27 Castle Hill, Lancaster



Archaeological Evaluation



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SUMMARY

In October 2003, Oxford Archaeology North (OA North) was commissioned by Roy Jackson, of Norman Jackson Contractors, to carry out an archaeological evaluation in advance of the construction of a residential complex at 27 Castle Hill, Lancaster (centred at SD 474 617). A Roman fort is known to have occupied Castle Hill from the late 1st to 4th centuries AD, constructed in three successive phases (Fig. 3). There has been some previous archaeological excavation on Castle Hill but the south side of the fort has never been precisely located in any of its phases. The site of the proposed development is therefore potentially of great archaeological significance, being situated in what is thought to be the south-east corner of the Roman fort. No recent excavations have taken place in the immediate vicinity of the site and little is known about the extent and nature of any extant Roman deposits here. It is the last empty plot on Castle Hill and, unlike the other plots in the vicinity, it was hoped that there had been no cellaring here in the post-medieval period.

A single evaluation trench was excavated centrally through the plot, measuring approximately 12 m in length by 3 m wide. The depth of the archaeology encountered necessitated the stepping-in of the trench at a depth of 1.5 m, in order to comply with health and safety regulations, narrowing it to 0.70 m (*Section 2.2.1*). The total area excavated equated to approximately 5% of the site. A substantial portion of the site could not be investigated, due to the presence of a wall that marks the western boundary of the site, as it was feared that any excavation would undermine and destabilise the wall.

The evaluation trench established the lack of any cellar on the site, and it was clear that the Roman stratigraphy underlying the 18th century levels was intact and had been subject to little medieval or post-medieval truncation. The Roman deposits at the eastern end of the trench, sealed by early post-medieval layers **10**, **28** and **32**, lay deeper than those at the west, which were directly below post-medieval layers and structural features. At least two distinct phases of Roman activity could be identified, one apparently dating to the 4th century, the other to the 2nd century. The unexplored western part of the site, adjacent to the standing wall, deserves close inspection once the wall has been removed, as the western half of the evaluation trench contained the site was indeed within the south-east of the fort, although deposits, **16**, **21**, **22** and **23**, associated with 2nd century pottery might possibly constitute the surviving remains of the eastern rampart. This assumption is currently tenuous, however, given the limited area of the investigations.

The limited area examined in the course of the evaluation made interpretation of the features difficult; despite this, the evaluation established the lack of modern disturbance by cellars and the presence of *in situ* Roman deposits in this area. Given the above, it is highly recommended that the western part of the site, which is the least explored and will be most affected by development, be subject to a full archaeological investigation should the development proceed. Particular emphasis should be placed on establishing whether deposits, *16*, *21*, *22* and *23*, were indeed components of a rampart associated with the Roman fort, and on characterising the nature of the 4th century activity.

Oxford Archaeology North would like to express its thanks to Roy Jackson and his team of architects and engineers for commissioning the work. Thanks are also due to Professor David Shotter and Tony Wilmott (English Heritage) for expressing an interest in the site and offering invaluable advice during the course of the works.

The archaeological evaluation was carried out by Arran Ferguson, Phillipa Kok, Jon Onraet, David McNicol and Chris Ridings with the report written by Arran Ferguson and Fraser Brown. The finds assemblage was assessed by Sean McPhilips. The environmental assessment was undertaken by Elizabeth Huckerby and drawings compiled by Emma Carter. The project was managed by Alison Plummer.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Oxford Archaeology North (OA North) undertook a programme of archaeological evaluation at 27 Castle Hill, Lancaster following a request from Norman Jackson Contractors and the issue of a brief by the Lancashire County Archaeological Service (*Appendix 1*). The site, centred on National Grid Reference (NGR) SD 474 617, is located to the south-east of Lancaster Castle, adjacent to the premises of the Tourist Information Office (Fig. 1). A single trench measuring 12 m by 3 m was placed centrally on the site along an east/west axis and amounted to approximately 5% of the proposed development area.
- 1.1.2 The programme of work comprised an archaeological evaluation of all subsurface deposits within this trench. This was undertaken during October and November 2003. The construction of the proposed development, which includes a half cellar towards the front (western part) of the property, would necessitate below ground disturbance of this part of the site and would directly impact upon a suspected archaeological resource. The evaluation was conducted, in the first instance, to ascertain the pre-existence of any cellars that would have truncated archaeological remains. Secondly, the evaluation was intended to define, should cellars not be present, the date, nature and extent of any archaeological remains.
- 1.1.3 Results of this evaluation are presented in the form of a report outlining the findings, followed by a statement of the archaeological potential of the site and the impact of the proposed development; subsequent recommendations for further archaeological works are also put forward.

1.2 Geology and Topography

- 1.2.1 Castle Hill rises to a maximum height of 25m above River Lune, and drops down to a bluff, overlooking the Lune, which was the focus for an extramural settlement in the Roman period and later the medieval town. This elevation made an ideal position for defensive fortifications and its view of the river Lune was of primary strategic importance. It is known that narrow terraces were built along the north-east slopes of Castle Hill in the eighteenth century (Potter *et al* 1988, 31), although the full extent to which Roman military engineers altered the topography has yet to be established. The current development area also indicated possible evidence of terracing towards the eastern half of the site (*Section 4.1*), but further excavation will be needed to confirm the date and extent of this activity.
- 1.2.2 The solid geology of Lancaster consists predominantly of Silesian (Upper Carboniferous) grey-brown or reddened, medium to coarse-grained sandstones of the Pendle Grit Formation, which is part of the Millstone Grit Group (British Geological Survey 1992). These sandstones are thickly bedded with thin siltstone partings but with mixed sandstone/siltstone units near the top. The

drift geology for the site has been mapped as glaciofluvial sheet deposits of clayey sands and gravels.

