



SPEKE HALL HEDGE MAZE, MERSEYSIDE

Archaeological Watching Brief



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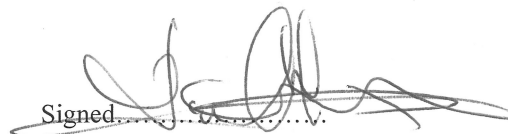
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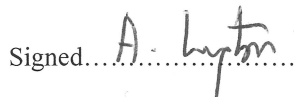
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SUMMARY

In September 2010 the National Trust commissioned Oxford Archaeology North (OA North) to undertake a desk-based assessment as part of a planning application for a hedge maze at Speke Hall, Merseyside (NGR SJ 4209 8244). The Speke estate pre-dates the Norman Conquest and there are heritage assets dating to the prehistoric, Romano-British, medieval, and post-medieval periods in the near vicinity of the proposed development area. Following the results of the desk-based assessment and accompanying geophysical survey the National Trust provided a detailed brief and requested that OA North prepare a project design for an archaeological watching brief during ground works associated with the establishment of the maze. OA North were subsequently commissioned to undertake the watching brief. This work was intended to mitigate potential negative impacts upon four sites identified within the development area during the desk-based assessment. These were a field boundary of Lower Orchard (Site **25**), an agricultural building in Lower Orchard (Site **26**), the Home Farm trackway (Site **27**), and a field boundary of Higher Orchard (Site **28**). The potential for prehistoric remains, and medieval remains relating to the use of the area as demesne farmland for the hall, was also identified.

During the reduction of ground levels at the north-western side of the development area, deposits of gravel and clinker were identified that might have been used as levelling layers or as materials for consolidating and surfacing a trackway. A concrete post setting, which retained traces of a wooden post with a circular cross-section, was also revealed at the northern edge of the development area. Deposits of rubble and crushed tarmac were identified within holes excavated for posts associated with the maze structures, and are likely to have related to a barn that occupied the area during the twentieth century.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Jamie Lund, the National Trust Archaeologist, for commissioning the project and for his assistance throughout. OA North is also grateful to Simon Osborne, the National Trust property manager for Speke Hall. Thanks are due to Dorinda Wolfe-Murray of Independent Gardening Ltd and to the staff of Wright Landscapes for their cooperation and assistance.

The watching brief was undertaken by Alastair Vannan and David Bonner and the report was written by Alastair Vannan. Jamie Quartermaine managed the project and edited the report, which was illustrated by Marie Rowland.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In September 2010 the National Trust commissioned Oxford Archaeology North (OA North) to undertake a desk-based assessment (OA North 2010) and geophysical survey (Stratascan 2010) as part of a planning application for a hedge maze at Speke Hall, Merseyside (NGR SJ 4209 8244; Fig 1). The Speke estate pre-dates the Norman Conquest and there are heritage assets dating to the prehistoric, Romano-British, medieval, and post-medieval periods in the near vicinity of the proposed development area. Speke Hall is owned by the National Trust and the area of the maze lies to the south of the Home Farm range and occupies approximately 1600m² (Plates 1-3).
- 1.1.2 Following the results of the desk-based assessment, and the accompanying geophysical survey undertaken by Stratascan (2010), the National Trust provided a detailed brief and requested that OA North prepare a project design (*Appendix 1*) for an archaeological watching brief during ground works associated with the establishment of the maze. OA North was subsequently commissioned to undertake the watching brief. This work was intended to mitigate potential negative impacts upon four sites identified within the development area during the desk-based assessment (Fig 2). These were a field boundary of Lower Orchard (Site 25), an agricultural building in Lower Orchard (Site 26), the Home Farm trackway (Site 27), and a field boundary of Higher Orchard (Site 28). The potential for prehistoric remains and medieval remains relating to the use of the area as demesne farmland for the hall was also identified.
- 1.1.3 The ground works entailed the mechanical stripping of topsoil and grading of ground levels, and the excavation of postholes to support bridges and towers (Fig 3). The watching brief was undertaken in three brief phases during April, May, and June 2011.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The site of the maze lies within an area of gently sloping and lightly wooded grassed parkland (NGR SJ 421 824; Fig 1; Plates 1-3) located approximately 200m to the east of Speke Hall, Speke, Merseyside. The proposed site occupies part of a single, undivided, field at a height of between 15m and 20m OD and slopes southwards towards the River Mersey. The southern boundary represents the northern limit of the airfield of Liverpool John Lennon Airport. Recent landscaping at the western side of the field has contributed to the creation of a raised plateau where a play area for children has been sited. The eastern side of the site is bounded by an overgrown and wooded area, where cottages formerly stood, and the 'E'-shaped Home Farm Range lies to the north.

- 1.2.2 The Mersey Valley has a geology of predominantly drift material, marine and river alluvium, areas of Shirley Hill windblown sand, and extensive areas of boulder clays with pockets of glacial sands, gravels and basin peats. The underlying solid geology consists of sandstone and pebble beds of the Permo-Triassic (Cheshire County Council forthcoming).

2. METHODOLOGY

2.1 INTRODUCTION

- 2.1.1 During the course of all intrusive ground works associated with the installation of the maze, a programme of field observation recorded the location, extent, and character of all surviving features and deposits of archaeological interest. The ground works included open area topsoil stripping and the grading of ground levels in the northern half of the site, the hand-dug excavation of postholes, and the excavation of foundation trenches for concrete pads. The stripping of topsoil and grading of ground levels was carried out using a D4K low ground pressure, 8.5 tonne bulldozer mounted with a laser level. The postholes were machine-excavated by a 1.5 tonne mini-excavator.

2.2 ARCHAEOLOGICAL RECORDING

- 2.2.1 The 'preservation by record' of all features of archaeological interest was achieved by the generation of a comprehensive archive, in accordance with the standard and guidance for archaeological excavations produced by the Institute of Field Archaeologists (2001). All of the features identified during the watching brief were recorded stratigraphically, using a system adapted from that used by the Centre for Archaeology Service of English Heritage, with accompanying graphic documentation (plans, sections, and digital photographs and black and white print photographs, both of individual contexts and overall site shots from standard view points). Photography was undertaken with 35mm cameras on archivable black-and-white print film, all frames including a visible, graduated metric scale. Digital photography was used extensively throughout the course of the fieldwork for presentation purposes. Photographic records were also maintained on photographic *pro-forma* sheets.

2.3 FINDS

- 2.3.1 Finds' recovery and sampling programmes were carried out in accordance with best practice (following current Institute of Field Archaeologists guidelines), and subject to expert advice in order to minimise deterioration.

2.4 ARCHIVE

- 2.4.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Research Projects in the Historic Environment*, 2006). The original record archive of the project will be deposited with the Liverpool Central Library and Archive. Copies of the report will be sent to the National Trust archaeologist for the North West Region.
- 2.4.2 The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3. BACKGROUND

3.1 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.1.1 **Medieval Period:** following the Norman Conquest, the manor of Speke passed into the hands of Count Roger of Poitou who held it at the time of the Domesday survey in 1086 (University of Liverpool 1980, 6). By 1170, the jurisdiction of the Royal Forest of Lancaster, which included much of the West Derby Hundred, encompassed Speke, although the estate did not fall within the hunting grounds of the forest (*ibid*). The master forester of the Royal Forest held Speke as a fee, or hereditary land, from the end of the eleventh century, although the tenure of the manor passed to the Molyneux family in 1170, who became nominal overlords of the manor from around the twelfth to the sixteenth centuries (*ibid*; National Trust 1994, 35). By 1390, tenure of the estate lay in the hands of the Norris family, who occupied the site until the eighteenth century.
- 3.1.2 The earliest evidence for the occupation of the site of Speke Hall comes from 1314, when a reference was made to the house of John and Nichola le Noreis being located above the Clough (Nicholson 1979, 6; National Trust 1994, 23). This appears to coincide with the general location of the current hall and, indeed, during excavation in the interior of the building in 1981 and 1982 foundations and demolition layers that pre-dated the current building were discovered (Higgins nd). The current house is the result of a gradual development and expansion of the site, with a great hall likely to have been built by William Norris (died 1506). This was probably subsequently remodelled by his son, Henry, who is also believed to have added the Great Parlour (Nicholson 1979, 7).
- 3.1.3 In addition to the manorial estate as a whole, an extremely important landholding for the manorial lord was the demesne land. This was land that was retained for the direct support of the household of the lord and included lands that could be leased, as well as the area where he lived, and the land that was farmed in order to support the household (University of Liverpool 1980, 1; Nicholson 1979, 8). Although the extent of the demesne was recorded by Addison in 1781, the exact boundaries of this land during the medieval period are unclear. It is, however, very likely that land in the vicinity of the hall, including the proposed development area, was farmed directly on the behalf of the manorial lord, although historical evidence for this is not available. The surviving historical documents instead relate to land that was rented out, such as a rental of 1468 that listed numerous fieldnames, including *Mollenex fylde* (*ibid*), which appears to correspond with Molyneux field, which lay immediately to the west of the hall.
- 3.1.4 **Post-Medieval Period:** the Speke Estate remained in the hands of the Norris family throughout most of the post-medieval period (National Trust 1994, 35) and modifications to the house continued throughout this period. A west range was added to the pre-existing east range between 1540 and 1568 and the north range was completed by Sir Edward Norris in 1598 (Nicholson 1979, 7). The development of the present quadrangular shape of the hall was completed by

