

Land to the West of Norton Priory, Halton, Cheshire

Archaeological Evaluation



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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Halton Borough Council to undertake an archaeological evaluation of 14ha of rough pasture and marshland, formerly playing fields, to the west of the scheduled monument of Norton Priory (SAM 66/1/0), Halton, Cheshire (centred on SJ 547 831, Fig 1) in August 2007. The area under archaeological evaluation lies immediately to the west of the scheduled area. Nine trenches were excavated, ranging from 10m x 2m to 20m x 2m, and targeted specific anomalies and sites identified during a geophysical survey undertaken by OA North in 2006, and an archaeological desk-based assessment carried out by OA North in 2002. The key features targeted were the millpond (Site **31**, OA North 2002; Trenches 4-5), the square cropmark (Site **38**) identified from aerial photographs (*ibid*; Trench 7), the main monastic drain (Trench 6), the line of which was meant to project from the Priory into the site (Mark Leah pers comm), and the possible remains of the mill to the north (Site **32**, OA North 2002; Trenches 8-9). The remaining trenches were positioned to assess the potential for any further remains (Trenches 1-3).

Excavation of the majority of the trenches across the site (Trenches 3-9) showed topsoil and substantial layers of redeposited clay, ranging from 0.18m thick to the south (Trench 3, Plate 5), and >2.15m to the north (Trench 9). No certain date has been attributed to the former millpond. It is first documented in the eighteenth century on Eyes estate map of 1757, and is later illustrated on the watercolour, *Norton 1770*. However, circumstantial evidence suggests that it may be medieval in date (*ibid*). The main monastic drain leads into the area, and it was probably the pond for the monastic mill (Site 32) to the north of the site. At some point between the mid-eighteenth and early nineteenth centuries the pond was infilled, and the very large, deliberate redeposit of clay, identified in the trenches, most likely relate to this event. The redeposited clay was not wholly restricted to the millpond, and is also recorded to the north (Trenches 8-9), and the south (Trench 3), indicating that either the entire valley in which the site sits was levelled-up, or that the pond was larger than previously assumed. Silt deposits were observed below the redeposited clay in some of the trenches (Trenches 4-5, 7-8; **119**, **113-114**, **131-133** and **138**). Although several fragments of relatively modern pottery was recovered from the redeposited clays, only one fragment of pottery were produced from the silts (Trench 7, **132**), which dated to the post-medieval period. Large fragments of sandstone rubble were observed in silt deposits **132** (Trench 7) and **138** (Trench 8), suggesting that demolition material was thrown into the former millpond before it was completely backfilled. It is also possible that there were two phases to the infilling, as Trench 8 contains two layers of redeposited clay, **135** and **137**, sandwiching a layer of topsoil, **136**. It is possible that the first phase was solely concentrated to the north of the site. The possible site for the monastic mill was not identified, and no material dating to the medieval period was recovered.

The trench excavated over the square cropmark (Site **38**, *ibid*), produced a layer of aggregate over the area, indicating that the feature was very modern and related to drainage. It is possible that it was associated with the former playing field. Trench 6 was positioned over the projected line of the main monastic drain as it entered the site from the east. It had a similar composition to the trenches within the vicinity, comprising topsoil and redeposited clay, and contained two modern, plastic land

drains. No sign of the monastic drain was observed. Trench 3 to the south of the former millpond solely comprised redeposited clay, **122**, water-born subsoil, **124**, and natural sand, **125**.

The only feature of archaeological interest identified was stone-lined drain **148**, in Trench 2. This ran towards the proposed development site from the high ground to the west. Unfortunately it was still in use, which made it impossible to investigate, but it is unlikely that it was early in date. Trenches 1 and 2 on the higher ground to the west of the former millpond did not contain any redeposited clay and comprised topsoil, **141** and **144**, subsoils, **142** and **145-146**, and natural geology, **143** and **147**.

It is most likely that the former millpond sat within a deeper valley than previously expected, and was levelled up several metres, possibly in phases. Any intrusive groundworks for the proposed development, outside the area of the scheduled monument, should have little or no affect on any surviving deposits below the make-up layer, therefore, no further archaeological work will be required.

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OA North wishes to thank Philip Esseen of Halton Borough Council for commissioning the archaeological evaluation, and to Lynn Smith of Norton Priory Museum, for her help, information and use of the facilities during the course of the fieldwork. Thanks are also extended to Mark Leah of Cheshire County Council (CCC) for his help and advice throughout the project, and to Colin Sharratt and colleagues from Crewe and Nantwich Metal Detectorists Club for their help and enthusiasm.

The evaluation trenching was undertaken by Kelly Clapperton, with assistance from Thomas Mace and Annie Hamilton-Gibney. The report was compiled by Kelly Clapperton, and the illustrations were produced by Marie Rowland. The report was edited by Emily Mercer, who managed the project.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Halton Borough Council propose to develop land to the west of Norton Priory, Runcorn, Cheshire (NGR centred SJ 547 831; Fig 1) for residential and open space purposes. A desk-based assessment was produced by Oxford Archaeology North (OA North) in 2002, as part of the larger Castlefields Regeneration Scheme, which indicated a high archaeological potential for the proposed development site. Consequently, Cheshire County Council (CCC) Environment Planning Service (Archaeology) advised that a programme of archaeological evaluation should be carried out. An initial geophysical survey of the site was undertaken in August 2006 (Stratascan 2006) to assess the potential for underground remains, the results of which were used to inform the subsequent trial trenching.
- 1.1.2 Following discussions with Mark Leah, CCC, a verbal brief was provided as to the necessary requirements to further inform the planning process. The following report documents the results of the archaeological trial trenching that took place in August 2007.

1.2 SITE DESCRIPTION, LOCATION AND GEOLOGY

- 1.2.1 The site is located on 14ha of flat rough pasture and marshland, which was formerly playing fields, situated 4km to the north-east of Runcorn in the district of Halton, Cheshire. It is bordered to the north by the A558, and to the south by the Bridgewater Canal. Norton Priory is situated immediately to the east, while Haddock's Wood is to the west (Fig 1).
- 1.2.2 The site is situated along the southern side of the lower reaches of the Mersey River, on land only slightly higher than the floodplain to the north. The drift geology is the result of fluvial activity, while various boulder clays and glacial deposits can be found inland (Countryside Commission 1998; Higham 1993; Hebblethwaite 1987). The underlying geology is Keuper Sandstone with Upper Mottled Sandstone to the north, and Waterstones to the south (IGS 1971). The overlying soils are Bridgnorth and Clifton Associations; Bridgnorth being wind-blown brown sands, and Clifton being stagnogleys (Lawes Agricultural Trust 1983).

1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 1.3.1 **Introduction:** although it is not the aim here to wholly reproduce the archaeological and historical background detailed in the desk-based assessment (OA North 2002, *Section 3.2*), the following summary is designed to put the results of the archaeological evaluation trenching into its archaeological and historical context. The site numbers shown in bold refer to the original gazetteer of sites (*ibid*).

- 1.3.2 **Prehistoric Period:** there is clear evidence for human activity from the Palaeolithic to the Neolithic period in Cheshire, but none has been documented in the vicinity of the proposed development site (Higham 1993); this may be due to the lack of fieldwork in the area and the ephemeral nature of the remains. Three Mesolithic sites were excavated at Ditton Brook, on the north side of the Mersey (Cowell 1992), and may have represented several visits to the area (Cowell 2000a). Bronze Age burial mounds have been recorded to the south-east of the site (Higham 1993), and a Middle Bronze Age axe was found during the excavation of the Manchester Ship Canal in the late nineteenth century (*ibid*).
- 1.3.3 During the Iron Age, the area was occupied by the Cornovii tribe, with the Mersey serving as the boundary between the tribe and the Brigantes to the north. The closest remains were located at Brook House, to the north of the Mersey, where two Iron Age concentric enclosures were excavated (Cowell 2000b). It was abandoned for a period of time, coinciding with the arrival of the Romans, then reoccupied during the second century AD (*ibid*).
- 1.3.4 **Roman Period:** there is considerable evidence for Roman activity around the Mersey in proximity to the proposed development site. The large Roman industrial site of Wilderspool is 10km to the north-east (Shotter 1997; Hinchcliffe and Williams 1992), and the legionary fortress of Chester is located 20km to the south-west (Salway 1981). The route between the two sites has not been fully established, but it was thought to run along the south of the Mersey (Shotter 1997). A Roman camp is located on the modern Ordnance Survey maps, following fieldwork carried out in the 1930s (Newstead and Droop 1934), however, subsequent work in the 1960s suggested that it was most likely an agricultural site (Brown *et al* 1975).
- 1.3.5 **Medieval Period:** the earliest reference to Halton and Norton was in the Domesday Book (Morgan 1978), describing the manors of *Heletune* (Halton), the capital manor of Runcorn Parish, held by Orme; and *Nortune* (Norton) held by Ansfred (Higham 1993). It is suggested that the name means ‘farm at a heathery place’ (Dodgson 1970). Halton was the larger of the two manors with 20 carucates, while Norton only had six, and more woodland, fishermen and prominent landowners, although Norton had the larger meadow. Some of the areas are described as having become ‘waste’ just prior to the Domesday Survey, probably during the time that the Normans were establishing their rule in the North West.
- 1.3.6 Norton Priory was initially established in 1115 by William fitzNigel, as an Augustinian house in Runcorn, but was relocated to Norton in 1134 at the request of Roger the Bishop of Chester, and was dedicated to St Mary. Excavations between 1970 and 1987 revealed the development of the Priory from the earliest temporary buildings, used to house the workmen during its construction (Greene 1989). By the end of the twelfth century the monastery had been completed and expanded to accommodate increasing membership of the order. In the thirteenth century the Priory was surrounded by a complex moat system (Site 13, OA North 2002), which was connected to the main monastic drain (Greene 1989), which was reputed to have drained into the former mill pond (Site 32). By 1391 Norton gained the status of a mitred

Abbey, despite a major fire in 1236 and subsequent financial and social problems in the fourteenth century. The Abbey was then beautified and expanded over the years, to reflect its new found status, occupying a large area immediately to the east of the proposed development site. It is likely that the village of Norton grew-up around this period, again reflecting the Priory's wealth and status.

- 1.3.7 The Abbey was dissolved in April 1536 under the aegis of Sir Piers Dutton, as part of the first phase of the Dissolution. The manor remained unsold until 1545, when it was bought by Sir Richard Brooke of Leighton (Greene 1989), who adapted the Abbot's quarters for his family residence, and built a substantial timber-framed hall on the site. Several other elements were reused. However, much of it was quickly demolished, including the church, as an asset stripping exercise, and to reuse the masonry (*ibid*).
- 1.3.8 Monastic records and other sources show that the Mersey was prone to flooding, and defences were constructed in the form of embankments (*ibid*), combined with drainage of the manor's marshlands, leading to an increase in land suitable for agriculture in the sixteenth century. To the south-west, Oxmoor suggests an area used for grazing since the medieval period (Dodgson 1970). These accounts suggest that the land close to the Mersey was used as rough pasture and meadows, with arable use inland. Small-scale industries such as fisheries, mills and woodland are also documented (OA North 2002).
- 1.3.9 **Post-Medieval Period:** the Brooke family resided at Norton for the next 400 years. The Tudor hall was besieged by Royalists in 1643, but survived until a date between 1727 and 1757, when the building was demolished and a Georgian mansion constructed in its place (*ibid*). Only the undercroft of the western range of the monastery survived, which served as cellars for the new house. The Georgian mansion was finally abandoned in 1928, and subsequently demolished (LUAU 2000). The land was still owned by the Brookes until they granted it to the Runcorn Development Corporation by 1966 (Brown and Howard-Davis 2005).
- 1.3.10 An estate map dating to 1757 (John Eyes, Plate 1) provides a detailed view of the site in the mid-eighteenth century. It depicts the thirteenth century moat complex associated with the Priory (Site 18, OA North 2002), which was filled in shortly after the establishment of the Georgian house, and the former millpond (Site 31, *ibid*) to the immediate west of the Priory site. A watercolour and ink drawing dating to c 1770 (Plate 2) illustrates the millpond and surrounding area. Boats on the pond suggest a recreational function during this period. The fields around the manor are depicted as agricultural. During the nineteenth century the fields around the estate were used for arable or a mixture of pasture and meadow (*ibid*), while the proposed development site remained as parkland. The millpond had been filled in by the mid-nineteenth century (*ibid*).
- 1.3.11 During the mid-eighteenth century there was a substantial increase of extensive transport networks in the area, including the creation of the Brigewater Canal (Hadfield 1984), to the south and west of the site; a project vehemently opposed by the Brooke Family, who commissioned the

watercolour dating to 1770, to illustrate how it would spoil their grounds. The canal was fully opened by 1772. The Manchester Ship Canal to the north, open in various guises from the 1740s (*ibid*), while the railway system developed during the nineteenth century, and the establishment of Runcorn New Town in 1964 saw a population explosion in the late twentieth century.

