



# **Dalton to Roose Greenway, Furness Abbey, Barrow-in- Furness, Cumbria**

## **Archaeological Watching Brief**



**Oxford Archaeology North**

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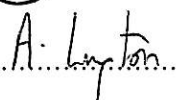
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## SUMMARY

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Capita Symonds commissioned Oxford Archaeology North (OA North) to undertake an archaeological watching brief within the grounds of the scheduled monument of Furness Abbey (SM 13572), near Barrow-in-Furness, Cumbria (NGR centred SD 2203 7161). A greenway, or cycleway, is being constructed from Dalton to Roose, a section of which will pass through the Amphitheatre Field, positioned immediately to the south of the remains of the abbey. Due to the high archaeological potential and scheduled status of the site, English Heritage requested that any groundworks be carried out under permanent archaeological supervision, as a condition to the Scheduled Monument Consent. The groundworks within the scheduled area, which extends up to and includes the Abbey Precinct Wall, included the removal of topsoil along the route of a 2m wide cycleway to a depth of 150mm, and building up of the cycleway in areas close to the railway line in order to avoid impact on any archaeological features. In addition, ancillary works included the excavation of gatepost holes, and the breaking through of the Abbey Precinct Wall to allow access from the south up to Furness Abbey. The work was undertaken between the beginning of August and the end of October 2008.

The work commenced with the removal of a section of the Abbey Precinct Wall, wherein carved sandstone masonry was observed suggesting a reuse of fabric from the abbey buildings. The course of the greenway through the Amphitheatre Field proceeded northwards. For the majority of the length of the stripping no features of archaeological significance were revealed. However, at the northern end of the greenway, before it joins the road, archaeological remains in the form of a cobbled track running north-west/south-east were uncovered. The track measured up to 9m in width and consisted of apparently three different cobbled surfaces, **1003**, **1006** and **1007** from east to west. The foundation layers beneath **1003** (**1015** and **1016**) were compacted silty-sand. These were notably different to those observed beneath **1007**, which comprised demolition rubble levelling layers (**1009** and **1011**), with a charcoal-rich dumping deposit (**1010**) sandwiched inbetween. Cobbled surface **1003** was also observed as 'neater' in general appearance, being more regularly laid, and with little surface damage when compared to **1006** and **1007**, and it is possible that surface **1003** may be a later extension on the east side or repair to the track.

Between **1003** to the east and **1007** to the west was an extensively disturbed cobbled surface **1006**. It is probable that the disturbance was caused relatively recently during the levelling of the area for a playing field, as opposed to when the surface was in use. The depth at which **1006** was noted was more shallow than **1003** or **1007**, and it was not overlain by levelling deposit **1013** and former topsoil **1014**, unlike the other cobbled surfaces either side, which may have offered some protection.

Along the western edge, abutting surface **1007**, was a linear feature comprising boulders **1008** and thought to be a kerb to the track. Slightly to the east of the boulders was evidence of wheel ruts, suggesting the use of carts on the surface. The lack of any foundation deposits to **1008**, as recorded beneath **1007**, suggests that the kerb was a later addition and may have been used to reinforce the cobbled surface edge.

The remains of the cobbled track were situated to the south of the abbey ruins, and less than 100m from the infirmary building. The direction of the track may well lead to the

abbey, or else take a course around the western side of the abbey. There was no secure dating evidence to suggest when the track was in use, and early Ordnance Survey mapping does not show the course of the track either. There is a path or track marked on the OS maps further to the east, passing immediately to the south-west of the Custodian's Lodge, which would suggest the track uncovered during the watching brief had been replaced.

The final phase of work was to observe the excavation of four gatepost holes and a hole for the installation of a finger post, to a minimum depth of 600mm and 500mm wide. These were situated close to the Custodian's Lodge and were excavated through the recently laid cycleway. The relatively shallow depth through the material laid for the greenway meant that there were no archaeological remains or deposits observed.

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## ACKNOWLEDGEMENTS

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Oxford Archaeology North would like to thank Stephen Johnson of Capita Symonds for commissioning the project and Andrew Davison of English Heritage for his help and advice. Thanks are also due to the site staff of Metcalfe Plant Hire Ltd, the on-site contractors, for their help during the groundworks.

Pascal Eloy, Dave Maron and Nathaniel Jepson undertook the site work. Nathaniel Jepson also wrote the report. The finds were assessed by Christine Howard-Davis and the environmental assessment was undertaken by Elizabeth Huckerby. The drawings were produced by Alix Sperr. The project was managed by Emily Mercer, who also edited the report.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Capita Symonds commissioned Oxford Archaeology North (OA North) to undertake an archaeological watching brief within the grounds of the scheduled monument of Furness Abbey, Barrow-in-Furness, Cumbria (SM 13572). A greenway, or cycleway, is being constructed from Dalton to Roose, a section of which will pass through the Amphitheatre Field (Plate 1), positioned immediately to the south of the remains of the abbey (Fig 1). Due to the high archaeological potential and scheduled status of the site, English Heritage requested that any groundworks be carried out under permanent archaeological supervision, as a condition to the Scheduled Monument Consent. The groundworks within the scheduled area, which extends up to and includes the Abbey Precinct Wall (Plate 2), included the removal of topsoil along the route of a 2m wide cycleway, and building up of the cycleway in areas close to the railway line in order to avoid impact on any archaeological features. In addition, ancillary works included the excavation of gatepost holes, and the breaking through of the Abbey Precinct Wall to allow access from the south up to Furness Abbey (Fig 2). The work was undertaken between the beginning of August and the end of October 2008.

1.1.2 The following report sets out the results of the watching brief in the form of a short document, outlining the findings, and includes an assessment of the impact of the development.

### 1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 Furness Abbey lies in a small but steep-sided valley in a rural setting on the north-east edge of the town of Barrow-in-Furness (NGR centred SD 2203 7161; Fig 1). The development site is situated on the west side of the valley, running for the most part southwards alongside the Lancaster to Barrow railway. At the southern end of the site the route of the cycle path crosses part of the Abbey Precinct Wall into the scheduled area.

1.2.2 The Furness Peninsula of Cumbria is largely dominated by undulating fells, within which a pastoral landscape with substantial woodlands has developed. The southern limit of the county is defined by the broad expanse of Morecambe Bay and the surrounding limestone lowlands (Hodgkinson *et al* 2000). The underlying solid geology of the area consists of Silurian Ludlow greywackes (Coniston Grits) and banded mudstones and siltstones (Countryside Commission 1998). The glacial drift geology is overlain by typical brown earths of the Eardiston 1 association, as categorised by Ordnance Survey (1983).

### 1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 1.3.1 This report does not intend to discuss in any depth the history of Furness Abbey, which is beyond the scope of this project, but will present a brief outline in order to provide an archaeological and historical context for the results of the watching brief.
- 1.3.2 Furness is not mentioned in the Domesday survey of 1086 (Faull and Stinson 1986), and the area seems to have been largely deserted prior to this. The township of Dalton had belonged to Earl Tostig, brother to Harold Godwinson, until his rebellion in 1065. At the Conquest it fell to Roger of Poitou, whose later defection left it in the hands of the crown (*ibid*).
- 1.3.3 Furness Abbey, originally the abbey of St Mary of Furness, was the first proper and most important foundation of the Savigniac Order of the British Isles. The newly established congregation had started in northern France at Savigny in Mortain (Wood 1998, 23). In 1124, a group of Savigniac monks was invited by Stephen, then Count of Boulogne and Mortain and later King of England, to settle at Tulketh (near Preston). After three years the establishment was abandoned and relocated to the secluded valley of Bekansgill in Furness, where the abbey was founded (*ibid*). The abbey is a rare representative of this order in Britain, where only 13 Savigniac monasteries were established. It was the earliest monastic house in the region (Pevsner 1969, 16) and continued as 'the largest, richest and most important of the Lancashire houses'. For over 400 years, the abbey enjoyed substantial wealth, privileges and possessions and had a major influence on regional and national affairs (Wood 1998, 23).
- 1.3.4 In 1147, the entire congregation of Savigny was incorporated into the much larger and more powerful Cistercian Order (Harrison 1998, 4). It is not known how much of the abbey had been completed in stone but it seems fairly certain that the church and buildings surrounding the cloister had been largely finished. These buildings were gradually replaced on a larger scale during the twelfth and thirteenth centuries (*ibid*). The Cistercians adapted the site, incorporating all of the components usual in their foundations, but with some distinctive variations and a slightly unorthodox alignment dictated by the shape of the rising ground on the east and west sides of the valley (*op cit*, 3). It included a central cloister to the south of the church, dining hall and living room with dormitory above, a chapter house also with dormitory above, the church itself, latrines, the monks' dining room, kitchen and warming house, an infirmary, guest house and abbot's lodging (*ibid*).
- 1.3.5 The site was typical of those chosen for medieval monastic foundations of the more eremitic sects, lying in a secluded, steep-sided valley situated in the southern part of the Furness peninsula. Formerly part of Lancashire, the area's situation between the waters of Morecambe Bay, the undrained lands of South Cumbria and the inhospitable hills of Lakeland was one of isolation. However, the location was well chosen, as the valley provided a sheltered site with a ready supply of water, and access to abundant timber and stone for building (Wood 1998, 22).