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 *Introduction*: this area of the town, known as Castle Hill, lies within the core of Roman and medieval Lancaster, a major historic centre in northern England. This position must have had some significance to the local prehistoric communities as a bronze palstave was found here (White 1988, 207). Other prehistoric finds including Bronze Age urns, Neolithic flint tools and a Mortlake bowl were recovered from the area of the surrounding town (*ibid*). The available evidence indicates that the site was settled initially during the Roman period, towards the end of the 1st century AD, with the establishment of an auxiliary fort in a strategic position above the lowest fording point of the River Lune (Jones and Shotter 1988) (Fig. 3). Modifications to the fort during the early-mid 2nd century included a conversion to stone-revetted ramparts and an enlargement of the fortified area. The line of the southern front of the fort is conjectural, however, deposits discovered under the Storey Institute (Penny 1981) could denote activity alongside a road leading from the southern gate of the fort. The position of the fort's eastern gate, to the north of the study area, was established by rescue work in the 1970s (Jones and Shotter 1988); present day Church Street leads east from this gate retracing the route of a Roman track. When considered together these findings suggest that 27 Castle Hill is either within the southeast corner of the fort or just outside it, in the extramural settlement.
- 1.3.2 During the mid 4th century, the fort was reoriented and rebuilt, incorporating a substantial circuit wall, known as the Wery Wall (Edwards 1988, 21-2) (Fig. 3). It is presumed that these works were part of a programme of coastal defences, and may be viewed as a northern version of the Saxon Shore Fort tradition, perhaps indicating that Lancaster acted as a supply base for an Irish Sea fleet (*ibid*).
- The evidence for the immediately post-Roman period is slight, based largely 1.3.3 upon isolated chance finds but it is probable that settlement persisted in the vicinity. A hoard of ninth century stycas and several fragments of carved stone crosses could indicate the site of an Anglian monastic foundation on Castle Hill, although place name evidence might suggest an ethnically mixed population, including those of Norse decent (Penny 1981, 13). The Domesday Survey of 1080-86 records two independent vills of the manor of Halton, 'Loncastre' and 'Chercaloncastre', the latter being in the area of the castle (*ibid*). Since the late eleventh century, the hill has been dominated by the Norman castle and the Priory, which was originally established c1094, presumably in the area of the earlier church (Jones and Shotter 1988). The Norman castle was situated within the presumed southern boundary of the earlier two phases of Roman fort, but failed to reference the reoriented ground plan of the third phase of the fort, especially as elements of this were still standing.
- 1.3.4 The medieval town seems to have developed rapidly after the granting of a borough charter in 1193, which encouraged the establishment of full urban functions, including a weekly market. There is some evidence to suggest, that it was founded on the scheme of the Roman extramural settlement and directly

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influenced by it. Specifically, the medieval layout of Church Street was structured by the earlier Roman layout (Penny 1981, 12), inferring some continuity of settlement and significantly town planning. As is typical of many towns of the period, the land flanking the streets was subdivided into individual burgage plots (Jones and Shotter 1988) and some of these, in the older parts of town, may also have had Roman origins.

- 1.3.5 During the post-medieval period, the hillside to the north of the study area was divided into three terraces as a result of a landscaping programme (Jones and Shotter 1988). The degree of landscaping on the site during the medieval and early post-medieval periods is at presently unknown, but a recent watching brief of a trial hole against the western boundary wall of the Judges' Lodgings suggests that this terracing did not extend as far south as the study area.
- 1.3.6 Docton's map of 1684 shows the study area to be vacant (Fig. 4), though by 1778, as illustrated by Mackreth's map, the front of the property had been built upon and was continuously occupied until the modern period (Fig. 5). Photographs from the late 1950s show a house set back from the current street frontage respecting what appeared to be a 18th century property line, denoted by large cut sandstone kerbstones.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 OA North submitted a project design (*Appendix* 2), in response to a request from Norman Jackson Contractors, for an archaeological evaluation at 27 Castle Hill, Lancaster. Following acceptance of the project design by LCAS, OA North was commissioned to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists.

2.2 TRIAL TRENCHING

- 2.2.1 The programme of trial trenching aimed to establish the presence or absence of archaeological deposits, largely dependent upon the presence or absence of post-medieval cellars, together with establishing the nature, extent and date of these deposits should they be located.
- 2.2.2 The brief (*Appendix 1*) required that 5% of the site be subject to archaeological evaluation, which entailed the excavation of one trench, approximately 12 m long by 3 m, on an east/west axis in the centre of the site (Fig. 2). This had to be stepped-in after a depth of 1.5 m, on grounds of health and safety, to 0.7m wide. A further stepping in of the trench, in order to permit the sampling of the lower deposits, was not desirable as the restricted size of the site militated against opening a window suitable for pertinent interpretation. Archaeological deposits were evident to a depth of 2 m towards the western end of the trench.
- 2.2.3 The trench was excavated by machine with a toothless ditching bucket to the level of archaeological deposits, after which all excavations were undertaken manually with trowels, spades and mattocks.
- 2.2.4 **Recording:** all information identified as potentially archaeological in nature was recorded stratigraphically with accompanying documentary evidence (plans, sections and both colour slide and black and white print photographs).
- 2.2.5 Results of the evaluation were recorded using a system devised from that used by the Centre for Archaeology of English Heritage. The archive includes both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:10 and 1:20). Features thought to be of possible archaeological potential were recorded using *pro forma* Context Record sheets.

2.3 FINDS

- 2.3.1 *Artefacts:* all finds recovered were bagged and recorded by context number, processed and stored according to current standard practice based on guidelines set by the Institute of Field Archaeologists; they were retained for assessment. The finds have been analysed by an OA North in-house specialist. The finds are discussed in *Section 3.3* and a complete finds catalogue is presented in *Appendix 4*.
- 2.3.2 *Environmental Samples:* samples were collected for palaeoenvironmental analysis as appropriate; a single monolith sample of the potential 'turf line' deposit, *19*, covering *21*, part of the possible Roman rampart, was retrieved and is discussed fully below (*Section 3.4*).

2.4 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with the current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Lancashire Record Office, Preston, on completion of the project.

3.1 **R**ESULTS

- 3.1.1 A total of 35 context numbers were issued to the structural remains, archaeological deposits and cut features encountered during the evaluation. A full list of contexts is included within *Appendix 3* and a full stratigraphic matrix illustrates the contexts by phase (Fig. 8). A total of 175 finds were retrieved from the site and discussed below (*Section 3.3*) and listed in *Appendix 4*. A single monolith sample was taken, and the results of the analysis are described in *Section 3.4*.
- 3.1.2 The stratigraphy, that is discussed in detail below *Section 3.2* and is depicted in Fig. 6 and 7, comprised a palimpsest of early post-medieval and 2nd and 4th century Roman deposits and features. These occurred below the structural remains of an 18th century property (Fig. 4), walls 3, 7 and 9, the lower courses of which are still extant and were detected at the west of the trench demarcating the street frontage of the property and at the south side of the trench, denoting an external wall. This structure had been partially incorporated into the build of a 19th century property, of which floor surfaces, 4, 12-14 and walls 5 and 6, surviving to a height of four courses, remained sealed below the rubble associated with its demolition.