1.4 PREVIOUS ARCHAEOLOGICAL WORK

- 1.4.1 **Desk-Based Assessment:** the archaeological assessment undertaken by OA North in 2002 suggested that the proposed development site existed as agricultural or pastoral land during the monastic period. After the Dissolution the land was encompassed into the parkland for Norton Hall, as it became known. To the west of the manor, or former Priory, a millpond or ornamental lake was created (Site **31**, OA North 2002). A precise date cannot be established and it is first depicted on eighteenth century maps, around the time when the earlier Tudor Hall was demolished to make way for the Georgian mansion, although some circumstantial evidence suggests that it might have had a medieval foundation. It is thought that it was used to power a mill to the north of the proposed development site, as well as having a recreational function. It was backfilled by the time of the mid-nineteenth century Tithe map, although it is visible on aerial photographs from 1973.
- 1.4.2 The same aerial photographs depict a square-shaped cropmark within the northern end of the former millpond (Site **38**, *ibid*), indicating a later feature in the area. The Sites and Monuments Record (SMR) states that a large structural timber was produced from the pond during drainage works in 1986.
- 1.4.3 **Geophysical Survey:** in 2006 a magnetic susceptibility and magnetometer scanning survey were carried out over the whole proposed site as a reconnaissance, followed by a targeted detailed magnetometer and resistivity survey (Stratascan 2006). The reconnaissance survey results showed that the eastern side of the proposed development site had the highest potential for archaeological remains, whilst the western side showed very low levels of magnetic activity and susceptibility enhancement (OA North 2006). An area of approximately 1ha was subsequently targeted with detailed survey techniques, which coincided with the position of the former millpond or ornamental pond once associated with Norton Hall (Site **31**, OA North 2002). The pond proved to be very difficult to detect, most likely due to the depths of the associated deposits being beyond the range of the geophysical survey instruments. However, a square feature showed as a high resistance feature, and was situated over the approximate location of the cropmark (Site **38**, *ibid*) observed within the infilled pond. The drain constructed in the mid-1980s was also identified running into the square feature, although it is not clear whether the drain runs through the square feature or terminates in that area.
- 1.4.4 Despite the potential for possible stone structural remains associated with the Priory complex no such features were found during the survey. This is mainly due to the majority of the detailed survey area coinciding with the infilled pond. Therefore, it cannot be ruled out that such features do not occur elsewhere.

2 METHODOLOGY

2.1 FIELDWORK

- 2.1.1 In consultation with CCC's Planning Archaeologist nine trenches were excavated across the site, measuring between 10m and 20m in length and 2m in width. They were positioned to target areas of archaeological potential identified by the desk-based assessment and geophysical survey (OA North 2002 and 2006; Fig 2). This included the former millpond (Site **31**, OA North 2002; Trenches 4 and 5), the projected line of the main monastic drain to the east of the site (Trench 6), the square feature identified in aerial photographs and on the geophysical survey (Site **38**, *ibid*; Trench 7), and the possible remains of the monastic mill to the north (Trenches 8 and 9). The remaining trenches (Trenches 1-3) were positioned to test areas where intrusive groundworks will be undertaken for the proposed development.
- 2.1.2 The trenches were excavated using a 7.5 tonne, 360° mechanical excavator, fitted with a 1.6m wide toothless ditching bucket under the control of an archaeologist. Topsoil and overburden were removed to expose the first deposits of archaeological significance or natural geology. None of the trenches was excavated beyond 1.2m in depth, in order to comply with health and safety constraints. However, a sondage was excavated in each trench, to investigate the depth of deposits across the site. Each trench was cleaned by shovel scraping and all deposits were recorded on OA North *pro forma* sheets. Plans and sections were produced at an appropriate scale; 1:50 and 1:20, and photographs were taken of each trench using colour-slide and monochrome print film; digital photographs were taken for presentation purposes. All the trenches were located using GPS equipment accurate to +/- 0.25m, and altitude information was established with respect to Ordnance Survey Datum.
- 2.1.3 Members of the Crewe and Nantwich Metal Detectorists Club scanned the spoil heaps and sections in Trenches 3-6, for any ferrous and metal objects not identified immediately by eye. Each find was located by context and bagged accordingly.

2.2 FINDS

- 2.2.1 All finds were 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.

2.3 ENVIRONMENTAL ASSESSMENT

- 2.3.1 A single sample was taken from the upper silt deposit of the former mill pond (**I32**; Site **31**) in Trench 7, for the purpose of assessing charred and waterlogged plant remains. Plant remains can provide information regarding the economy and environment of the site and, in certain circumstances, the function of the feature.

2.3.2 The sample (20 litres in volume) was hand floated and the flot collected on a 250 micron mesh and air dried. A representative sample of the flot was examined with a low powered binocular microscope and all easily identifiable plant remains were recorded on a scale of 1-5, where 1 is less than five items and 5 is abundant and more than 100 items. Plant nomenclature follows Stace (1997). The components of the matrix were also noted.

2.4 ARCHIVE

2.4.1 The results of all the archaeological work will form the basis for a full archive to professional standards in accordance with English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991, Appendix 3). The archive will be provided in the English Heritage Centre for Archaeology format, and a synthesis will be submitted to the Cheshire Sites and Monuments Record in Chester. The original record archive (paper, magnetic and plastic media) will be deposited with the Cheshire County Record Office, also in Chester.

3. RESULTS

3.1 FIELDWORK

- 3.1.1 **Introduction:** the following section is a summary of each trench excavated across the proposed development site (Fig 2). Details of the contexts referred to and a summary of the finds can be found below in *Appendix 2* and *Appendix 3*, respectively.
- 3.1.2 **Trench 1** (Plate 3): was located to the west of the former playing fields. It was intended to assess the potential for any archaeological remains within the area of the residential development, as the geophysical survey results had shown this area as having a 'null' response. It was aligned south-west/north-east, measured 16m x 2m and was excavated to an average depth of 0.4m. A sondage was excavated to a depth of 0.8m towards the north-eastern end, to verify the natural soils. The trench comprised topsoil **141**, that sealed subsoil **142**, which in turn sealed natural geology **143**. Fragments of nineteenth century pottery and slate were recovered from topsoil **141**. Two modern ceramic field drains were observed running north-west/south-east across the trench. No features of archaeological significance were identified.
- 3.1.3 **Trench 2** (Fig 3, Plate 4): as with Trench 1, the siting of Trench 2 was on the higher ground to the west of the former playing fields in an area of 'null' response in the geophysical survey results. It was aligned east/west, measured 14.5m x 2m and was excavated to an average depth of 0.5m. A sondage was excavated to a depth of 0.92m to reveal natural deposit **147**, which was sealed by lower sandy subsoil **146**. This was in turn sealed by upper subsoil **145**, a clay-sand, which was overlain by topsoil **144**. Fragments of nineteenth-twentieth century pottery were recovered from the topsoil **144**. A stone-lined drain, **148**, was identified orientated north-east/south-west across the trench, cutting through the upper subsoil, **145**. It had been constructed from sandstone slabs, **150**, of which the capping stones were only visible. The drain was still in use and became rapidly obscured by water, making it impossible to excavate.
- 3.1.4 **Trench 3** (Plate 5): the trench was located to the south of the site, positioned in the area of the proposed drain run-off for the residential development. It was orientated north-north-west/south-south-east, measured 10m x 2m and was excavated to an average depth of 0.9m, although a sondage was excavated to a depth of 1.55m at the south-south-east end to verify natural geology **126**. The trench comprised topsoil **121**, which was removed to reveal redeposited clay **122**. This in turn sealed a buried soil horizon **123**, which contained fragments of ceramic building material (ceramic building material) and sandstone. The former topsoil overlaid subsoil **124**, which was made-up from water-borne sediments. This sealed **125**, a natural sand deposit, which in turn sealed **126**. Two plastic land drains were observed running north-east/south-west across the south-south-east end, and towards the north-north-west end, all cutting through redeposited clay, **122**. No features of archaeological interest were observed.

- 3.1.5 **Trench 4** (Plate 6): the trench was located to the south-west of the former playing fields, and was one of two trenches positioned to locate the edge of the former millpond (Site 31, OA North 2002). It was aligned north-north-east/south-south-west, measured 19.5m x 2m and was excavated to an average depth of 1.2m. At the south-south-west end, the trench comprised topsoil **107**, overlying redeposited clay **105**, which sealed buried soil horizon **106**. The former topsoil sealed subsoil **115**, which in turned sealed two natural deposits, sand **116** and clay **117**, identified at a depth of c1m. There was evidence for root activity throughout natural geology **116** and **117**. The edge of the former millpond was observed between 5m and 8m, towards the north-north-east end of the trench, as the composition of the trench changed, however, a plastic land drain obscured the actual position of the edge of the mill pond. Towards the northern end of the trench, where the former mill pond once existed, and below buried soil horizon **106**, was another layer of redeposited clay **118**. A sondage excavated at the north-north-east end exposed **118**, 1.4m thick to a depth of 2.4m, which then sealed a 0.6m thick layer of what appeared to be a silt deposit of the former millpond, **119**. The sondage revealed natural sand **120**, coarser than **116** to the southern end of the trench, at a depth of 3.1m.
- 3.1.6 All the finds from Trench 4 were recovered from topsoil **107**, including a fragment of late post-medieval pottery, and various metal objects recovered from the spoil-heap by metal detecting. Two plastic land drains were observed running east/west across the trench.
- 3.1.7 **Trench 5** (Fig 4): the trench was the second of the two trenches targeting the edge of the former millpond, along with Trench 4. It was located to the south-east of the former playing fields, orientated north-west/south-east, measured 10m x 2m and was excavated to an average depth of 1.2m. The trench comprised topsoil **108**, which sealed two layers of redeposited clay; the upper layer was **109** and the lower was **110**. They in turn, overlaid a buried soil horizon **111**, which sealed subsoil **112**. A sondage was excavated to a depth of 2.2m at the north-west end of the trench, which revealed a sand deposit **113** below **112**, which then sealed a silty-clay **114**. It was possible that both **113** and **114** related to the former millpond. A fragment of post-medieval pottery and two pieces of ceramic building material were recovered from redeposited clay **109**.
- 3.1.8 **Trench 6** (Plate 7): was located across the likely area for the stone-lined monastic drain, projecting west from the former Priory, on the eastern edge of the site. It was aligned north-north-west/south-south-east, measured 20m x 2m and was excavated to an average depth of 1.2m. It comprised redeposited clay, **102**, sealed by topsoil **101**. These were removed to reveal a buried soil horizon **103**. This deposit produced several pieces of metal, identified by metal detector, but were undiagnostic. The former topsoil **103** sealed subsoil **104**, which exceeded 2m in depth, as the underlying natural soils were not reached despite the excavation of a sondage to a depth of >1.5m. The sondage could not be excavated further for health and safety reasons No stone-lined drain was identified, although two plastic land drains were observed running north-east/south-west across the trench, cutting **102**. Furthermore, a ceramic field drain was identified orientated north-west/south-east in the north-east corner

of the trench, cutting subsoil **104**. No features of archaeological interest were observed.

