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Welcome

HEARTWOOD FOREST, Sandridge, Herts.

HN776

Archaeological Desk-based Assessment



THE HERITAGE NETWORK LTD

Registered with the Institute of Field Archaeologists as an Archaeological Organisation

Archaeological Director: David Hillelson, BA MIFA

HEARTWOOD FOREST

Sandridge, Herts.

HN776

Archaeological Desk-based Assessment

Prepared on behalf of The Woodland Trust

by

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Summary

Site name and address:	Heartwood Forest, Sandridge, St Albans, Hertfordshire		
County:	Hertfordshire	District:	St Albans
Village/town:	Sandridge	Parish:	Sandridge
Planning reference:	n/a	NGR (centre):	TL 172 114
Client name and address:	The Woodland Trust, Autumn Park, Dysart Road, Grantham, NG31 6LL		
Project Reference:	HN776	Site Code:	n/a
Development Type:	New native forest	Current land use:	Agriculture
Site Status:	None	Reason for investigation:	Advice to LPA
Position in planning process:	Pre-planning	Project brief originator:	LPA
Project type	Desk-based Assessment	Archive Recipient:	n/a

Synopsis:

In order to assess the archaeological risk posed by the creation of a proposed new native forest near Sandridge, St Albans, Herts, the Heritage Network was commissioned by The Woodland Trust to undertake a desk-based archaeological assessment of the site.

Documentary and cartographic research for the project has indicated that the present site has lain in open farmland probably since the medieval period. Until the late 18th century it formed part of the common fields to the north of Sandridge, after which it was sub-divided into a number of smaller plots in individual ownership. By the late 19th century a number of field boundaries and wooded spinneys had been removed, probably to allow for steam ploughing. The present field pattern was largely established at that period.

The present research has demonstrated that the study area is located in an archaeologically significant landscape. Cropmarks of round barrows and enclosures of probable later prehistoric date have been identified on the summit and upper slopes of the hill to the west of the modern B651, and in the fields to the east of the road. Several Roman roads are known to have crossed or skirted the area, including one which is followed by the modern Coleman Green Lane and another which runs along the western edge of the study area and which now forms part of the Sandridge parish boundary. Although no definite evidence for Iron Age or Roman occupation has been identified, it is possible that some of the cropmark features noted on aerial photographs date to these periods.

The probable outline of the small estate known as ‘Hills’, now called Hillend Farm, which was given by the Abbot of St Albans to the singing clerks, can also be traced on 19th century maps. It is located on the western side of the study area.

A programme of archaeological surveys is considered desirable in order to characterise the archaeological potential of the study area defined in the documentary and cartographic research.

1. Introduction

1.1 This study has been prepared at the request of *The Woodland Trust* as a desk-based archaeological assessment of the site of a proposed new native forest near Sandridge, St Albans, Herts, centred at NGR TL 172 114. The assessment is intended to contribute to an Environmental Impact Assessment, part of the consultation and design process for the new native forest.

1.1 The study area is located in open land to the north of Sandridge village. It has been sub-divided into five sub-areas (nos. 1 – 5) for ease of reference (Figure 1). Areas 1 to 3 are located on the eastern side of the B651, while Areas 4-5 are located on the western side of the road. Where appropriate, the individual fields within each area, as shown on the modern OS map, have also been given a letter code for ease of reference (e.g. 1A, 5A).

- Area 1 consists of the land around Nomansland Farm which forms the north-eastern corner of the study area. It is bounded to the north and south-east by established field boundaries, to the east by Coleman Green Lane, to the west by Nomansland Common and to the south-west by Ferrers Lane.
- Area 2 consists of a roughly triangular area to the south-west of Area 1. It is bounded by the B651 to the west, Coleman Green Lane to the east and the lane running from Coleman Green Lane to Nomansland Common to the north.
- Area 3 consists of a plot to the south-east of Area 2. It is bounded to the north by Hammond's Lane, to the east by established field boundaries, to the south by the Hertfordshire Way long-distance footpath and established field boundaries, and to the west by Coleman Green Lane.
- Area 4 forms a curving plot to the east of Hillend Farm and west of Area 2. It is bounded to the north by Nomansland Common, to the east by the B651 road and to the south by the drive to Hillend Farm. The western boundary appears to be arbitrary.
- Area 5 is the largest. It is irregularly shaped and located to the south and west of Area 4. It is bounded to the west by the St Albans to Luton railway line and by the hedgerow known as the Long Hedge, which forms part of the parish boundary; to the north by established field boundaries and Nomansland Common, to the east by the B651, and to the south by footpaths.

AIMS AND OBJECTIVES

1.2 The aim of the present document has been to provide:

- a comprehensive overview of the history of land use on and in the vicinity of the study area from readily accessible sources;
- an assessment by period of the risk that development of the study area would encounter above or below ground archaeological remains (including standing buildings) which could affect the design, layout or timetable of any such development;
- an assessment of the significance of such remains in relation to established regional research criteria;
- recommendations for field studies and trial excavations to characterise any identified archaeological risks, leading to the compilation of an appropriate mitigation strategy.

1.3 The research has followed the Standard and Guidance for Archaeological Desk-based Assessments published by the Institute of Field Archaeologists, and includes reference, where appropriate, to:

- Archaeological databases
- Historical documents
- Cartographic and pictorial documents
- Aerial photographs
- Geotechnical information
- Secondary and statutory sources

1.4 Repositories consulted for the present project include:

- National Monuments Record (NMR);
- Hertfordshire Historic Environment Record (HER);
- Hertfordshire Archives and Local Studies
- St Albans Urban Archaeological Database (UAD);
- St Albans Museums Service (SAMS);
- Cambridge University Committee for Aerial Photography (CUCAP)

COMPETENCE

1.5 The Heritage Network is an independent practice specialising in archaeology and the historic environment. Founded in 1992, the company has undertaken a wide variety of commercial archaeological projects for clients involved in housing and industrial development, pipeline and road construction, agriculture and landscaping. As a *Registered Archaeological Organisation*, the company is monitored annually by the *Institute for Archaeologists* (IfA) to ensure that its work meets the highest professional standards.

1.6 Projects are administered and co-ordinated by David Hillelson, the Heritage Network's Archaeological Director, an established archaeologist with extensive experience of the management of archaeological projects in both urban and rural environments. He holds an honours degree in archaeology from the University of Durham, and is a Member of the IfA. He has been the practice's principal officer since 1992.

1.7 Research projects are managed by Helen Ashworth. She holds a degree in English and History from Middlesex Polytechnic, a Post-graduate Diploma in Librarianship, a Post-graduate Certificate in Field Archaeology from the University of Oxford, and she is an Associate of the IfA. She has over twenty years of practical archaeological experience in local government, with the Royal Commission for the Historical Monuments of England, and in private practice.

2. Evidence

TOPOGRAPHY AND GEOLOGY

2.1 The study area is located immediately to the north of Sandridge, on open land between Sandridge and Wheathampstead. The landscape forms part of the Chiltern dip slope above the Vale of St Albans, which represents a pre-glacial course of the River Thames, and consists of low rolling hills, intersected by shallow valleys. The B651 road, which runs from St Albans to Wheathampstead and crosses the study area, follows such a valley. The site is formed of a group of irregularly shaped parcels of land delimited by lanes, field boundaries and the St Albans to Luton railway line, located on either side of the B651.

2.2 On the western side of the road the landscape consists of a series of small hills and valleys. The land rises steeply from c.85mAOD beside the road to a maximum height of 125mAOD. From here, the ground drops steeply to the west into a shallow valley, before rising again to another low hill on the southern edge of Harpenden.

2.3 On the eastern side of the road the land rises gently eastwards from approximately 85m AOD to a height of approximately 110m AOD.

2.4 Locally the soils belong largely to the Batcombe Association (582a), described as *Fine silty over clayey and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging. Some well drained clayey soils over chalk. Variably flinty* (SSEW 1983). Along the valley floor, a band of Charity 2 Association soils forms a wider triangular area on the northern edge of Sandridge village, bounded by the B651 on the west, Coleman Green Lane on the east and Ferrers Lane on the north. At the northern end of this area the soils extend in thin bands north-west towards Harpenden and north-east towards Wheathampstead. They are described as *Well drained flinty fine silty soils in valley bottoms. Calcareous fine silty soils over chalk or chalk rubble on valley sides, sometimes shallow* (ibid.).