3.2 TRENCHING RESULTS

- 3.2.1 The initial purpose of this programme of archaeological evaluation was to establish the presence or absence of modern intrusions by cellaring on the development site. This was resolved after removal by machine of modern rubble, 1, and subsoil, 11, revealed early post-medieval strata, 10, 32 and 18=28, sealed by 18th and 19th century structural remains, but no cellaring. It seems probable that a degree of truncation must have occurred prior to or during the construction of the suspected 18th century property, although the impact on the uppermost early post-medieval deposits 10 and 18=28 was slight (Fig. 6). The relationship was ambiguous between the 18th century street frontage curb stones/western external wall, 3, and the deposits on the west side of the property. Deposits 25, a charcoal-rich, undated deposit and stone surface, 2, capping 25, could have either been truncated by the property or alternatively accumulated up against it. Deposit 26, undated by finds, was sealed under 25 and in turn sealed a 'turf' line, 19, that is believed to be Roman in date (Section 3.4).
- 3.2.2 Below an internal floor surface, 4, of the 19th century property, towards the west end of the development site, were 12, 13 and 14, successive layers of sand and mortar levelling, also believed to relate to the 19th century property. These were over a charcoal-rich deposit, 15, related to the earlier 18th century property. An east/west aligned internal wall, 5, in which a doorway had been incorporated, occurred directly above deposit 14 in the south-facing section of the trench. This wall abutted, 3, which demarcated the front of the 18th

surface, 8.

century property and thus the latest 19th century building could be seen to have incorporated elements of the antecedent structure. An undated deposit, 17, was sealed beneath 3 in the same section. On the other side of the trench was an internal brick wall, 6, which was similar to 5 and part of the same 19th century structure. An east/west 18th century cut-stone wall, 9 in cut 29, adjacent to which a sewage pipe had been cut (Plate 4), occurred in the east end of the north-facing section of the trench. A second cut-stone 18th century wall, 7, was recorded running north/south out of the north-facing section of the trench. Both these walls truncated early post-medieval deposit 28. The early post-medieval deposits, 10 and 28, were sealed below a modern concrete yard

- 3.2.3 The uppermost early post-medieval layers, 10 and 28, were well dated by the finds they contained, and occurred directly below 19th and 18th century structural features, in the eastern half of the trench. Layer 18 was believed to be equivalent to 28, and, therefore, also early post-medieval in date. However, it contained exclusively 2nd century pottery, as well as an 18th century copper alloy pin, and in the south-facing section of the trench it appeared to be a constituent of the possible Roman rampart (Section 3.2.4) along with deposits 16 and 21. It is considered likely, therefore, that layer 18 actually comprises two deposits, respectively dating to the early post-medieval and Roman periods, which could not be distinguished apart in excavation. Below deposits 18=28 was a substantial layer, 32, that occurred over most of the trench, sealing Roman deposits 34 and 16 and pit fills 27 and 24. Layer 32 contained a mixture of Roman, medieval and post-medieval deposits and was possibly a back yard deposit. In the north-facing section of the trench layer 32 filled a posthole, 30, which cut Roman deposits, pit fill 27 and layer 34.
- 3.2.4 The remaining layers and deposits were dated to the Roman period, by the volume of pottery recovered from each level, though the limited area investigated made a full interpretation of the features difficult. This stated, three features were clearly defined by their morphology and a partial interpretation seems possible. A pit, **35**, sealed by post-medieval layer **32** and containing residual Roman 2nd/3rd century pottery, in its associated fill, **24**, was identified in the south-facing section of the trench truncating an earlier deposit, **34**, that contained Roman pottery of 2nd/3rd century and 4th century date. A second pit, **31**, occurred at the same position in the stratigraphic sequence. This pit contained several sherds of Roman pottery dating to the 4th century, in deposit **27**, in addition to earlier residual material.
- 3.2.5 An earlier feature, 16, was identified towards the western end of the trench, consisting of a hard compacted clay with a metalled surface (Plate 2), overlain by layer 34 and a charcoal-rich deposit, 19, discussed in full below (Section 3.4). This feature, 16, (Plate 2) was associated with banked-up deposits of redeposited natural, 21, 22 and 23, and may represent a rampart or revetment to internal features yet to be investigated. All these deposits were associated with 2nd century pottery.
- 3.2.6 Deposit **22** declined to the east of the trench following the slope of the ground, resulting in a greater accumulation of material, specifically deposits **24**, **32** and

34, at this end of the trench (Fig. 6 and 7). Natural subsoils were only attained at the eastern end of the trench, at a depth of 2.4 m.

3.3 FINDS

- 3.3.1 In all, 175 fragments of artefacts and ecofacts were recovered in the course of the excavation. Of these the majority were from pottery vessels of Roman, medieval and post-medieval date. Alongside these were 19 fragments of ceramic tobacco pipe and 14 small and abraded fragments of tile. The fragments were all small to medium in size and an element of the Romano-British ceramic and tile assemblage was somewhat abraded, suggesting some disturbance and reworking of the archaeological deposits.
- 3.3.2 The few items of metalwork recovered included six objects of iron, all probably nails, none of which can be closely dated. A copper alloy pin can probably be dated to the 18th century but derived from layer 18 which otherwise produced only Roman material. A poorly preserved and fragmentary Headstud-type brooch from deposit 22 is probably dated to the 2nd century AD. Only very small quantities of metal-working debris were recovered, from 2nd century layer 22, and cannot be regarded as indicative of metal-working on the site at any time.
- 3.3.3 Layers 16, 18, 21, 22, 34 and pit fills 24, 27 produced only Romano-British pottery. This ranged in date from the late 1st to the 4th century. The later pottery occurred exclusively in the uppermost Roman deposits, suggesting two principal phases of activity. Small, fragments of samian from Lezoux, South, Central, and East Gaulish producers was noted, in a range of vessel forms including, unusually, mortarium. Samian from different production areas occurred together in the same contexts. The samian within the lowest deposits, 16 and 21, was exclusively 2nd century; most of the samian in the upper deposits was also 2nd century and is residual, although one sherd, from layer 34 that sealed 16, was possibly 2nd/3rd century.
- 3.3.4 The coarsewares clearly derived from a number of producers, including locally-produced Quernmore wares, Severn valley ware, and Black Burnished ware 1. Of interest amongst the coarsewares is the presence of Huntcliff ware, characteristic of the 4th century, occurring within layer 34 and pit fill 27. These deposits seal the constituent deposits, 16 and 21, of the possible rampart, which contained 2nd century pottery. The occurrence of Huntcliff ware here, in consecutively stratified deposits, demonstrates the persistence of relatively intense activity associated with the latest phase of the fort or an extramural settlement peripheral to it.
- 3.3.5 Although fragments of tile/brick were all small and abraded, one, from layer **22**, appears to be part of a box flue tile and is thus probably Roman, and suggests the proximity of a hypocaust-heated building.
- 3.3.6 Medieval pottery was confined to a few fragments of later wares, such as Silverdale, which was still current in the 17th century. Two layers, *10* and *28*,

contained an early post-medieval assemblage, including tablewares, of late 16th to early 17th century date. A considerable amount of the post-medieval pottery and two fragments of vessel glass, all of late 17th to 18th century date was recovered effectively unstratified from 'alongside a wall', wall 9. It was difficult to attribute this pottery to the construction of the wall as a modern sewage drain had been cut adjacent to it. The post-medieval assemblages help define two principle phases of later activity. The earliest phase is domestic in character but relates to the use of the site as a yard at this time. The assemblage belonging to the later phase is associated with the structures that were erected on the site in the 18th century.

- 3.3.7 In all, 19 fragments of clay tobacco pipe were recovered, all from wall *9*, only one being a bowl of 18th century date.
- 3.3.8 Poorly preserved and crumbling animal bone was recovered from two postmedieval contexts, wall 9 and layer 18, and three Roman contexts, layers 21 and 22 and pit fill 27. It is too badly preserved for analysis.