3.1.9 **Trench 7** (Fig 5, Plate 8): the trench was positioned to target the square high resistance feature seen in the geophysical survey and believed to be associated with the square cropmark (Site 38, *ibid*), where it is proposed to be cut by a pathway. On the ground, this area was also visible as a well-drained area. This trench was orientated east/west, measured 10m x 2m and was excavated to an average depth of 1.2m. The trench stratigraphically comprised topsoil **127** and aggregate layer **128**, which most likely provided drainage for an area related to the former playing fields. This aggregate layer sealed redeposited clay **129**, which overlay buried soil horizon **130** to a depth of 1.12m, wherein several fragments of well-preserved wood and grass were seen. A sondage excavated at the eastern end of the trench exposed subsoil **131**, below the former topsoil **130**. This sealed an early layer of redeposited sandy-clay **132**, which sealed the upper silt deposits, **133**, of the former millpond. Layer **133**, contained large fragments of roughly-worked sandstone rubble. Two plastic field drains were observed, cutting through redeposited clay **129**, one running along the southern trench edge, and the other orientated north-east/south-west across the western end of the trench. Metal objects and ceramic building material of twentieth century date were recovered from topsoil **127** and aggregate **128**, while post-medieval pottery was produced from **131** and **132**. No features of archaeological importance were identified.

3.1.10 **Trench 8** (Fig 6, Plate 9): the trench was located to the north of the former playing fields, in the area of the proposed wetland area, near to the possible location of the former mill. It was aligned east/west, measured 10m x 2m and was excavated to an average depth of 1.2m. The trench comprised topsoil **134** and redeposited clay **135**, which produced two fragments of twentieth century pottery. These layers were removed to reveal a buried soil horizon, **136**, which sealed an earlier layer of redeposited clay, **137**, which contained fragments of sandstone masonry and ceramic building material. From the evidence it would appear that the occurrence of **136** between the two redeposited clay layers, **135** and **137**, is suggestive of a hiatus. A sondage excavated at the eastern end of the trench, revealed a silt deposit, **138**, below clay **137**, at 2.12m. Deposit **138** was most likely related to the upper deposits of the former millpond, indicating that it may have been more extensive than previously thought. The silt contained numerous fragments of sandstone masonry. Two plastic land drains were observed running north-east/south-west across the trench, truncating redeposited clay **135**. No features of archaeological significance were identified.

3.1.11 **Trench 9**: Trench 9 was positioned directly to the north-west of Trench 8, at the northern end of the site. Both of these trenches were intended to investigate the proposed wetland area. It was orientated east-south-east/west-north-west, measured 13m x 2m and was excavated to an average depth of 1.2m. The trench comprised topsoil **139** and single layer of redeposited clay **140**, which produced fragments of ceramic building material. A sondage excavated to 2.15m at the west-north-west end of the trench, revealed that **140** was deposited to a depth of over 1.87m. It was not possible to evaluate the full

extent of the deposit for health and safety reasons. Three plastic land drains were identified, two running north/south across the trench, and the third running north-west/south-east across the north-eastern drain, all of which cut through redeposited clay **140**. No features of archaeological significance were observed.

3.2 FINDS

3.2.1 In all, 72 fragments were recovered during the investigation, from 13 contexts (buried soil horizon **103**, redeposited clay **109**, **110**, **135** and **140**, subsoil **124** and **131**, topsoil **107**, **127**, **141** and **144**, aggregate drainage layer **128**, upper silt layer of former millpond **132**, and unstratified). Their distribution is shown below in Table 1. With the exception of the ironwork, which was coated in a layer of corrosion products, the assemblage was in good condition, although the fragments of pottery were unusually small.

Context	Pottery	Glass	Ceramic building material	Iron work	Lead	Other	Totals
103				15	19		<i>34</i>
107	1						<i>1</i>
109	1		2				<i>3</i>
110				1			<i>1</i>
124				1			<i>1</i>
127		2	2	2		4	<i>10</i>
128			2	1			<i>3</i>
131	1					1	<i>2</i>
132	1						<i>1</i>
135	2						<i>2</i>
140			1				<i>1</i>
141	2					1	<i>2</i>
144	1						<i>3</i>
<i>unstratified</i>				5		3	<i>8</i>
<i>Totals</i>	<i>9</i>	<i>2</i>	<i>7</i>	<i>25</i>	<i>19</i>	<i>9</i>	<i>72</i>

Table 1: Distribution of material types between contexts

- 3.2.2 All of the material recovered was post-medieval in date, with no indication that any of the features that produced artefact fragments could be contemporary with the Priory, or even the immediately post-Dissolution house. Ironwork comprised almost 35% of the assemblage, the majority of the fragments deriving from hand-forged nails, a long-lived and common type. Only one other iron object was identifiable, being an iron key (possibly from a clock), from a buried soil horizon, **103**, in Trench 6. The key is unlikely to date earlier than the late eighteenth century, and could even be considerably more recent. Lead from the same context was mainly solidified drips, perhaps generated by the use of lead during building.
- 3.2.3 There was very little pottery, most of it white-glazed earthenwares of recent date. The earliest fragment noted was a small fragment of plain white tin-glazed ware (from redeposited clay layer **109** in Trench 5), probably dating to the later eighteenth century, a fabric type found in relatively large quantities during the excavation of the post-1730s mansion (Howard-Davis forthcoming), where it has been identified as originating mainly from chamber pots. This origin might well explain the mechanism by which it reached the present site, having been deposited during midden clearance. A small fragment of hard-fired black-glazed redware from the upper silt layer of the former millpond **132** could be of a similar date, but is too small and featureless for confidence. The remainder of the pottery is unlikely to be earlier than the late nineteenth century.
- 3.2.4 Although there are one or two fragments of plain, unglazed, sand-cast floor tile, they bear little resemblance to medieval tiles from the site (Howard-Davis pers comm) and it seems unlikely that they are early. Other ceramic building material is confined to fragments of field drain and more modern sewerage pipes. The two fragments of sheet glass from the site are both recent, as is the fragment of wood. Considered alongside the ironwork from the site, there is a partly subjective impression that most of the material derives from dumped demolition debris.
- 3.2.5 Nothing in the finds assemblage merits further study, or has the potential to contribute significantly to the further understanding of activity on the site of the Augustinian Priory, or on the Brookes Estate. In view of its relatively recent origins, it is suggested that it would be acceptable to discard the material.

3.3 ENVIRONMENTAL ASSESSMENT RESULTS

- 3.3.1 The results of the environmental assessment of the sample taken from the upper silt, **132**, of the former mill pond, from Trench 7 are shown in Table 2, below. The large flot contained abundant waterlogged plant remains and was dominated by wood fragments, many quite large, and amorphous plant remains. A small assemblage of weed seeds was recorded but no taxon was recorded in high numbers. The seeds came from a variety of different ecological groupings and were mainly from open ground, for example common nettle (*Urtica dioica*), common hemp-nettle (*Galeopsis tetrahit*), common sorrel (*Rumex acetosa*) and elderberry (*Sambucus nigra*). Occasional

seeds of sedges (*Carex*) and rushes (*Juncus*), both of which may have been growing in damp conditions, were also noted. The only seeds identified that are indicative of cultivation were examples of corn spurrey (*Spergula arvensis*).

- 3.3.2 No charred plant remains other than a few fragments of charcoal were recorded. Small fragments of mammal bone and a few remains of insect were noted. A little coal and considerable amounts of clean sand were present.
- 3.3.3 The assemblage of plant remains from the single environmental sample, **132**, confirms that the site was an area of open ground, some of which may have been waste. The elderberry and common nettle seeds suggest that the ground may have been nitrogen rich. There is a slight suggestion of some cultivation (corn spurrey seeds) but no other evidence of any crop growth. The high number of wood fragments could have been derived either from locally grown scrub, neighbouring hedgerows or from waste timber left on the site.
- 3.3.4 The results confirm that the site has been susceptible to waterlogging, and hence the various measures noted during the evaluation to drain or improve the site. The environmental assessment does not offer any potential for further analysis.

SAMPLE 1 (20 litres)	Quantity
Wood fragments	5
Amorphous plant remains	5
Charcoal fragments	2
Mammal bone fragments	2
Insect remains	1
Coal	2
Sand	5
Waterlogged seeds:	
<i>Carex</i> trigynous - sedges	1
<i>Galeopsis tetrahit</i> – common hemp-nettle	1
<i>Juncus</i> – rushes	1
Fabaceae (<4 mm) – wild plant of the pea family	1
<i>Rumex acetosa</i> – common sorrel	1

<i>Sambucus nigra</i> - elderberry	1
<i>Spergula arvensis</i> – corn spurrey	1
<i>Urtica dioica</i> – common nettle	1

Table 2: Results of the assessment of charred and waterlogged plant remains from **I32**, Trench 7

4 CONCLUSION

4.1 DISCUSSION

- 4.1.1 The trenches were positioned in relation to known remains identified in the desk-based assessment (OA North 2002), and from the geophysical survey (OA North 2006), they were located to cross the projection of the monastic drain, the edges of the millpond, and in areas where the development would have the greatest impact.
- 4.1.2 Trenches 3-9 contained significant quantities of redeposited clay, which became gradually thicker towards the north of the site. In Trench 3, redeposited clay **I22** was only 0.18m thick. However, by Trench 9 it was more than 2.15m thick (clay deposit **I40**), with it exceeding 1.5m-2m in depth in Trenches 4-8. The redeposited clay was observed sealing a buried soil horizon in all the trenches, except Trench 9 where the full extent of the deposit was not reached. The former topsoil layers were then preceded by various subsoils and silts believed to have been related to deposits of the former millpond. Trench 8 had a slightly different but distinct sequence of events; a second layer of redeposited clay, **I37**, was observed below the buried soil horizon, **I36**, indicating an earlier redeposition event towards the north of the site, an hiatus, then subsequent deposition of clay, **I35**. The fragments of sandstone masonry identified in the silts, **I32** and **I38**, towards the bases of Trenches 7 and 8 may have originally been part of the fabric of the mill that was reputed to be located within the vicinity, along the northern bank of the former millpond.
- 4.1.3 The square high resistance geophysical feature situated within the northern end of the former millpond, Trench 7, was most likely very modern in date, as the aggregate, **I28**, indicates. This is likely to be the cause of the cropmark noted from aerial photographs of 1973 (*ibid*), and is probably related to the former playing field. Timbers were identified in the former topsoil, **I30**, but their condition suggests that they were recent in date, and no associated structure was identified.
- 4.1.4 Only one feature of any archaeological interest was identified; a stone-lined drain, **I48**, within Trench 2. It could not be fully examined as it was still in use, but is unlikely to be very early in date. Trenches 1 and 2 were located on higher ground to the west of the former millpond. They revealed natural geology at 0.68m, and did not contain any redeposited clay, suggesting that the higher area was a natural valley edge.
- 4.1.5 Although no exact date is known for the construction of the millpond (Site 31, *ibid*), it was known through documentary evidence to be in existence by the mid-eighteenth century (Plates 1 and 2). It is possible that it dated to the medieval period, as the projected line of the main monastic drain, although not identified from the evaluation trenching, leading from the Priory heads directly into the millpond. The monastic drain was originally part of a water management system that originated in the thirteenth century and was subsequently maintained by the Brooke family from the sixteenth century

onwards (*ibid*). One of the millpond's main functions was probably related to a water mill identified to the north of the proposed development site, supporting the suggestion that it had an earlier foundation (*ibid*) as, by the late eighteenth century, the millpond had gained a recreational function, and was located within the parkland of Norton Hall (Plate 2). However, by the mid-nineteenth century the Tithe map showed the millpond was no longer in existence and had been filled in to create rough pasture (*ibid*), which may explain the presence of elderberry and nettle in the upper silt of the pond, **132**, identified in the environmental results.

- 4.1.6 The precise location and extent of the millpond is not known but, from the evidence provided by the evaluation trenching, it was larger than previously thought, and was positioned within a shallow valley. In the twentieth century the site had become a playing field. At some point before this, the shallow valley has been levelled out with made ground consisting of huge quantities of redeposited clay, possibly for the purposes of the playing fields. This would explain the inconclusive geophysical survey results in locating the former millpond as the features are masked by the deposits. It was not possible to ascertain when this event occurred or where the levelling clay was obtained. One theory is that the clay may relate to the creation and subsequent dredging of the Bridgewater Canal in the eighteenth century. However, this seems unlikely given that the Brooke Family despised the construction, and were said to have used the watercolour (Norton 1770) in their protestations to demonstrate why the canal should not be built so close to their lands.
- 4.1.7 The small number of finds obtained from the redeposited clays, suggest that the mill pond was filled with late nineteenth to early twentieth century demolition debris, and may be the result of road expansion, or other building developments related to the documented population explosion in the local area (OA North 2002).