2.5 The solid geology consists of glacially deposited chalky drift and clay over chalk on the slopes and pre-Anglian river gravels in the valley bottoms (Sumbler 1996).

PROTECTED AND DESIGNATED AREAS

Registered Ancient Woodlands

2.6 A number of Registered Ancient Woodlands are located within the study area. Pudler's Wood and Well Wood adjoin each other and lie close to the north-western edge of Area 5. Langley Wood, to the south-east of Well Wood, is adjacent to the southern edge of Area 5, and Round Wood lies to the north of Pudler's Wood.

2.7 Other Registered Ancient Woodlands lie outside the study area, but close to its western edge. These include Eight Acre Wood, Stocking Wood and Thames Wood, all of which are located to the south-east of Harpenden.

Scheduled Ancient Monuments (SAM)

2.8 No SAMs occur within the study area, but several are located in its vicinity (Figure 2). Many of these consist of earthworks of late Iron Age date, demonstrating the importance of this area at that period. Monuments include the site of the oppidum at Wheathampstead (SAM HT24), which incorporates the earthworks known as Devil's Dyke and The Slad, and lies

within 1km north-east of the study area. Excavations by the Wheelers in the 1930s revealed evidence of occupation in the 1st century BC, though later investigations suggest that occupation of the site was limited (Williamson 2000, 38).

2.9 A late Iron Age territorial boundary ditch, known as Beech Bottom Dyke (SAM 29449), runs for over 1.40km on a north-east to south-west alignment on the north-eastern side of St Albans, approximately 2.5km to the south-south-west of the centre of the study area. Aubrey's Camp (SAM HT2), an Iron Age hillfort, is located outside Redbourne, approximately 5km to the west of the study area.

2.10 The Roman town of Verulamium (SAM HT1) lies approximately 5km to the south-west of the centre of the study area. A high status Roman cemetery (SAM 27903) has been recorded at Rothamsted, approximately 5km to the north-west of the study area.

2.11 A moated manorial site (SAM 20620) of medieval date, is known at Batch Wood, approximately 3.5km to the south-west of the study area.

Areas of Archaeological Significance

2.12 A number of designated Areas of Archaeological Significance (AAS) lie within, or adjacent to, the study area (Figure 2). AAS18 extends from the northern side of Sandridgebury, around the northern edge of Langley Wood and into the study area. It encompasses a number of cropmark sites of probable later prehistoric date, including a series of possible round barrows on the slope and summit of the hill to the west of the B651. These are located within the area of the proposed new native forest and have been recorded on the County Historic Environment Record (HER) (e.g. HER 7952-4 – see Figure 3 and Appendix 1).

2.13 AAS17 adjoins the northern boundary of the study area and covers Nomansland Common. It encompasses a number of sites and findspots recorded on the HER. These include a number of finds recovered from a gravel quarry on the Common, comprising worked flints of prehistoric date (HER 648, 649, 1801) and a number of cannonballs dating to the Civil War period (HER 10454). The site of a post-medieval brick ground (HER 7011) is also recorded on the Common. AAS19, to the south of the study area, covers the medieval core of Sandridge village.

HISTORICAL AND ARCHAEOLOGICAL CONTEXT

Introduction

2.14 Documentary and cartographic evidence for the present study has been collected from a 2km radius of the centre point of the study area, NGR TL 172 114. This includes sites and find spots listed on the County Historic Environment Record (HER).

Earlier Prehistoric: Palaeolithic (– 500,000bc to – 10,000bc) to Mesolithic (– 10,000bc to – 4,000bc)

2.15 A number of flint implements of early prehistoric date have been recorded from the immediate vicinity of the study area (Figure 3). A series of flint tools of Palaeolithic date (HER 648) were recovered from a gravel pit on Nomansland Common, immediately to the north of the study area, in the late 19th and early 20th centuries. Two Palaeolithic flint handaxes (HER

583) were recovered from House Lane gravel pit, approximately 1.5km to the south of the centre point of the study area.

2.16 Stone implements of Mesolithic date have also been recorded from the vicinity of the study area. Several flint artefacts were found in the gravel quarry on Nomansland Common (HER 649), whilst a quartzite hammer or macehead (HER 4161) was found near Sandridge in 1879.

Later Prehistoric: Neolithic (- 4,000bc to – 2, 200bc) to Bronze Age (- 2,200bc to – 700bc) .

2.17 Evidence for later prehistoric activity has been recorded from the vicinity of the study area. A polygonal enclosure measuring c.100m by c.150m (HER 6007) has been identified to the north of Sandridgebury and east of Langley Wood, immediately adjacent to the study area. A number of probable pits appear to be located at the corners of the feature. A large amorphous feature to the west of the enclosure may represent a former quarry.

2.18 Other cropmarks are known from a field to the south of Amwell, approximately 1.60km to the north-west of the centre point. They include a possible henge monument (HER 6008) and a rectangular enclosure (HER 6009). Other features may be located in the same field.

2.19 Two circular cropmarks, possibly representing ploughed out round barrows, have been recorded to the north-east of the study area. One (HER 7956) measures 38m in diameter and is located close to the Wheathampstead oppidum, approximately 1.90km to the north-east of the centre point. Its size and proximity to the late Iron Age monument suggest that it may be contemporary. The other (HER 7947) is c.24m in diameter and lies to the east of Pearman's Spring, approximately 1.70km to the north-east of the centre point. This may be a chalk pit of unknown date

2.20 As well as cropmarks, significant evidence of late prehistoric activity has been recovered as chance finds of flint implements and during field walking surveys in the vicinity of the study area. A number of flint scrapers and axes of Neolithic date (HER 1801) were found on Nomansland Common in the late 19th century. Field walking in the vicinity of West End Farm and between Stocking Wood and Little Piggotts Wood, approximately 1.75km to the north-west of the centre point, recovered a number of worked flints of Neolithic and Bronze Age date, including a Neolithic flaked axe (HER 9771). Over 1000 worked flints, of Neolithic and Bronze Age date (HER 9767), were recovered from a survey across Cross Farm lands, approximately 2km to the north-west of the centre point. The heaviest concentrations were in the valley bottom, near Clappers Wood, though other groups were found on higher ground on either side of Thames Wood.

Iron Age (-700bc to AD 43)

2.21 Little definite evidence for early to middle Iron Age activity has been recognised from the vicinity of the study area (Figure 4). It is possible that some of the cropmark sites identified from aerial photographs either date to this period or continued in use into the Iron Age.

2.22 Occupation in the area intensified in the late Iron Age with the establishment of the oppidum at Wheathampstead, to the north-east of the study area, and the oppidum at *Verlamion* (St Albans) to the south. *Oppida* were large settlement complexes, extending for several kilometres, and often bounded by large defensive earthworks. Some included a main occupation centre, with outlying smaller settlements and farmsteads. Specialist activities, such

as coin minting, were concentrated in the main centre, which also acted as a market, political and religious focus.

2.23 Excavations on the line of the Peter's Green to South Mimms pipeline in 1998 revealed a rural farmstead (HER 9912) immediately north of the wireless station at Fairfolds to the east of Sandridge, approximately 1.65km to the south-east of the centre point. Settlement on the site started in the late Iron Age, with three substantial ditches and a number of pits and postholes, and continued into the Roman period.

Romano-British (AD 43 to AD 410)

2.24 Hertfordshire was well settled by the early Roman period. The most important town in the county was at *Verulamium* (St Albans) approximately 5.5km to the south-west of the present site. Small rural settlements are also known from the area, one such was revealed during work along the Peter's Green to South Mimms pipeline in 1998 (HER 9912), approximately 1.65km to the south-east of the centre point (Figure 4). Occupation started in the late Iron Age and continued into the Roman period with the construction of a cellared building measuring 5m square. The building went out of use in the late 2nd/early 3rd century, but limited activity apparently continued on the site into the 4th century.

2.25 Scatters of coins of Roman date (HER 13114) have been recorded from the fields to the south-east of Nomansland Farm, close to the junction between two Roman roads, approximately 1km to the north-east of the centre point.

Anglo-Saxon (AD 410 to AD 1066)

2.26 Sandridge was reputed to have been given by King Offa's son to St Albans Abbey in c.796 (HER 2629). It is doubtful that there was a nucleated settlement at this period, the occupants are likely to have lived in scattered farms and hamlets, some of which may have been in woodland clearings.

