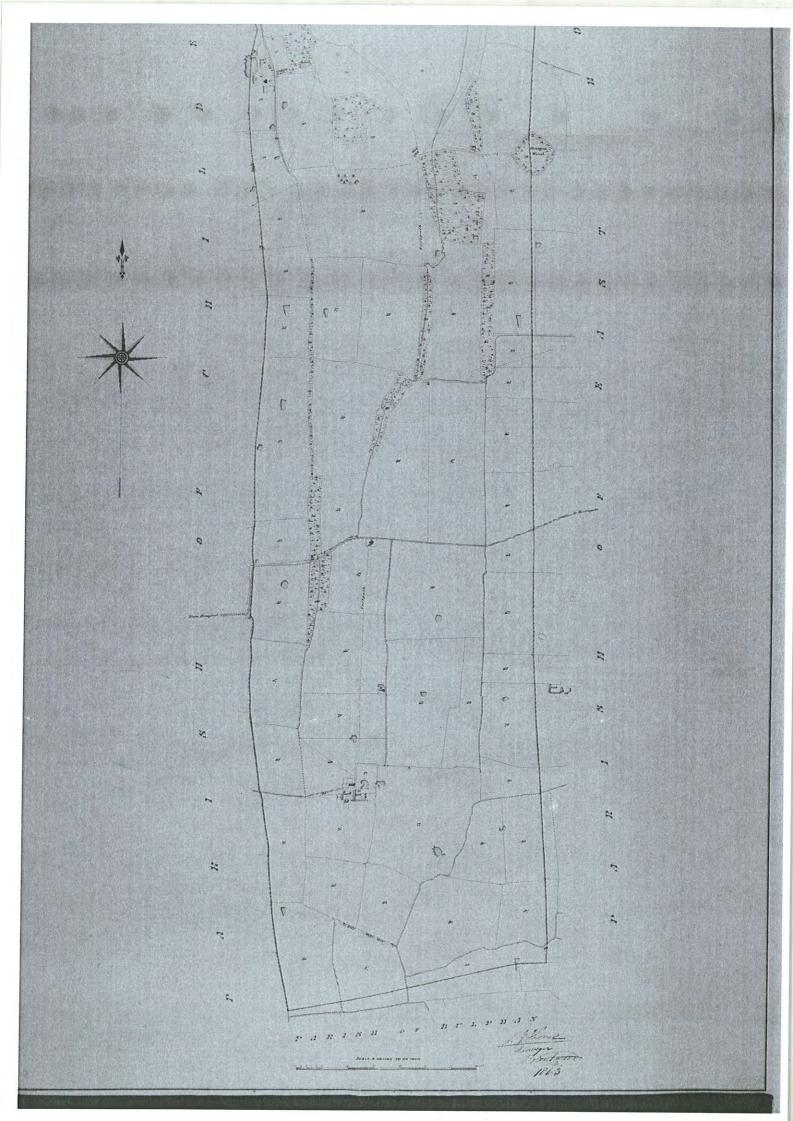
FIGURE 4 – WEST HORNDON TITHE MAP 1863



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