- 1.3.6 The site is somewhat unusual in that elements of its precinct wall survive, built to enclose and define the abbey grounds, and this includes the study area, which lies in the southern area of the precinct. The church is built on a typical cruciform plan. The north and south transepts each had three chapels on the east sides and the aisled nave was divided into ten bays, this is the second church to have occupied this site, replacing a slightly smaller building (Harrison 1998, 4). Many of the walls suffered sinkage due to insufficient foundations, as seen currently in the presbytery walls (I Whittick pers comm). During repair work in the 1920s it was discovered that the foundations consisted of oak piles (Dickinson 1967, 53).
- 1.3.7 In the fifteenth century there was a general trend towards tower building (Harrison 1998, 11). At abbeys such as Furness, where the central tower could not be enlarged for structural reasons, a completely new tower was added to another part of the church. High buildings, creating a rectangular court that would have felt quite enclosed, originally surrounded the cloister area. It had covered alleys on each side supported on elegant arcading (*ibid*). The chapterhouse also replaced a more modest Savigniac building. It was in this room the monks met daily to confess, receive punishment and hear a chapter read from the rules of St Benedict. Business matters and policy were also discussed here (*ibid*).
- 1.3.8 To the south of the main cloister ranges is the site of the great infirmary hall, the nearest building to the study area, built in the late thirteenth century. The infirmary complex was provided for those monks too sick or infirm to take part in the normal monastic regime. Surviving remains show this is one of the largest of such halls built by the Cistercians (*op cit*, 17). Many monks lived here permanently, and the rooms duplicate the main rooms of the abbey, such as the kitchen and latrines. The great hall would have been divided up by timber screens into a series of cubicles, with beds for the residents. In some of the wall recesses were fireplaces. The infirmary also had a chapel, a large building covered with three bays of fine ribbed vaulting (*ibid*).
- 1.3.9 To the east of the great infirmary are the ruins of the substantial building identified as an earlier infirmary and, subsequently the abbot's lodgings (*ibid*). As the abbot's lodgings, it would have had a suite of rooms, such as a hall, dining chamber, bedrooms, secretariat and private chapel. Parts of the upper floors still survive.
- 1.3.10 To the south-east, across the road and adjacent to the study area, is a small cottage known as the Custodian's Cottage as for many years it served as the residence for the abbey custodian. This building retained its medieval roof, relatively intact, until recent years. It was the only abbey building to have remained roofed since the Dissolution (Wood 1998, 20). As the Dalton to Roose Greenway passes the Custodian's Lodge it crosses a field known as the Amphitheatre Field because of its bowl shape created by a steep curve surrounding a relatively flat open area. It retains a number of earthwork features, including traces of the abbey quarries and depressions thought to have been the abbey fishponds (*ibid*).

- 1.3.11 During the fourteenth century, two exceptional privileges were added to the abbot's powers. These were the rights to act in place of the sheriff and the right to appoint his own coroner. During this period the abbot's principal court was established in nearby Dalton (Dickinson 1967, 30). A series of crises in the fourteenth century, including famine and plague and war with France, badly affected the Cistercian economy. Furness found itself in financial difficulties. The abbey began to abandon its involvement in agriculture and much of its land was leased providing rental income. During the fifteenth century the numbers of monks in residence grew smaller. The last forty years of the abbey's existence were marked by a general decline. The deed of surrender was signed in 1537 and Furness Abbey became one of the first of the major monasteries to be dissolved (*ibid*). At the time of its Dissolution a survey described 'divers granges, fields, meadows, mills, fisheries, within the manor' and 'orchards, mill, and certain closes adjoining [the abbey]' (West 1774, 100). The development site falls within the fisheries category.
- 1.3.12 By 1549, the abbey and various parts of its land were leased to John Preston of Preston Patrick. He and his descendants resided in a manor house close to the abbey, of which parts may survive in and around the Abbey Tavern, 300m north-west of the study area (*ibid*). The site of the abbey remained in the Preston family for several generations. It then passed by marriage to the Lowthers (who preferred to live at Holker Hall), and finally to the Cavendish family (Wood 1998, 34). During this time, from the late seventeenth century, the manor house was occupied by a variety of tenants, and by the second half of the eighteenth century it was in decline. An estate map drawn for Lord Cavendish by William Gibson in 1775 shows that the manor had degenerated into a mere farmhouse. Following the construction of the railways into Furness and the subsequent increase in tourism to the area, the Cavendishes sold the manor house to the Railway Company and, during the 1850s and 1860s, the building was substantially remodelled to become the Furness Abbey Hotel.
- 1.3.13 The late nineteenth century saw the first attempts at devegetation, cleaning and restoration. The turn of the century saw the first systematic excavations and archaeological assessment under the direction of Sir William St John Hope (1900, 221-301). Map evidence (Figs 5 and 6) suggest the area of groundworks was unoccupied and used as pasture or agricultural land. It was also used as recreational land, as the Victorian's had levelled it for playing fields (D Maron pers comm). The Cavendish family finally placed the ruins in the guardianship of the state in 1923 (Wood 1998, 34).
- 1.3.14 Archaeological interest in monastic sites developed during the nineteenth century, with a particular focus on Cistercian sites. These excavations tended to focus upon the church and the immediate buildings of the cloister. There have been small-scale excavations at Furness Abbey, including important work in the southern half of the precinct (Wood 1998). Other modern comparable excavations on monastic sites include Norton Priory, Cheshire, which is the most extensively excavated monastic site in the country. Although there has been extensive research into documentary records of monastic sites of all kinds, archaeological excavation and recording has concentrated on remains of the

claustral remains of larger monasteries. There has also been little investigation of monastic granges and estates in the region (Newman 2006, 131).

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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

2.1.1 A project design was submitted by OA North (*Appendix 1*) in response to a request by Capita Symonds, and in accordance with a verbal brief provided by English Heritage. This was approved by English Heritage and adhered to in full, with the exception of a watching brief of the excavation of a hole for the interpretation board, which is to be undertaken at a later date, subsequent to this phase of work. The work was consistent with the relevant standards and procedures of the Institute of Archaeologists, and generally accepted best practice.

### 2.2 WATCHING BRIEF

2.2.1 A programme of field observation recorded accurately the location, extent and character of any surviving archaeological features and/or deposits exposed during the course of the excavation. This comprised the systematic examination of the topsoil horizons exposed during the course of the groundworks, and the accurate recording of archaeological features and horizons, and any artefacts, identified during observations.

2.2.2 The groundworks for the greenway on the site comprised the mechanical excavation of the topsoil to a depth of 0.15m along a course measuring 2m wide and approximately 360m in length (Fig 2), conducted under constant archaeological supervision. Groundworks conducted for the installation of new gateposts were hand excavated to a depth of 500mm-600mm. All exposed soil was examined and spoilheaps were carefully checked for any unstratified finds.

2.2.3 A daily record of the nature, extent and depths of groundworks was maintained throughout the duration of the project. All archaeological contexts were recorded on OA North's *pro-forma* sheets, using a system based on that of the English Heritage Centre for Archaeology. A monochrome and digital photographic record was maintained throughout and properly scaled.

2.2.4 The full removal of the topsoil was carried out and these were individually recorded before they were laid with gravel hardcore and compressed.

### 2.3 ENVIRONMENTAL ASSESSMENT

2.3.1 **Introduction and quantification:** two environmental bulk sample were taken from a charcoal-rich deposit (*1010*) for the assessment of plant and other environmental remains. Such environmental remains can provide information regarding the function of the feature from which they have been retrieved, the economy of the site and the local environment.

2.3.2 **Methodology:** the sample was hand-floated, the flot was collected on a 250 micron mesh and air dried. The flot was scanned with a Leica MZ6 stereo microscope and the plant material was recorded and provisionally identified. The data are shown on Table 1. Botanical nomenclature follows Stace (2001). Plant remains were scored on a scale of abundance of 1-4, where 1 is rare (up to 5 items) and 4 is abundant (>100 items). The components of the matrix were also noted.

## 2.4 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the County Record Office, Barrow, on completion of the project, and a copy of this report will be submitted to the Cumbria Historic Environment Record, Kendal.

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## 3. WATCHING BRIEF RESULTS

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### 3.1 INTRODUCTION

3.1.1 The objective of the watching brief was to identify any potential archaeological features or deposits during the groundworks for the new greenway, and record their presence or absence, character and extent, integrity, state of preservation and relative quality. The area of the watching brief is plotted in Figure 2. A list of contexts used has been provided in *Appendix 2* and the details of the finds are listed in *Appendix 3*.

### 3.2 RESULTS

3.2.1 A watching brief of the greenway was required as it passed through the scheduled monument of Furness Abbey. This comprised the section of the route that skirts round the north-eastern side of the Amphitheatre Field, from where it cut through the south-eastern extent of the Abbey Precinct Wall (Fig 2) up to where it exits into the car park to the north-west.

3.2.2 A section of the Abbey Precinct Wall was removed (Fig 2), and a number of the red sandstone blocks were reused in the newly-constructed entrance through the wall. A carved stone was noted that appears to have been reused from the abbey during the construction of the wall, and other examples of carved and marked stones can be seen elsewhere in the extant wall (Plate 2).