Medieval (1066 to 1540)

2.27 The entry in the Domesday Book for Sandridge suggests that there may have been a small village by 1086 (Morris 1976). At that date it answered for 10 hides (approximately 1,200 acres). A total of 29 males were living on the manor, comprising 26 villagers, 2 cottagers and 1 slave, giving an estimated total population of between 110 and 150. By this time the core of the settlement is likely to have been in the area of the present village (HER 2629), which lies at the point where the line of the Roman road from Braughing and Welwyn to *Verulamium* was diverted towards the medieval centre of St Albans in c.AD 1000.

2.28 In 1086 there was sufficient land for 13 ploughs, though only 12 were present, and enough pasture for the livestock, including the oxen teams used to pull the ploughs (ibid.). The manor also contained enough oak or beech woodland to feed 300 hundred pigs. The remains of at least some of this woodland still lies in Area 5. A mill is also recorded on the manor, this is likely to have been sited on the River Lea, to the north or east of the present site.

2.29 The site of the medieval manor house is assumed to be at Sandridgebury Farm (HER 9871), immediately to the south of the present site (Figure 5). No medieval remains are, as yet, known from the site. The manorial estate was held by St Albans Abbey from the late Saxon period until the Dissolution in 1539.

2.30 The church of St Leonard (HER 985) was consecrated in the late 11th or early 12th century, but was not necessarily a new building at the time. It became the parish church in the 14th century. A chapel had been built at Sandridge by St Albans Abbey in the early 11th century, possibly at the time the road was diverted. It may have started life as a wayside chapel, which attracted a small settlement. The flint walls in the chancel incorporate a number of Roman bricks and the chancel arch is built of them. The core of the present building appears to consist of a two-cell structure which may date to the early 11th century. Aisles were added in the later 12th century and the original nave walls were replaced with arcades. A tower was built in the 13th century, which collapsed in 1693 and was replaced in brick in 1837 and in flint in 1886, keeping the original tower arch each time. The chancel was rebuilt in the late 14th century, including the construction of a stone rood screen which respected the original arch in Roman brick. The church was restored in 1886.

2.31 Pound Farm (HER 9512), at the northern end of Sandridge village, incorporates a late medieval open hall house. The farmhouse was enlarged in the 17th and 19th centuries.

Post-medieval (1540 to 1901); Modern (1901 to present)

2.32 Following the Dissolution in 1539, the manor of Sandridge became the property of the Rowlatt family and then the Jennings family (VCH). Sarah Jennings, who later became Duchess of Marlborough, subsequently left the estate to her grandson, John Spencer and it has descended with the Earls Spencer.

2.33 Sandridge village largely consists of modern ribbon development along the B651, extending south from the medieval core around the church and the probable manor at Sandridgebury (Figure 6). A workhouse (HER 10012) was built to the south-west of the church in the 1770s and continued in use until March 1838, when it was converted to six cottages. These were demolished in the late 1930s and the site is now occupied by Hopkins Crescent. At least four wells (HER 10014, 10015, 10016) were bored in the area of the workhouse. An isolation hospital, known as a pesthouse (HER 9731), was built to the north-east of the village by the late 18th century. A school (HER 13513) was established in the 19th century on the northern edge of the village and immediately adjacent to the southern boundary of Area 5. The school buildings still survive.

2.34 In common with many towns and villages in Hertfordshire, small maltings were established in Sandridge in the 18th and 19th centuries. These were frequently sited close to, or even as part of, public houses and served the local demand. One malthouse (HER 9911) was located to the rear of the Rose and Crown, opposite the church, and another (HER 6886) was located to the south of House Lane.

2.35 A number of gravel pits and brick yards were established around Sandridge in the post-medieval period. A series of brick grounds and kilns (HER 7011) are known to have existed on Nomansland Common since at least the mid 18th century. A number of artefacts have been recovered from the gravel pits, including prehistoric flint implements (HER 648), a possible coin hoard comprising 8 gold and 24 silver coins of 16th-17th century date (HER 652), and a number of cannon balls (HER 10454). The coins and the cannon balls may relate to the Civil War in the mid 17th century.

SITE SPECIFIC

Prehistoric

2.36 Significant evidence for Neolithic and Bronze Age activity has been recorded from within the study area. A series of cropmarks has been identified on aerial photographs in the fields to the north of Sandridge. The remains of three possible ploughed down round barrows (HER 7948, 7949, 7950) have been recorded on the hilltop in Area 5 (Figure 3). Other possible cropmarks have been recorded in the same area (HER 6116). A further three possible round barrows (HER 7951, 7952, 7953) are located below the hilltop, on the south-east facing slope. It has been suggested that such monuments may have been used as territorial boundary markers and were prominently placed in peripheral positions, frequently on watersheds (Williamson 2000, 24-5). The study area is located within the watershed between the River Lea, to the north, and the River Ver to the south.

2.37 The cropmark of a small curvilinear enclosure, measuring 25m by 20m (HER 7954) has been recorded close to the barrows on the hill slope.

2.38 Field-walking in 1993-4, at the northern end of a field to the south-west of Hillend Farm and within Area 5, recovered a concentration of worked flints of Neolithic and Bronze Age date. The site is on the northern edge of the hill, looking north-east towards the valley of the river Lea. The recorded evidence indicates that there was intense activity in the western part of the proposed Heartwood Forest during the later prehistoric period, particularly concentrated on the hilltop and upper slopes.

Iron Age

2.39 Although the evidence suggests that the study area was well used in the Neolithic and Bronze Age, no evidence for Iron Age activity has, so far, been recorded. However, it is possible that at least some of the recorded cropmarks may date to the Iron Age.

2.40 The present site is located between the major late Iron Age oppida at *Verlamion* and Wheathampstead, demonstrating that by the late Iron Age this region was well settled. Its location between two important centres of settlement suggest that it may have formed part of a territorial boundary area.

Roman

2.41 Several Roman roads cross the present site (Figure 4). Coleman Green Lane, which runs north-east from north end of Sandridge, follows approximately the line of the Viatores' road 21A (HER 4617). Part of Viatores' road 210 (HER 4601) follows the line of an ancient hedgerow, the *Long Hedge*, which marks the parish boundary between Sandridge and Wheathampstead. This feature marks the north-western edge of Area 5.

2.42 A cropmark (HER 11808), which apparently shows double ditches flanking a road approximately 26m wide, has been identified in the fields to the north-east of Nomansland Farm, within Area 1. The postulated road runs for approximately 1km and is visible almost as far as Wheathampstead Hill. It also appears to connect with the road through Coleman Green, to the south-east of the farm.

2.43 The presence of the roads is likely to have attracted settlement to the the study area and its vicinity. Although no evidence for occupation sites has been recovered so far, Mr Auckland, a local historian, believed he had found a section of Roman walling near Pismire Spring (Rose 1999, 4).

Anglo-Saxon

2.44 Human remains and iron implements (HER 1626), which were dated to the Anglo-Saxon period at the time of their finding, were discovered by a ploughman in a field to the east of Nomansland Common in the late 19th century. They were reburied shortly afterwards, possibly close to the same location, which is on the western edge of Area 1 (Figure 5).

Medieval

2.45 Hillend Farm (HER 13514) has medieval origins. In 1439 the monies from the messuage called 'Hills' were given by the abbot to the singing clerks and in 1506-7 Martin de Hyllende paid rent to the abbey for the farm.

2.46 The name Nomansland Common (HER 12442), comes from its history as an area of land under dispute between the abbots of St Albans, who owned Sandridge, and Westminster, who owned Wheathampstead. A large boulder of the conglomerate known as 'pudding stone' lies on the common and marks the boundary between the two parishes. As well as marking the division between lands of St Albans and Westminster, the boulder also marks the medieval boundaries of the dioceses of Lincoln and London and the archdeaconries of Huntingdon and St Albans.

Post-medieval to Modern

2.47 Several farms were established in the immediate vicinity of the present site in the post-medieval period, including Nomansland Farm (HER 13511) and West End Farm (HER 13397) (Figure 6). The farmhouses for both these properties date to the late 17th or early 18th century. The house at Nomansland Farm appears to be of higher status than the usual farmhouse and may have originated as a hunting lodge.