3.4 Environmental Results

- 3.4.1 Deposit **19** (Figure 6 and Plate 3) was a dark band, 0.03 m thick, which lay above the stony silt/clay layer, **21**, and below silty/clay, **26**. It was interpreted on site as a buried turf layer associated with the deposits comprising the possible Roman rampart, **16**, **21**, **22**, **23**. It was hoped to confirm whether this was case by characterising the environmental profile of these deposits. A monolith sample, 0.27m long, was taken through the three contexts, **26**, **19** and **21**.
- 3.4.2 The monolith was examined in the laboratory and the stratigraphy was recorded and described below. Three subsamples were taken at depths of 0.11 m, 0.13 m and 0.15 m from the top of the monolith.
- 3.4.3 The samples were prepared in the laboratory for pollen analysis using the standard techniques of Potassium Hydroxide, acetolysis and hot Hydrofluoric acid treatment (Faegri and Iversen 1989). The residues were mounted in silicone oil and examined with an Olympus BH-2 microscope using x400 magnification routinely and x1000 for critical grains. It is the policy of OA North, were possible, to continue counting pollen until a sum of at least 50-100 pollen grains from land pollen types had been reached on two or more complete slides, to reduce the possible effects of differential dispersal under the coverslip (Brooks and Thomas 1967). If pollen is very sparse counting continues until two complete slides have been assessed. Pollen identification was carried out using the standard keys of Faegri and Iversen (1989) and Moore *et al* (1991) and a small reference collection held at OA North. Because the samples were only being assessed, pollen grains not identified rapidly were recorded in either larger categories eg Asteraceae (Daisy-type) and Lactuaceae (Dandelion-type) or as undifferentiated grains. Cereal-type grains were defined using the criteria of Andersen (1979); indeterminate grains were

recorded using groups based on those of Birks (1973). The data are presented in a table as percentage values of the pollen sum, which includes all land pollen types and bracken spores. OA North normally records charcoal particles greater than 5μ but at 27 Castle Hill, Lancaster this was omitted because the numbers of fragments was so high in samples taken at 0.13 m and 0.15 m from the top of the monograph.

- 3.4.4 The coarser fraction of the samples, that was discarded during the chemical preparation of the samples for pollen analysis, was examined with a low powered binocular microscope. All plant material was recorded and other components were noted.
- 3.4.5 *Stratigraphy*: the stratigraphy of the monolith sample is described in Table 1:-

Depth in metres from top	Context number	Description
of monolith (m)		
0-0.12	26	Silty/clay with modern roots
0.12-0.15	19	'Turf' layer with charcoal
		fragments and modern roots
0.15-0.27	21	Clay/silt with stones

 Table 1: Stratigraphy of monolith sample

- 3.4.6 *Palynological Results* (see *Table 2*): the two samples from the possible buried turf layer, *19*, contained abundant pollen. The preservation of the pollen grains was mixed with between 45% to 58% unidentifiable grains. Herbaceous pollen, mainly from grasses, dominated the pollen assemblage. The sample at 0.13 m, the upper boundary of the 'turf' layer had high percentages of nettle pollen, suggesting nitrogen-rich conditions, and at the lower boundary, 0.15 m, dandelion-type pollen was recorded at values of 8.3%. At 0.11 m, the clay / silt band, *26*, the quantity of pollen was very low indeed. Charcoal particles were very abundant in the two samples (0.13 m and 0.15 m) from *19* and less in the sample from 0.11 m, *26*.
- 3.4.7 *Macroscopic Plant Remains*: the two samples from *19*, at 0.13 m and 0.15 m, contained frequent fragments of charcoal but no other macroscopic plant remains. At 0.11 m, *26*, very occasional small fragments of charcoal were noted but no other organic material.
- 3.4.8 The analysis of the palynological and macroscopic plant remains suggested that deposit **19** was not a turf bank after all, as is discussed in the conclusion (*Section 4.1.5*). Ambiguity in the dating and interpretation of layer **18**, which sealed **19**, and the lack of dating evidence from **19** itself makes it difficult to accurately phase this deposit; currently it is considered most likely to be of Roman date.

Depth m from top of monolith		0.13	0.15
Trees + Shrubs		25	35
Herbs		68	61
Pteridium aquilinum	Bracken	7	4
Betula	Birch	3	3
Pinus	Pine		1
Quercus	Oak		1
Alnus	Alder	9	19
Corylus avellana-type	Hazel	14	10
Salix	Willow		1
Hedera	Ivy		1
Ericales	Heathers	4	6
Gramineae	Grass	33	31
Cerealia	Cereal-type	1	2
Plantago spp	Plantain	2	
Rumex acetosa-type	Common Sorrel type	1	
Urtica	Nettles	17	
Filipendula	Meadowsweet		1
Chenopodiaceae	Goosefoot family		1
Caryophyllaceae	Stitchwort family		2
Apiacear	Carrot family	2	
Lactuceae	Dandelion type	4	8
Asteraceae	Daisy type	1	1
Rubiaceae	Bedstraws		1
Melampyrum	Cow-wheat		1
Brassicacaeae	Cabbage family	2	3
Sinapsis-type	Mustard type		2
Fabaceae	Pea family		1
Other herbs		1	3
Pteridium aquilinum	Bracken	7	4
Sphagnum Moss	Bog moss	17	4
Pteropsida	Ferns	1	4
Indeterminate grains		58	45
Pollen sum		103	108

Table 2: Results of palynological assessment of 'buried turf' line, deposit 19. Pollen percentage values based on a pollen sum of all land pollen types and bracken spores

4. DISCUSSION

4.1 **Results of Archaeological Evaluation**

- 4.1.1 Initial evaluation of the site at 27 Castle Hill has established the presence of important post-medieval and Roman deposits, artefacts and ecofacts. The depth of these deposits is currently unknown and their precise character is not fully understood due to the unavoidable constraints on the evaluation, although preliminary provisional phasing is attempted in the matrix Fig. 8. What is clear is that only a limited amount of modern disturbance has affected these deposits to date, and the site represents a valuable archaeological resource that, should development take place, deserves a full archaeological investigation to preserve by record the extant remains.
- 4.1.2 Of primary interest is the interpretation of the possible Roman rampart deposits, 16, 21, 22 and 23, located in the west of the trench with the ground sloping away to the east. Previous excavations, to the rear of Judges' Lodgings, located what, on the basis of finds evidence, may have been the eastern rampart of the second phase of Roman fort and other features associated with it (Fig. 3). The current projection for the southern wall of the fort would place 27 Castle Hill on the outside of the fortified precinct, on the south-east, and locate it instead within the extramural settlement (Fig. 3). The southern wall of the fort has not, however, been positively identified and this interpretation must remain conjectural and may yet prove to be inaccurate. It remains a possibility that the area on the east of the fort was annexed, the rampart found at 27 Castle Hill relating to this. The evaluation did not, therefore, conclusively prove that the site was within the fort or that the putative rampart was indeed part of the fortifications, but the fact that its component deposits contained 2nd century pottery is significant in itself, demonstrating that they were associated with the earlier phases of the fort or the extramural settlement surrounding it.
- 4.1.3 The deposits sealing the putative rampart are also important, containing later 4th century pottery. This pottery establishes that the deposits were contemporary with the latest phase of the fort and are perhaps indicative of a change in the use of this area or the remodelling of the topography after the reorientation of the defences during this phase. The deposits certainly indicate relatively intense activity in the zone believed to have been outside the fortifications of the later phase, and, therefore, support the persistence of the extramural settlement, which would not seem to be confined to the area immediately adjacent to the realigned fortifications.
- 4.1.4 It is significant that no early-medieval or medieval deposits were encountered, although a small proportion of the ceramic assemblage in the lower post-medieval layers dates to the later medieval period and indicates activity in the vicinity. The sequence of later post-medieval structures over generic earlier post-medieval layers agrees with the cartographic resources (Fig. 6 and 7), demonstrating that the site was developed in the eighteenth century having been within a yard prior to this.