4.2 RECOMMENDATIONS

- 4.2.1 The majority of the proposed development site, to the west of Norton Priory, comprises overburden and redeposited clay of varying depths, from 0.5m in the south, to >2.15m in the north. The depths and nature of the deposits suggests that the eastern area, in the vicinity of the millpond, is made ground. It is unlikely that any groundworks relating to the proposed residential and open space development will have an impact on any potential underlying remains, unless intrusive groundworks of a greater depth of c3m are proposed.
- 4.2.2 There is no requirement for any further archaeological mitigation works for the proposed development, unless the development works encroaches into the scheduled area surrounding Norton Priory, to the east.

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Norton 1770 Watercolour of Norton Hall, reproduced in Greene, JP, 1989 *Norton Priory: the Archaeology of a Medieval Religious House*, Cambridge

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5 ILLUSTRATIONS

5.1 FIGURES

Figure 1: Site Location

Figure 2: Location of trenches relative to gazetteer sites (OA North 2002) and masterplan

Figure 3: Plan of Trench 2

Figure 4: South-west facing representative section through Trench 5

Figure 5: North-facing representative section through Trench 7

Figure 6: North-facing representative section through Trench 8

5.2 PLATES

Plate 1: Estate Map of Norton Manor (Eyes 1757)

Plate 2: Ink and watercolour drawing of Norton Manor (Norton 1770)

Plate 3: Trench 1, general shot looking south-west

Plate 4: North-facing section through Trench 2

Plate 5: Trench 3, general shot looking north-north-west

Plate 6: South-west-facing section through Trench 4

Plate 7: West-south-west-facing section through Trench 6

Plate 8: North-facing section through Trench 7

Plate 9: North-facing section through Trench 8

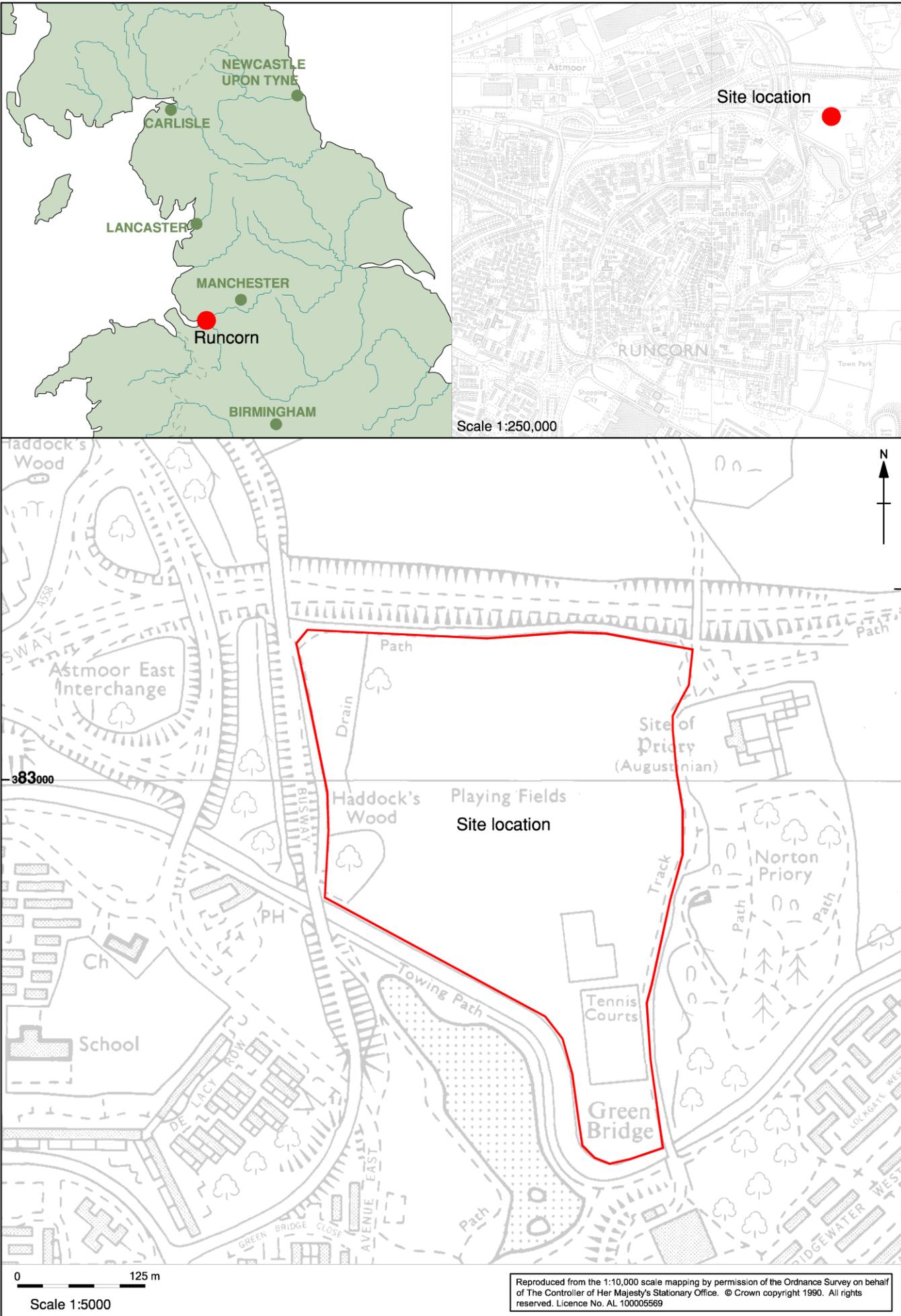


Figure 1: Site Location

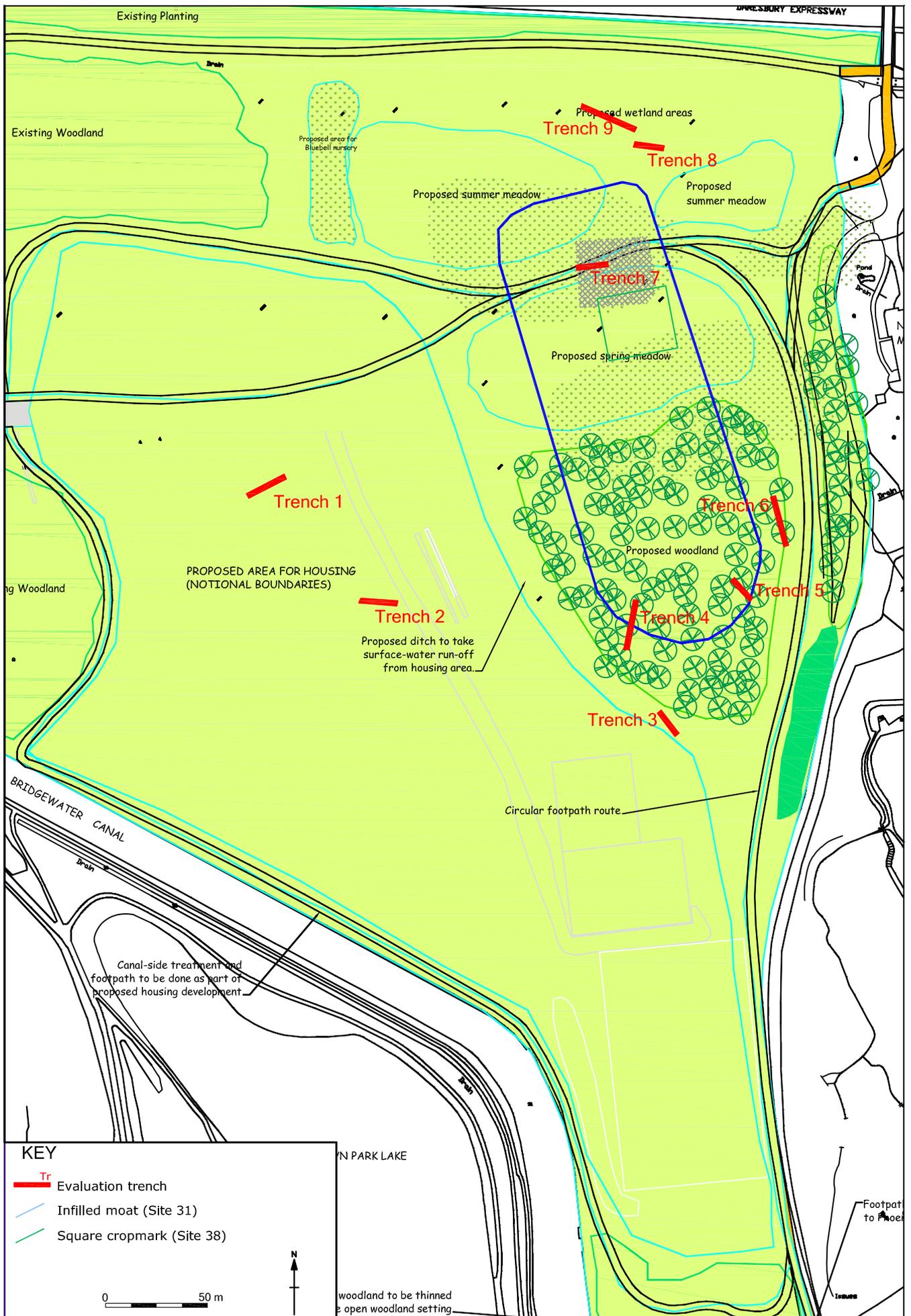


Figure 2: Location of trenches relative to gazetteer sites (OA North 2002) and masterplan