2.48 Hillend Farm, which originated as a small estate in the medieval period, was owned by the Salvation Army from 1930 and Langley Wood was managed by the same organisation until recently (Rose 1999, 103).

2.49 A dense scatter of peg tile (HER 9774) was collected during field-walking in 1993-4 in the triangle between the B651 and Coleman Green Lane, suggesting the presence of a kiln or a building at the southern end of Area 2. However, the area is recorded on the Tithe Map of c.1843 as 'Gravel Pit Field', indicating that the tile may rather represent part of the deliberate backfill within a gravel pit. A rectangular pen, marked 'Pound' (HER 13512) is shown on the same triangle of land on the 1st edition OS map. This was where stray beasts were kept and where travelling drovers penned their herds.

2.50 A field on the south side of Coleman Green Lane and within Area 3, close to the junction with Hammond's Lane, is named as 'Money Pit Field' on the Tithe Map of c.1843, which may indicate a local tradition of the discovery of a hoard. Three fields to the east of this are marked as Great, Little and Lower Blacklands, which may indicate occupation or industrial activity on the site.

Cartographic

2.51 The earliest maps consulted for the present project are two 17th century maps of the county of Hertfordshire (Hodson 1985). As these were drawn at a small scale only the high roads are shown, not the smaller local routes. The line of the road, now the B651, from St Albans to Wheathampstead is marked on both maps, but smaller roads, such as Coleman Green Lane, are not. Parish boundaries are also not marked, though the boundaries to the Hundreds are.

- Seller's map of 1676 (not illustrated) shows Sandridge spelt as *Sandridg*. The land immediately surrounding the village is open, though a belt of woodland is depicted to the east. Nomansland Common is marked to the north of the village. Important properties are marked, these include *Sandridg Bury*, *Hill end* and *Nomansland House*. The hamlet at Coleman Green is not marked.
- Oliver's map of 1695 (not illustrated) shows little change, though Sandridge is now spelt *Saundridg*. Only Sandridgebury is marked on this map.

2.52 Warburton's map of 1749 (not illustrated) shows slightly more detail, with smaller roads indicated at their junctions with high roads. The properties at *Saundridge-bury*, *Hill End* and *Noemans Land* are marked, with Hill End shown perched on top of a hill. A third property, called Cheapside, is shown to the south-west of Hillend farm and north-west of Sandridgebury. The hamlet at Coleman Green is marked.

2.53 Dury and Andrew's map of the county, dated 1766, was drawn at a much larger scale and shows more detail of the landscape. Although the map is inaccurate as to scale and orientation it does give an idea of how the landscape appeared in the mid 18th century by depicting field boundaries and gardens to larger properties. However, there are a number of significant omissions, including Hillend Farm.

- Figure 7 is a 'best fit' between the boundaries of the present site and the map. It shows that the study area comprised a series of large fields, bounded by hedges. Dashed lines within the fields indicate ridge and furrow cultivation in Areas 2, 3 and 5.

2.54 The Tithe Map of 1843 (HALS DSA4/91/2) is the first map to show the study area in careful detail. It shows the layout of the fields in the mid 19th century. The map has been divided into the individual areas for ease of reference.

Area 1 (Figure 8) was subdivided into a series of smaller fields in 1843. Few of the boundaries shown on the Tithe map have survived into the present. Those that have include the boundaries between the woodland along the northern edge of Area 1 and the fields to the south (between Plots 237 / 238 and Plots 243 / 242), the curving track to the north-west of Nomansland farm (between Plots 239 and 238) and the small area of woodland on the eastern boundary (Plot 224).

- A number of small ponds are marked on the map, including one along the southern boundary of Plot 241, one in the north-western corner of Plot 240 and one to the north-east of the buildings at Nomansland Farm. No evidence for these features was noted during the site walkover.
- The name Dog Orchard (Plot 245) which is located within field 1B, indicates that this narrow strip was used to grow fruit trees.

- The accompanying award (HALS DSA4/91/1, dated 1843) gives details of land owners, tenants, field names and the state of cultivation at that time:

Plot no.	Owner	Tenant	Field Name	Cultivation
224	Ralph Thrale	Ralph Thrale	Wood	Wood
225	Ralph Thrale	Ralph Thrale	Little Brown Field	Arable
227	Ralph Thrale	Ralph Thrale	Great Brooks	Arable
237	Ralph Thrale	Ralph Thrale	Oddy Field Spinney	Wood
238	Ralph Thrale	Ralph Thrale	Oddy Field	Arable
239	Ralph Thrale	Ralph Thrale	Ley Heath	Arable
240	Ralph Thrale	Ralph Thrale	The Grove	Grass
241	Ralph Thrale	Ralph Thrale	Lower Grove Field	Arable
242	Ralph Thrale	Ralph Thrale	Upper Grove Field	Arable
243	Ralph Thrale	Ralph Thrale	Upper Grove Field Spinney	Wood
244	Ralph Thrale	Ralph Thrale	Spinney adjoining Great Brooks	Wood
245	Ralph Thrale	Ralph Thrale	Dog Orchard	Grass
246	Ralph Thrale	Ralph Thrale	House, buildings, yards, etc.	--
247	Ralph Thrale	Ralph Thrale	Lower Orchard	--
248	Ralph Thrale	Ralph Thrale	Barn Field	Arable
249	Ralph Thrale	Ralph Thrale	Pease Field	Arable
250	Ralph Thrale	Ralph Thrale	Hares Place	Arable

Area 2 (Figure 10) was also divided into a number of smaller plots in the mid 19th century. Only one boundary has survived into the present, which is that between Plots 316 and 317 on the Tithe map.

- Some of the field names, such as Starve Acre, suggest that that this area was not very productive. It also includes two fields with Common in the name, again indicative of poor and unproductive soils. The Plot known as Gravel Pit Field suggests that there was a large quarry, or series of quarries, at the southern end of Area 2 before the mid 19th century.

Plot no.	Owner	Tenant	Field Name	Cultivation
312	Earl Spencer	Henry Box	Gravel Pit Field	Arable
313	Earl Spencer	Thomas Oakley	Near Starve Acre	Arable
314	Earl Spencer	George Young	The Common	Arable
315	Ralph Thrale	Ralph Thrale	Long Acre	Arable
316	Earl Spencer	Thomas Oakley	Further Starve Acre	Arable
317	Ralph Thrale	Ralph Thrale	Six Acres	Arable
318	Ralph Thrale	Ralph Thrale	Ten Acres	Arable
319	Ralph Thrale	Ralph Thrale	Long Common	Arable

Area 3 (Figure 9) was also subdivided into a number of smaller fields in the mid 19th century. Several of these boundaries have survived into the present, including the boundary between Plots 305 and 306, between Plots 304 and 306 and between Plots 307 and 308 / 306.

- The field names Great and Little River Moor (Plots 352 and 353) suggest that a watercourse may once have crossed the southern side of Area 3. The wetter ground in field 3C may lie close to this postulated watercourse.
- The names Blacklands and Money Pit Field (Plots 306 – 309) have been noted on the HER as indicating possible industrial activity and a hoard site. A small area of woodland (Great Partridge Dell - Plot 311) was located on the western side of Area 3, in modern field 3D.

- Two fields (Plots 304 and 305) are recorded as furze, indicating that hunting may have been important to the local landowner. Furze (or gorse) would have provided fox coverts.

Plot no.	Owner	Tenant	Field Name	Cultivation
303	Earl Spencer	Thomas Oakley	Hither Wood Field	Arable
304	Earl Spencer	Thomas Oakley	Middle Wood Field	Furze
305	Earl Spencer	Thomas Oakley	Further Wood Field, incl. spinney	Furze
306	Earl Spencer	Thomas Oakley	Little Blacklands	Arable
307	Earl Spencer	Thomas Oakley	Great Blacklands	Arable
308	Earl Spencer	Thomas Oakley	Lower Blacklands	Arable
309	Earl Spencer	Thomas Oakley	Money Pit Field	Arable
310	Earl Spencer	Thomas Oakley	Great Partridge Field	Arable
311	Earl Spencer	Thomas Oakley	Great Partridge Field Dell	Wood
351	Earl Spencer	Thomas Oakley	Further Bury Field	Arable
352	Earl Spencer	Thomas Oakley	Little River Moor	Arable
353	Earl Spencer	Thomas Oakley	Great River Moor	Arable
354	Earl Spencer	Thomas Oakley	Upper Bury Field	Arable
355	Earl Spencer	Thomas Oakley	Lower Bury Field	Arable

Areas 4 and 5 (Figure 11) also consisted of a number of smaller fields in the mid 19th century. Several of the field boundaries have survived to the present, particularly the long north-west to south-east aligned boundaries.