4.1.5 The environmental assessment did not confirm the buried turf line, *19*, thought to have been a feature of the construction of the rampart of the earlier fort. If the dark band had indeed been a preserved buried turf, one would expect the samples to have had a high organic content, but this was not recorded. Moreover, the high concentrations of charcoal fragments were from woody taxa, rather than from the herbaceous plants that might have been burnt to prevent plant-growth on the rampart. The palynological assessment did, however, demonstrate that pollen was preserved in *19*, and has the potential to inform an understanding of the ecology of the site.

5. IMPACT AND RECOMMENDATIONS

5.1 Імраст

- 5.1.1 The results of the evaluation demonstrate that the proposed development plans, which involve the construction of a half cellar underneath a house in the western part of the site, would necessitate the removal and levelling of a large quantity of significant post-medieval and Roman archaeological deposits, the impact depth of development being almost 3 m and archaeology being encountered from ground surface level to a depth in excess of 2.4 m. The site itself is of unique significance being the only remaining vacant site on Castle Hill that has not been previously developed with cellars.
- 5.1.2 The archaeological impact of the proposed single storey development in the eastern part of the site can be mitigated by piling on nodal points for the support of ground beams.

5.2 **R**ECOMMENDATIONS

- 5.2.1 The archaeological evaluation of the site has established the presence of significant archaeological deposits. The lack of any modern intrusive disturbance has resulted in the survival of *in situ* Roman deposits immediately underlying post-medieval layers and 18th and 19th century structures. In the western half of the site, within the scope of the evaluation trench, these deposits were no more than 0.80m below the current ground level and would therefore require full excavation in order to preserve by record the archaeological resource. The current design proposals include a half cellar at the front of the property (west end), which would necessitate the removal of deposits to a depth of 3 m, the current evaluation recorded archaeological deposits to a minimum depth of 2.4m; the current thinking is that this layer, 22, may represent re-deposited natural subsoil and that significant archaeological deposits may underlie this strata. It is, therefore, highly recommended that preservation by record be the primary mitigation policy for this area. The limited size of the proposed development site dictates that should the proposed cellar be excluded from design plans and piling be implemented as the basis for structural foundations the impact would be such that it could not be described as preservation in situ.
- 5.2.2 The rear property line of the adjacent plot to the north approximately denotes the extent of the proposed excavation. The gradient of the natural subsoil to the east beyond this point shows the archaeological deposits to be at a depth of almost 1 m and are not likely to be impacted upon by the proposed development, providing that the piling plan accommodates the placing of piles in the area of the previously excavated trial trench where the site has already been investigated under archaeological conditions. This has been suggested to the engineers and architects of the proposed development and there is no technical reason why this can not be achieved, allowing for potentially significant remains, in the eastern part of the site, to be preserved *in situ*.

5.2.3 Due to the preservation of pollen and charcoal in the archaeological deposits it is recommended that an environmental sampling strategy forms a part of any future excavation.

6. BIBLIOGRAPHY

PRIMARY SOURCES

British Geological Survey, 1992, Nottingham

English Heritage, 1991 The Management of Archaeological Projects, 2nd edn, London

Docton's Map, 1684

Mackreth's Map, 1778

SECONDARY SOURCES

Andersen, ST, 1979 Identification of wild grass and cereal pollen. *Danm Geol Unders Årbog* 1978, 69-92

Birks, HJB, 1973 Past and present vegetation of the Isle of Skye: A palaeoecological study, Cambridge

Brooks, D, and Thomas, KW, 1967 The distribution of pollen grains on microscope slides. The non-randomness of the distribution. *Pollen and Spores* **9**, 621-629.

Docton K H, 1954 A Directory of Lancaster, 1684

Edwards, BJN, 1988 The Wery Wall, in *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75* (eds GDB Jones and DCA Shotter), Brigantia Monograph No. **1**, Manchester, 21-23

Faegri, K, and Iversen, J, 1989 *Textbook of modern pollen analysis*, 4th edn (Rev by K. Faegri, PE, Kaaland and K, Krzywinski), Chichester

Jones, GDB, and Shotter, DCA, 1988 *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75*, Brigantia Monograph No. 1, Manchester

Moore, PD, Webb, JA, and Collinson, ME, 1991, Pollen analysis, 2nd edn. Oxford.

Potter T W, Andrews A J and White A J, The Primary Rampart: Old Vicarage Excavations 1975, in *Roman Lancaster: Rescue Archaeology in an Historic City* 1970-75 (eds GDB Jones and DCA Shotter), Brigantia Monograph, **1**, Manchester, 21-23

White, A J, 1988 The Pre-Roman Period at Lancaster, in *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75* (eds GDB Jones and DCA Shotter), Brigantia Monograph No. **1**, Manchester, 21-23

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Figure 2 : Trench location map



Figure 3: Location of site on Docton's map of Lancaster, 1684



Figure 4: Location of site on Mackreth's map of Lancaster, 1779



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Figure 5: Location of Roman Forts on Castle Hill (based on Jones & Shotter 'Roman Lancaster' fig 69)



Figure 6: North and south-facing sections







Plate 1: Overview of Site, Looking East



Plate 2: Feature 16, Looking East



Plate 3: Close-up of Possible Turf Line



Plate 4: Eighteenth century wall, 9

APPENDIX 1: PROJECT BRIEF

APPENDIX 2: PROJECT DESIGN

November 2003

Oxford Archaeology North

27 CASTLE HILL, LANCASTER

ARCHAEOLOGICAL EXCAVATION AND WATCHING BRIEF

The following project design is offered in response to a request from Norman Jackson Contractors Ltd for an archaeological excavation in advance of construction of a residential complex in the vacant plot known as 27Castle Hill, Lancaster.