Sir Edward, who, as a post-reformation Catholic that refused to attend Anglian services, was also responsible for the construction of several priest holes within the building (*ibid*). Under the Commonwealth, established as a result of the British Civil Wars, the Speke Hall Estate was sequestered in 1650, although it was returned to Thomas Norris at the reformation in 1660 (*ibid*).

- 3.1.5 During the later part of the eighteenth century the house appears to have become neglected and the owner, Topham Beauclerk, whose mother, Mary, was the last holder of the Norris name to inherit the estate, is unlikely to have lived at Speke Hall (National Trust 1994, 39). An extensive survey was undertaken of the estate by Thomas Addison, which was completed in 1781, and the estate was sold by Charles Beauclerk to Richard Watt in 1795 (*ibid*; Nicholson 1979, 7). The accounts of Richard Watt (Ford 2010a) demonstrate that his wealth was acquired as a result of business interests in Jamaica, which included a sugar plantation and concomitant slave ownership.
- 3.1.6 During the post-medieval period, the demesne land of the estate continued to include both tenanted farms and land that was farmed directly for the support of the estate owners (Nicholson 1979, 7). Some of the clearest evidence for the organisation of the land during this period comes from the accounts kept by John Wiswall on behalf of Edward Norris between 1710 and 1719 (Wiswall 1710-19). These accounts indicate that workers were paid by the estate to plough, including the preparation of the ground for potatoes, and to shear barley in Lower Orchard, which formerly occupied part of the proposed development area. This demonstrates that this land was being farmed for the Norris family, rather than being rented.
- 3.1.7 The field name of Lower Orchard was first recorded in 1710, when barley was describes as being cultivated there (Nicholson 1979, 10; 14) and it is not clear when the area was used as an orchard. However, apples for cider were being grown in 1694 and 1695 and it is possible that Lower Orchard was one of the areas where this was undertaken (*op cit*, 14). Wiswall (1710-19) recorded that oak trees were felled and roots were cleared in 1710-11 and hay, oats, and potatoes were grown at various times during the early eighteenth century. When it was depicted by Addison in 1781, Lower Orchard was shown almost devoid of trees, which supports the descriptions of the agricultural nature of this land.
- 3.1.8 The Addison map was the first to depict the U-shaped range and ancillary buildings associated with the earlier phase of Home Farm. This farm continued in use into the later part of the nineteenth century and, at the time of the census of 1861, 1871, and 1881 (Ford 2010b), was occupied by the Sutton family. Between the production of the tithe map of 1844 and Shelmedine's map of 1869, two adjoining cottages had been constructed to the west of the proposed development area. The earlier Home Farm buildings became gradually obsolete when the farm was remodelled between 1885 and 1888 by Adelaide Watt (Milln and Woodside 1996) and the focal point of the farm was relocated to the immediate north of the proposed development area. The Home Farm Range built by Adelaide Watt was first depicted on the Ordnance Survey (OS) map of 1893.

- 3.1.9 The farm was gradually run down between 1926 and 1929 (Lewis 1994), although the area continued to be used for agricultural purposes, and various structures, barns, and small enclosures were depicted on OS mapping throughout the twentieth century. During the Second World War the grounds surrounding the hall were subject to both explosive and incendiary bombing, presumably due to the presence of the adjacent airfield, although the estate buildings do not appear to have been damaged (Whatmore 2009). The cottages were demolished during the 1970s and a large barn occupied the proposed development area until at least as late as aerial photographs taken in 2000 (Stratascan 2010). The proposed development area was cleared of dumped material, such as old machinery, turned over, and seeded with grass in 2000 (S Osborne *pers comm*).
- 3.1.10 Following the death of Adelaide Watt in 1921, the estate was left to the trustees of the Norris family with a secondary clause bequeathing the property to the National Trust (National Trust 1994, 5). The estate was passed to the National Trust in 1943 and leased to Liverpool City Council, followed by the Museums Department of Merseyside County Council, which undertook major repairs to the house (*ibid*). The National Trust took over direct management in 1986.

4. RESULTS

4.1 WATCHING BRIEF

- 4.1.1 **Introduction:** the watching brief was effective throughout the duration of intrusive ground works associated with the installation of the maze. This comprised the mechanical stripping of topsoil and grading of ground levels, the hand-dug excavation of postholes, and the preparation of foundation trenches for concrete pads to support bridges and towers. The initial stripping of topsoil and ground preparation was undertaken on the 18th of April 2011 and the excavation of postholes and the foundation trenches for the concrete pads was undertaken on the 23rd and 24th of May 2011. An additional phase of the watching brief was undertaken during the week of the 20th of June in association with the excavation of holes to support fence posts.

4.2 RESULTS

- 4.2.1 **Initial ground-works:** the stripping of turf from the northern part of the development site revealed a layer of light brown sandy loam topsoil (Plate 4). The topsoil was stripped to a maximum depth of approximately 0.2m beneath ground level, although the full depth of topsoil was not entirely removed in any large areas. Very low quantities of brick and stone rubble were visible within parts of the topsoil. Patches of underlying deposits were revealed, which included partially exposed sandy deposits and areas of brick, stone, and concrete rubble.
- 4.2.2 A layer of gravel was exposed at the western extent of the development area (Plate 5; Fig 4). This consisted of fragments of grey sandstone measuring between 10mm and 110mm in diameter. The uppermost part of the gravel layer was mixed with rubble and plastic but this detritus was entirely absent once the uppermost 50mm of the deposit had been removed. The ground works did not require the reduction of the ground level beyond the upper levels of the gravel and, as the subsequent phase of ground preparation constituted the importation of soil to raise levels in this area, preserving the layers *in situ*, further exposure or archaeological excavation of the gravel was not necessary. In areas where the gravel was thin or absent, patches of clinker were visible (Plate 6). It is possible that the gravel and clinker formed part of the fabric of an area of hard-standing or of a path or trackway. It is also possible that this material was imported to the site as a method of waste disposal, or to aid in the levelling of the ground level in this area. No dating evidence was recovered from these deposits.
- 4.2.3 A concrete post setting was exposed at the northern edge of the development area (Plate 7; Fig 4). Half of the setting was present, which consisted of one corner of an apparently formerly sub-rectangular concrete base measuring 0.62m long and 0.32m wide. The curving edge of the post void indicated that a post with a circular cross-section had been used and fragments of wood remained adhering to the edge of the concrete. The concrete was left *in situ*.