3.2.3 As the groundworks proceeded northwards, the turf and topsoil (**1000**) was stripped using a mechanical excavator along the course of the greenway to a maximum depth of 0.15m across the Amphitheatre Field (Fig 2, Plate 4). The removal of the turf revealed a light reddish-brown (Plate 5), sometimes gravely, silt subsoil (**1001**). Occasionally, a sandstone block was uncovered, presumably associated with the abbey or other associated buildings in the area. These were removed and checked for signs of working. The stripping continued to the boundary of the Custodian's Lodge and all areas were recorded. Due to the high archaeological sensitivity a requirement of the Scheduled Monument Consent was to lay a geotextile membrane along the course of the cycle path, once the topsoil was removed, before laying and compacting the gravel hardcore.

3.2.4 At the northern end of the cycleway, at the point where it exits onto the existing car park and road (Fig 2), is an existing path to the Custodian's Lodge. The western half of this existing path was to be used as part of the greenway and was stripped to reveal a number of archaeological features (Plate 6), including a cobbled surface, **1003**, **1006** and **1007**, and a possible wall foundation or, more likely, a kerb **1008**. The cobbled surface was observed running in a north-west/south-east direction (Figs 2-3) and showed evidence of wheel ruts (Plate 8) suggesting that it had been a track. The cobbles covered a relatively large area (approximately 9m in width, Figs 3 and 4) and showed evidence of

disturbance, **1006**, in the centre (Plate 7). The cause of this may possibly be due to a lack of maintenance or disrepair during its use. However, to the east of the cobbled surface **1003** levelling deposit **1013** (Figs 3 and 4) was recorded, evidence of which had also been seen during stripping over cobbled surface **1007** at the western extent of the cobbled track, and included a number of artefacts such as clay pipe, brick fragments and industrial waste (see *Section 3.3*). In both areas, beneath **1013**, was a layer of possible subsoil or buried former topsoil **1014**, that was almost free of inclusions and appeared to have substantial organic components (Fig 4). The lack of these two deposits, **1013** and **1014** over the central area of cobbles **1006** would suggest that the obvious disturbance was likely due to levelling more recently for the purpose of the playing field situated within the Amphitheatre Field.

- 3.2.5 At the eastern end of the cobbled track the cobbles appeared to be more regularly laid (Plate 7) and was probably a later repair or extension, **1003**. The foundation deposits beneath **1003** consisted of two layers of compacted stony sandy-silt, with **1015** overlying **1016**, both of which were overlying natural deposit **1002** (Fig 4). A small sondage excavated through the western end of the cobbled surface, **1007**, against the probable kerb (**1008**), showed very different foundation deposits. These comprised demolition deposits with large inclusions of sandstone fragments and blocks (**1009**, **1011**), and sandwiched between them was a layer of burnt material, **1010**, probably a dump deposit used as levelling material for the track.
- 3.2.6 The large boulders comprising the probable kerb were beneath a shallow turf covering, and were laid directly upon the subsoil (**1001**) seen elsewhere along the course of the stripping. They abutted the cobbled surface **1007** and, given the lack of any apparent foundation deposits, may have been a later addition.
- 3.2.7 Further excavations were monitored for the installation of four new gatepost holes and a hole for the installation of a finger post (Fig 2). The hand excavation was to a depth of 500mm-600mm, mainly through the recently laid deposit of gravel hardcore for the greenway overlying topsoil **1000**. The finger post hole was lined with a plastic tube in order that installation could take place at a later date. There was no dating evidence revealed from the excavated areas.

### **3.3 FINDS**

- 3.3.1 A small group of finds, consisting of 127 fragments, was recovered during the watching brief. These were distributed as shown in Table 1 below, wherein the medieval pottery is indicated with an asterisk. A more detailed catalogue is provided in *Appendix 3*.
- 3.3.2 The finds assemblage was relatively well preserved, dating mainly to the seventeenth century or later, although several fragments of probably medieval masonry and two fragments of medieval pottery were recovered.

Ctxt	Ind. debris	CBM	SBM	Iron	Glass	Pot.	Other	Total
<b>1000</b>	5							5
<b>1001</b>	1	8	11	4	1		5 bone 11 charcoal 1 lead 1 mortar	43
<b>1003</b>	13			7	1	1	1 coal 1 mortar	24
<b>1010</b>		16						16
<b>1013</b>	3			1		1*	1 tobacco pipe	6
<b>U/s</b>	3	6	2	11	7	1*	1 lead 2 other stone	33
<b>Total</b>	<b>25</b>	<b>30</b>	<b>13</b>	<b>23</b>	<b>9</b>	<b>3</b>	<b>24</b>	<b>127</b>

Table 1: Distribution of finds (Ctxt = context number; Ind. Debris = industrial debris; CBM = ceramic building material; SBM = stone building material; Pot. = pottery; U/s = unstratified)

3.3.3 There were only three fragments of pottery. One of these, from the cobbled surface **1003**, was from the rim of a large nineteenth or early twentieth century kitchen vessel. The other two fragments were medieval in date. One of which was from the levelling deposit **1013**, probably of thirteenth to fourteenth century date and was badly abraded in an incompletely reduced fabric. The second medieval fragment was unstratified and, again, abraded. It appeared to be part of the bung hole from a cistern, in a fully reduced green-glazed fabric and most likely to date from the fourteenth to sixteenth century. A single fragment of clay tobacco pipe stem was recovered from the levelling deposit **1013**. The large size of the bore suggests an early form, but this can only be suggested tentatively.

3.3.4 There were also 30, relatively small, fragments of ceramic building materials, taken from subsoil **1001** and the charcoal-rich deposit **1010**, with a few small fragments found unstratified. These were mainly relatively thick, plain floor tiles, although there were also small fragments of roofing tile from **1001**. Although some were very worn, careful examination of the floor tiles does not suggest that they were originally glazed, and there is no reason to believe that they ever formed part of a decorative tiled floor of the type that might be expected in important conventual buildings, for instance the church or chapter house.

3.3.5 Nine fragments of glass were noted, only two of them (both unstratified) from vessels. In both cases these were demonstrably recent in date. The remaining



seven were small, midpane window glass fragments. All were in poor condition, mineralised and crumbling, and all but one seemed to be the thin, greenish glass typical of the seventeenth-eighteenth century. A fragment from the subsoil **1001** retained some of its original edge, showing it to have been a small rectangular quarry tile with partly grozed edges.

- 3.3.6 Twenty-three objects of iron and two of lead were also recovered. The majority of the iron objects (13 fragments) were hand-forged nails; there was also a large spike (from the cobbles **1003**), a hinge pivot and a large holdfast (both unstratified), all of which are also likely to have been associated with structures on or near the site. Of the remaining seven objects, only two can be identified with certainty, one being part of a knife blade (unstratified), the other a simple rectangular buckle (cobbles **1003**). There is no reason to believe that either is of any antiquity. There were also two fragments of lead. One was a substantial gallet from subsoil **1001**, which would have been used to secure an object in place, usually in stonework. The other fragment was a small piece of carefully cut strip, but was unstratified.
- 3.3.7 Seven fragments of dressed building stone were recovered, five were of red sandstone typical of the area. Two fragments of carved moulding were retrieved from subsoil **1001**, as was a part-perforated disc, possibly from a column, although it could be a grindstone. Two other fragments, one part of a small diameter column, were recovered unstratified. It would seem likely that all three derived from buildings associated with the abbey. The remaining two fragments, again from subsoil, **1001**, were both in a relatively fine grey stone, possibly limestone. They seem to have come from a flat slab, with a rounded edge, and simple carved moulding. Although the fragments are small, it is possible that they form part of a grave slab, although their fragmentary nature might suggest that they are no longer *in situ*. There were also five fragments of roofing slab, probably Lakeland slate, and also one in red sandstone. Apart from the building stone there was also a small worked granite sphere of unknown purpose and a whetstone fragment; both were unstratified.
- 3.3.8 A small group of industrial residues were also recovered, comprising 25 fragments. With the exception of the fragment from the subsoil **1001**, these were small pieces of ropy slag or glassy slag typical of the post-medieval iron-working industry, and are likely to have originated from Barrow's extensive iron-working industry. A large fragment from **1001**, was markedly different, being relatively heavy, with a white powdery surface. It can be suggested that this is connected in some way with lead-working, perhaps originating from the stripping of materials such as lead from the abbey during the Dissolution in the sixteenth century.
- 3.3.9 Only five fragments of bone were recovered, all from the subsoil **1001**. Most were burnt but at least one was unburnt, although poorly preserved. None of the bone was thought to be human. Other finds comprised two small fragments of mortar, a fragment of coal and charcoal from **1001**.

### 3.4 ENVIRONMENTAL ASSESSMENT

3.4.1 The charcoal-rich sample from deposit **1010** contained a large, mixed assemblage of charcoal fragments, which included oak (*Quercus*) and diffuse porous taxa. There were no other plant remains recorded in the sample, except modern roots. However, it did contain coal fragments, and metallic spheres, the latter suggesting possible metal working. A few mammal bone fragments were also noted. The flot from buried topsoil **1014** was dominated by modern roots, with occasional small fragments of charcoal and modern grass leaves and wood fragments.