1 BACKGROUND

1.1 <u>Circumstances of Project</u>

- 1.1.1 Norman Jackson Contractors Ltd (hereafter the client) are proposing a new residential apartment complex at 27 Castle Hill, Lancaster, Lancashire (SD 474 617). An archaeological evaluation undertaken recently by Oxford Archaeology North (OA North), has indicated the presence of potentially significant archaeology on site. An extrapolated line from the suspected rampart of the Roman fort located during the recent Judges Lodgings excavations would appear to be in line with a possible defensive feature located during the course of the Castle Hill evaluation.
- 1.1.2 The evaluation trench established the lack of a cellar on the site, and it was clear that the stratigraphy underlying the Georgian levels was intact and had been subject to little medieval or post-medieval truncation, with only one pit like feature encountered that was firmly dated to the medieval period. The underlying deposits appeared to be well sealed and at least two distinct phases of Roman occupation could be identified. Specialist analysis of the pottery recovered will help to establish the chronology of these phases, but initial diagnosis shows a trend towards mid 2^{nd} (c120-150 AD) deposits truncating or overlying earlier (late 1st century c 90-95 AD) levels. These earlier deposits were tentatively dated based on the typology of a single fibulae recovered from beneath a suspected rampart like feature. The recovery of five sherds of possible Iron Age pottery (yet to be analysed) denotes, possibly, the earliest recorded ceramic finds from Lancaster, it is yet to be seen how these sherds relate to the early Roman deposits in which they were found.
- 1.1.3 The limited space examined in the course of the evaluation made solid interpretation of the features located difficult, but nevertheless established; the presence of *in situ* Roman deposits in an area hitherto not thought to be part of the Roman fortifications, the lack of modern disturbance by way of cellars and the possible presence of Iron Age activity.
- 1.1.4 The Lancashire County Archaeology Service (LCAS) were informed of the discoveries, and as a result the Development Control Officer has recommended to the client that full archaeological recording takes place prior to any further construction work.
- 1.1.5 As has been demonstrated by the results of the evaluation, the proposed development plans would necessitate the removal and levelling of a large quantity of significant archaeological deposits, in particular those of the Roman period. The site itself is of unique significance due to it being the only remaining site vacant along Castle Hill. That the site has not been developed with cellars in the post-medieval period has resulted in *in situ* Roman deposits being extant immediately beneath post-mediaeval structures at the west end of the site and directly underlying medieval deposits at the east end of the site. The slope of the natural subsoil from west to east in the development site dictates that those deposits at the rear (eastern end) property are less likely to be impacted upon by the proposed development plans. This being the case it would be possible to devise a scheme of ground works that preserve *in situ* all archaeologically significant deposits in the eastern half of the site by piling. The western half of the site, conversely, where current design proposals show a half cellar, would directly affect all deposits to a depth of nearly three metres.
- 1.2 Oxford Archaeology North (OA North)

- 1.2.1 OA North has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 20 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. OA North is an Institute of Field Archaeologists (IFA) registered organisation, number 17, and all its members of staff operate subject to the IFA Code of Conduct.
- 1.3 <u>Archive Deposition</u>
- 1.3.1 The results of the excavation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.
- 1.3.2 The paper archive for the archaeological work undertaken at the site should be deposited with the Lancashire Record Office (Preston) and the finds with Lancashire County Museum, this museum meets MGC criteria for the long-term storage of archaeological material. Negotiations with the County Museum will be commenced immediately upon award of contract.
- 1.3.3 Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the receiving museum.
- 1.3.4 A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the Lancashire Sites and Monuments Record.

2 AIMS AND OBJECTIVES

2.1 <u>Academic Aims</u>

- 2.1.1 The main research aim of the excavation will be to investigate further the possible defensive feature located during the course of the evaluation.
- 2.1.2 Another major aim of the work will be to further the understanding of the chronology of the Roman fort and occupation in Lancaster.

2.2 <u>Objective</u>

2.2.1 The objectives of the project are to establish the presence of *in situ* Roman deposits on site, to date those archaeological deposits present, and to examine the sequence of events on site.

2.3 Post-Excavation and Report Production

2.3.1 The site records, finds and any samples from the excavation programme outlined below will form a checked and ordered site archive as outlined in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991b) (hereafter MAP 2). Following compilation of the project archive a report will be produced assessing the potential of the archive (including the paper archive, the finds archive and any palaeoenvironmental samples that are taken) for further analysis as defined in MAP 2 Appendix 1. This post-excavation assessment report will make recommendations for further analysis and publication of the results, as appropriate.

3 METHODS STATEMENT

3.1 The following work programme is submitted in line with the aims and objectives summarised above.

3.2 <u>Fieldwork</u>

- 3.2.1 The western extent of the site, an area approximately 7.5m x 8.5m of the vacant plot will be subject to an archaeological excavation. The rear property line of the adjacent plot to the north approximately denotes the extent of the proposed excavation. The remainder of the site will be subject to a watching brief (*Section 3.3.9*).
- 3.2.2 *Excavation*: the overburden and garden soil will be removed by mechanical excavator to the level of the first significant archaeology. Spoil will be removed from site by the client. Thereafter, the area will be cleaned by hand. Pits and postholes will be subject to a 50% by volume controlled stratigraphic excavation, with the remainder of the feature, should it prove necessary to be removed in entirety, excavated quickly keeping only that dating evidence which is securely derived from the feature in question.
- 3.2.3 Linear cut features, such as ditches and gullies, will be subject to a 20% by volume controlled stratigraphic excavation, with the excavation concentrating on any terminals and intersections with other features which would provide important stratigraphic information. As with pits and postholes, should it prove necessary to remove the remainder of the feature to expose underlying features and/or deposits, it will be excavated quickly keeping only that dating evidence which is securely derived from the feature in question.
- 3.2.4 Structural remains will be excavated manually to define their extent, nature, form and, where possible, date. Any hearths and/or internal features will be 100% sample excavated to provide information on their date and function, and the extent of any associated floor surfaces will be determined.
- 3.2.5 It should be noted that no archaeological deposits will be entirely removed from the site unless their excavation is necessary to reveal other features and/or deposits. If the excavation is to proceed below a depth of 1.2m then the sides will be stepped in. Cut features identified against the edges of the excavation will not be excavated below a safe working limit of 1.2m unless it is confirmed by the Development Control Officer that they are of exceptional importance. In such cases, if shoring is required then the costs for this will be derived from the contingency sum outlined below in section 6.
- 3.2.6 Should any particularly deep-cut feature, such as a well pit, be revealed this will be manually excavated to 1.2m. Thereafter, if the Development Control Officer wishes to see the further excavation of any such feature, this could be achieved by reducing the general area of the feature (ie. a 1m 'cordon' around the feature) using a machine to allow further safe manual excavation. It should be noted, however, that recourse to such a methodology would incur additional costs, which would be derived from the contingency sum.
- 3.2.7 *Watching brief*: a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the rear area of the vacant plot. This work will comprise observation during piling works,

the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.

- 3.2.8 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 3.2.9 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.
- 3.2.10 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (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).
- 3.2.11 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered, but this would only be called into effect in agreement with the Client and the County Archaeology Service and will require a variation to costing. Also, should evidence of burials be identified, the 1857 Burial Act would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were happy for burials to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.
- 3.2.12 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by the Centre for Archaeology of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.2.13 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 (1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and, following on-site processing, will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.
- 3.2.14 Environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (ie. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence).