- 4.2.4 An oak tree stump was situated approximately halfway along the western side of the site. Whilst hand-digging around the stump, prior to the instigation of the watching brief, the Speke Hall gardeners had encountered ceramic service piping. Concerned that it might have been archaeologically relevant, the property manager had suspended the removal of the stump. In order to ensure that there would be no disturbance to any archaeologically sensitive features, the stump was cut off at the lowest possible level and was not uprooted.
- 4.2.5 **Structural ground-works:** the second watching brief phase was undertaken after the site had been levelled with the use of imported topsoil and perimeter gravel paths had been laid. A roughly rectangular area measuring 3.5m wide and approximately 20m long at the southern end of the site (Plate 8) and a narrow strip along the western side of the site measuring approximately 1m wide and 15m long were stripped of turf by a small mechanical excavator (Plate 9). The maximum depth of the excavations in these areas was 0.45m and the full depth of the topsoil was not removed in its entirety from either area. The only deposit of archaeological interest that was encountered during the turf stripping was a linear spread of fuel ash at the north-western side of the area (Plate 10; Fig 4) which appeared to have represented the continuation of the spread that was observed during the earlier works in this area (Plate 6).
- 4.2.6 In total, 42 holes for posts were excavated by machine in advance of the erection of structural elements of the maze (Plate 11; Figs 3 and 4). Many of these holes did not exceed the depth of topsoil; particularly in the southern and western parts of the site, and those excavated in the southern part of the area revealed that the topsoil had been subject to disturbance, as plastic and other modern materials were clearly visible throughout all levels of the soil horizon (Plate 12). There were no indications of deposits of archaeological interest in the holes where the subsoil was disturbed. Some deposits of rubble and crushed tarmac were encountered within holes 25-30, which is likely to have been associated with the most recent twentieth-century barn.
- 4.2.7 The final phase of the watching brief was undertaken when ground workers excavated a series of holes at 2m intervals along the full length of the eastern side of the stripped area in order to accommodate fence posts. The holes measured approximately 0.5m in diameter and were up to 0.7m deep. No features or deposits of archaeological interest were observed during these works and, with the exception of topsoil and subsoil, the only deposit encountered was a layer of tarmac approximately 14m from the south-east corner of the site.

5. DISCUSSION

5.1 DISCUSSION

- 5.1.1 Between 1893 and 1908-13 (Plates 13 and 14) the OS mapping recorded a change in the layout of the area to the south of the Home Farm range. Whereas the earlier map appears to have depicted the trackway (Site 27) as a restricted and well-defined feature running through open areas, the mapping of 1908-13 appears to have shown the trackway as having been incorporated into a broader area of possible hard-standing to the south of the farm range. This is suggested by the depiction of a large area formed by the junction of several routeways as an irregular and undivided space. A dashed line to the east of the workers' cottages might have remained as a grassed or unsurfaced space and this area was depicted as a 'green' on Whatmore's reconstruction of Home Farm in 1930 (Whatmore 1993; Plate 15). The westernmost extent of this dashed line, which was also depicted on the OS map of 1953 (Plate 16) corresponds approximately with the easternmost extent of the gravel and clinker layers encountered during the watching brief (Fig 4). This suggests that the gravel and clinker were not simply deposited as general levelling layers, or in order to dispose of waste material, but were used as foundation and surfacing fabric for this farmyard hard-standing. This would have made the area to the south of the range more accessible and convenient, and less restrictive, for vehicular traffic than it had been previously. The original trackway that was extended to form this hard-standing was indicated by a corridor of field boundaries on Addison's map of 1781 (Plate 17), although the fabric encountered would have related to the most recent surfacing of this area, which probably occurred during the late-nineteenth or early-twentieth centuries.
- 5.1.2 The location of the concrete post setting that was encountered at the northern edge of the development area corresponds with south-western corner of a structure that was shown on the OS map of 1953 (Plate 16; Fig 4) but was not depicted on the mapping of 1928-9. This structure was rectangular and roofed and is likely to have been an ancillary building associated with the Home Farm range and to have been built between 1928-9 and 1953.
- 5.1.3 The deposits of rubble and crushed tarmac that were encountered within holes 25-30 are likely to have been associated with the most recent twentieth-century barn, which was visible on aerial photographs taken in 2000 (Stratascan 2010) and depicted on the Ordnance Survey map of 1992.

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APPENDIX 1: PROJECT DESIGN

PROPOSED MAZE GROUND WORKS, SPEKE HALL, MERSEYSIDE

Archaeological Watching Brief Project Design



Oxford Archaeology North

March 2011

NATIONAL TRUST

1 INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 The National Trust (hereafter the 'client') has requested that Oxford Archaeology North (OA North) prepare a simple Written Scheme of Investigation (WSI) for a programme of archaeological watching brief during ground works for the construction of a Maze at Speke Hall, Merseyside. The construction will entail the establishment of hedges and post holes for five bridges and a tower with associated stair, as well as maze gates, which will potentially impact upon any sub-surface archaeological remains. A desk based assessment has been undertaken by OA North (2010), which highlighted the existence of an agricultural building (Site 26), a trackway (Site 27) and a field boundary (Site 28) within the extent of the proposed maze. It also highlighted the potential for prehistoric remains and medieval remains relating to the use of the area as demesne farmland for the hall.
- 1.1.2 The groundworks necessitate permanent archaeological monitoring during site stripping and the ground excavation work for the proposed structures. The following WSI has been prepared in accordance with a detailed brief provided by the National Trust and, therefore, should be read in conjunction with the document and the desk based assessment (OA North 2010).

1.2 HISTORICAL BACKGROUND

- 1.2.1 **Medieval:** the manor of Speke was established at least as early as the early medieval period and in 1066, was one of those held by Uctred (Farrer and Brownbill 1907, 131-40), and was recorded in the Domesday Survey of 1086 (Milln and Woodside 1996, 7). By 1170, the jurisdiction of the Royal Forest of Lancaster, which included much of the West Derby Hundred, encompassed Speke, although the estate did not fall within the hunting grounds of the forest (*ibid*). The master forester of the Royal Forest held Speke as a fee, or hereditary land, from the end of the eleventh century (*ibid*). By 1390, tenure of the estate lay in the hands of the Norris family, who occupied the site until the eighteenth century.
- 1.2.2 The earliest evidence for the occupation of the site of Speke Hall comes from 1314, when a reference was made to the house of John and Nichola le Noreis being located above the Clough (Nicholson 1979, 6). The current house is the result of a gradual development and expansion of the site, with a great hall likely to have been built by William Norris (died 1506), and was probably subsequently remodelled by his son, Henry, who is also believed to have added the Great Parlour (Nicholson 1979, 7).
- 1.2.3 In addition to the manorial estate as a whole, an extremely important landholding for the manorial lord was the demesne land. Although the extent of the demesne was recorded by Addison in 1781, the exact boundaries of this land during the medieval period are unclear. It is, however, very likely that land in the vicinity of the hall, including the proposed development area, was farmed directly on the behalf of the manorial lord, although historical evidence for this is not available.
- 1.2.4 **Post-Medieval:** the Speke Estate remained in the hands of the Norris family throughout most of the post-medieval period (National Trust 1994, 35) and modifications to the house continued throughout this period. A west range was added to the pre-existing east range between 1540 and 1568 and the north range was completed by Sir Edward Norris in 1598 (Nicholson 1979, 7). The development of the present quadrangular shape of the hall was completed by Sir Edward, who, as a post-reformation Catholic that refused to attend Anglian services, was also responsible for the construction of several priest holes within the building (*ibid*).
- 1.2.5 During the post-medieval period, the demesne land of the estate continued to include both tenanted farms and land that was farmed directly for the support of the estate owners (Nicholson 1979, 7). The field name of Lower Orchard was first recorded in 1710, when barley was described as being cultivated there (Nicholson 1979, 10; 14) and it is not clear when the area was used as an orchard. When it was depicted by Addison in 1781, Lower Orchard was shown almost devoid of trees, which supports the descriptions of the agricultural nature of this land. The Addison map was the first to depict the U-shaped range and ancillary buildings associated with the earlier phase of Home Farm. This farm continued in use into the

later part of the nineteenth. The earlier Home Farm buildings became gradually obsolete when the farm was remodelled between 1885 and 1888 by Adelaide Watt (Milln and Woodside 1996) and the focal point of the farm was relocated to the immediate north of the proposed development area. The Home Farm Range (Site **03**) built by Adelaide Watt was first depicted on the Ordnance Survey (OS) map of 1893.