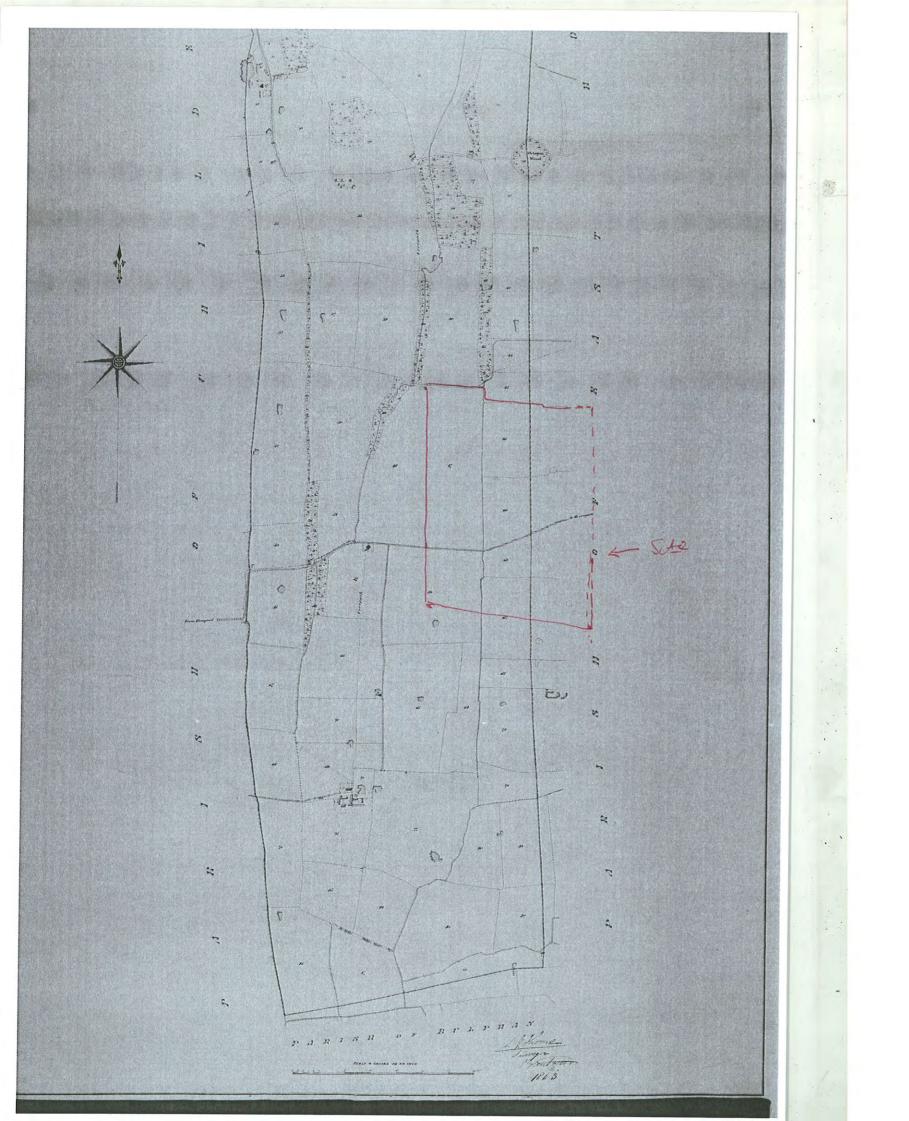
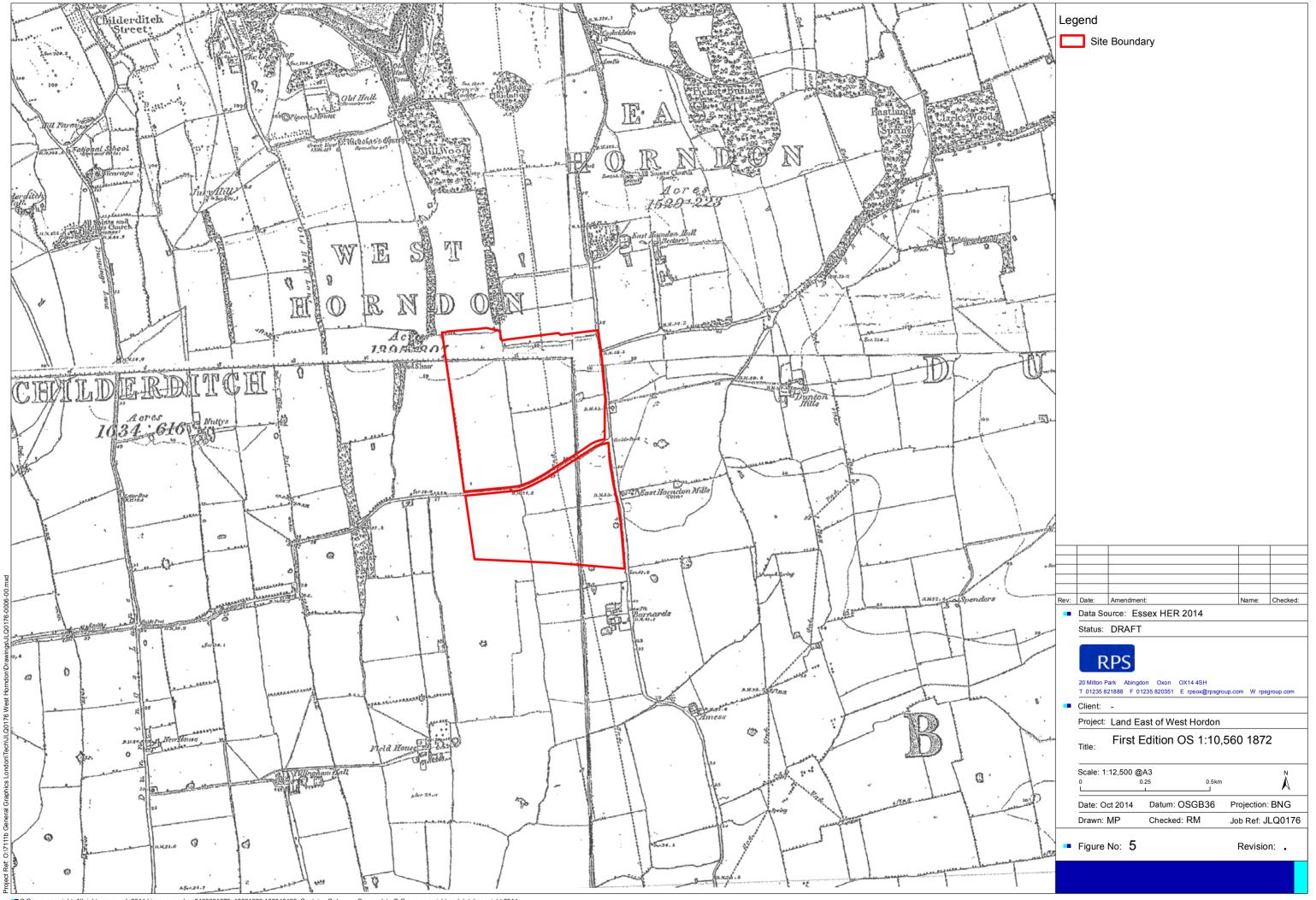