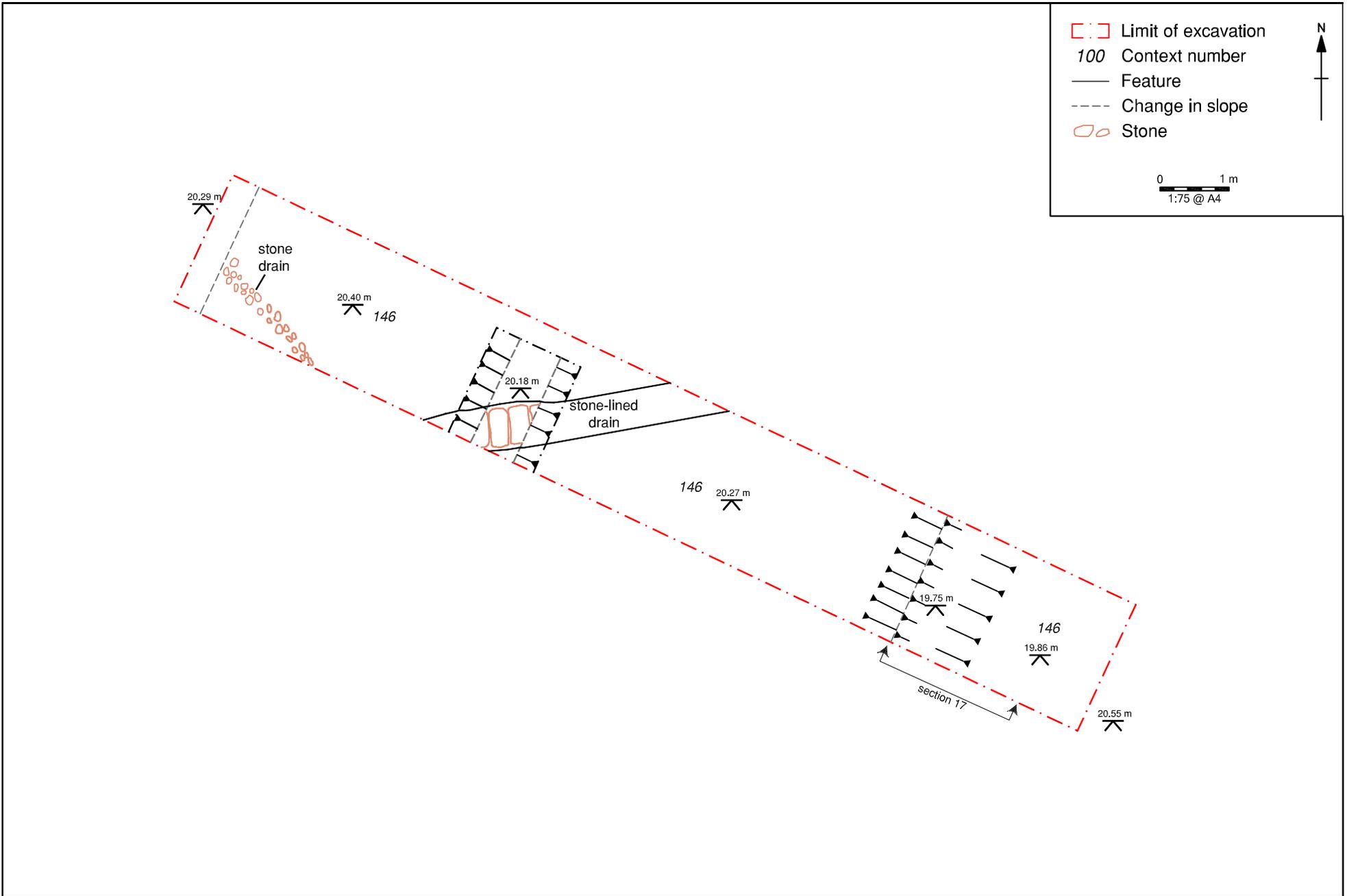


Figure 3: Plan of Trench 2

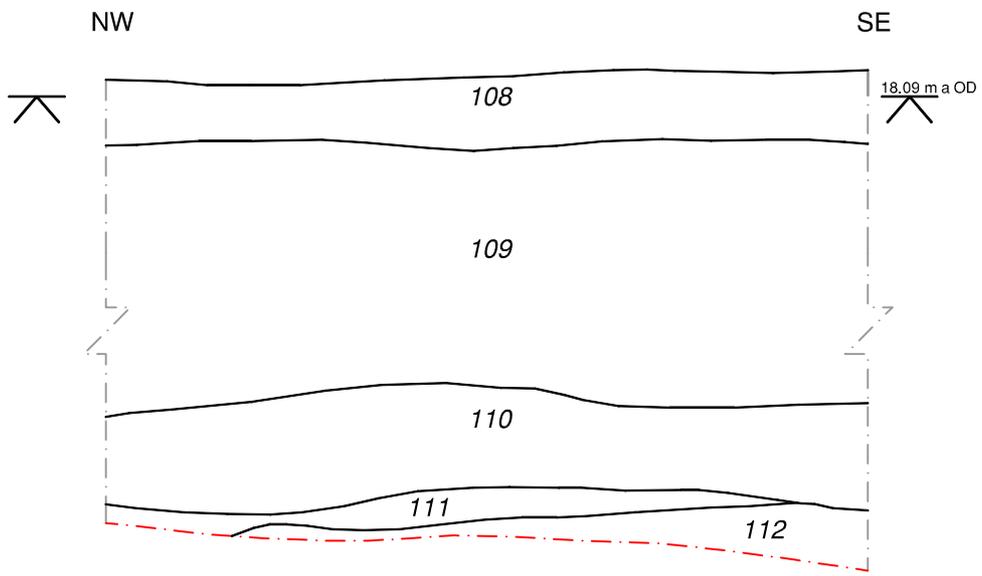
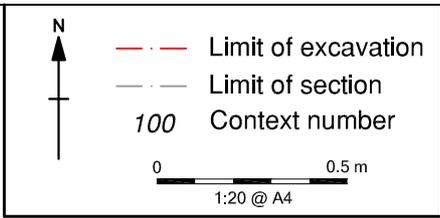


Figure 4: South-west-facing representative section through Trench 5 (Section 4)

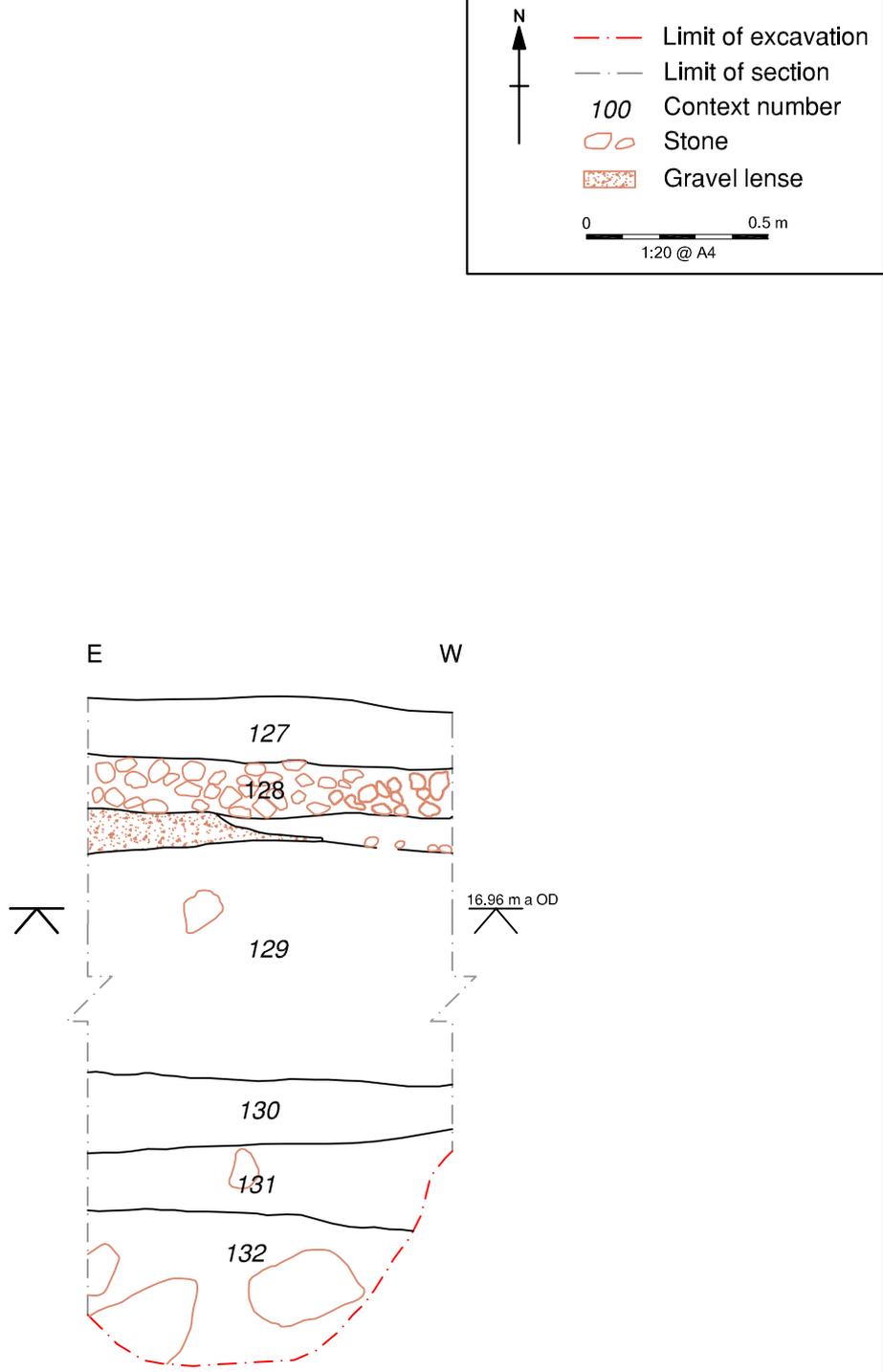


Figure 5: North-facing representative section through Trench 7 (Section 9)

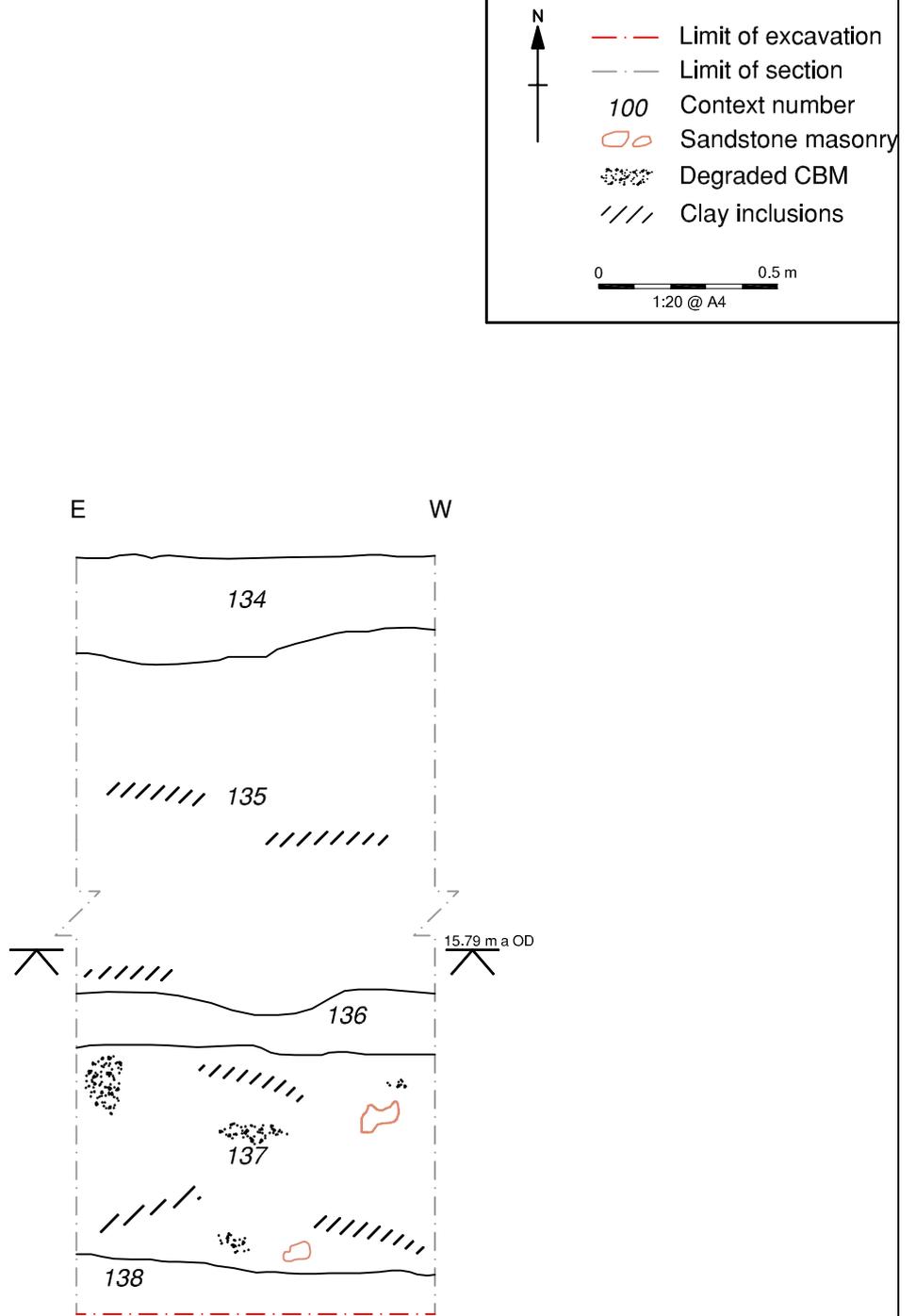


Figure 6: North-facing representative section through Trench 8 (section 13)