- 1.2.6 The farm was gradually run down between 1926 and 1929 (Lewis 1994), although the area continued to be used for agricultural purposes, and various structures, barns, and small enclosures were depicted on OS mapping throughout the twentieth century. During the Second World War the grounds surrounding the hall were subject to both explosive and incendiary bombing, presumably due to the presence of the adjacent airfield, although the estate buildings do not appear to have been damaged (Whatmore 2009). The cottages (Site **06**) were demolished during the 1970s and a large barn occupied the proposed development area until at least as late as aerial photographs taken in 2000 (Stratascan 2010). The proposed development area was cleared of dumped material, such as old machinery, turned over, and seeded with grass in 2000 (S Osborne *pers comm*).

1.3 OXFORD ARCHAEOLOGY NORTH

- 1.3.1 OA North has considerable experience of fieldwork and post-excavation, having undertaken a great number of small and large-scale projects during the past 30 years. Such projects have taken place to fulfil the requirements of the clients to rigorous timetables. More specifically, however, OA North has previously undertaken the desk based assessment (2010) for the proposed maze at Speke Hall and are very familiar with the archaeological issues involved in its construction.
- 1.3.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is **an Institute of Field Archaeologists (IFA) registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

1. OBJECTIVES

- 2.1 The following programme has been designed to identify any archaeological deposits or features that may be present during groundworks. It will be undertaken in order to mitigate the impact by means of preservation by record of any such archaeological features or deposits. The work will be carried out in line with current IFA guidelines and in line with the IFA Code of Conduct.
- 2.2 **Archaeological Watching Brief:** to maintain a permanent archaeological presence during groundworks, and particularly during the preliminary site stripping. The purpose is to identify, investigate and record any archaeological remains that may be encountered. Where such remains cannot be adequately recorded under watching brief conditions it may be necessary to undertake consultation with all interested parties to determine and implement the appropriate mitigation.
- 2.3 **Report:** the results of the fieldwork and any post-excavation assessment will culminate in a final report to be submitted within eight weeks of completion of the fieldwork (subject to any specialist reports outstanding).
- 2.4 **Archive:** a site archive will be produced to English Heritage guidelines (MAP 2 (1991)). The information will be finally disseminated through the deposition of the archive at a local museum, and report at the County Historic Environment Record (HER) Office in Merseyside.

3. IMPACTS

- 3.1 The extent of the proposed maze coincides with four sites (Sites **25-28**) identified by the desk based assessment (Figs 1 and 2) and which have the potential to be impacted by the proposed maze development:

Site number 25

Site name	Lower Orchard Field Boundary (Site of)
NGR	SJ 4209 8244
Site type	Field Boundary
Period	Post-Medieval (pre-1710)
Sources	Addison 1781; Nicholson 1979; Shelmedine 1869, OS 1954-6; OS 1965-8
Description	The northern field boundary of Lower Orchard was first depicted on Addison's map of 1781, although the field name was first recorded in 1710 by Wiswall, at which time it was being used for the cultivation of barley (Nicholson 1979, 10; 14). Although a trackway (Site 27) had been established by the time of the production of Shelmedine's map of 1869, the boundary was consistently depicted on subsequent maps up until, and including, the production of the OS maps of 1954-6. The boundary was not depicted on the OS maps of 1965-8.

Site number	26
Site name	Agricultural Building in Lower Orchard (Site of)
NGR	SJ 4209 8244
Site type	Building
Period	Post-Medieval (pre-1781)
Sources	Addison 1781; Anonymous c 1800
Description	A small sub-rectangular building was depicted lying to the south of, and contiguous with, the northern boundary of Lower Orchard on Addison's map of 1781. This building was not shown on an anonymous map of 1800 or on any later maps.

Site number	27
Site name	Home Farm Trackway (Site of)
NGR	SJ 4207 8246
Site type	Trackway
Period	Post-Medieval (pre-1781)
Sources	Addison 1781; Speke tithe map of 1844; Shelmedine 1869; Stratascan 2010
Description	A trackway was depicted on the Speke tithe map of 1844 running from east to west between a lane to the east of Lower Orchard and a lane to the west of Speke Hall. A conspicuous corridor between field boundaries on earlier maps, including Addison's map of 1781, suggests that a track had run through this area from at least as early the late eighteenth century. Shelmedine's map of 1869 depicted an adjoining branch running southwards between the Orchard and Lower Orchard. Portions of both of these trackways were detected during the current geophysical work (Stratascan 2010).

Site number	28
Site name	Higher Orchard Field Boundary (Site of)
NGR	SJ 4206 8241
Site type	Field Boundary
Period	Post-Medieval (1849-1869)
Sources	Shelmedine 1869; Stratascan 2010
Description	This field boundary subdivided the northern portion of Higher Orchard and was first depicted on Shelmedine's map of 1869. This boundary is likely to correspond with a possible ditch detected during the current geophysical works and an adjacent area of high resistance, which might represent the remains of associated denuded banking (Stratascan 2010). This site also includes the western boundary of this field.

4. METHOD STATEMENT

4.1 HEALTH AND SAFETY

- 4.1.1 **Risk assessment:** OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). OA North will liaise with the client to ensure all health and safety regulations are met.
- 4.1.2 **Contamination:** any contamination issues must also be made known to OA North in order that adequate PPE can be supplied prior to commencement. Should any presently unknown contamination be discovered during excavation, it may be necessary to halt the works and reassess the risk assessment. Any specialist safety requirements may be costed as a variation.

4.2 ARCHAEOLOGICAL WATCHING BRIEF

- 4.2.1 **Introduction:** the development will entail a process of top soil strip (principally the removal of turfs) and then the importing of material to afford some protection for the archaeological resource from the proposed development. Subsequent ground disturbance will include pits for posts for the bridges, tower, maze gates, signs and weather vanes, foundations for the paths, and the establishment of hedges. The importing of soils will provide protection from the root action of the hedges and to a lesser extent the foundations of the paths, but not from the deeper pits for the bridges and tower. The foundations for the bridges will entail 600mm x 600mm x 600mm concrete pads, and even the relatively small finger maze signs will entail post holes that will be 450mm deep. It is therefore proposed that the watching brief be maintained during the initial top soil (turf) strip and during the excavations for the deep post holes. This will be a programme of field observation that will accurately record the location, extent, and character of any surviving archaeological features and/or deposits during this process of ground disturbance.
- 4.2.2 **Methodology:** the work will comprise archaeological observation during the excavation, to include the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified.
- 4.2.3 Discovery of archaeological remains will require stoppage of the excavation. Areas of potential archaeological remains will require fencing-off from any construction works, preferably with netlon-type fencing, to allow the OA North archaeologist sufficient time to undertake adequate recording under safe conditions. This will be carried out as efficiently as possible in order to minimise disruption. Depending on the deposits revealed, it is anticipated that the average time for the suspension of works will be approximately 2-4 hours.
- 4.2.4 Clearance will be given for construction to proceed once the archaeologist is satisfied that either no remains are present, or that they have been adequately recorded, or that the level of impact will not disturb any deeper remains that can be preserved *in situ*.
- 4.2.5 **Complex or extensive remains:** should the remains be too complex or extensive to be investigated and recorded under watching brief conditions then the area will be fenced-off and the National Trust Archaeologist, National Trust Property Manager and the Merseyside Archaeological Officer will be immediately contacted in order to determine the requirements for further investigation. All further construction works within the marked area will cease until clearance is given to proceed. All further works would be subject to a variation to this project design.
- 4.2.6 **Investigation and recording:** putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (i.e. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 4.2.7 **Recording:** all elements of the work will be recorded in accordance with current English Heritage guidelines (MAP2) and the best practices formulated by English Heritage's Centre for Archaeology (CfA). The archaeological structures will be planned using a survey grade differential GPS (Leica 1200) which is accurate to +/- 0.02m. All planning data will be

digitally incorporated into a CAD system in the course of the evaluation and will be superimposed onto base survey mapping. This process will generate scaled plans which will also be subject to manual survey enhancement. The drawings will be generated at an accuracy appropriate for 1:20 scale but can be output at any scale required.

- 4.2.8 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale digital plan to be provided by the client. A photographic record will be undertaken simultaneously.
- 4.2.9 Levels will be recorded and reduced to their OD heights, with all benchmark and TBMS to be shown. The location of all features excavated will be recorded by Total Station with appropriate spot heights and tied into the OS grid. Altitude information will be established with respect to OS Datum. The location of the remains within the areas of construction will be based on site plans provided by the client containing OS information.
- 4.2.10 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.