- The western side of Area 5 was more wooded in 1843, with a number of long narrow woods, such as Long Spinney (Plot 333) and Further Heath Field Spinney (Plot 344). These have disappeared. The main blocks of woodland recorded on the Tithe map, Pudler's Wood (Plot 342), Langley Wood (Plot 608), Well Wood (Plot 647) and Pismire Spring (Plot 643) have survived into the present.
- No ponds or watercourses are obviously recorded within the present site itself, though a pond is shown in the road immediately next to Sandridgebury.
- It is possible that the boundaries of the medieval message of Hills have been fossilised in the landscape and are traceable on the Tithe map. A sub-rectangular estate can be traced on the Tithe map, extending south from Nomansland Common to the northern side of Pudlers Wood, and extending east from Plots 325 and 346 to the western side of Round Wood. Hillend farm lies on the north-eastern side of the postulated estate.

Plot no.	Owner	Tenant	Field Name	Cultivation
320 (Area 4)	Earl Spencer	Henry Cox	Beech Field	Arable
321 (Area 4)	Earl Spencer	Henry Cox	Horse Pasture	Arable
322 (Area 4)	Earl Spencer	Henry Cox	Adjoining Church Field	Arable
323	Earl Spencer	Henry Cox	Pease Field	Arable
324	Earl Spencer	Henry Cox	Buildings, yard, garden, orchard	--
325	Earl Spencer	Henry Cox	Hams Wick and Smiths Field	Grass
327	Earl Spencer	Henry Cox	Buffotts Field	Grass
328	Earl Spencer	Henry Cox	Little Thistley Hill	Arable
329	Earl Spencer	Henry Cox	Great Thistley Hill	Arable
330	Earl Spencer	Henry Cox	Plough Field Spinney	Wood
331	Earl Spencer	Henry Cox	Plough Field	Arable
332	Earl Spencer	Henry Cox	Dorridge Field	Arable
333	Earl Spencer	Henry Cox	Long Spinney	Wood

334	Earl Spencer	Henry Cox	Young Field	Arable
335	Earl Spencer	Earl Spencer	Round Wood	Wood
336	Earl Spencer	Henry Cox	Spinney in Young Field	Wood
337	Earl Spencer	Henry Cox	Seven Acres Spinney	Wood
338	Earl Spencer	Henry Cox	Seven Acres	Arable
339	Earl Spencer	Henry Cox	Eight Acres Spring	Wood
340	Earl Spencer	Henry Cox	Eight Acres	Arable
341	Earl Spencer	Thomas Oakley	Little Aldock	Arable
342	Earl Spencer	Earl Spencer	Pudlers Wood	Wood
343	Earl Spencer	Henry Cox	Pudlers Croft Spinney	Wood
344	Earl Spencer	Henry Cox	Further Heath Field Spinney	Wood
345	Earl Spencer	Henry Cox	Further Heath Field	Grass
346	Earl Spencer	Henry Cox	Hither Heath Field	Arable
347	Earl Spencer	Henry Cox	Upper Ham Field	Arable
348	Earl Spencer	Henry Cox	Lower Ham Field	Arable
349	Earl Spencer	Henry Cox	New Field	Arable
350	Earl Spencer	Henry Cox	Church Field	Arable
640	Earl Spencer	Thomas Oakley	Childwick Field	Arable
641	Earl Spencer	Thomas Oakley	Childwick Field Spinney	Wood
642	Earl Spencer	Thomas Oakley	Three Corner Field	Arable
643	Earl Spencer	Earl Spencer	Pismire Wood	Wood
644	Earl Spencer	Thomas Oakley	Great Aldock	Arable
645	Earl Spencer	Thomas Oakley	Spinney in Little Aldock	Wood
646	Earl Spencer	Thomas Oakley	Spinney in Great Aldock	Wood
647	Earl Spencer	Earl Spencer	Well Wood	Wood
648	Earl Spencer	Thomas Oakley	Ash Grove	Arable
649	Earl Spencer	Thomas Oakley	Oat Stubbles	Arable
650	Earl Spencer	Thomas Oakley	Nutfield Spinney	Wood
651	Earl Spencer	Thomas Oakley	Bury Croft Spinney	Wood
652	Earl Spencer	Thomas Oakley	Nut Field	Arable
653	Earl Spencer	Thomas Oakley	Langley Field	Arable
654	Earl Spencer	Thomas Oakley	Dell Field	Arable
655	Earl Spencer	Thomas Oakley	Long Field	Grass
656	Earl Spencer	Thomas Oakley	Long Croft	Grass
657	Earl Spencer	Thomas Oakley	Orchard	Grass
658	Earl Spencer	Thomas Oakley	Great Breach	Grass
607	Not noted	Not noted	Not noted	Not noted
607a	Not noted	Not noted	Not noted	Not noted
608	Not noted	Not noted	Langley Wood	Wood
609	Not noted	Not noted	Not noted	Not noted
610	Not noted	Not noted	Not noted	Not noted

2.55 The Tithe map and Award demonstrate that the landscape of the study area in the mid 19th century consisted of small fields, largely under arable cultivation, and woodland. This landscape is likely to have been established in the late 18th or early 19th century, following Inclosure. Dury and Andrews' map of 1766 shows that the same area consisted of larger common fields, used for strip cultivation.

2.56 The field layout changed between 1843 and the late 19th century. By 1898 the majority of the long narrow spinneys recorded on the Tithe map in Area 5 had disappeared and Round Wood had lost its 'tail' (Figure 12). The small wood in Area 3, Plot 311, had apparently survived.

- Many of the smaller fields across the study area had been amalgamated into larger blocks, probably to allow for the use of larger steam ploughs. However, a number of the

longer field boundaries, such as that in Area 5 running south-east from Pudler's Wood to the main road, had survived from 1843.

- A small quarry, named as 'Old Chalk Pit' is shown in the north-eastern corner of the wood in Area 3. Another quarry is marked on the southern edge of Langley Wood, while a third may be marked, but not named, on the western edge of Pismire Wood. The quarry in Langley Wood was observed during the site walkover, as was at least one other in the same area.
- Two small ponds are shown to the north-east of Nomansland Farm, immediately adjacent to the southern boundary with Area 1. Another pond is marked immediately adjacent to the southern boundary to Area 3.

2.57 Little changed in the landscape between 1898 and 1951 (Figure 13). Essentially, the field layout established by the late 19th century has survived to the present. In Area 3, field 3B, which was recorded on the Tithe Award as furze is shown as being wooded.

Aerial Photographs

2.58 Over 100 aerial photographs, both verticals and obliques, taken between 1941 and 1996, were consulted for the present study (see Appendix 2). The underlying geology of the study area consists of glacial drift over gravel in the valley bottoms and over clay and chalk on the hilltops. The landscape consists of low hills and shallow valleys, largely used for arable cultivation. Cropmarks are likely to be more easily seen in areas where the soil is potentially thinner, that is on the hilltops and upper slopes. A deeper build up of soil as a result of hillwash at the bottom of the slopes may mean the crop roots do not reach buried features.

2.59 The photographs reveal that a number of wooded areas and hedges have disappeared from the landscape since the 1940s. Field 3B, north-east corner of Area 3, was woodland until at least the early 1960s (NMR AP: RAF/58/4627 F41, frame 496, taken 16/08/1961). A narrow belt of hedge and trees also extended south-west from the wood to the field boundary to the south. The northern end of Pudler's Wood in Area 5 has also been reduced in size. Relict field boundaries were also visible on the aerial photographs, showing that the landscape once consisted of small irregular fields.

2.60 Potential archaeological features were observed on a number of the photographs (Figure 14). These are concentrated in Area 5, on the western side of the study area, with a small concentration in the south-eastern corner, in Area 3. A number of apparently circular marks were noted on the slopes of the hill to the west of the B651. Several potential ring ditches are recorded on the HER in this area, indicating the presence of an extensive barrow cemetery focused on the hill. Two definite circular features were also recorded on the eastern side of the B651, close to the junction between two field boundaries at NGR 517515, 210840. Other marks were observed in their immediate vicinity.