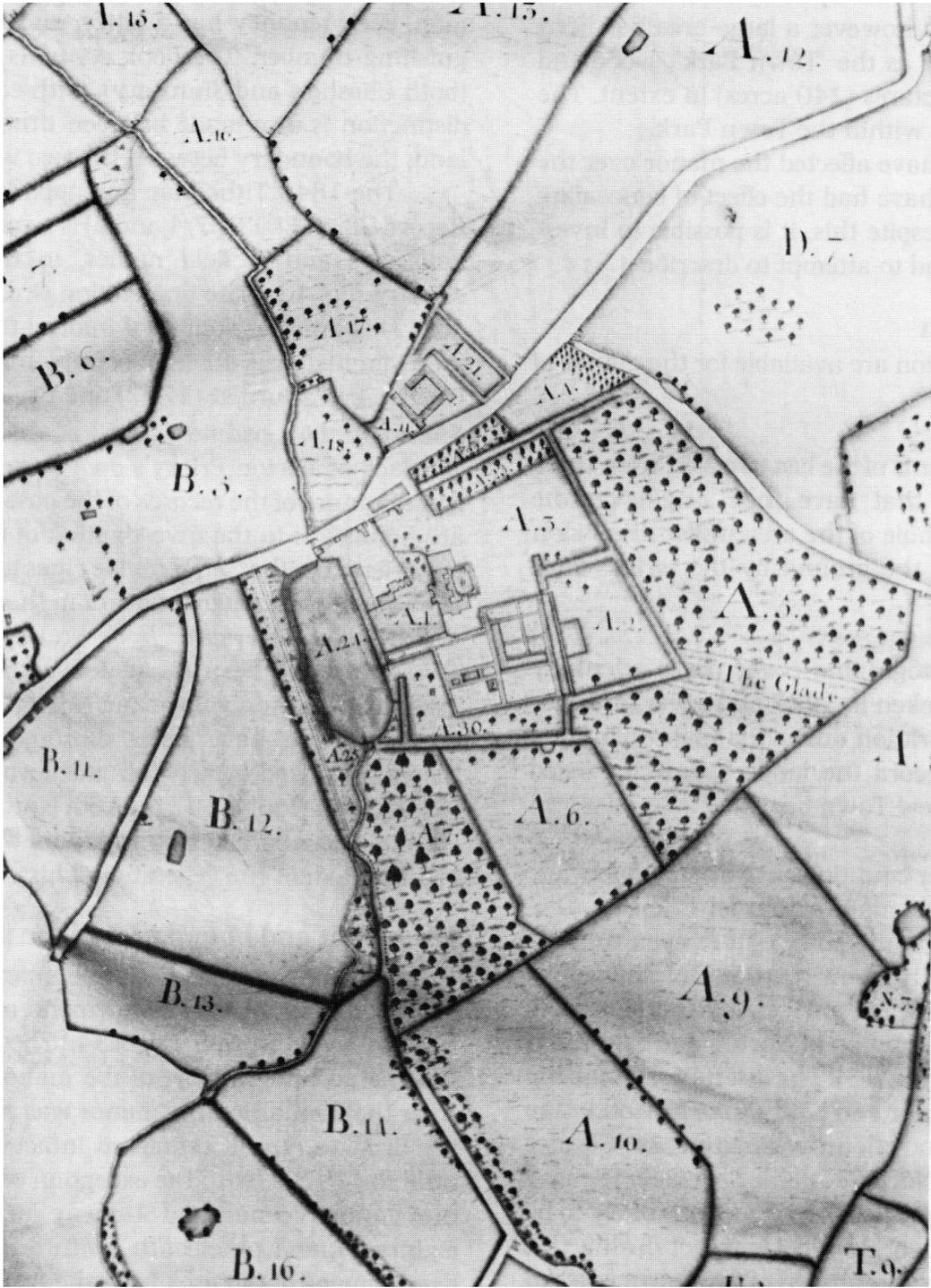


Plate 1: Estate Map of Norton Manor (Eyes 1757)

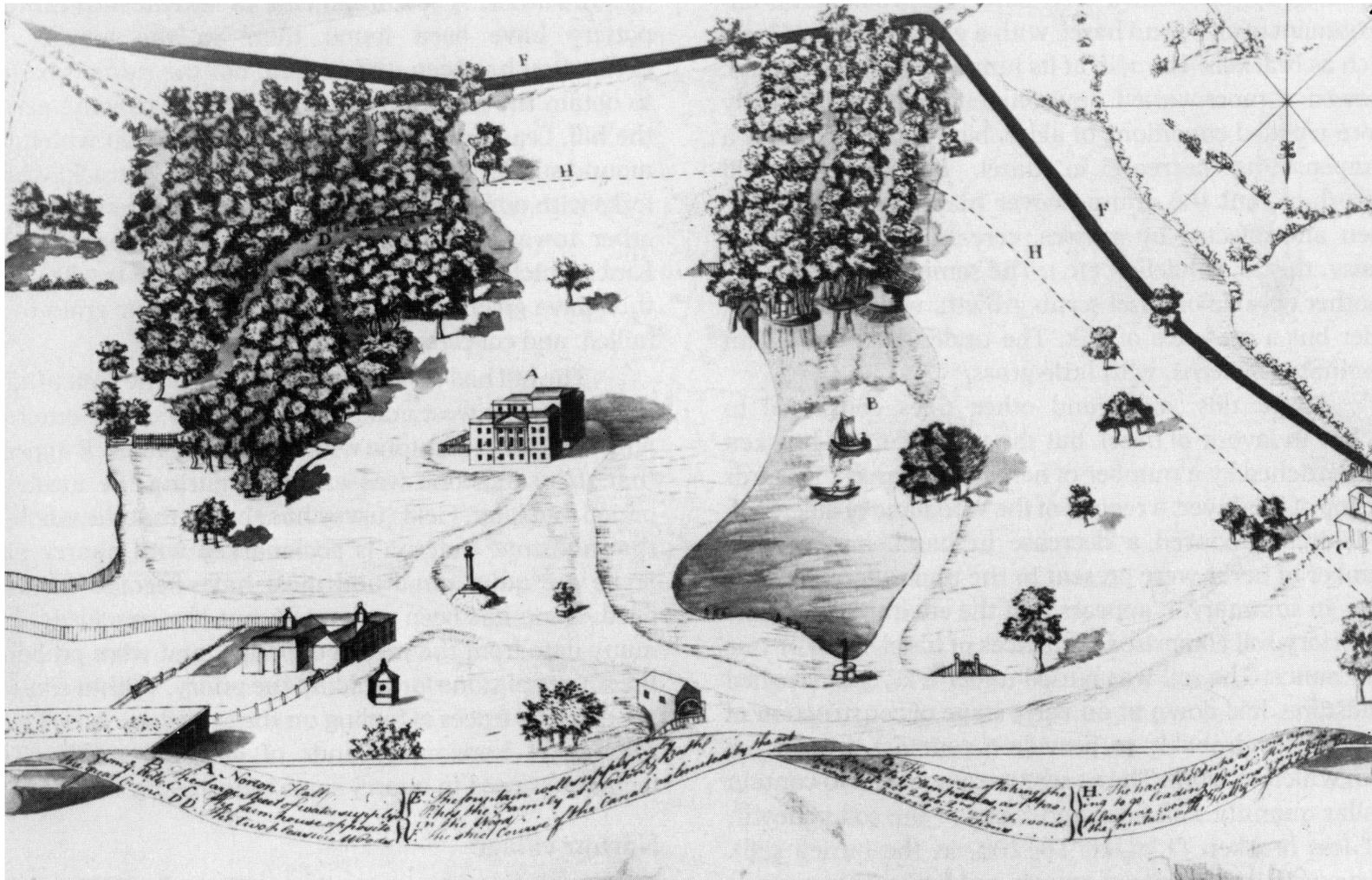


Plate 2: Ink and watercolour drawing of Norton Manor (Norton 1770)