4.3 GENERAL PROCEDURES

- 4.3.1 **Environmental Sampling:** samples (bulk samples of 40 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). Monolith samples will be collected from freshly exposed sections through all buried soils/old ground surfaces by trained staff. These will be returned to OA North's offices for processing.
- 4.3.2 Deposits of particular interest may incur additional sampling, on advice from the appropriate in-house specialist. The location of all samples will be recorded on drawings and sections with heights OD etc.
- 4.3.3 Between 50%-100% of bulk samples shall be selected for processing, based on the advice from OA North's in-house environmental manager. An assessment of the environmental potential would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, the samples would be assessed for plant macrofossils, insect, molluscs and pollen from waterlogged deposits.
- 4.3.4 It may be required to obtain dating evidence through radiocarbon dating, dendrochronological or other such techniques. This would only be undertaken in consultation with the client.
- 4.3.5 **Human Remains:** previous work has not produced any evidence for the potential for human remains. However, should any be discovered they will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. The client, Merseyside Archaeological Officer and the local Coroner will be informed immediately. If removal is essential the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations. Any delays caused by unforeseen and complex excavation of inhumations may be subject to a variation to the cost of the contract and will be agreed with the client.
- 4.3.6 **Finds:** all finds recovered during the evaluation investigation (metal detecting and trial trenching) will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines.
- 4.3.7 Finds recovery and sampling programmes will be in accordance with best practice (current IFA guidelines) and subject to expert advice. OA has close contact with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs in-house artefact and palaeoecology specialists, with considerable expertise in the investigation, excavation, and finds management of sites of all periods and types, who are readily available for consultation. Finds storage during fieldwork and any site archive preparation will follow

professional guidelines (UKIC). Emergency access to conservation facilities is maintained by OA North with the Department of Archaeology, the University of Durham.

- 4.3.8 Neither artefacts nor ecofacts will be collected systematically during the mechanical excavation of the topsoil unless significant deposits, for example clay pipe waster dumps, are encountered. In such an eventuality, material will be sampled in such a manner as to provide data to enhance present knowledge of the production and dating of such artefacts, although any ensuing studies will not be regarded as a major element in any post-excavation analysis of the site. Other finds recovered during the removal of overburden will be retained only if of significance to the dating and/or interpretation of the site. It is not anticipated that ecofacts (eg unmodified animal bone) will be collected during this procedure.
- 4.3.9 Otherwise, artefacts and ecofacts will be collected and handled as per specification. All material will be collected and identified by stratigraphic unit during the evaluation trenching process. Hand collection by stratigraphic unit will be the principal method of collection, but targeted on-site sieving could serve as a check on recovery levels. Objects deemed to be of potential significance to the understanding, interpretation and dating of individual features, or of the site as a whole, will be recorded as individual items, and their location plotted in 3D.
- 4.3.10 All finds will be treated in accordance with OA standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such case guidance will be sought from OA North's consultant conservator.
- 4.3.11 All waterlogged finds will be treated as appropriate. In the case of large deposits of waterlogged environmental material (eg unmodified wood), advice will be sought with the OA North consultant with regard to an appropriate sampling strategy.
- 4.3.12 Where possible, spot dates will be obtained on pottery and other finds recovered from the site. Artefacts will be examined and commented upon by OA North in-house specialists. Initial artefact dating shall be integrated into the site matrix.
- 4.3.13 Any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.

4.4 REPORT

- 4.4.1 **Final Report:** a copy of the draft report will be forwarded initially to the National Trust Archaeologist for approval. Once this has been finalised five bound copies of a written synthetic report will be submitted to the client, together with two digital copies (both pdf and word) on CD, within six weeks of completion of the fieldwork, unless an alternative deadline is agreed with the client. A pdf version will also be submitted to the Merseyside HER for reference purposes. The report will present, summarise, and interpret the results of the programme detailed above in order to come to as full an understanding as possible of the archaeology of the development area. The report will include;

- a front cover to include the NGR,
- a concise, non-technical summary of the results,
- the circumstances of the project and the dates on which the fieldwork was undertaken,
- description of the methodology, including the sources consulted,
- a summary of the historical background of the study area,
- a statement, where appropriate, of the archaeological implications of the impact,
- a copy of this project design, and indications of any agreed departure from that design,

- the report will also include a complete bibliography of sources from which data has been derived, and a list of any further sources identified but not consulted,
- a site location plan related to the national grid,
- appropriate digital plans showing the location and position of features or sites located and the extent of all excavations and interventions,,
- plans and sections showing the positions of deposits and finds,
- illustrative photographs as appropriate.

4.4.2 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

4.5 ARCHIVE

4.5.1 **Archive:** the results of all archaeological work carried out during fieldwork will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (Management of Research Projects in the Historic Environment (MoRPHE) 2006). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork to the appropriate level. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Merseyside Historic Environment Record (the index to the archive and a copy of the report). OA North practice is to deposit appropriate elements of the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with National Museums Liverpool (NML). The actual details of the arrangements for the deposition/loan and long term storage of this material will be agreed with the landowner and NML. The archive will be compiled in accordance with the National Museums Liverpool (NML) 'Guidelines for the Transfer of Archaeological Archives to National Museums Liverpool V3' (revised 2010) and followed as part of the archaeological Contractor's Project Design preparation. The document is available from the 'Archive Curator':

Dr L. Stewart, Curator of Archaeology and the Historic Environment,

Tel: 0151 478 4443

E-mail: liz.stewart@liverpoolmuseums.org.uk

Address: Urban History Division, NML, DTO, Albert Dock, Liverpool L3 4AX.

4.6 OTHER MATTERS

4.6.1 **Monitoring:** OA North will ensure that any significant results are brought to the attention of the Client and the Merseyside Archaeological Officer / Planning Officer as soon as is practically possible. The work will be monitored under the auspices of the Merseyside Archaeological Officer. Monitoring includes reviewing site work, the progress of excavation reports, archive preparation. The Merseyside Archaeological Officer will be informed of the start of the field work in advance of the start date.

4.6.2 **Health and Safety:** full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The OA North Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual. Risk assessments are undertaken as a matter of course for all projects. The Unit Safety Policy Statement will be provided to the Client, if required.

4.6.3 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with OA North and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North, in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies the insurance cover of £5m for any one occurrence or series of occurrences arising out of one event.

4.6.4 **Working Hours:** normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

5. WORK TIMETABLE

5.1 **Archaeological Watching Brief:** the duration of the archaeological presence for the watching brief will be dictated by the client's schedule of works and is anticipated to commence in 2011.

5.2 **Report:** the client report will be completed within approximately six weeks following completion of all fieldwork elements, subject to any outstanding specialist reports.

5.3 **Archive:** the archive will be deposited within six months following completion of the site work.

6. STAFFING

6.1 The project will be under the direct management of **Jamie Quartermaine** or, alternatively, **Emily Mercer** (both OA North Senior Project Managers) to whom all correspondence should be addressed.

6.2 The fieldwork will be undertaken by an OA North supervisor or assistant supervisor experienced in this type of project, who will be responsible for liaison with the site contractors and the client, and other relevant interested parties with regards to on-site work and procedures. The attending archaeologist will be supported by specialist staff based both on site and in the office in Lancaster.

6.3 Finds management will be undertaken by **Christine Howard-Davis** (OA North Finds Manager) who will also provide specialist input on certain finds categories.

6.4 Environmental management will be undertaken by **Elizabeth Huckerby** (OA North Environmental Manager) who has unparalleled experience of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey. Elizabeth will be assisted by **Denise Druce**, both of whom will provide specialist input on charred remains and pollen, and will advise on site sampling procedures and co-ordinate the processing of samples and organise internal and external specialist input as required.