Context	Feature	Flot volume (ml)	Flot description	Plant remains	Potential
<b>1010</b>	Charcoal rich deposit	200	Charcoal (4), coal, metal working, bone and modern contamination	None	Possibly for charcoal
<b>1014</b>	Buried soil	25	Charcoal (1), modern roots with some wood (4),	None	None

Table 2: Assessment of charred and waterlogged plant remains

3.4.2 The charcoal-rich deposit **1010**, sandwiched between demolition layers **1011** and **1009**, was indeed rich in charcoal but no other plant remains were recorded. Evidence for possible metal working would tend to support its interpretation as a dump deposit for the purposes of creating a foundation for track **1007**. The assessment of the sample from the buried topsoil **1014**, which was heavily contaminated with modern organic material, provides no further evidence regarding its origin. There is no potential for any further analysis from this site.

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## 4. CONCLUSIONS

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### 4.1 DISCUSSION

- 4.1.1 The watching brief along the course of the greenway through the scheduled area was restricted to the stripping of topsoil along a path 2m wide to a depth of 0.15m. For the majority of the length of the stripping no features of archaeological significance were revealed. However, at the southern end of the greenway under watching brief, where it crosses through the Abbey Precinct Wall, carved stone was recorded from the actual boundary wall. At the northern end of the greenway, before it joins the carpark, archaeological remains in the form of a cobbled track running north-west/south-east were uncovered during stripping. The track measured up to 9m in width and consisted of apparently three different cobbled surfaces, **1003**, **1006** and **1007** from east to west. The foundation layers beneath **1003** (**1015** and **1016**) were compacted silty-sand and were notably different to those observed beneath **1007**. These comprised demolition rubble levelling layers (**1009** and **1011**), with a charcoal-rich dumping deposit (**1010**) sandwiched inbetween. Cobbled surface **1003** was also observed as 'neater' in general appearance, being more regularly laid, and with little surface damage when compared to **1006** and **1007**. This surface, **1003**, may be a later extension on the east side or repair to the track.
- 4.1.2 Cobbled surface **1006**, situated between **1003** to the east and **1007** to the west, was extensively disturbed. This may have been caused during its use. However, it would seem more likely that this was caused more recently during the levelling of the area for a playing field. The depth at which **1006** occurred was more shallow than **1003** or **1007**, and it was not overlain by levelling deposit **1013** and former topsoil **1014**, unlike the other cobbled surfaces either side, which may have offered some protection.
- 4.1.3 At the western extent, abutting surface **1007**, was a linear feature comprising boulders **1008** and thought to be a kerb to the track (Plate 8). Slightly to the east of the boulders was evidence of wheel ruts, suggesting the use of carts on the surface. The lack of any foundation deposits as seen beneath **1007** suggests that the kerb was a later addition and may have been used to reinforce the cobbled surface edge, as the wheel ruts show the apparent damage to the surface of the cobbles.
- 4.1.4 The remains of the cobbled track were situated to the south of the abbey ruins, and less than 100m from the infirmary building. The direction of the track may well lead to the abbey, or else taking a course around the western side of the abbey. There was no secure dating evidence to suggest when the track was in use, and First Edition Ordnance Survey maps (Figs 5 and 6) do not show the course of the track either. However, there is a path or track marked on a different orientation on the OS maps, passing immediately to the south-west of the Custodian's Lodge, which is further east than that uncovered. This would suggest the track uncovered during the watching brief has been superseded by a later track.

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## 6. ILLUSTRATIONS

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### 6.1 LIST OF FIGURES

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Figure 2: Details of Groundworks under Watching Brief

Figure 3: Plan of Cobbled Surface (**1003**, **1006**, **1007**)

Figure 4: North-facing Section through Cobbled Surface

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Figure 6: Ordnance Survey First Edition 25" to 1 mile map, 1891

### 6.2 PLATES

Plate 1: View south-west across the Amphitheatre Field

Plate 2: North view of the Abbey Precinct Wall

Plate 3: Carved stone reused in the Abbey Precinct Wall

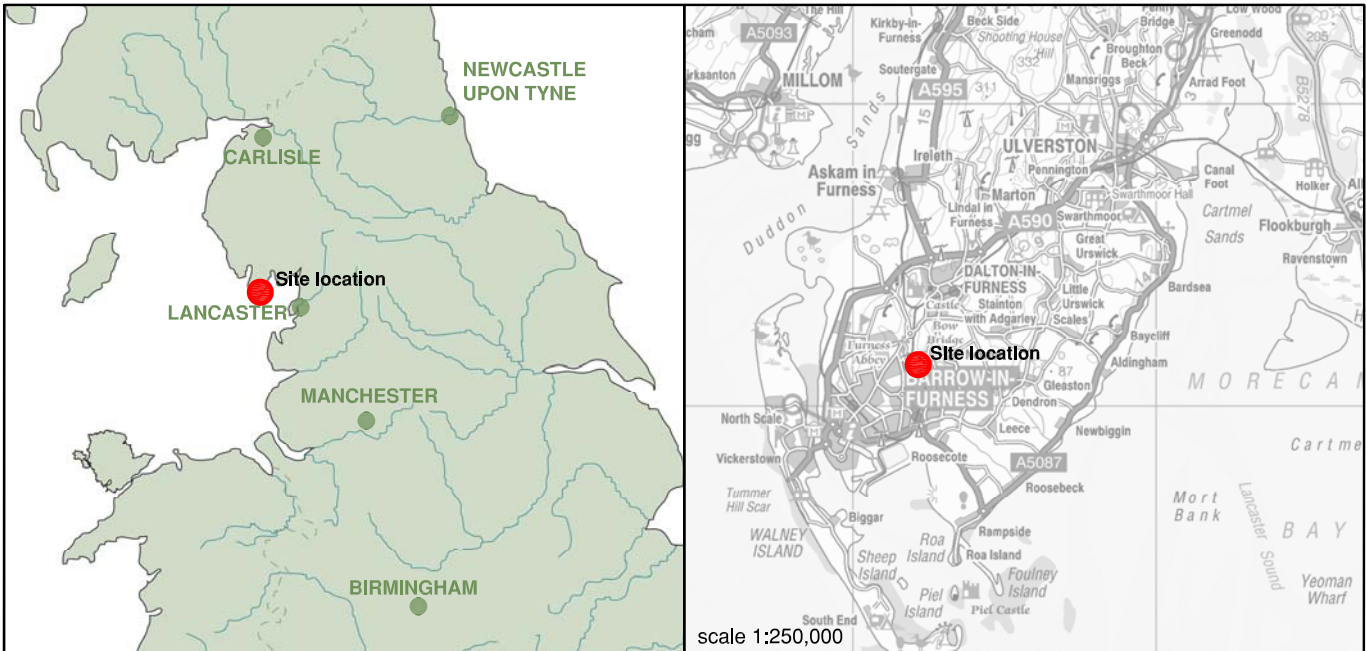
Plate 4: Stripping of the south-eastern section of the greenway, alongside the railway

Plate 5: South-eastern view of a stripped section of the greenway, from north of the central section of the area under watching brief

Plate 6: General view, facing south-east, across the course of the greenway, showing the position of the cobbled surface

Plate 7: West-facing view showing a slot through cobbled surface **1003**, with the more disturbed cobbled surface **1006** to the rear

Plate 8: East-facing view of boulder kerb feature **1008**, and cobbled surface **1007**, showing the wheel rut



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- Course of Dalton to Roose Greenway
- Section of Greenway excavated under watching brief