FIGURE 5 – FIRST EDITION OS 1872



APPENDIX 1 – HER DATABASE

RPS No 1 2	DesigUID DEX3630 DEX3631	MonUID	EHCR_NO 1851 1849	Record Type SM SM	EH List No 1021225 32473	Name Former parish church and churchyard of St Nicholas Old Thorndon Hall and Gardens	Description	Date
3		MEX1010565		LBII	119617	BARNARDS	HOUSE	C18
4		MEX1010303		LBII	373564	East Horndon	TIMBER FRAMED HOUSE	C16
5		MEX1002614 MEX1002658		LBII*	373371	Church of All Saints	CHURCH	C15
6		MEX1002659		LBII	373371	Stabling at Curch of All Saints	TIMBER FRAMED BUILDING	C17
7		MEX1002653		LBII	373372	Freman monument in churchyard of Church of All Saints	TOMBSTONE	C18
,	DLX11204	WILX1002000	27201	LDII	373373	Treman monument in churchyard of Church of All Saints	TOMBSTONE	CIO
8	DEX11540	MEX1002813	27433	LBII	373563	Dunton Hills	TIMBER FRAMED HOUSE	C17
9	DEX22122	MEX1010581	35175	LBII	119627	FIELD HOUSE	HOUSE	C16
10				RPGII*	1000314	Thorndon Hall Registered Park & Garden		
11	DEX22830			CA		Thorndon Park Conservation Area		
12	12356	MEX6695	1849	MON		Old Thorndon Hall, West Horndon	HOUSE, WALL, MOAT, HOUSE, HOUSE, MOAT, DESERTED SETTLEMENT, DEER PARK	
13	3984	MEX6707	1850	MON		Old Thorndon Hall, West Horndon	GREAT HOUSE, GREAT HOUSE, WALL, BAKEHOUSE, STABLE, BARN, ENCLOSURE, GARDEN, BUILDING, GATEHOUSE, GARDEN WALL, DEER PARK, POND, WATERMILL, FIELD BOUNDARY, TRACKWAY, GREAT HOUSE, WATERCOURSE, ZOO, DAM, MOUND, PARK, BOUNDARY	
14	4629	MEX6710	1851	MON		Site of St Nicholas's Church, West Horndon	CHURCH, CHURCHYARD, DITCH, HUMAN REMAINS, BUILDING, FLOOR, SETTLEMENT	
15	507	MEX6719	1852	MON		Site of St Nicholas's Church, West Horndon	CHURCH, CHURCH, HUMAN REMAINS, CHURCHYARD, CHURCH, BUILDING, FLOOR, SETTLEMENT	
16	29829	MEX6720	1853	FS		East of site of St Nicholas's Church, West Horndon		
17	4255	MEX6721	1854	MON		West Horndon - Old Thorndon Hall, 'Pigeon Mound'	LANDSCAPE PARK	
18	11146	MEX6845	1873	MON		Childerditch-Tillingham Hall Farm	MOAT	
19	1662	MEX6850	1874	MON		Little Tillingham Hall Farm	HOUSE	
20	9188	MEX17748	5154	MON		Church of All Saints, East Horndon	CHURCH, FONT, TOMB, CHURCH,	
							COFFIN, ARCHITECTURAL	
							FRAGMENT, ARCHITECTURAL	
							FRAGMENT, VAULT, BUILDING	
21 22	9111 20369	MEX17752 MEX17754	5155 5156	MON FS		Church of All Saints, East Horndon Near Churchyard	CHURCH, BUILDING	
23	13670	MEX31339	9964	MON		The Octagon, Thorndon Country Park	GARDEN, GARDEN	
24	13283	MEX41054	16254	MON		Fieldhouse	RING DITCH	
25	6646	MEX41056	16255	MON		Fieldhouse	LINEAR FEATURE, FIELD BOUNDARY	
							RECTANGULAR ENCLOSURE	