ILLUSTRATIONS

FIGURES

Figure 1: Location map

Figure 2: Watching brief area and gazetteer sites

Figure 3: Features of archaeological interest superimposed over the design proposal by Adrian Fisher Ltd

Figure 4: Location of ground works and encountered features of archaeological interest

PLATES

Plate 1: Oblique aerial view of the maze site, facing north

Plate 2: Oblique aerial view of the maze site, facing east

Plate 3: View of the maze site prior to ground works, looking north

Plate 4: The western edge of the maze site following the reduction of the ground level, looking north

Plate 5: A layer of gravel exposed at the western edge of the maze site, looking west-north-west

Plate 6: A deposit of clinker underlying the gravel at the western edge of the site, looking west-north-west

Plate 7: A concrete post setting exposed at the northern edge of the site, looking west

Plate 8: View of the site prior to beginning of the second phase of the watching brief

Plate 9: Area of turf stripping at the southern end of the site

Plate 10: Area of turf stripping at the western side of the site

Plate 11: Fuel ash revealed at the western side of the site

Plate 12: A series of holes for posts associated with the maze structure at the south-western corner of the site

Plate 13: OS first edition map of 1893, at 25": 1 mile

Plate 14: OS third edition map of 1908-13, at 6": 1 mile

Plate 15: Whatmore's (1993) reconstruction of Home Farm in 1930

Plate 16: OS map of 1953, at 25": 1 mile

Plate 17: Addison's map of 1781



Figure 1: Site location

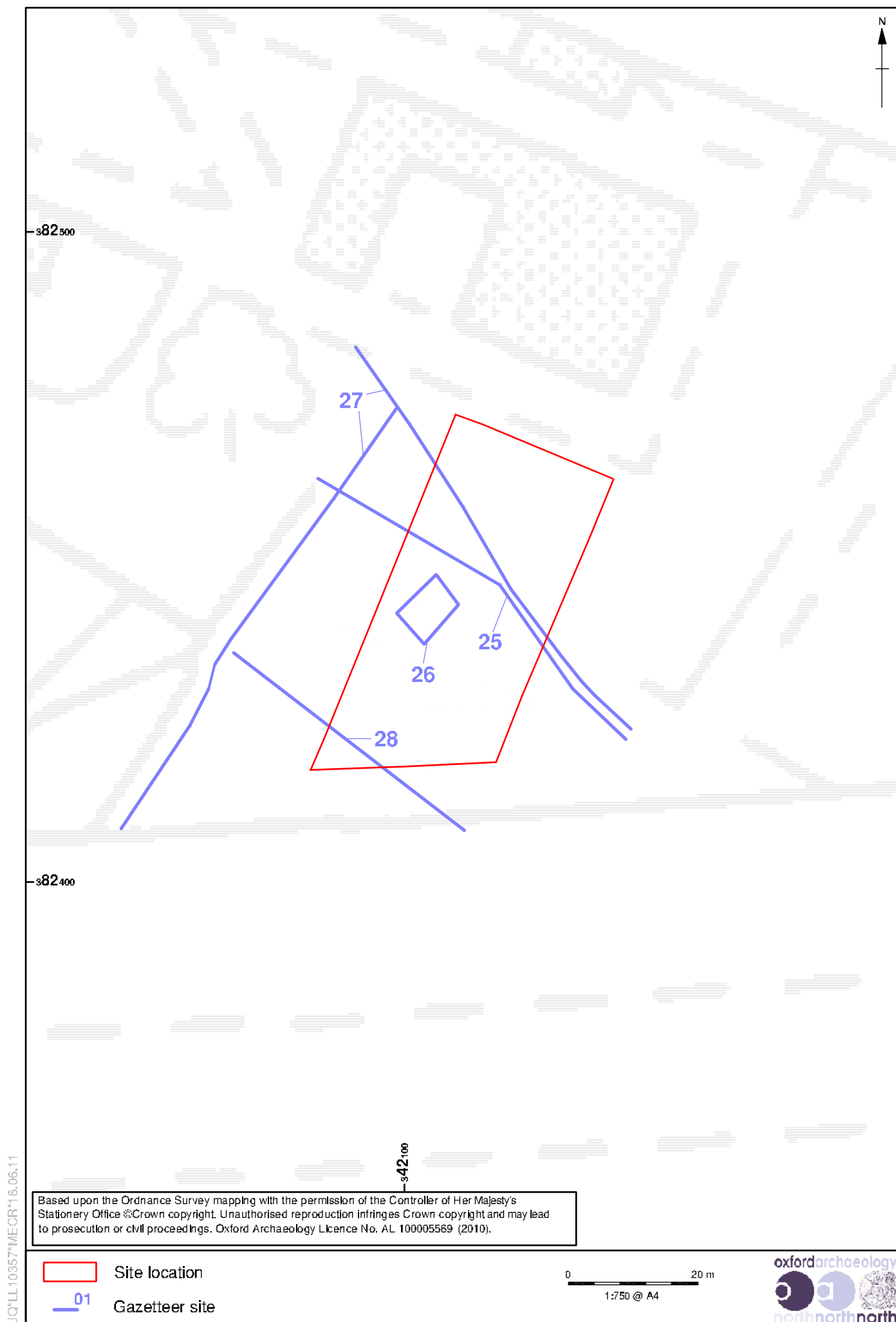


Figure 2: Watching Brief area and Gazetteer sites

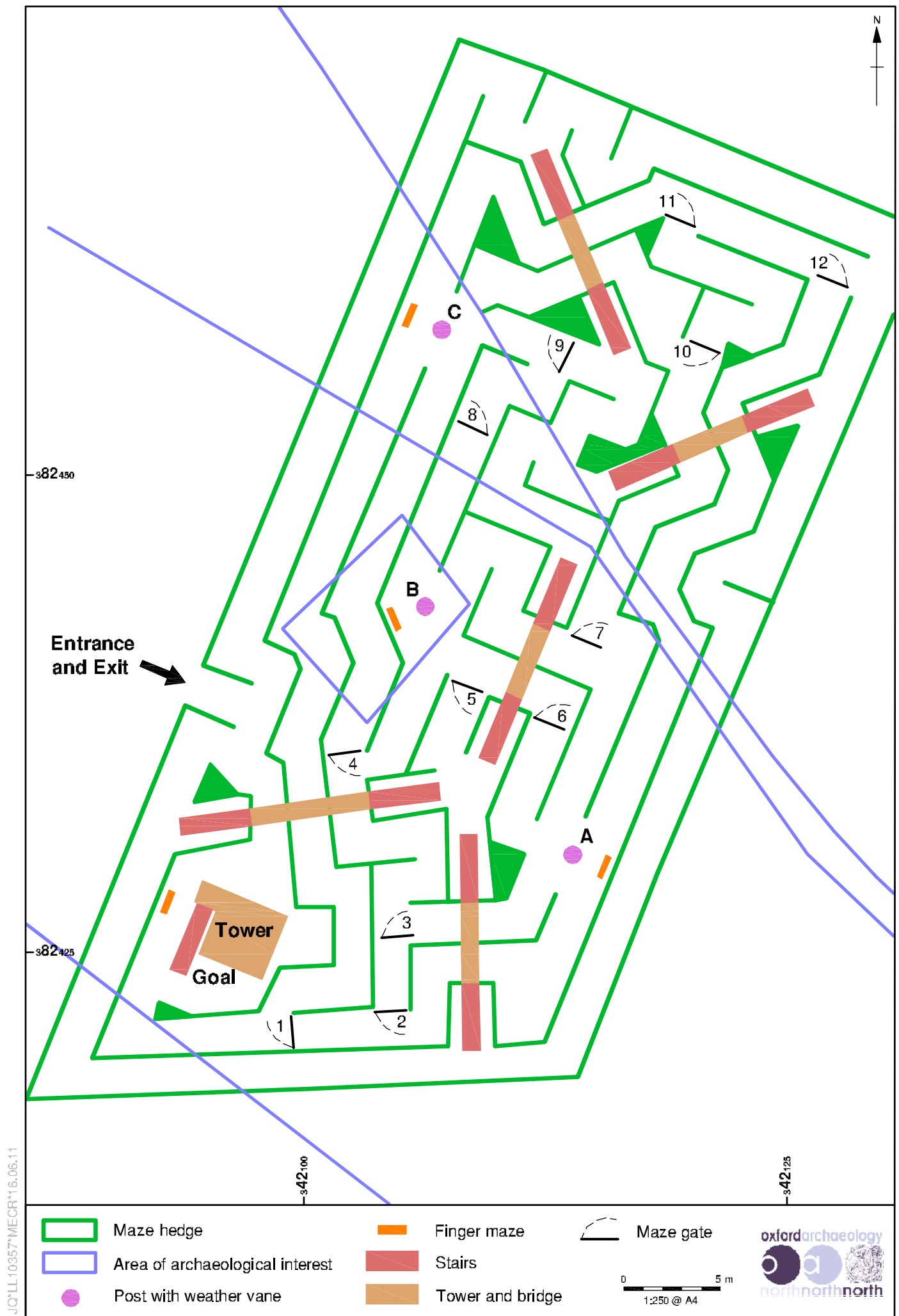


Figure 3: Features of archaeological interest superimposed over the design proposal by Adrian Fisher Design Ltd