0 125 m  
1:5000 @ A4



EMPL10069\*AMIS\*05-02-09

Figure 1: Site location

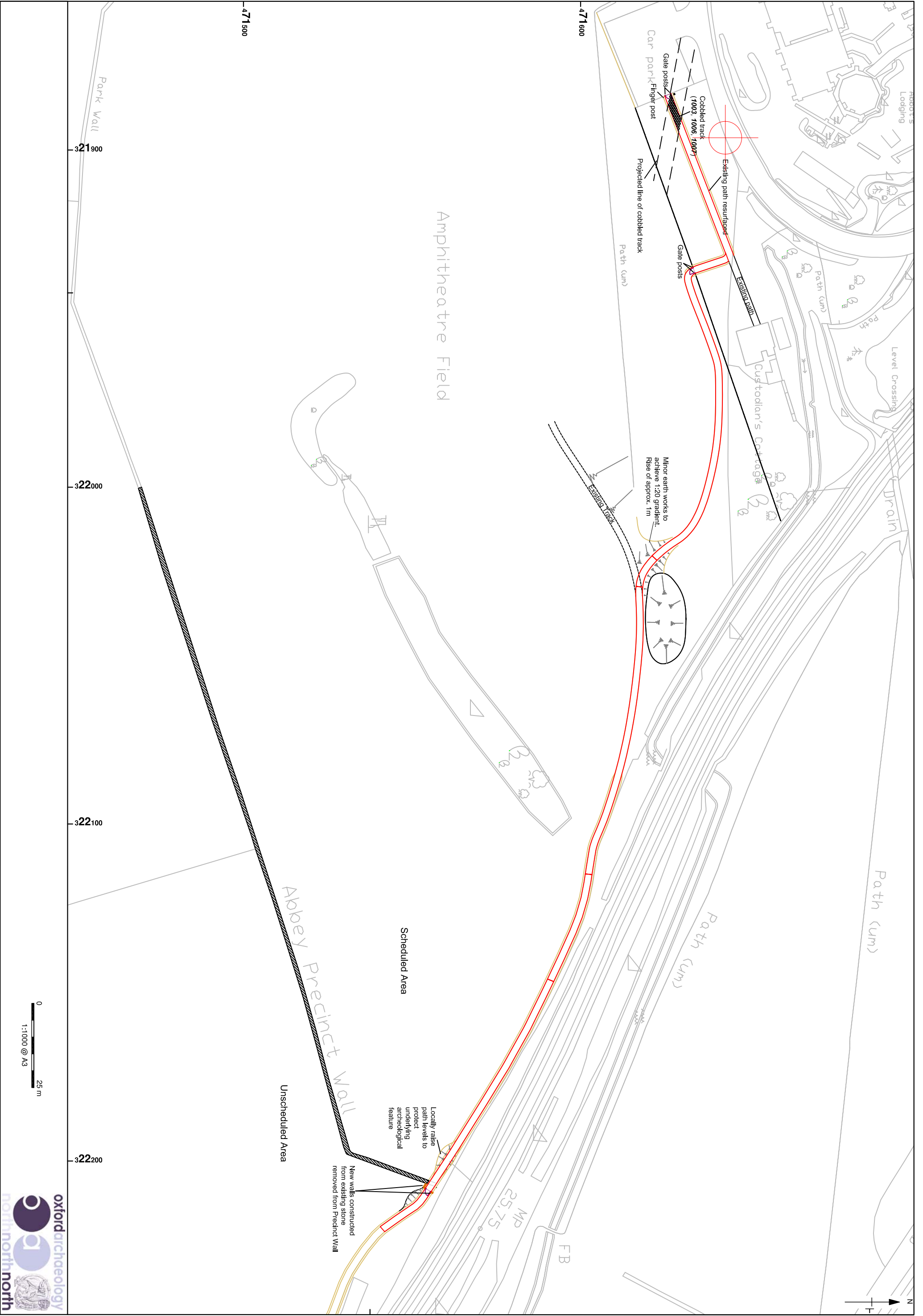


Figure 2: Details of groundworks under watching brief

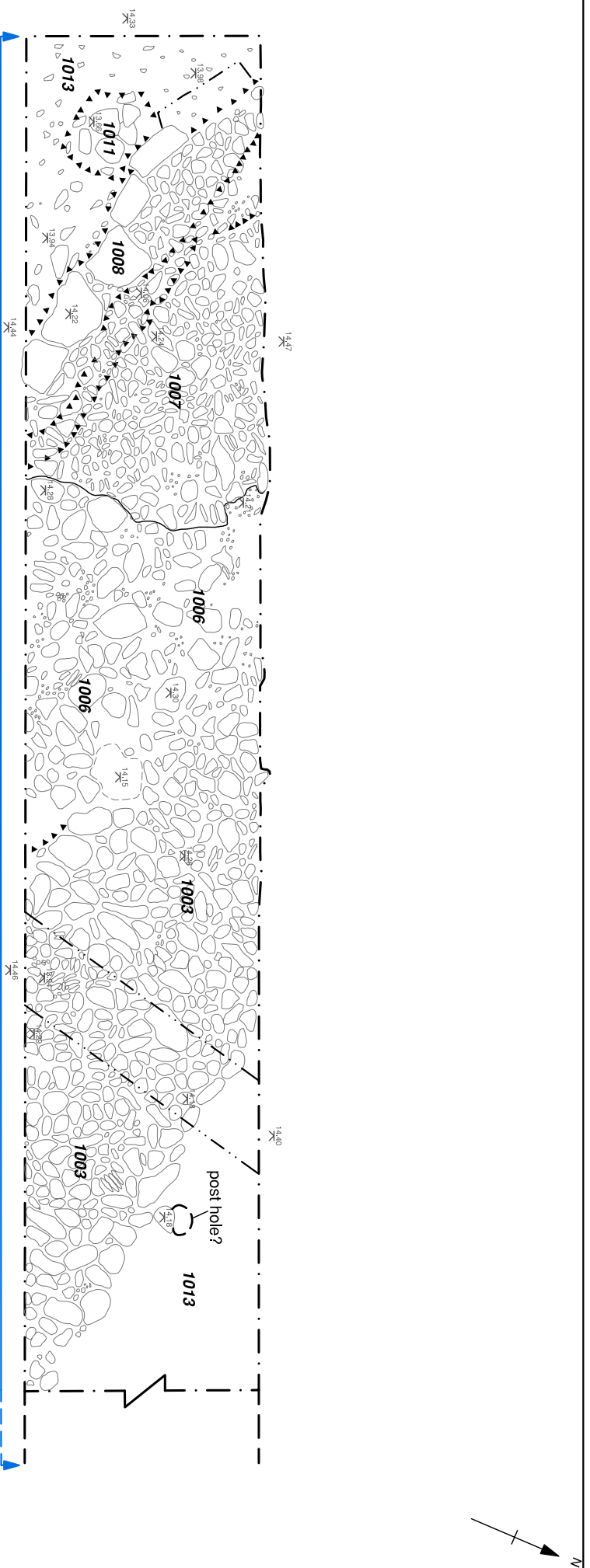


Figure 4

	LOE		Stones		Slope		Sondage
	Deposit		Stone Void		Section Drawn		Levels (m aOD)

0 1 m  
1:50 @ A4

oxfordarchaeology  
northnorthnorth

Figure 3: Plan of Cobbled Surface (1003, 1006, 1007)