Plate 3: Trench 1, general shot looking south-west



Plate 4: North-facing section through Trench 2



Plate 5: Trench 3, general shot looking north-north-west

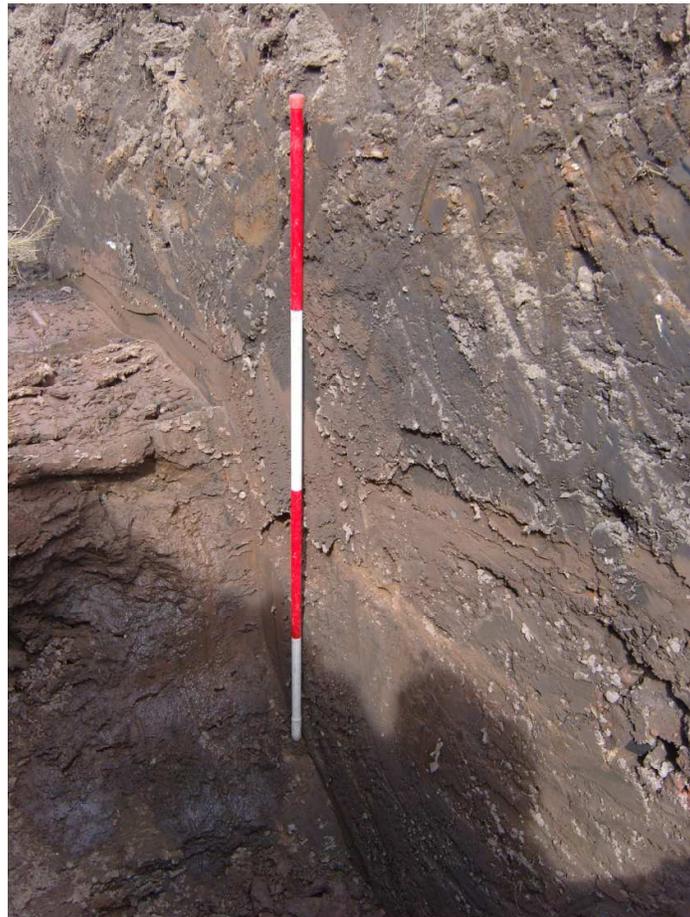


Plate 6: South-west facing section through Trench 4

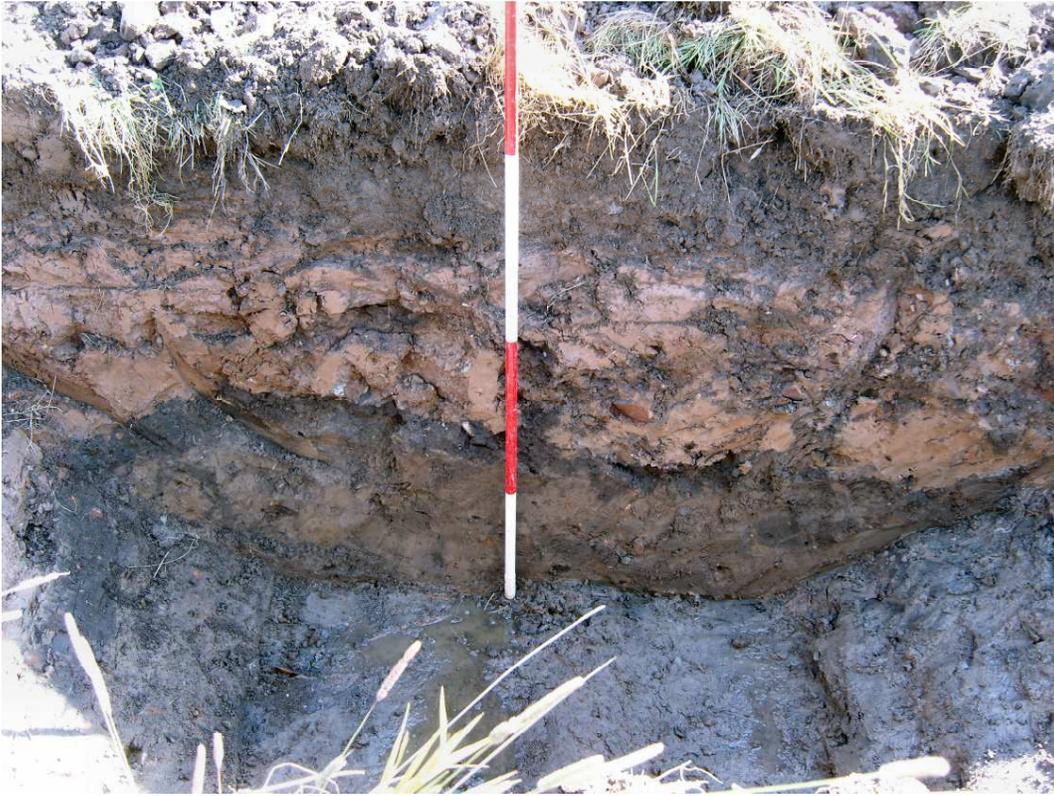


Plate 7: West-south-west facing section through Trench 6



Plate 8: North-facing section through Trench 7



Plate 9: North-facing section through Trench 8

APPENDIX 1: PROJECT DESIGN

1. INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 Halton Borough Council (hereafter the 'client') propose to develop land equating to 14ha to the west of Norton Priory, Runcorn, Cheshire (centred SJ 547 831) for residential and open space purposes. Oxford Archaeology North (OA North) has been requested to submit proposals to undertake trial trenching as part of the planning process. The site was subject to a desk-based assessment in 2002 as part of the larger Castlefields Regeneration Scheme and was shown to lie in an area of high archaeological potential (OA North 2002). Consequently, the client has been advised by Cheshire County Council's (CCC) Environment Planning Service (Archaeology) that a programme of archaeological evaluation is required. The first stage, carried out in August 2006, involved a geophysical survey of the site employing reconnaissance magnetic susceptibility and then more targeted magnetometry and resistivity surveys (Stratascan 2006). The results were intended to assess the potential for below-ground remains (OA North 2006) and were used to inform the trial trenching now required.
- 1.1.2 The survey showed the areas of most archaeological potential were along the eastern side of the site. The western side of the site showed very low levels of magnetic activity and susceptibility enhancement. An area of approximately 1ha was targeted with a detailed survey that coincided with the approximate position of an infilled ornamental pond (Site 31, OA North 2002), once associated with Norton Hall. Unfortunately, there was no clear indication of the infilled pond probably due in part to the likely depth of the pond being beyond the range of depth penetration for the resistance survey. Interestingly, the results also showed a square high resistance feature, the position of which overlapped with the approximate position of a cropmark (Site 38, *ibid*), observed within the infilled pond. Furthermore, the Cheshire Sites and Monuments Record (SMR 66/1/4; *ibid*) states that the infilled pond produced a large structural timber during drainage works in 1986. The drain appears to run into the square structure, but its position on the northern edge of the survey area prevents any clear observations as to whether the drain runs to it or through it.
- 1.1.3 Despite the potential for possible stone structural remains associated with the Priory complex no such features were found during the survey. This is mainly due to the majority of the detailed survey area coinciding with the infilled pond. Therefore, based on the present evidence, it cannot be ruled out that such features do not occur elsewhere across the site.
- 1.1.4 In consultation with CCC's Planning Archaeologist, ten 10m x 2m trenches are proposed in the following areas of archaeological potential or otherwise (see attached plan);
- the projected line of the monastic drain within the proposed woodland;
 - the pond area within the proposed woodland. Two trenches have been positioned at the edge of the pond to investigate the cut and subsequent fill;
 - the wetland area where scraping will impact on below ground remains. It is possible that remains associated with the mill are situated in this area;
 - the position of the drain run-off from the housing development where it cuts through the corner of the detailed survey;
 - the square feature identified from the survey and aerial photographs. It is quite possible that this feature is modern in origin associated with the playing field. However, the precise nature needs to be understood due to an implied connection with waterlogged timbers recorded from this area (OA North 2002 and 2006). Therefore, a trench has been positioned to target where the path crosses the feature.
 - two trenches in the area of the housing development to 'test' the null response in the reconnaissance geophysical survey.

1.2 OXFORD ARCHAEOLOGY NORTH

- 1.2.1 Oxford Archaeology North, in its former guise of Lancaster University Archaeological Unit (LUAU), was commissioned by English Heritage to order and upgrade the archive of the excavations from the 1970s and 80s. The archive had been maintained previously by the Norton Museum Trust staff who had worked on it as resources allowed. This work was supplemented by LUAU during the process of collating a *MAP2* assessment. Following the submission of the assessment OA North was commissioned to undertake a post-excavation analysis, funded by English Heritage, in order to bring the entire Norton Priory assemblage to publication, which is forthcoming.
- 1.2.2 OA North has undertaken a great number of small and large scale projects throughout Northern England during the past 25 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.2.3 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 (1994).

2 OBJECTIVES

- 2.1 The trial trenching aims to evaluate the results from the geophysical survey (Stratascan 2006) and, in so doing, the archaeological resource and potential for further archaeological deposits. The aim is to determine the extent and nature of the remains that may be threatened by the proposed development. This information will be used by the CCC Planning Archaeologist to inform the planning decision. The required stages to achieve these ends are as follows:
- 2.2 **Archaeological Trenching:** to undertake ten 10m x 2m trenches to determine the quality, extent and importance of any archaeological remains on the site (in accordance with the Cheshire County Council guidelines (2003) Standards and IFA standards (1999b)).
- 2.3 **Report and Archive:** a report will be produced for the client within eight weeks, unless a report submission deadline is agreed with the client at the time of commission. An archive will be produced to English Heritage guidelines (MAP 2 (1991)).

3 METHOD STATEMENT

- 3.1 The following work programme is submitted in line with the aims and objectives summarised above.
- 3.2 Prior to the fieldwork commencing OA North will contact the client to obtain any information relating to live services on the site.

3.3 HEALTH AND SAFETY

- 3.3.1 **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). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 3.3.2 **Services and other constraints:** full regard will, of course, be given to all constraints (services etc.) during the evaluation as well as to all Health and Safety considerations. As a matter of course the field team will use a Cable Avoidance Tool (CAT) prior to any excavation to test for services. However, this is only an approximate location tool. Any **information regarding services**, i.e. drawings or knowledge of live cables or services, within the study area and held with the client should be made known to the OA North project manager prior to the commencement of the evaluation.
- 3.3.3 **Contamination:** any known contamination issues or any specific health and safety requirements on site should be made known to OA North by the client to ensure all procedures can be met, and that the risk is dealt with appropriately. Should any presently

unknown contamination be discovered during excavation, it may be necessary to halt the works and reassess the risk assessment. Should it be necessary to supply additional PPE or other contamination avoidance equipment this will be costed as a variation.

- 3.3.4 **Staff issues:** all project staff will be CSCS qualified, proof of which can be provided in the form of CSCS cards.
- 3.3.5 A portable toilet with hand washing facilities is required and can be provided and located on or adjacent to the site, unless the client would prefer to arrange alternative facilities. Therefore, the cost has been provided as a contingency item.
- 3.3.6 **Fencing requirements:** the excavation trench and any areas of archaeological sensitivity will be protected with barrier tape whilst open, and any appropriate signage. The trenches will be opened and backfilled within the same day for purposes of site security, once archaeological recording has been completed. Any other requirements for fencing at the client's request (e.g. Heras-type security fencing) may be charged as a variation.

3.4 ARCHAEOLOGICAL TRENCHING

- 3.4.1 The programme of trial trenching will assess the results from the geophysical survey (Stratascan 2006) and establish the presence or absence of any previously unsuspected archaeological deposits. Once established, the excavation of trial trenches will enable the date, nature, depth and quality of preservation of the remains. In this way, it will adequately sample the threatened available area.
- 3.4.2 **Trenches:** the evaluation is required to examine ten 10m x 2m trenches. The exact configuration and location has been determined by the geophysical survey results (*ibid*) together with the information gained from the desk-based assessment (OA North 2002) and in consultation with the CCC Planning Archaeologist.
- 3.4.3 Trenches will be located by use of GPS equipment which is accurate to +/- 0.25m, altitude information will be established with respect to Ordnance Survey Datum.
- 3.4.4 **Methodology:** topsoil and modern overburden will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest will be investigated and recorded unless otherwise agreed by the CCC Planning Archaeologist.
- 3.4.5 The trenches will not be excavated deeper than 1.2m to accommodate health and safety constraints, without shoring or stepping out of the trench sides. Should this be required, this may be costed as a variation should an additional day on site be necessary.
- 3.4.6 All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of a total station, altitude information will be established with respect to Ordnance Survey Datum.
- 3.4.7 Any investigation of intact archaeological deposits will be exclusively manual. 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. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.4.8 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections, colour slides and monochrome contacts) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.4.9 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using

the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines and the Cheshire County Council guidelines (2003)) in order to minimise deterioration.

- 3.4.10 **Environmental Sampling:** environmental 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). An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis. The assessment 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. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good deposits are identified and will be subject to the agreement of the CCC Planning Archaeologist and the client.
- 3.4.11 Advice will also be sought as to whether a soil micromorphological study or any other analytical techniques will enhance the understanding of the site formation processes, including the amount of truncation to buried deposits and the preservation of deposits within negative features. Should this be required the costs for analysis have been provided as a contingency.
- 3.4.12 **Faunal remains:** if there is found to be the potential for discovery of bones of fish and small mammals a sieving programme will be carried out. These will be assessed as appropriate by OA North's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.
- 3.4.13 **Human Remains:** any human remains uncovered 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. CCC 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.
- 3.4.14 **Treatment of finds:** all finds 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.
- 3.4.15 **Treasure:** 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.
- 3.4.16 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.4.17 **Contingency plan:** a contingency costing may also be employed for unseen delays caused by prolonged periods of bad weather, vandalism, discovery of unforeseen complex deposits and/or artefacts which require specialist removal, use of shoring to excavate important features close to the excavation sections etc. This has been included in the Costings document and would be in agreement with the client.
- 3.4.18 The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, an impact assessment will also be provided.

3.5 REPORT

- 3.5.1 One bound and one unbound copy of a written synthetic report will be submitted to the client, and a copy each to the Cheshire SMR and Planning Archaeologist within eight weeks of

completion of the completion of the survey fieldwork, unless an alternative deadline is agreed with the client beforehand. It 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 be prepared in accordance with the Cheshire County Council guidelines (2003) and will include;

- a site location plan related to the national grid
- a front cover to include the planning application number and 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
- an interpretation of the results and their significance, using the 'Secretary of State's criteria for scheduling ancient monuments' included as Annex 4 of PPG 16 (DoE 1990)
- appropriate plans showing the location and position of features or sites located
- a statement, where appropriate, of the archaeological implications of the proposed development
- monochrome and colour photographs as appropriate
- 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
- plans and sections showing the positions of deposits and finds
- an index to the project archive

3.5.2 **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.

3.6 ARCHIVE

3.6.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with Appendix 3 of the current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991) and UKIC (1990). This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the County Record Office.

4. OTHER MATTERS

4.1 ACCESS

4.1.1 Liaison for basic site access will be undertaken through the client and it is assumed that there is access for both pedestrian and plant traffic to the site.

4.2 REINSTATEMENT

4.2.1 It is understood that there will be no requirement for reinstatement of the ground beyond backfilling. The ground will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded with the machine.

4.3 PROJECT MONITORING

4.3.1 Whilst the work is undertaken for the client, the Planning Archaeologist, Mark Leah, will be kept fully informed of the work and its results and will be notified a week in advance of the

commencement of the fieldwork. Any proposed changes to the project design will be agreed with Mark Leah in consultation with the client.

4.4 INSURANCE

4.4.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

4.5 WORK TIMETABLE

4.5.1 **Archaeological Trenching:** it is anticipated that this element would require up to 3 days for a team of 3 people.

4.5.2 **Report:** the final report will be submitted to the client within eight weeks, unless an earlier deadline is agreed beforehand.

4.5.3 **Archive:** the archive will be deposited within six months.

4.6 STAFFING

4.6.1 The project will be under the direct management of **Emily Mercer BA (Hons) MSc AIFA** (OA North Senior Project Manager) to whom all correspondence should be addressed.

4.6.2 The evaluation will be supervised by an OA North project officer or experienced in this type of project. Due to scheduling requirements it is not possible to provide these details at the present time. All OA North project officers are experienced field archaeologists capable of carrying out projects of all sizes.

4.6.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Christine Howard-Davis** (OA North finds manager). Christine has extensive knowledge of finds from many periods, but particularly from the local area, being involved with the forthcoming English Heritage funded Norton Priory publication.