26	2831	MEX41058	16256	MON	Fieldhouse	BOMB CRATER, RECTANGULAR ENCLOSURE, RING DITCH
27	29016	MEX43308	16997	FS	Thorndon Country Park, Area A, field 7	
28	29017	MEX43309	16998	FS	Thorndon Country Park, field 7, Jury Hill	
29	29020	MEX43313	17000	FS	Thorndon Country Park, south of the Old Hall	
30	29021	MEX43314	17001	FS	Thorndon Country Park, Jury Hill	
31	29022	MEX43315	17002	FS	Thorndon Country Park, Jury Hill	
32	29023	MEX43316	17003	FS	Thorndon Country Park, Roman pot east of Childerditch	
					Brook	
33	29024	MEX43317	17004	FS	Thorndon Country Park, medieval pot east of Childerditch	
					Bro	
34	11436	MEX43318	17005	MON	Thorndon Country Park, post medieval pottery around Old	WALL
					Hall	
35	29026	MEX43319	17006	FS	Thorndon Country Park post-medieval tile near St.	
					Nicholas'c	
36	29030	MEX43322	17009	FS	Thorndon Country Park, Roman brooch	
37	13522	MEX1032267	18635	FS	Halfway House to Herongate Reservoir Triplication Scheme	
38	13523	MEX1032268	18636	FS	Halfway House to Herongate Reservoir Triplication Scheme	
39	13524	MEX1032269	18637	FS	Halfway House to Herongate Reservoir Triplication Scheme	
40	13525	MEX1032270	18638	FS	Halfway House to Herongate Reservoir Triplication Scheme	
41	9865	MEX1034381	19615	MON	Old Hall Pond - Thorndon Park	POND
42	13671	MEX1034377	19618	MON	East of Old Pond hall - Possible moated site - Thorndon	MOAT
43	7424	MEX1034379	19619	MON	Old Thorndon Hall - Possible Mill site and unknown feature	WATERMILL
44	54	MEX1035092	19884	MON	Shonks Mill to Navestock water pipeline, Essex. An	PIT
					Archaeological Watching brief.	
45	1051	MEX1037644	20828	MON	Thordon Park in World War Two	MILITARY CAMP
46	6073	MEX1036764		LND	Mill Wood, Thorndon Country Park	WOOD, EARTHWORK
47	2312	MEX1040872	48073	MON	Cranham Cable Trench, West Horndon	DITCH

APPENDIX 2 – AERIAL PHOTOGRAPHS EXAMINED

Oblique:

- 28th September 1948 . RAF_540_109_SFF0 (x8)
- 14th July 1995 . TQ6387_1 (ExC 16579_09) (x1)

Vertical:

- 2nd March 1944. RAF HLA 686 RA (x1)
- 26th March 1944 . RAF HLA 694 RP (x3)
- 4th July 1944. RAF 106G LA 21 RS (x5)
- 4th August 1944 . RAF_106G_LA_26_RS (x3)
- 10th September 1944 . RAF_106G_LA_38_RP (x2)
- 11th February 1946. RAF 3G TUB UK 66 V (x4)
- 7th June 1946 . RAF 106G UK 1563 RS (x2)
- 11th October 1946 . RAF_CPE_UK_1788_RP (x2)
- 12th May 1951 . RAF_58_679_Vp2 (x1)
- 31st May 1951. RAF 58 699 Vp2 5137 (x3)
- 4th June 1951 . RAF 58 715 Vpl (x6)
- 30th April 1952 . RAF 540 720 RS (x2)
- 4th March 1955 . RAF 540 1543 F22 (x3)
- 6th June 1955 . RAF 82 1213 V (x1)
- 6th July 1955. RAF 82 1230 F21 (x2)
- 10th October 1955 . RAF 82 1315 F21 (x6)
- 4th August 1955 RAF_542_233_F22 (x3)
- 28th August 1961 . RAF_58_4646_F43 (x3)
- 24^{th} September 1964 . OS_64211_V_68 (x2)
- 18th August 1965 _ MAL_65076_V (x2)
- 25th September 1965 . MAL 650085 V (x3)
- 2nd June 1968. MAL 68037 V (x10)
- 13th November 1970 . MAL_70085_V (x4)

1st July 1976 . MAL_76O56_V (x2)

10th March 1995 - OS_95019_V_108 (x6)