2.61 Possible clusters of enclosures were noted to the north-west of Hillend Farm and close to a mark apparently showing a square feature set within a larger rectangle, which may be open to the south-east. Other such groups were seen to the north of Nomansland Farm, immediately north of Area 1, and in Area 3, to the south of the probable ring ditches.

2.62 A series of linear features were noted on Nomansland Common, immediately to the north of Area 5. Two parallel features appear to run on an approximate north-north-east to

south-south-west alignment, roughly parallel with the present B651. They apparently extend north across the common and traces of at least one of these features was observed in the fields to the south, between Hillend farm and the road. They may represent an earlier line of the road.

2.63 Potential features tended to appear on the photographs taken in the 1940s and 1950s, with few noted on later photographs, suggesting that ploughing in the second half of the 20th century may have damaged underlying archaeological remains.

Site Walkover

2.64 Two site visits were made by David Hillelson and Helen Ashworth. Areas 4 and 5 were walked over on December 23rd, 2008, whilst Areas 1 – 3 were visited on December 29th, 2008.

Visit 1 – Areas 5 and 4

2.65 All the fields in this area have been cultivated and comprise a mixture of stubble and planted crop. Fields 5A, 5C, 5D, 5Eii, 5F and 5G are currently under crop – either wheat or beans. Fields 5B, 5Ei and 5Eii are stubble. Area 4 is currently under crop.

2.66 The soil in Areas 4 and 5 is very stony, but with little evidence for additional manuring, such as tile and brick fragments, indicating that it is well drained.

2.67 A number of features of archaeological interest were also noted during the walkover, consisting largely of boundary features and evidence for gravel extraction.

2.68 A bank and ditch was noted between Nomansland Common to the north and field 5A to the south. The bank is planted with mature oaks (Plate 1). Bank and ditch boundaries were noted around all the edges of all the woodland areas. The majority of these have a mixture of coppiced beech and mature oaks on top of the banks. Langley Wood has a double bank and ditch marking its southern extent (Plate 2). Internal boundary banks were also seen in Langley Wood.

2.69 These boundary features are in varying states of preservation. The ditch and bank on the southern side of Pismire Spring is badly degraded, whilst the double boundary on the southern side of Langley Wood is in reasonable condition.

2.70 Evidence for quarrying was also observed in various places, including on the eastern edge of Round Wood, where the quarry was noted as a V-shaped linear feature, measuring at least 2m in depth and at least 5m in length (Plate 3). Other quarries were noted on the western corner of Pismire Spring and on the southern side of Langley Wood. In both cases the quarries had been cut into the boundary banks (Plate 4).

2.71 Animal burrows were also noted in the boundary banks. A probable badger sett was observed in the western bank to Pismire Spring. The upcast from the sett included chalk lumps and flint nodules, indicating a chalk outcrop relatively close to the surface in this area. Rabbit burrows were noted in other banks.

Visit 2 – Areas 1, 2 and 3

2.72 As with the fields in the areas on the western side of the B651 those on the eastern side were either in cultivation, or were stubble. Fields 1B, 1C, 1E, part of 3A, 3B, 3C and 3D are

currently under crop, either wheat or beans. The remaining fields, including the whole of Area 2, are stubble.

2.73 The soils on the eastern side of the road are also very stony. A number of field clearance cairns were noted on the eastern boundary to Area 1, adjacent to Coleman Green Lane. These contain large flint nodules and a few bricks. The soil is less well drained in places; it is very wet in the north-western corner of field 3C and more tile and brick manuring fragments were observed adjacent to the headlands in field 3D.

2.74 A pond or spring was noted in the north-western corner of Area 1, close to the boundary with Nomansland Common. It is located within a shallow depression in the ground, surrounded by trees (Plate 5).

2.75 A number of boundary features were noted, including a hedged bank along the northern edge of Area 1, which is planted with a mixture of coppiced beech, oak and holly. The eastern boundary to Area 1 varies according to topography. At the northern end, where the land slopes up to the north-east, it comprised a bank. At the southern end, below the slope, the boundary was ditched. At this point, Coleman Green Lane and the fields on either side are at the same level, but as the land rises the road drops below the field level, becoming a hollow way between high banks (Plate 6).

2.76 The boundary to field 3B, shown as woodland on aerial photographs taken in the 1940s and 50s, consists of a bank planted with mature oaks. A deep ditch extends south from this bank (Plate 7a), which follows the line of a boundary marked on the Tithe map of 1843, separating Plots 306, 304 and 307 (Figure 9). Originally this ditch extended further to the south and a difference in the height of the growing crop indicates its course. It currently meets an east – west aligned relict field boundary which crosses field 3A and which is also marked on the Tithe map as the northern edge of Plot 307. This boundary was not visible as an earthwork at its western end, but its line is still used by the present farmer as it marks a division in land use, with the area to the north under stubble and the area to the south under crop. The boundary has survived at its eastern end, where it forms a low bank with a shallow ditch on the northern side (Plate 7b).

3. Risk Assessment

3.1 The potential risk that remains of a particular archaeological period might be encountered in the course of the proposed development has been considered in the context of the documented existence of other such remains within the study area or in its immediate vicinity. The risk of encountering such remains has been classified as *High*, *Moderate* or *Low*.

3.2 The potential significance of any archaeological remains which may be present within the study area has been considered by period in the context of the published research framework for East Anglia (Brown & Glazebrook 2000). The significance has been classified as *Major*, *Moderate*, *Minor* or *Insignificant*, as defined below:

- *Major* signifies that any surviving archaeological remains are of national or regional significance. They may represent site types that are less frequently found in the archaeological record, or that have the potential to provide more information to the identified national and regional research agenda.
- *Moderate* signifies that any surviving archaeological remains are of regional or local interest. They represent sites or features more commonly found in the archaeological record or that are unlikely to add significantly to our existing knowledge.
- *Minor* indicates that any surviving archaeological remains have limited significance, at a purely local level.
- *Insignificant* indicates that any features or finds encountered during development have no archaeological value in the context of the present study. Sites or periods with this designation are likely to contain common modern and well-recorded features.

Earlier Prehistoric – Palaeolithic to Mesolithic

3.3 The regional research framework has identified the importance of studying the archaeology of the earlier prehistoric period within its landscape (Austin 2000). Significant numbers of early prehistoric worked stone implements have been recovered from the vicinity of the western side of the study area. These include Palaeolithic and Mesolithic flint implements from Nomansland Common, immediately to the north of Area 5. Such finds demonstrate that the wider landscape was clearly well-used in the early prehistoric period. As evidence for Palaeolithic and Mesolithic occupation is relatively rare, the potential significance of any remains of early prehistoric date within the study area should be considered to be *Major*.

3.4 On this basis, the risk of encountering features and finds, particularly worked stone implements, of early prehistoric date in the course of tree planting and landscaping works in Areas 4 and 5 of the present site may be considered to be *Moderate*.

3.5 No significant evidence for early prehistoric activity has, so far, been identified on the eastern side of the B651. Therefore, the risk of encountering such finds and features in the course of tree planting and landscaping works in Areas 1 to 3 may be considered to be *Low*.

Later Prehistoric – Neolithic to Bronze Age

3.6 The regional research framework has identified a number of relevant research topics for this period, including reconstructing the environment and ecology of the Neolithic and early Bronze Age, identifying and researching settlement sites, and the relationship between the location of monuments and the landscape (Brown & Murphy 2000, 10–12; Bryant 2000, 14–18). Therefore the potential significance of any remains of late prehistoric date on the present site should be considered to be *Major*.

3.7 A cluster of sites of this period have been recorded within Area 5 on the county Historic Environment Record (Figure 3). These include cropmarks of possible plough-raised round barrows of Neolithic – Bronze Age date and potential enclosures. Other features were noted in the same area on the aerial photographs consulted for the present project (Figure 14).

3.8 Cropmarks of previously unrecorded potential late prehistoric features, including a possible round barrow and part of a curvilinear feature, were noted on the aerial photographs consulted for the present project at the junction of fields 3A, 3C and 3D in the centre of Area 3 (Figure 14).