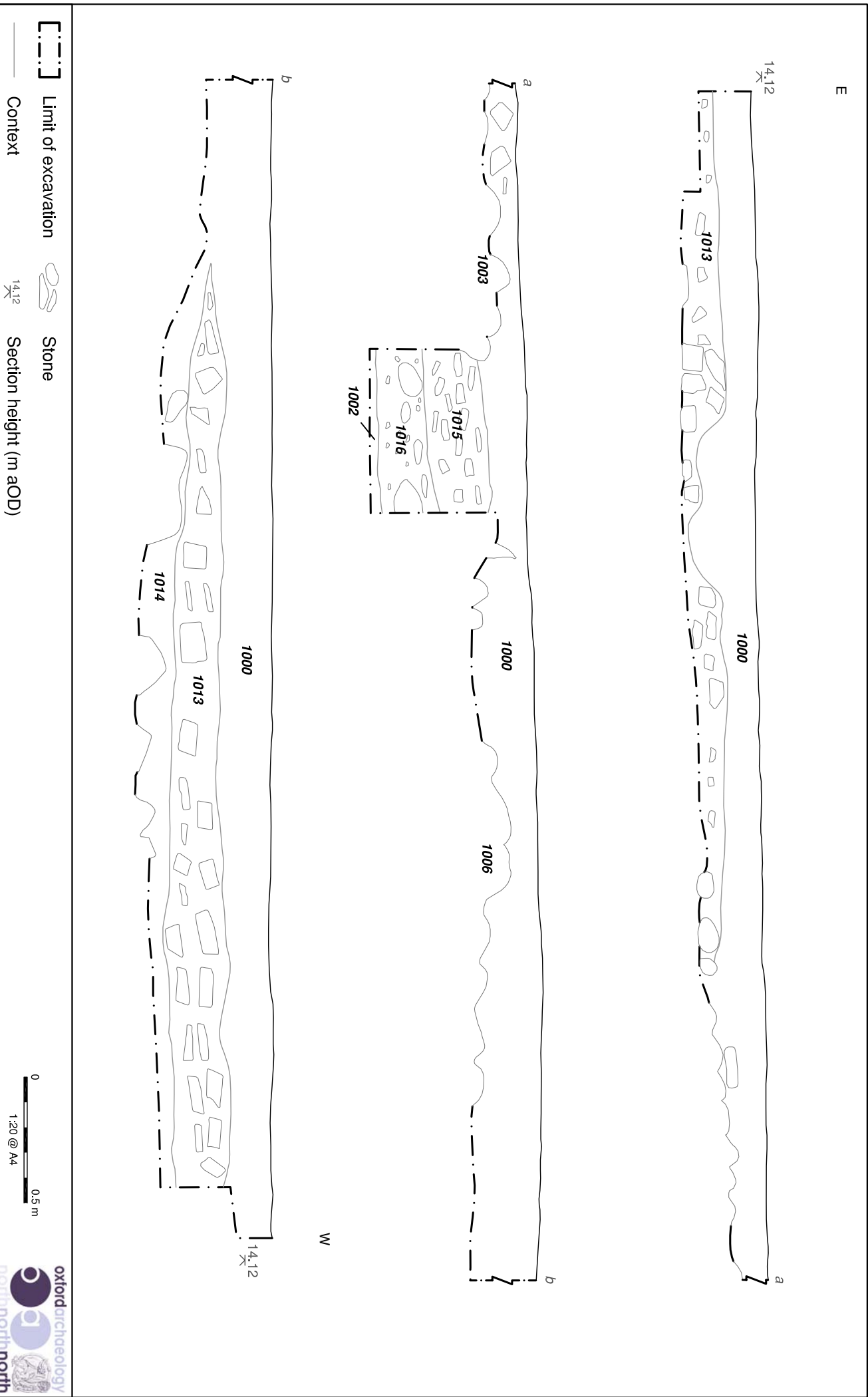


Figure 4: North-facing section through cobbled surface

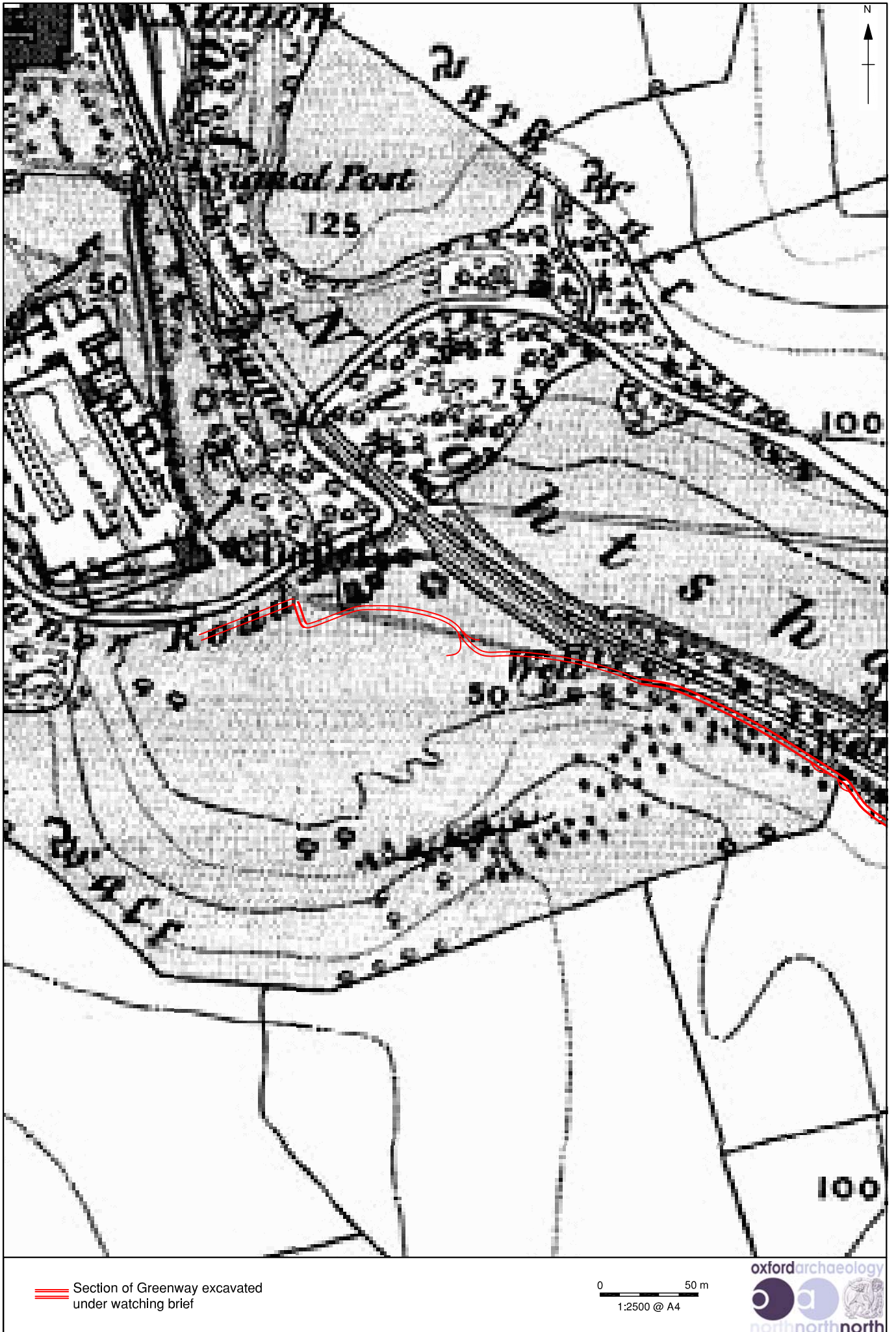


Figure 5: Ordnance Survey First Edition 6" to 1 mile map, 1853

EM\*L10069\*APS\*10.09.08

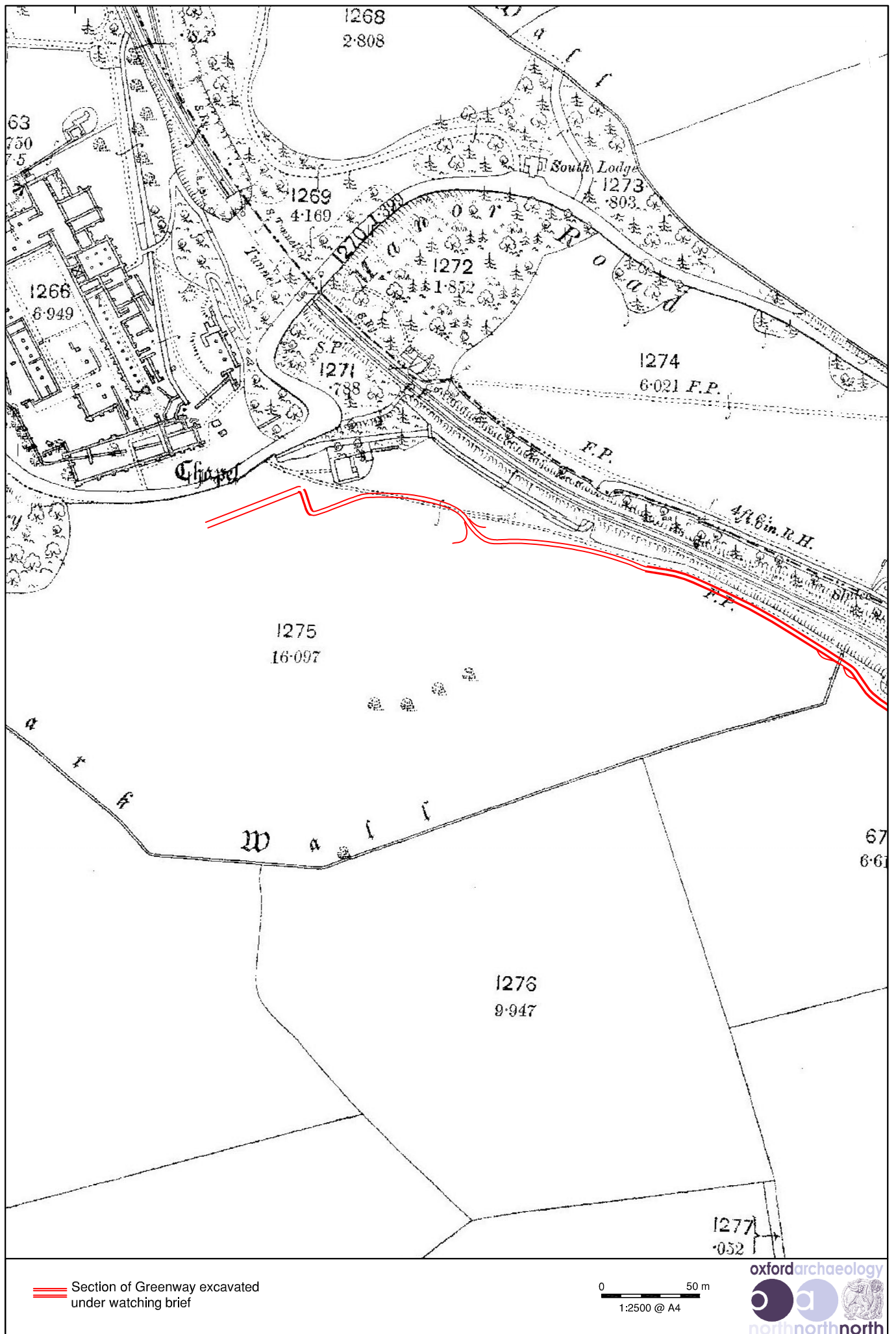


Figure 6: Ordnance Survey First Edition 25" to 1 mile map, 1891



Plate 1: View south-west across the Amphitheatre Field



Plate 2: North view of the Abbey Precinct Wall

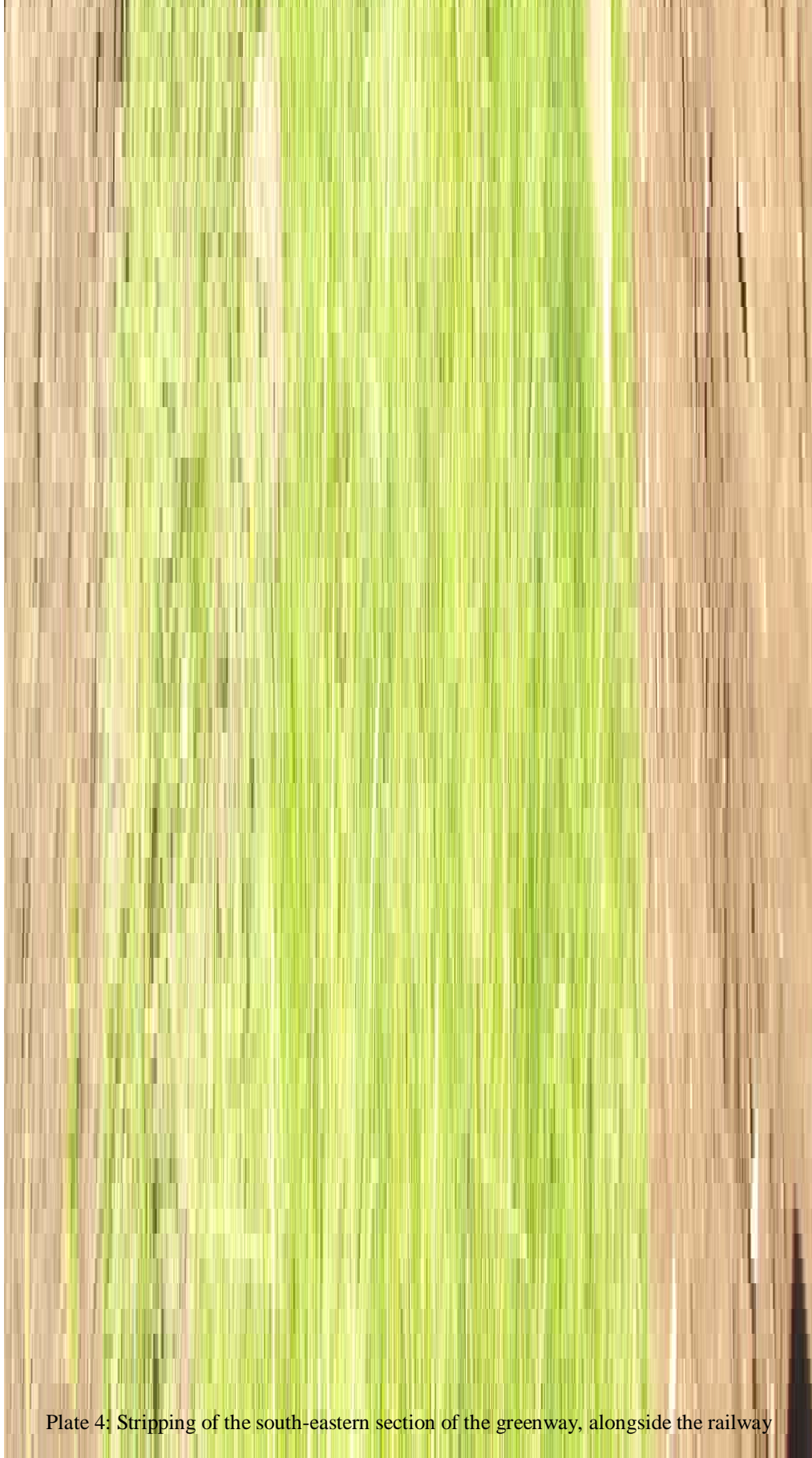


Plate 4: Stripping of the south-eastern section of the greenway, alongside the railway



Plate 5: South-eastern view of a stripped section of the greenway, from north of the central section of the area under watching brief



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Plate 7: West-facing view showing a slot through cobbled surface **1003**, with the more disturbed cobbled surface **1006** to the rear



Plate 8: East-facing view of boulder kerb feature **1008**, and cobbled surface **1007**, showing the wheel rut

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## APPENDIX 1: PROJECT DESIGN

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### 1. INTRODUCTION

#### 1.1 PROJECT BACKGROUND

1.1.1 Capita Symonds (hereafter the client) has requested Oxford Archaeology North (OA North) submit proposals to undertake an archaeological watching brief within the grounds of the Scheduled Monument of Furness Abbey, Cumbria (SM 13572). A cycleway is proposed from Dalton to Roose, which will pass through the Amphitheatre Field, positioned immediately to the south of the remains of Furness Abbey, Barrow in Furness (NGR centred SD 2203 7161). The groundworks within the scheduled area include the removal of topsoil to a maximum 150mm depth along the route of the 2m wide cycleway, and building up the cycleway in areas close to the railway line in order to avoid impact on archaeological features. In addition, ancillary works include excavation of gatepost holes to a minimum depth of 600mm and 500mm wide, excavation of a hole for the interpretation board measuring 450mm x 900mm and to a depth of approximately 600mm, and the breaking through of the Abbey Precinct wall to allow access from the south up to Furness Abbey. Due to the high archaeological potential, English Heritage have requested that the ground works will be carried out under permanent presence archaeological supervision, as a condition to the impending scheduled monument consent. This project design has been prepared in accordance with a verbal brief provided by Andrew Davison, English Heritage, and the details of the proposed works submitted by Capita Symonds along with the application for SMC.

#### 1.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

1.2.1 In 1123 Stephen, then Count of Mortain and, from 1135, King Stephen, provided a site at Tulketh, on the outskirts of Preston, for a group of monks of the Order of Savigny, a monastic congregation that had been recently founded in Normandy by Vital of Mortain. Only 13 monasteries following the French order of Savigny (founded c 1090) were established in Britain, and Furness was the earliest monastic house in the region (Pevsner 1969, 16) In 1127, Stephen transferred the brethren to a much more suitable site in Furness. Exactly twenty years later, in 1147, it was decided to amalgamate the Order of Savigny with the great Cistercian Order, then at the height of its fame (Dickinson 1965). The Furness house was already partially built by that time, so the Cistercians adapted the site, incorporating all of the components usual in their foundations, albeit with some distinctive variations and a slightly unorthodox alignment dictated by the shape of the valley, the situation of the Mill Beck, and nearby springs.

1.2.2 The abbey's possessions included most of the great peninsula of Furness (though not the neighbouring one of Cartmel), with its forests to the north and rich agricultural land to the south (*ibid*). This was fertile land, and considerable-sized plots were brought into cultivation by the monks. Furthermore, the development of a harbour at Piel, off the Furness coast, facilitated access to Ireland and the Isle of Man. Benefactions were steadily flowing in to Furness Abbey, and by gift and purchase important property was acquired deep into the Lake District and over into Yorkshire (*ibid*). Under the guidance of successive abbots, the economy of Furness greatly improved, owning a number of mills and overseeing the development of sheep farming in the area (*ibid*). The abbot's secular court was held at Dalton and in 1239 the town was granted its royal charter, the first in Furness. The charter came with a permit to hold a weekly market and annual fair.

1.2.3 At the time of its dissolution in 1537, a survey described 'divers granges, fields, meadows, mills, fisheries, within the manor' and 'orchards, mill, and certain closes adjoining [the abbey]' (West 1774, 100).