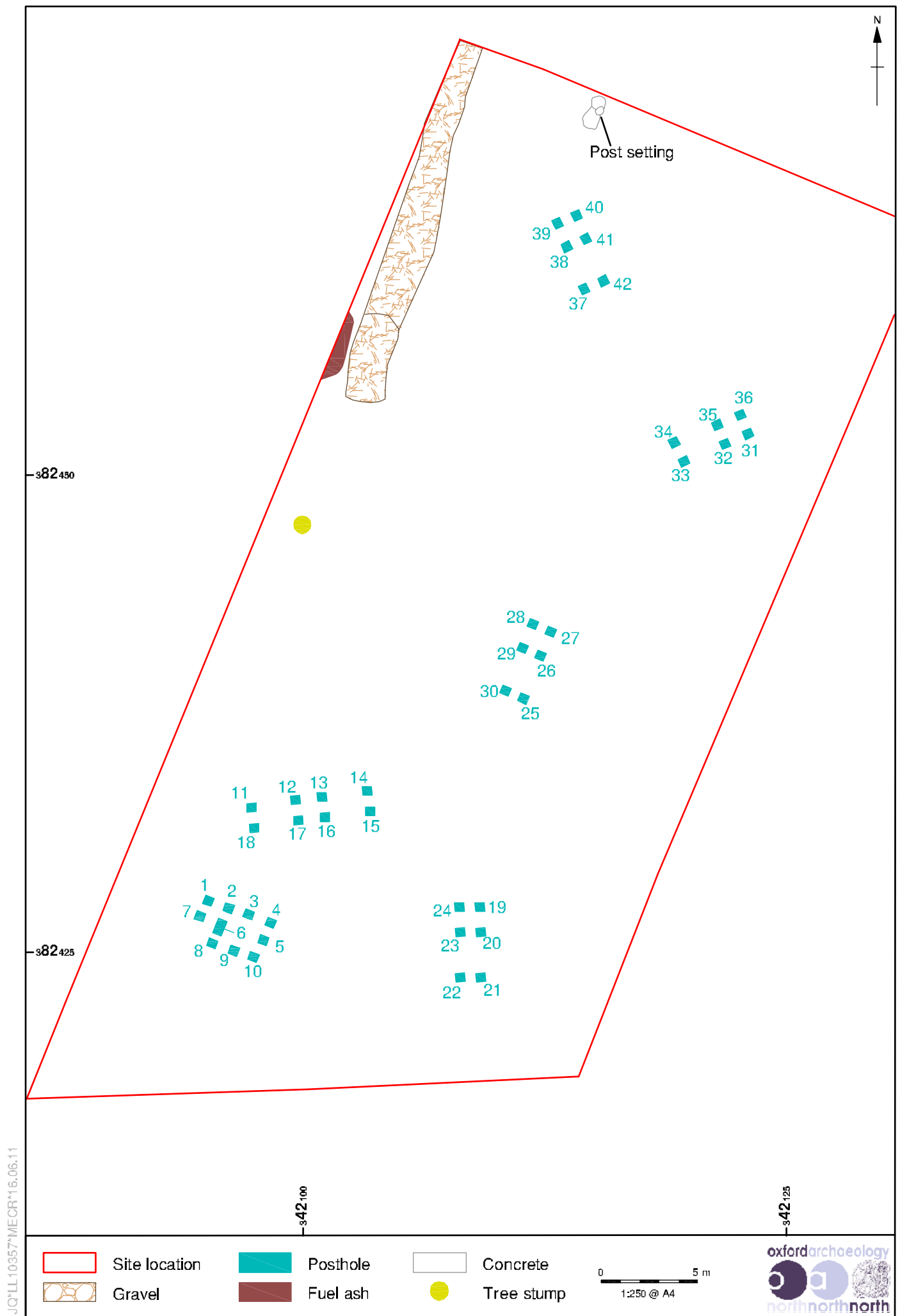


Figure 4: Location of ground works and encountered features of archaeological interest



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Plate 7: A concrete post setting exposed at the northern edge of the site, looking west



Plate 8: View of the site prior to beginning of the second phase of the watching brief



Plate 9: Area of turf stripping at the southern end of the site



Plate 10: Area of turf stripping at the western side of the site



Plate 11: Fuel ash revealed at the western side of the site



Plate 12: A series of holes for posts associated with the maze structure at the south-western corner of the site