3.9 The archaeological evidence shows increased activity in the later prehistoric period, which appears to have been focused on the hilltop to the west of the B651, but with other possible clusters to the east and to the north east. On this basis, the risk of encountering features and finds of late prehistoric date in the course of tree planting and landscaping works within Areas 4, 5 and 3 may be considered to be *High*.

3.10 The risk of encountering features and finds of late prehistoric date in the course of tree planting and landscaping works within Areas 1 and 2 may be considered to be *Moderate*.

Iron Age

3.11 A number of relevant research topics have been highlighted for the Iron Age in the regional research framework, including the study of linear boundaries; the study of late Iron Age artefacts, particularly pottery and metalwork; the processes of economic and social change; the study of ritual sites; and the Iron Age / Roman transition (Bryant 2000, 14–18). As the study area lies between the known oppida at *Verlamion* and Wheathampstead, and close to a small rural farmstead that is likely to have started life at this period (HER 9912), the potential significance of any remains of this period on the present site should be considered to be *Major*.

3.12 No evidence for Iron Age activity has, so far, been recorded from the study area itself. However, it is possible that some of the features identified from aerial photographs date to this period. On this basis, the risk of encountering features and finds of late Iron Age date in the course of development of the study area may be considered to be *Low to Moderate*.

Roman

3.13 A number of relevant topics have been identified for the Romano-British period in the regional research framework (Going & Plouviez 2000, 21 - 25). These include the study of the Roman road network, the Roman agricultural economy, and the relationship of rural settlement to the landscape. Therefore the potential significance of any remains of this period on the present site should be considered to be *Major*.

3.14 Several Roman roads are known to cross or to skirt the study area, including one which is followed by the Long Hedge and forms part of the western boundary to Area 5 (HER 4610). Coleman Green Lane also follows the line of a Roman road (HER 4617) and cropmarks of a possible road have been recorded in Area 1, to the north of Nomansland Farm (HER 11808). Coins of Roman, and later, date (HER 13114) have been collected from the fields between the farm and Coleman Green Lane, adjacent to the line of the postulated road.

3.15 The B651, which is shown on early post-medieval maps as a main highway, may also follow the line of Roman road. Two long linear features, which extend south from Nomansland Common into Area 4 and run parallel with the present road, were observed on aerial photographs consulted for the present project. These may represent the remains of an earlier, possibly Roman, alignment of the road.

3.16 The region was well-settled by the Roman period, with the Civitas capital at *Verulamium* located to the south-west of the study area. Evidence for a rural settlement was discovered to the south-east of Area 3, during excavations on the line of the Peters Green to South Mimms pipeline in 1998 (HER 9912).

3.17 A number of features of possible Roman date were observed in Area 5 on the aerial photographs consulted for the present project (Figure 14). These include the series of cropmarks and the square feature to the north-west of Hillend Farm.

3.18 On this basis, the risk of encountering features and finds of Romano-British date, including the line of Roman roads and settlement evidence, in the course of tree planting and landscaping works in Areas 1, 4 and 5 may be considered to be *High*.

3.19 The risk of encountering features and finds of Roman date in the course of tree planting and landscaping works in Areas 2 and 3 may be considered to be *Moderate*.

Saxon

3.20 A number of relevant research topics have been highlighted for early medieval activity in the regional research framework, including the study of immediately post-Roman settlements and an understanding of the landscape and environment of the period (Wade 2000, 23 – 24). As few Saxon sites are known in Hertfordshire the potential significance of any remains of this period on the site should be considered to be *Major*.

3.21 The only evidence for Saxon activity in the vicinity of the study area is very tenuous. It consists of a report of the finding of a large number of human bones, accompanied by iron implements, in a field immediately to the east of Nomansland Common (in the north-western corner of Area 1) in the 19th century (HER 1626). The implements were dated to the Saxon period by local antiquaries.

3.22 It is likely that all the Roman roads in the immediate vicinity of the study area continued in use into the Saxon period.

3.23 On this basis the risk of encountering features of Saxon date in the course of tree planting and landscaping works, particularly on the northern and eastern sides of Area 1 and those parts of Areas 2 and 3 adjacent to Coleman Green Lane, may be considered to be *Moderate*. Elsewhere, the risk may be considered to be *Low*.

Medieval

3.24 A number of relevant research topics have been highlighted for the medieval period in the regional research framework (Wade 2000, 24 - 25). These include understanding the impact of man on the environment, medieval field systems and the nature and extent of rural development. A small medieval estate, that of Hills, now called Hillend Farm, is located within Area 5, its possible boundaries appear to have been fossilised in the landscape and can be traced on 19th century maps (Figure 11). On this basis the potential significance of any remains of this period on the site should be considered to be *High*.

3.25 The early county maps show that the study area lay in open land to the north of Sandridge, with some fields undoubtedly forming part of the communal open field system. On this basis the risk of encountering features and finds of medieval date in the course of development in all parts of the study area may be considered to be *High*.

Post-medieval and Modern

3.26 The regional research framework has identified a number of relevant research topics. These include the study of agricultural development in the period 1750-1914 (Gilman et al 2000, 39-42). As the study area has lain in open farmland since at least the medieval period the potential significance of any remains of this period on the site should be considered to be *Moderate*.

3.27 A study of the cartographic and aerial photographic evidence has demonstrated that the study area has undergone a number of changes since the late 18th century. Dury and Andrews' map of 1766, which is the first to show any significant detail of the landscape, depicts the study area as comprising large communal fields, bounded by hedges, and used for strip cultivation (Figure 7). By the mid 19th century the land had been enclosed and the study area had been sub-divided into a number of smaller fields in individual ownership. The Tithe map (HALS DSA4/91/2) and award (HALS DSA4/91/1) dated 1843 shows that much of the study area was given over to arable cultivation. It also shows that it was more thickly wooded, particularly on the western side of Area 5 and in Area 3.

3.28 On this basis, the risk of encountering features and finds, particularly relating to post-medieval and modern agricultural activity in the course of development on the present site may be considered to be *High*.

Hydrology

3.29 The study area is located in a rolling landscape of low hills and shallow valleys to the north of Sandridge. The local soils are described as being either 'well-drained' or 'slowly permeable' (SSEW 1983). This fits with the evidence from the walkover, where gravelly soils with little evidence for additional manuring were noted across most of the study area. The only exception being fields 3C and 3D. A wetter patch was observed in the north-western corner of field 3C, which has been left uncultivated. A number of potential archaeological features were noted in this area on the aerial photographs consulted for the present study.

3.30 No large open bodies of water, or watercourses are present within the study area itself. A small pond or spring was observed in the north-western corner of Area 1 during the site walkover. The names of two of the areas of woodland, Pearman's Spring at the northern side

of the study area and Pismire Spring in the south-western corner, indicate the presence of springs.

3.31 A number of the field and woodland boundaries consisted of banks and ditches. All the ditches were dry.

3.32 The Tithe map of 1843 shows a number of ponds were located within, or adjacent to, the study area in the mid 19th century. No evidence for these features was noted during the site walkover.

3.33 On this basis the potential for the survival of easily accessible waterlogged archaeological or environmental deposits is considered to be *Low* across most of the study area. Nevertheless, certain discrete areas demonstrate a *High* potential for the survival of such deposits. These include the sites of the ponds shown on the 19th century maps; the wetter area in the corner of field 3C, where a number of potential archaeological features were observed on aerial photographs; the area around the pond on the northern boundary to Area 1; and in the woodland called Pismire Spring.

IMPACT ASSESSMENT

3.34 A study of the post-medieval cartographic evidence has demonstrated that the study area has been located in a landscape consisting of open fields and woodland between Sandridge and Wheathampstead since at least the early post-medieval period. Agricultural activity and tree growth are likely to have had an impact on the survival of buried archaeological remains across the study area. The following section details the possible impacts.

Impact of previous activity

3.35 Cartographic and aerial photographic evidence across the study area has demonstrated that it lay, and lies, in a landscape consisting of arable farmland and woodland. It is likely that much of the land has been subject to ploughing since the medieval period.