### 1.3 OXFORD ARCHAEOLOGY NORTH

1.3.1 Oxford Archaeology North has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 30 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process and according to any statutory constraints, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.

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.

## 2 OBJECTIVES

2.1 The following programme has been designed to identify any surviving archaeological deposits or features and provide for accurate recording of any archaeological remains that are disturbed during the groundworks.

2.2 **Watching brief:** to carry out a permanent presence watching brief during the groundworks for the proposed cycleway, to determine the quality, extent and importance of any archaeological remains on the site.

2.3 **Report and Archive:** a report will be produced for the client within eight weeks of completion of the fieldwork. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

## 3 METHOD STATEMENT

### 3.1 HEALTH AND SAFETY

3.1.1 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. A risk assessment will be completed in advance of any on-site works. It is assumed that any information regarding health and safety issues on site will be made available by the client to OA North prior to the work commencing on site.

### 3.2 WATCHING BRIEF

3.2.1 **Methodology:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the proposed ground disturbance. This work will comprise observation during the groundworks, the systematic examination of any subsoil horizons exposed, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.

3.2.2 The watching brief will cover all of the elements of intrusion (topsoil stripping, posthole excavation) and the removal of a section of the Abbey Precinct wall within the scheduled area.

3.2.3 Putative archaeological features and/or deposits identified, together with the immediate vicinity of any such features, will be cleaned by hand using trowels and, where appropriate, sections will be studied and drawn. Any such features will be sample excavated (ie. 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).

- 3.2.4 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 plan provided by the client.
- 3.2.5 A photographic record will be undertaken simultaneously of features and finds, and of general working shots. This will entail monochrome contact prints with replica digital photographs for presentation purposes.
- 3.2.6 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, where appropriate.
- 3.2.7 **Contingency plan:** in the event of significant archaeological features being encountered during the watching brief, discussions will take place with English Heritage, as to the extent of further works to be carried out. All further works would be subject to a variation to this project design. In the event of environmental/organic deposits being present on site, it would be necessary to discuss and agree a programme of palaeoenvironmental sampling and or dating with English Heritage.

### 3.3 ARCHIVE/REPORT

- 3.3.1 **Archive:** 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 Archaeological Projects*, 2nd edition, 1991). This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Cumbria 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, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum.
- 3.3.2 **Report:** one bound copy and one unbound copy of a written synthetic report will be submitted to the client, together with a copy to the Inspector of Ancient Monuments, together with a digital copy supplied as pdf files on CD-ROM within eight weeks of completion of fieldwork. Any finds recovered will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted. The report will also include a complete bibliography of sources from which data has been derived.
- 3.3.3 **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 OTHER MATTERS

### 4.1 PROJECT MONITORING

- 4.1.1 Monitoring of this project will be undertaken through the auspices of English Heritage as part of the SMC.

### 4.2 WORK TIMETABLE

- 4.2.1 The duration of the archaeological presence for the watching brief will be dictated by the client's schedule of groundworks.
- 4.2.2 The client report will be completed within approximately eight weeks following completion of the fieldwork.

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### 4.3 STAFFING

- 4.3.1 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.
- 4.3.2 The watching brief and any subsequent excavation will be supervised in the field by an OA North project supervisor.
- 4.3.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Chris Howard-Davis** (OA North project officer). Chris acts as OA North's in-house finds specialist and has extensive knowledge of all finds of all periods from archaeological sites in northern England.