- 3.2.15 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.2.16 The position of the excavation will be recorded using a Total Station. The information will be tied in to OD.
- 3.2.17 Any human remains encountered will be excavated following the receipt of a Home Office licence. The removal of such remains will be carried out with due care and sensitivity.
- 3.2.18 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.
- 3.3 Other Matters
- 3.3.1 Access to the site will be arranged via the Client.
- 3.3.2 The area of the excavation will be backfilled following completion of the fieldwork. This will be undertaken by the client.
- 3.3.3 The client will provide all necessary plant for the duration of the project.
- 3.3.4 Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

3.4 <u>Health and Safety</u>

3.4.1 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 (1991). 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.

3.5 <u>Post-Excavation Assessment</u>

3.5.1 Following completion of the fieldwork, the results will be collated and the site archive completed in accordance with English Heritage MAP 2, Appendix 3. A post-excavation assessment of the archive and the resource implications of the potential further analysis will be undertaken. The stratigraphic data and the finds assemblage will be quantified and assessed, and the environmental samples processed and a brief assessment of their potential for further analysis made. The assessment results will be presented within a post-excavation assessment report, which will make recommendations for a schedule, timescale and programme of analysis in accordance with MAP2 Appendix 1.

3.6 <u>Analysis</u>

3.6.1 A provisional programme of post-excavation analysis is anticipated. The extent of the programme, however, can only be reliably established on completion of the post-excavation-assessment report. Section 6 covers the estimated costs of the analysis. The proposed programme anticipates both analysis of the site stratigraphy and the artefactual/ ecofactual evidence leading to the production of a final report.

3.7 <u>Publication</u>

3.7.1 It is anticipated that the results of the excavation will be worthy of publication. If possible, the publication text will be prepared in a suitable form for inclusion in an academic journal that befits its significance.

4 **RESOURCES AND PROGRAMMING**

4.1 <u>Staff Proposals</u>

- 4.1.1 Day to day management of the project will be undertaken by Alison Plummer BSc (Hons) (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 4.1.2 The excavation will be directed by **Arran Ferguson BA** (**Hons**) (OA North project supervisor). Arran is an experienced field archaeologist who has undertaken supervision of numerous small- and large-scale evaluation and excavation projects throughout the North West. Arran directed the recent evaluation at Castle Hill.
- 4.1.3 Arran will be assisted by a team of two archaeologists.
- 4.1.4 The processing and analysis of any palaeoenvironmental samples will be carried out by **Elizabeth Huckerby BA**, **MSc** (OA North project officer), who has extensive experience of the palaeoecology of the North West, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey.
- 4.1.5 Assessment of any general finds from the excavation will be undertaken by **Sean McPhillips BA**. Sean has worked as a finds supervisor for English Heritage and MOLAS on a number of occasions and has extensive knowledge concerning finds.
- 4.2 <u>Programming</u>
- 4.2.1 A four week period is required to carry out the excavation of the combined $64m^2$ area.
- 4.2.2 Processing and analysis of palaeoenvironmental samples is dependent on the number of samples taken and can not be predicted at this stage, but will be appraised at the assessment stage.
- 4.2.3 The project archive will be compiled and a MAP 2-style assessment report/updated project design will be produced within six months of the completion of the excavation fieldwork. A copy will be sent to the client and a further two copies to the County Archaeologist. The assessment report/updated project design will outline any requirement for further analysis of the excavation archive, naming all the specialists to be involved in the post-excavation analysis, and will summarise proposals for eventual publication of the excavation results.

5. **PROJECT MONITORING**

- 5.1 The project will be monitored by the development Control Officer, who will be kept informed of commencement of the work.
- 5.2 A preliminary meeting/discussion will be held with the Development Control Officer at the commencement of the project. Further meetings/discussions will be held during the course of the fieldwork, on completion of the fieldwork and commencement of the assessment, on completion of the assessment, and on completion of the analysis and final publication report detailing the results of the excavation.
- 5.3 OA North will ensure that any significant results are brought to the attention of the Client and the Development Control Officer as soon as is practically possible.

6. **PROJECT COSTINGS**

The total cost quoted is a fixed price, inclusive of all management, overheads, and other disbursement costs (travel and expenses), to undertake the programme of work as defined in this project design. Any other variations from this programme of work at the clients' direction will require recosting. All staff costs are inclusive of holiday entitlement, as well as NI and Superannuation.

WATCHING BRIEF DAY RATE

£ 295.00 per day

TOTAL COST FOR EXCAVATION FIELD WORK £ 6160.00

NB Following current IFA guidelines it is recommended that a contingency sum equivalent to 10% of the total sum for the fieldwork costs is put aside for unseen delays caused by prolonged periods of bad weather, discovery of unforeseen complex deposits and/or artefacts which require specialist removal, vandalism, use of shoring as a result of a decision by the County Archaeologist to excavate important features close to the excavation sections etc. This sum would only be used following agreement with the client and the County Archaeologist.

ESTIMATED ASSESSMENT & POST-EXCAVATION COSTS £ 6148.00

The post-excavation costs are defined as those costs necessary to produce a MAP 2-style assessment report and to undertake any further analysis defined by this assessment. The costs for these elements are only an **estimate** at this stage, as the level of detail necessary in the report is dependent on the as yet unknown results of the fieldwork and particularly the numbers and types of finds that are recovered. The estimated cost is based on an approximate 1:1 correlation between the fieldwork costs minus those elements which will not produce context records and/or archaeological finds, as previous experience of stratified medieval sites has suggested that they will produce significant quantities of material which will need to be assessed and subsequently, analysed. It should be reiterated that a firm cost for the assessment, post-excavation analysis and production of a publication text suitable for inclusion in an academic journal should be agreed with the client once the results of the fieldwork are known.

The assessment is likely to be in the range of c **£3080.00** (this sum is included within the **estimated** post-excavation cost of £6148.00 given above). A contingency has also been included for the assessment of up to 20 palaeoenvironmental samples at a cost of £300.00.

The remaining $\pounds 3068.00$ will be allocated to the post-excavation analysis, and includes an element for publication of the results in a suitable academic journal.