3.36 Dury and Andrews' map of 1766, although not completely accurate, indicates that Areas 2, 3 and 5 were located in the common fields to the north of Sandridge (Figure 7). The landscape consisting of hedges surrounding areas of cultivation strips. By the mid 19th century the landscape had changed, following Inclosure, and comprised smaller fields in individual ownership. The Tithe Award (HALS DSA4/91/1, dated 1843) demonstrates that the majority of the study area consisted of fields under arable cultivation. Aerial photographs taken between the 1940s and 1990s, and the recent site walkover, have demonstrated that the fields have been subject to ploughing in recent times.

3.37 It is noticeable that the potential archaeological features observed on the aerial photographs all date from earlier in the photographic sequence. This would suggest that the deep ploughing of the later 20th century has had detrimental impact on possible underlying archaeological remains, especially in those places where the soil covering is likely to be thinner, such as on hilltops and upper slopes.

3.38 The Tithe map and award also demonstrate that the landscape was more wooded at this period, with a number of small woodlands and spinneys, particularly on the north-west facing slope on the western side of Area 5. By the late 19th century the small wooded areas had largely disappeared. One area of woodland developed after the mid 19th century, field 3B was recorded as furze on the Tithe Award and is shown as an open field, with a spinney on its western side on the 2nd edition OS map (Figure 12). However, aerial photographs taken

between the 1940s and early 1960s, and the OS map of 1951, show that it was thickly wooded. The woodland was removed in the second half of the 20th century and the area is now an open field.

3.39 The areas of former woodland were located in Areas 1, 3 and 5; there were none in Areas 2 and 4. The majority of the woods and spinneys were removed between 1843 and 1898, when the fields were probably enlarged to allow for steam ploughing. Until the mid 20th century the north-eastern corner of Pudler's Wood, in Area 5, was originally more extensive. Maps and aerial photographs show that it extended further east and south-eastwards into field 5C. The small wood towards the south-western corner of Area 3 is shown on the map of 1898, but had disappeared by 1951. However, a small wooded area became established in the north-eastern corner of Area 3 in the early – mid 20th century. This has now been removed.

3.40 The presence of the woodlands, and their later removal, may well have damaged underlying archaeological remains as the root systems of the removed trees are likely to have been extensive. To judge from the tree species observed in the present woodlands they are likely to have consisted largely of mature oaks and coppiced beeches.

3.41 Chalk and gravel quarrying has also occurred across the study area and in its immediate vicinity. These are likely to have damaged or destroyed any underlying archaeological features and have damaged surviving earthworks. A number of probable quarry sites were noted during the recent site walkover, some of which appeared to have been cut into the woodland boundary banks. Artefacts of early prehistoric and post-medieval date were collected from the extensive quarries on Nomansland Common in the 19th century, indicating the presence of potential archaeological features.

3.42 The southern end of Area 2 is named as Gravel Pit Field on the Tithe Award, whilst the 2nd edition OS map of 1898 marks a number of quarries on the edge of Langley Wood, Pismire Wood and in the former wood known as Great Partridge Dell in Area 3. Several other potential quarry sites were also noted on the aerial photographs (Figure 14) and on the edges of the woodland during the site walkover.

3.43 The amount of topsoil and subsoil covering the underlying natural may vary across the study area. The central part of Area 5, where a number of cropmarks indicating underlying potential archaeological features have been recorded, lies on a hilltop, with the ground sloping steeply downwards to the north-west, south-east and north-east.

Impact of proposed development

3.44 The proposed development involves the establishment of a new native forest, called Heartwood Forest.

3.45 No details of the planting schemes are currently available. However, the excavation of tree planting holes, the subsequent tree root growth, and any associated landscaping works, are all likely to have a detrimental impact on any surviving archaeological remains, particularly as the study area has previously been ploughed.

4. Conclusions and Options

4.1 The following table summarises the potential risk of encountering archaeological features and finds in each area and an assessment of their probable state of preservation:

Area	Preserv' n	Early prehist	Later Prehist	Iron Age	Roman	Saxon	Medieval	Post- med / Modern	Overall risk
Area 1	Moderate	Low	Moderate	L/M	High	Moderate	High	High	Moderate
Area 2	Moderate	Low	Moderate	L/M	Moderate	Moderate	High	High	M/H
Area 3	Moderate	Low	High	L/M	Moderate	Moderate	High	High	M/H
Area 4	Poor	Moderate	High	L/M	High	L/M	High	High	High
Area 5	Poor	Moderate	High	L/M	High	L/M	High	High	High

4.2 Although the overall risk of encountering surviving archaeological remains across the present site is *High*, any such features are likely to have been impacted by previous activity. From at least the medieval period until the present the land has been subject to ploughing. The change in field pattern between 1843 and 1898 suggests that since the late 19th century this has been mechanised, leading to deeper ploughing.

OPTIONS FOR FURTHER WORK

4.3 It is considered that a programme of further archaeological works would be desirable in order to characterise or dismiss the suggested risk. These could comprise both non-invasive and invasive surveys.

Non-invasive techniques:

4.4 Interpretation of existing LiDAR (Light Detection and Ranging) data. LiDAR is an airborne laser mapping technique which accurately models subtle changes in topography and can be used to map earthworks which may be of archaeological significance. LiDAR survey data is available for the study area.

4.5 Site-specific aerial and/or LiDAR survey to supplement existing data.

4.6 Field-walking surveys across all areas which have been subject to recent cultivation, in order to map the incidence of artefactual evidence by period and identify concentrations which might be indicative of settlement activity.

4.7 Geophysical surveys, using a combination of magnetic susceptibility scanning and high resolution magnetometry, focused on areas identified in field-walking and from aerial photography/LiDAR.

4.8 Earthwork surveys to define the extent and character of boundary and other features (this could be omitted if the LiDAR survey data is consulted).

4.9 Tree and hedgerow surveys to date woodland and boundary features.

Invasive techniques

4.10 Trial trenching, to characterise the type, date and state of survival of potential archaeological features. This would be focused on areas confirmed as high risk following the programme of non-invasive survey.

4.11 Field-walking surveys may be supplemented by shovel-testing, a technique which samples unploughed ground on a similar grid and resolution.

5. Sources Consulted

ARCHIVES

Hertfordshire Archives and Local Studies (HALS)

HALS reference	Date	Details
DSA4/91/1	1843	Sandridge Tithe Award
DSA4/91/2 (PC 876 – copy)	1843	Sandridge Tithe Map
D/EBy/B69	1938	Sale Particulars, Nomansland farm
80245	1782	Plan and Survey of Sandridge Parish – not available for consultation as unfit for production, but would be a useful document.
OS 2 nd edition 25” scale	1898	Hertfordshire sheets XXVII.12 / XXVII.16 / XXVIII.9 / XXVIII.13
OS 3 rd edition 25” scale	1923	Hertfordshire sheets XXVII.12 / XXVII.16 / XXVIII.9 / XXVIII.13
OS 1:2500 scale	1975	Sheets TL 1411 1511; TL 1611 1711; TL 1811 1911; TL 1412 1512; TL 1612 1712; TL 1812 1912

Hertfordshire Historic Environment Record

See Appendix 1

Internet

Victoria County History (VCH): ‘Parishes: Sandridge’, *A History of the County of Hertford: Volume 2* (1908), pp.432-438. URL: <http://www.british-history.ac.uk/report.aspx?compid=43304>. Date accessed: 13 November 2008.

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6. Illustrations

Figure 1	Site location
Figure 2	Archaeological Areas
Figure 3	HER Plot - Prehistoric
Figure 4	HER Plot – Iron Age & Roman
Figure 5	HER Plot – Saxon & Medieval
Figure 6	HER Plot – Post-medieval
Figure 7	Dury & Andrews map, 1766
Figure 8	Tithe map, 1843 – Area 1
Figure 9	Tithe map, 1843 – Area 3
Figure 10.....	Tithe map, 1843 – Area 2
Figure 11.....	Tithe map, 1843 – Areas 4 and 5
Figure 12.....	OS 2 nd edition, 1898
Figure 13.....	OS, 1951
Figure 14.....	Aerial Photographic Plot
Plate 1.....	Banked boundary between Nomansland Common and Area 5
Plate 2.....	Banked boundary, Langley Wood
Plate 3.....	Quarry cut, Round Wood
Plate 4.....	Quarry cut into boundary earthworks, Langley Wood
Plate 5.....	Pond in NW corner of Area 1
Plate 6.....	Coleman Green Lane
Plate 7a.....	Relict field boundary, Area 3
Plate 7b.....	Relict field boundary, Area 3