### 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.

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## APPENDIX 2: CONTEXT REGISTER

CONTEXT NO	DETAIL	DIMENSIONS (BGL)	DESCRIPTION
<b>1000</b>	Topsoil	0.25m depth	Mid reddish-brown, friable, sandy-silt
<b>1001</b>	Subsoil	0.5m depth	Mid reddish-brown, friable, sandy-silt, with angular inclusions of sandstone
<b>1002</b>	Natural	1.02m depth	Observed in sondage at the western end of the trench.  Mid reddish-brown, friable sandy-silt, 50% angular sandstone
<b>1003</b>	Cobbled Surface	<4.2m width	Compact, regular, single course cobbled surface, with a mixture of large and small water-rounded stones.  Below <b>1014</b>
<b>1004</b>	Structure, boundary wall/track	3m length visible	A six course boundary wall/track of sandstone blocks, roughly hewn, visible close to the Abbey Precinct Wall in the Amphitheatre earthworks
<b>1006</b>	Disturbed cobbled surface	0.18m depth	Single course, cobbled surface with a range of small to medium, water-rounded granite stones.  Part of same surface as <b>1003</b> and <b>1007</b>
<b>1007</b>	Cobbled surface	<4.2m width 0.28m depth	Single course, cobbled surface with a range of small to medium, water-rounded granite stones, with the largest face uppermost. Wheel rutting evident.  Abutted by <b>1008</b>
<b>1008</b>	Kerb or possible foundation wall	0.48m width 0.3m depth	Single course, linear foundation/revetment, with large granite and sandstone boulders showing possible chisel marks.
<b>1009</b>	Sandstone rich track foundation	0.13m depth	Mid reddish-brown, friable silty-sand, 50% angular sandstone fragments, poorly sorted.  Over <b>1010</b>
<b>1010</b>	Charcoal rich deposit	0.31m depth	Dark brownish-black, soft, sandy-silt, 60% charcoal flecks and 40% mortar mix.  Below <b>1009</b>
<b>1011</b>	Demolition deposit	0.35m depth	Dark reddish-brown, firm, sandy-silt, 80% red sandstone blocks/fragments
<b>1013</b>	Levelling deposit	0.22m depth	Dark greyish-brown, friable, sandy-silt, 70%

			<p>small to medium angular pieces of sandstone and water-rounded cobbles, poorly sorted.</p> <p>Below <b>1000</b></p>
<b>1014</b>	Former topsoil	0.33m depth	<p>Mid reddish-brown, friable, sandy-silt, 1% flecks/small stones.</p> <p>Below <b>1013</b></p>
<b>1015</b>	Upper foundation layer	0.38m depth	<p>Dark reddish-brown, friable, silty-sand, 80% small angular sandstone, poorly sorted.</p> <p>Below <b>1003</b> and above <b>1016</b></p>
<b>1016</b>	Lower foundation layer	<2.75m length <2m width 0.58m depth	<p>Mid pinkish-brown, friable, silty-sand, 60% inclusions, small to medium water-rounded stones and small sandstone fragments.</p> <p>Below <b>1015</b> and above <b>1002</b></p>

### APPENDIX 3: FINDS REGISTER

Cxt = Context; OR = object record number; Mat = material; Cat = category; No = number of fragments;  
U/s = unstratified

Cxt	OR	Mat	Cat	Type	No	Description	Period
1000	1038	Ind debris	slag		5	Glassy slag	Post-medieval
1001	1011	Bone			1	Calcined fragment. Very small	
1001	1014	Bone			4	Some burnt, fragmentary	
1001	1011	Ceramic	building material		1	Thick tile fragment?	not closely dateable
1001	1014	Ceramic	building material		1	Small worn fragment with well-made square hole in one side	not closely dateable
1001	1015	Ceramic	building material		1	Small fragment tile. Possibly worn floor tile	not closely dateable
1001	1020	Ceramic	building material		5	Small fragments and chips	
1001	1012	Charcoal			11		
1001	1010	Glass	window		1	Small iridescent pane-edge fragment greenish window. Rectangular quarry, grozed	Seventeenth-eighteenth century
1001	1016	Ind debris			1	Heavy white substance, appears to resemble plaster but too heavy. Possibly lead-working	not closely dateable
1001	1009	Iron	object		1	Unidentifiable object	
1001	1026	Iron	object		1	Unidentifiable object	not closely dateable
1001	1035	Iron	nail		2	Nail fragments, one head	not closely dateable
1001	1033	Lead	gallet		1	Large Gallet, run-in around a sub-rectangular or oval object. 52 x 40 x 28 mm	not closely dateable
1001	1032	Mortar			1	Small fragment of mortar	not closely dateable
1001	1000	Stone	building material	worked	1	Small fragment of carved round moulding	Medieval ?
1001	1001	Stone	grindstone??		1	Red sandstone, large disc with central perforation which does not penetrate the entire block	not closely dateable

<b>1001</b>	1002	Stone	building material	grave slab??	2	Greyish stone (not identified). Carved moulding, seems to be a flat slab, possibly grave slab	Medieval ?
<b>1001</b>	1003	Stone	building material	roof tile	4	Three Lakeland slate and one red sandstone roofing tile	not closely dateable
<b>1001</b>	1013	Stone	building material	roof tile	2	Two part-complete roof tiles, probably Lakeland slate	not closely dateable
<b>1001</b>	1028	Stone	worked		1	Fragment of red sandstone, dressed on two opposing surfaces. Some diagonal tooling, Simple moulding	Medieval?
<b>1003</b>	1038	Ceramic	vessel		1	Rim fragment, self-glazed redware	Nineteenth century or later
<b>1003</b>	1039	Coal			1		
<b>1003</b>	1033	Glass	window		1	Small iridescent mid-pane fragment greenish window	Seventeenth-eighteenth century
<b>1003</b>	1032	Ind debris	slag		4	Ropy slag?	Post-medieval
<b>1003</b>	1034	Ind debris	slag		9	Ropy slag	Post-medieval
<b>1003</b>	1030	Iron	nail		4	Nails	not closely dateable
<b>1003</b>	1030	Iron	buckle?		1	Plain square buckle loop?	not closely dateable
<b>1003</b>	1030	Iron	spike		1	Large spike	not closely dateable
<b>1003</b>	1030	Iron	object		1	Flat cast object?	not closely dateable
<b>1003</b>	1038	Mortar?			1	Fragment of hard sandy mortar?	not closely dateable
<b>1010</b>	1005	Ceramic	building material	tile	1	Large unglazed tile	not closely dateable
<b>1010</b>	1006	Ceramic	building material	tile	3	Worn unglazed tile, some sooting??	not closely dateable
<b>1010</b>	1007	Ceramic	building material	tile	3	Large unglazed tile fragments	not closely dateable
<b>1010</b>	1008	Ceramic	building		7	Thick tile fragments	not closely

			material				dateable
<b>1010</b>	1010	Ceramic	building material		2	Thick tile fragments	not closely dateable
<b>1013</b>	1013	Ceramic	vessel		1	Abraded body fragment incompletely reduced fabric	Thirteenth-fourteenth century
<b>1013</b>	1013	Ceramic	tobacco pipe		1	Large bore stem fragment	Seventeenth century?
<b>1013</b>	1016	Ind debris	slag		1	Glassy slag	Post-medieval
<b>1013</b>	1018	Ind debris	slag?		2	Joining fragments, very heavy metallic-looking material	
<b>1013</b>	1018	Iron	nail		1	Clenched nail	
U/s	1036	Lead	strip		1	Strip, c 87 x 21 x 1.5 mm	not closely dateable
U/s	1019	Ceramic	vessel		1	Fully reduced green-glazed ware. Bung-hole from cistern. Abraded	Fourteenth-sixteenth century?
U/s	1023	Ceramic	building material		5	Small fragments and chips	
U/s	1036	Ceramic	building material?		1	Very small fragment	not closely dateable
U/s	1008	Glass	window? ?		1	Mineralised greenish ?window glass, possibly cylinder blown	Post-medieval
U/s	1015	Glass			1		
U/s	1017	Glass	window		2	Small iridescent mid-pane fragments greenish window	Seventeenth-eighteenth century
U/s	1021	Glass	vessel		2	Colourless body fragments. Embossed; probably milk bottle	Twentieth century or later
U/s	1037	Glass	window		1	Small iridescent mid-pane fragment greenish window	Seventeenth-eighteenth century
U/s	1024	Ind debris	slag		2	Ropy slag	Post-medieval
U/s	1035	Ind debris	slag		1	Ropy slag	Post-medieval
U/s	1022	Iron	nail		4	Nails	not closely dateable



U/s	1022	Iron	blade?		1	Pointed tip of blade?	not closely dateable
U/s	1025	Iron	holdfast?		1	Large ?holdfast	not closely dateable
U/s	1027	Iron	nail		2	Nails	not closely dateable
U/s	1027	Iron	object		1	Unidentifiable object	not closely dateable
U/s	1031	Iron			1	Unidentifiable object	not closely dateable
U/s	1034	Iron	hinge?		1	L-shaped wall spike, probably hinge pivot. L: 90 mm	not closely dateable
U/s	1004	Stone	building material		1	Red sandstone. Small diameter column fragment	Med?
U/s	1009	Stone	ball		1	Small sphere, pink granite	not closely dateable
U/s	1012	Stone	whetstone?		1	Flat oval stone. Sandstone. Worn and striated surfaces suggest use as a whetstone	not closely dateable
U/s	1028	Stone	building material	worked	1	Red sandstone	not closely dateable