4.6.4 Assessment of any palaeoenvironmental samples will be undertaken by or under the auspices of **Elizabeth Huckerby MSc** (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

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APPENDIX 2: CONTEXT REGISTER

Context No.	Trench No.	Description
101	6	Topsoil - 0.3m thick Mid-brown loose, clay-silt with >1% small sub-rounded pebble inclusions. No finds were recovered
102	6	Redeposited clay - 0.5m thick Orange-brown compact, clay with 2% sandstone fragments and small sub-angular pebble inclusions. No finds were recovered
103	6	Buried soil horizon - 0.14m thick Dark grey-brown loose, sandy-silt with >1% small sub-rounded pebble inclusions, several metal objects were recovered from the deposit.
104	6	Subsoil - >0.55m thick Grey-brown firm, silty-sand with >1% small sub-rounded pebble inclusions and sandstone fragments. No finds were recovered. The deposit was not excavated to its full extent for health and safety reasons.
105	4	Redeposited clay - 0.41m thick Mottled dark grey and pink-orange firm, clay with >10% sandstone and ceramic building material building rubble, and small-medium sub-rounded pebble inclusions. No finds were recovered.
106	4	Buried soil horizon - 0.12m thick Dark grey-brown firm, silty-clay with <5% small fragments of sandstone and ceramic building material inclusions. No finds were identified.
107	4	Topsoil - 0.38m thick Dark grey-brown firm, silty-clay with <10% small sub-angular stones and building debris. Post-medieval pottery was recovered from the deposit.
108	5	Topsoil - 0.28m thick Mid-brown loose, clay-silt with >1% sub-rounded pebble inclusions. No finds were recovered.
109	5	Redeposited clay - 0.7m thick Mottled orange-brown and mid-brown firm, silty-clay with >2% fragments of sandstone and sub-rounded pebble inclusions. Fragments of post-medieval pottery and ceramic building material were recovered from the deposit.

110	5	Redeposited clay - 0.34m thick Orange-brown compact, clay with >2% sub-angular pebble inclusions and fragments of ceramic building material. A piece of metal was recovered from the deposit.
111	5	Buried soil horizon - 0.12m thick Dark grey-brown loose, sandy-silt with >1% small sub-rounded pebble inclusions. No finds were recovered.
112	5	Subsoil - 0.19m thick Grey-brown firm, silty-sand with <1% small sub-rounded pebble inclusions. No finds were recovered.
113	5	Sand deposit - 0.29m Yellow-brown firm, sand with no coarse inclusions. It comprised water-born sediments. No finds were identified.
114	5	Silty-clay deposit - >0.56m thick Mid grey-brown firm and fine silty-clay, with no inclusions. Possibly a deposit within the former millpond, but it was not excavated to its full depth for health and safety reasons. No finds were recovered.
115	4	Subsoil - 0.14m thick Mid brown-grey firm, sandy-clay with <1% small sub-rounded pebble inclusions. No finds were identified.
116	4	Natural sand - 0.7m thick Yellow-brown firm, sand with no inclusions. Possibly a natural, water-born sand deposit.
117	4	Natural clay Orange-brown compact, clay with 2% small sub-rounded pebble inclusions. Likely to be the natural boulder-clay of the area.
118	4	Redeposited clay - 1.4m thick Mid pink-orange compact and sticky clay, with >15% small-medium sub-rounded pebbles and <5% building rubble. Fragments of ceramic building material and sandstone building material was identified but not kept.
119	4	Upper silt deposit in former millpond - 0.6m thick Dark grey-brown, firm and sticky silty-clay with <1% medium sub-angular stone inclusions. No finds were recovered from the deposit.
120	4	Natural sand Mid-orange soft sand, with <1% small sub-rounded pebble

		inclusions.
121	3	Topsoil - 0.26m thick Dark-brown friable silt with no inclusions. No finds were identified.
122	3	Redeposited clay - <0.18m thick Dark red-brown compact clay, with <2% small sub-rounded pebble inclusions. No finds were recovered.
123	3	Buried soil horizon - 0.14m thick Dark-grey friable sandy-clay, with <2% sandstone fragments and ceramic building material inclusions. No finds were recovered.
124	3	Subsoil - 0.11m Mid-grey compact clay, with light orange sand mottling. No inclusions or finds were identified. They were likely to be water-born sediments and leaching into the former millpond.
125	3	Natural sand - 0.33m thick Mid-dark orange firm and fine sand, with >5% small sub-rounded pebble inclusions. Evidence of iron leaching into the deposit over time, suggesting that it was a water-born sediment.
126	3	Natural clay Dark red-brown firm clay, with no inclusions.
127	7	Topsoil - 0.15m thick Dark grey-brown friable sandy-silt, with <1% sub-rounded pebble inclusions. Fragments of ceramic building material, metal and modern glass were recovered.
128	7	Aggregate drainage layer - 0.1m thick Covering a square area, roughly 25m x 25m, the deposit consisted of loose 90% sub-angular grey aggregate stones, 0.04m x 0.05m in size, with a grey-brown sandy-silt matrix. A metal object was recovered from the deposit.
129	7	Redeposited clay - 0.55m thick Orange-brown firm clay, with 1% small-medium sub-rounded pebbles and ceramic building material fragments. Post-medieval pottery and a metal object was recovered.
130	7	Buried soil horizon - 0.17m thick Dark grey-brown firm silty-clay with 1% small sub-angular pebble, grass and wood inclusions. No finds were identified.
131	7	Subsoil - 0.38m thick Mid red-brown firm sandy-silt, with 5% sub-rounded pebble and

		sandstone inclusions. A fragment of post-medieval pottery was recovered from the deposit.
132	7	Upper silt of former millpond - >0.42m thick Dark brown-grey compact sandy-silt, with <5% large sandstone fragments. A fragment of post-medieval pottery was recovered. The deposit was not excavated to its full extent.
133	7	Redeposited sandy-clay - >0.19m thick Dark grey-yellow firm sandy-clay, with <2% small sub-angular stones. No finds were recovered.
134	8	Topsoil - 0.3m thick Dark grey-brown soft silty-clay, with >2% small sub-rounded pebble inclusions. No finds were recovered.
135	8	Redeposited clay - 1.1.m thick Mid orange-brown compact clay, with occasional grey silt mottling and <5% small-medium sub-rounded pebbles, and <2% ceramic building material and sandstone fragment inclusions. A fragment of post-medieval pottery was recovered from the deposit.
136	8	Buried soil horizon - 0.1m thick Dark grey-brown firm silty-clay with occasional pure grey-clay mottling. The deposit contained >10% small-medium sub-rounded pebbles, sandstone, ceramic building material and charcoal inclusions.
137	8	Redeposited clay - 0.62m thick Mottled orange, dark-grey and grey, compact clay, with >7% small-medium pebbles and >10% ceramic building material and sandstone fragments. No finds were identified.
138	8	Upper silt of the former millpond - >0.14m Dark brown, very compact sandy-silt with >10% sandstone and ceramic building material fragments, and <5% small sub-rounded pebble inclusions. No finds were recovered, and the deposit was not excavated to its full extent for health and safety reasons.
139	9	Topsoil - <0.28m thick Dark grey-brown, friable clay-silt with <2% small sub-angular stone inclusions. No finds were identified.
140	9	Redeposited clay - >1.92m thick Mid orange-brown compact clay, with <2% sub-rounded stone inclusions, fragments of ceramic building material were identified throughout. No other finds were recovered.
141	1	Topsoil - 0.3m thick

		Dark brown, friable clay-silt with no inclusions. Fragments of post-medieval pottery were recovered from the deposit.
142	1	Subsoil - <0.11m thick Yellow-brown firm sandy-clay, with 2% small sub-rounded pebble inclusions. No finds were recovered.
143	1	Natural clay - >0.3m thick Dark orange-brown compact clay, with <5% sub-rounded pebble, slate and quartz inclusions.
144	2	Topsoil - 0.3m thick Dark grey-brown soft clay-silt with <1% small sub-rounded pebble and ceramic building material fragment inclusions. Fragments of post-medieval pottery were recovered.
145	2	Upper subsoil - 0.14m thick Mid grey-orange fine clay-sand, with <1% small sub-rounded pebble inclusions. No finds were recovered. Most likely the result of water-born sediments.
146	2	Lower subsoil - 0.3m Mid-grey compact sand, with >2% medium sub-angular stone and charcoal inclusions, the result of water-born sedimentation. No finds were recovered.
147	2	Natural deposit >0.25m Mid orange-brown, compact and coarse sandy-clay, with >20% small-medium gravel inclusions.
148	2	Cut for stone-lined drain The drain was >3m in length, 0.48m in width and still in use, becoming rapidly obscured by water. Linear in plan, it was not fully visible in profile. It had sharp breaks of slope to the top, and was filled by 149 and 150 .
149	2	Upper fill of drain 148 - <0.18m thick Pink-orange compact clay, with occasional grey-silt mottling. It contained <5% small-medium sub-angular and sub-rounded pebble inclusions. It lay above stone-lining 150 , within the drain cut 149 .
150	2	Stone-lining of drain 148 Only the sandstone slab capping stones were visible, which measured 0.5m x 0.3m. As the drain was still in use it was impossible to ascertain its full extent and form.

APPENDIX 3: FINDS SUMMARY

Ctxt = context number; OR = object record number; Mat = material; Qty = quantity recovered; us = unstratified

Ctxt	OR	Mat	Category	Qty	Description	Date
103	1008	Iron	nail	10	Small hand-forged nails.	Not closely dateable
103	1008	Iron	wire	1	Fragment of fine wire.	Not closely dateable
103	1008	Iron	unidentifiable	3	Unidentifiable fragments.	Not closely dateable
103	1008	Iron	key	1	Clock key (?) with oval loop. Guard obscured by corrosion.	Nineteenth century or later?
103	1007	Lead	drip	18	Solidified drips of molten metal.	Not closely dateable
103	1007	Lead	sheet	1	Irregular cut sheet offcut.	Not closely dateable
107	1024	Ceramic	vessel	1	Small fragment of late grey stoneware 1lb jar.	Late nineteenth century or later
109	1021	Ceramic	building material	2	One very small fragment terracotta tile or brick; one fragment salt-glazed stoneware sewer pipe.	Twentieth century or later
109	1022	Ceramic	vessel	1	Small fragment of plain tin-glazed ware.	Eighteenth century
110	1002	Iron	Nail?	1	Fragment of round-sectioned bar, or possibly large modern, drawn or stamped nail.	Twentieth century or later
124	1004	Iron	bolt	1	Screw-threaded bolt.	Twentieth century or later
127	1010	Ceramic	building material	2	One small fragment of a large cast white refractory clay drain pipe; one fragment plain (unglazed) terracotta sand-cast floor tile, heavily worn.	Post-medieval, twentieth century or later
127	1009	Glass	sheet	2	One mid-pane fragment very thick colourless sheet glass; one mid-pane fragment textured and wire reinforced sheet glass.	Late twentieth century or later

127	1012	Ind debris		3	Three fragments clinker-type fuel ash.	Not closely dateable
127	1011	Iron	wire	2	Poorly preserved fragments of wire.	Not closely dateable
127	1013	Unidentifiable		1	Small rounded fragment unidentifiable material. Deep reddish purple and crystalline.	Not closely dateable
128	1001	Ceramic	building material	2	Two fragment of very coarse terracotta field drain.	Nineteenth century or later
128	1003	Iron	bar	1	Fragment of round-sectioned bar.	Not closely dateable
131	1017	Ceramic	vessel	1	Small, undiagnostic fragment of black-glazed redware.	Nineteenth century or later
131	1025	Wood		1	Large fragment of sawn planking. Not waterlogged. Appears to be partially coated in a thick layer of beige oil-based gloss paint.	Twentieth century or later
132	1018	Ceramic	vessel	1	Small, undiagnostic fragment of black-glazed redware. Hard-fired with an uneven purplish glaze.	Eighteenth century?
135	1023	Ceramic	vessel	2	Small fragments of hand-painted white earthenware.	Twentieth century or later?
140	1016	Ceramic	building material	1	Terracotta sand-cast roof tile.	Post-medieval
141	1019	Ceramic	vessel	2	One tiny chip white earthenware; one small fragment blue and white transfer-printed earthenware.	Nineteenth century or later
141	1020	Stone		1	One very small fragment of grey slate, probably a chip of roofing slate.	Not closely dateable
144	1014	Ceramic	building material	1	Terracotta tile?	Twentieth century or later?
144	1015	Ceramic	vessel	1	Rim fragment plain white earthenware cup.	Nineteenth century or later
us	1006	Ind debris		3	Small fragments of non-specific industrial debris,	Not closely dateable

					possibly from smithing.	
us	1005	Iron	nail	2	Small hand-forged nails.	Not closely dateable
us	1005	Iron	unidentifiable	3	Unidentifiable fragments.	Not closely dateable