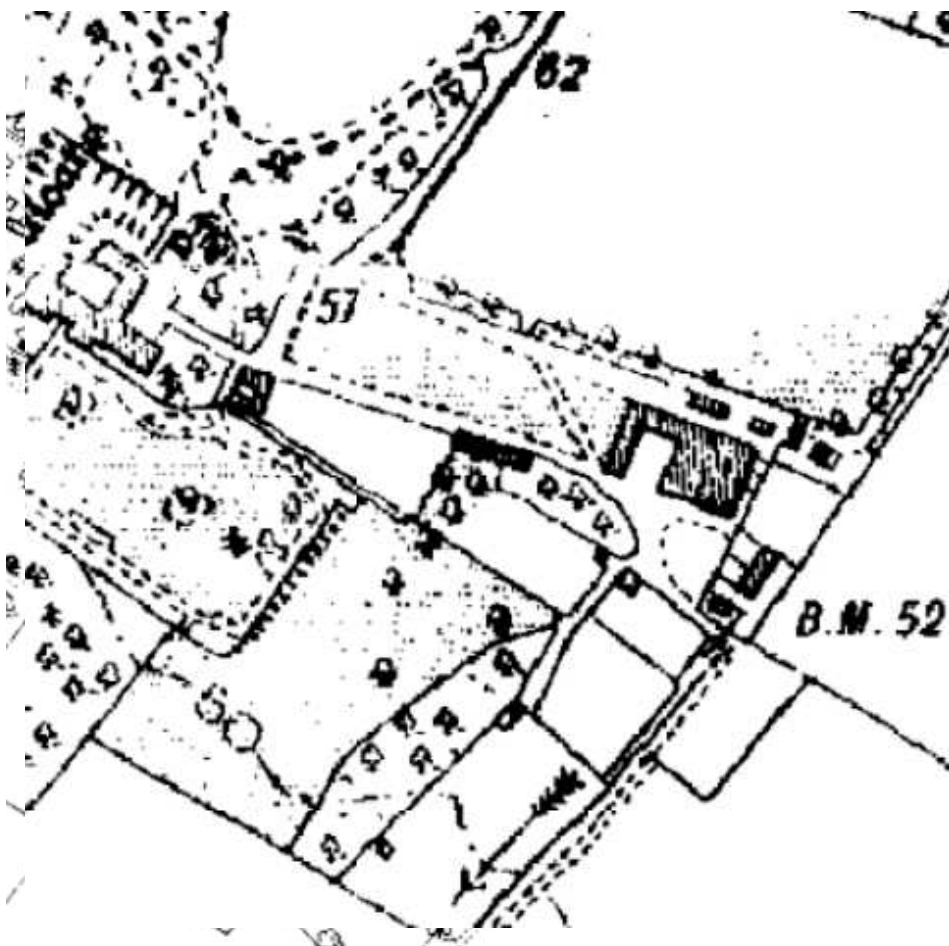


Plate 13: OS first edition map of 1893, at 25": 1 mile



Plate 14: OS third edition map of 1908-13, at 6": 1 mile

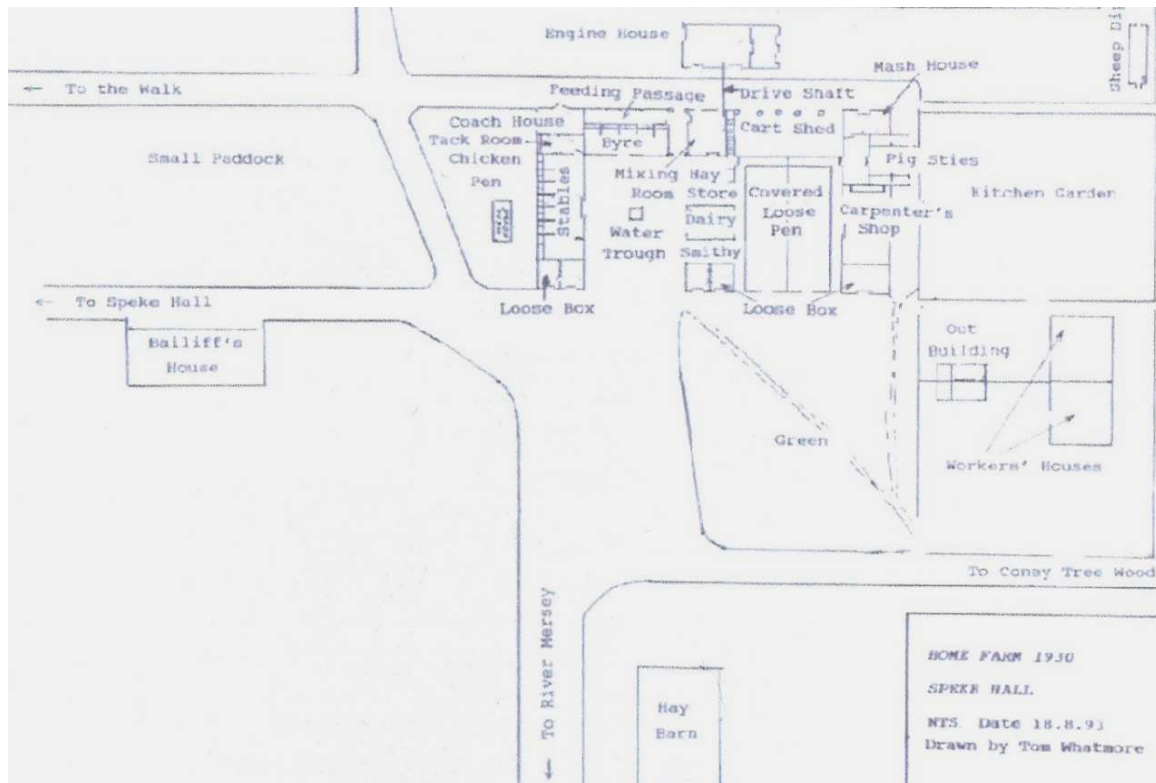


Plate 15: Whatmore's (1993) reconstruction of Home Farm in 1930

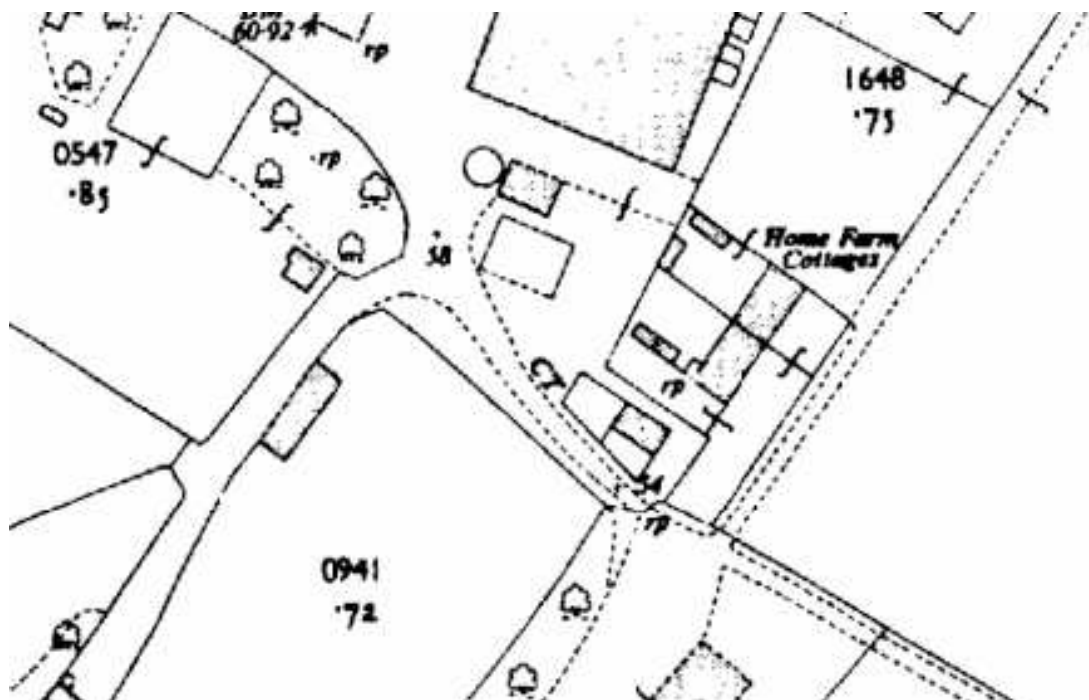


Plate 16: OS map of 1953, at 25": 1 mile

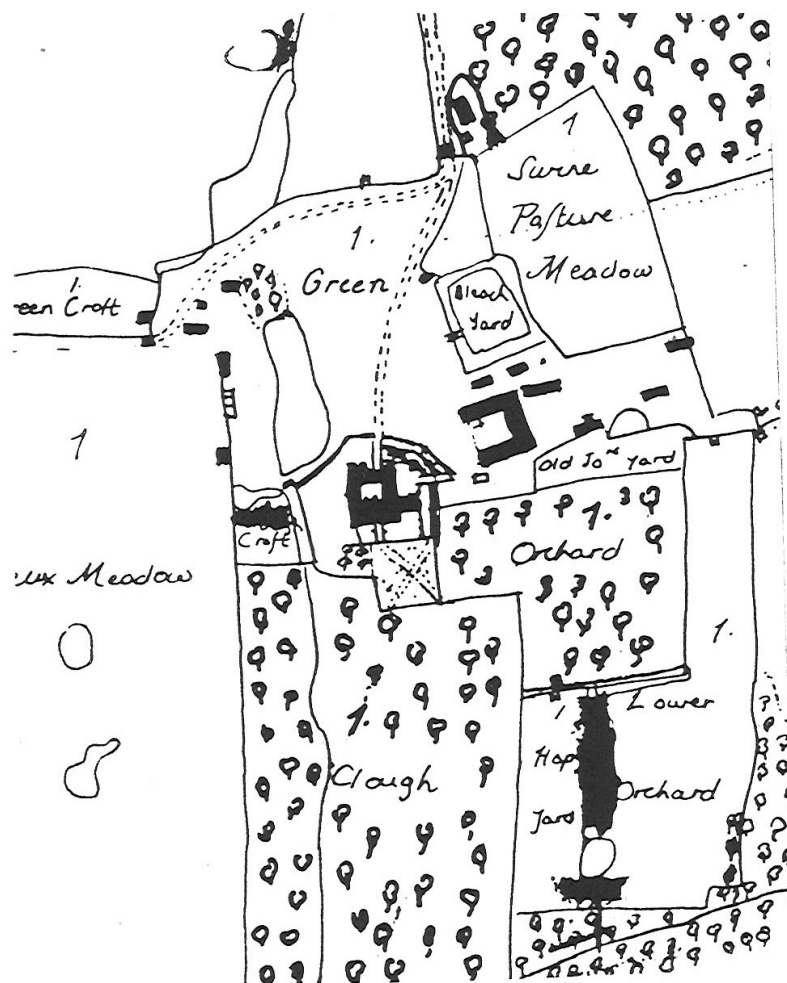


Plate 17: Addison's map of 1781