Notes:

- 1. Salaries and wages inclusive of NI, Superannuation and overheads
- 2. Total costs exclusive of VAT

- 3. 4.
- All costs at 2003/2004 prices Project duration beyond 31-07-2004 will require adjustment for inflation

Context Number	Period	Description and Location		
1	Modern	Rubble-filled subsoil present throughout		
2	Post-medieval (later)	Stone flooring in north-west corner of site		
3	Post-medieval (later)	18th century wall, property frontage at west end of site		
4	Post-medieval (later)	Tiled floor, internal, present in western 2/3rds of site		
5	Post-medieval (later)	East/west aligned red brick wall (internal), visible in south-facing section		
6	Post-medieval (later)	East/west aligned red brick wall (internal), visible in north-facing section		
7	Post-medieval (later)	Re-used cut stone behind (east end) foundations of modern house, possible lining for drain		
8	Modern	Concrete slab (external) behind foundations of modern house, probable yard surface		
9	Post-medieval (later)	18th century wall visible in north-facing section at eastern end of site		
10	Post-medieval (earlier)	Black organic, charcoal-rich layer visible in south-facing section		
11	Post-medieval (later)	Rubble infill visible in south-facing section at eastern end of trench		
12	Post-medieval (later)	Levelling layer (sand and stone) for floor 4 visible in both sections		
13	Post-medieval (later)	Levelling layer (Sand) visible in both sections		
14	Post-medieval (later)	Levelling layer (Sand and mortar) visible in both sections		
15	Post-medieval (later)	Charcoal-rich layer (burnt material), visible in both sections		

APPENDIX 3: CONTEXT LIST

Context Number	Period	Description and Location
16	Roman (2nd century)	Part of possible rampart, visible in both sections
17	Post-medieval (later)	Dark brown silty clay, visible in south-facing section
18	Post-medieval (earlier)	Light brown silty clay deposit, visible in both sections, contains Roman finds and may as such include an undifferentiated Roman deposit
19	Roman? (4th century)	Possible turf layer visible in both sections, present only in the western end of the trench, no finds but probably Roman
20	Not used	Not used
21	Roman (2nd century)	Grey silty sand, part of possible rampart
22	Roman (2nd century)	Re-deposited natural with lenses of light grey silty clay visible in both sections, similar to 23, part of possible rampart
23	Roman (2nd century)	Re-deposited natural mixed with lenses of grey silty clay visible at west end in north-facing section, similar to, but more compact than 22, part of possible rampart
24	Roman (4th century)	Fill of probable pit <i>35</i> , visible in south-facing section only
25	Post-medieval (later)	Dark brown silty clay visible in both sections
26	Post-medieval (later)	Dark brown grey silty clay visible in south- facing section
27	Roman (4th century)	Light grey silty clay fill of possible pit-like feature <i>31</i>
28	Post-medieval (earlier)	Dark brown organic layer visible in both sections towards the eastern end of the trench
29	Post-medieval (later)	Cut of foundation trench for 18th century wall 9 visible in north-facing section at eastern end of trench
30	Post-medieval (earlier)	Cut of possible post-hole, filled by <i>32</i> , truncates <i>27</i> and <i>34</i>

Context Number	Period	Description and Location
31	Roman (4th century)	Cut of pit-like feature, filled by 24
32	Post-medieval (earlier)	Mid-brown sandy silt, visible in both sections at eastern end of trench, underlies 28 in both sections
33	Not used	Not used
34	Roman (4th century)	Light to mid-grey silty clay, visible in both sections, truncated by 35 and 31 in south-facing section
35	Roman (4th century)	Cut of possible pit-like feature, filled by 24

APPENDIX 4: FINDS CATALOGUE

Context	Material	Category	Quantity	Description	Date
9	Bone	Animal	1	Fragment.	n/d
9	Ceramic	Vessel	5	Black-glazed redware. Heavily laminated fabric.	18th century?
9	Ceramic	Vessel	1	Fragment industrial slipware.	Late 18th/19th century
9	Ceramic	Vessel	1	Fragment Creamware.	Late 18th century
9	Ceramic	Vessel	1	Fragment of moulded handle - Pearlware?	Late 18th century
9	Ceramic	Tobacco	11	Stem fragments. One bears illegible stamp.	Post-medieval
9	Ceramic	Tobacco	1	Stem fragment.	Post-medieval
9	Ceramic	Vessel	4	Fragments slip-decorated brown- bodied vessels.	Post-medieval
9	Ceramic	Vessel	1	Brownish-yellow stoneware.	18th century
9	Ceramic	Vessel	1	Black stoneware.	18th century
9	Ceramic	Vessel	2	Fragments self-glazed Brownware.	Post-medieval
9	Ceramic	Vessel	1	Fragment ?Pearlware.	Late 18th century
9	Ceramic	Vessel	2	Black-glazed cream fabric.	18th century
9	Ceramic	Tobacco	7	Six stem fragments, one bowl.	18th century
9	Ceramic	Vessel	5	Black-glazed redware. Includes rim	18th/
				of large storage jar.	19th century
9	Ceramic	Vessel	1	Blackware, globular cup?	Late 17th/early 18th century
9	Ceramic	Vessel	1	Blackware, flaring rim cup.	Late 17th century
9	Ceramic	Vessel	2	Fine brown stoneware.	Late 17th/early 18th century
9	Ceramic	Vessel	1	Small rim fragment manganese- speckled ware.	Late 17th/ 18th century
9	Ceramic	Vessel	1	Fragment yellow-brown stoneware.	18th century?
9	Ceramic	Vessel	1	Fragment Creamware bowl.	Late 18th century
9	Ceramic	Vessel	1	Fragment cream-bodied press- moulded plate. Joggled slip.	18th century
9	Ceramic	Vessel	1	Fragment very dark brown glazed redware.	Post-medieval
9	Glass	Vessel	1	Base of small bottle. Natural bluish glass. Blown, pontil mark visible.	18th century?
9	Glass	Vessel	2	Fragments of dark olive green wine bottle.	18th century
9	Iron	Nail	1	Nail.	n/d
9	Stone	Unknown	1	Chip of jet or coal.	n/d
9	Stone	Unknown	3	Shattered fragments of jet, coal or pitch.	n/d
10	Ceramic	Vessel	1	Black-glazed redware handle.	17th century
10	Ceramic	Vessel	4	Fragments of two slip-decorated self- glazed dishes.	Late 17th/18th century
10	Ceramic	Vessel	1	Early Blackware.	Late 16th/17th century
10	Ceramic	Vessel	3	Black-glazed redware. Multiple- handled tankard.	17th century
16	Ceramic	Vessel	2	Small fragments, orange oxidised fabric.	Romano-British
16	Ceramic	Vessel	1	Base fragment samian. Very micaceous. Lezoux?	Romano-British
16	Ceramic	Tile/brick	1	Small fragment.	Romano-British

Context	Material	Category	Quantity	Description	Date
16	Ceramic	Vessel	3	Fragments of orange oxidised fabric.	Romano-British
16	Ceramic	Vessel	1	Small fragment samian, possibly Dr 33, South Gaulish.	Late 2nd century?
18	Bone	Animal	1	Bone, butchered.	n/d
18	Ceramic	Vessel	1	Fragment of rim of Black Burnished ware 1 dish rim.	2nd century?
18	Ceramic	Vessel	1	Fragment of plain rim. Central Gaulish samian.	2nd century?
18	Copper	Pin	1	Long pin with machine-made head.	18th century?
21	Bone	Animal	20	Crumbling fragments bone.	n/d
21	Ceramic	Vessel	1	Plain rim fragment samian. Burnt.	2nd century?
21	Ceramic	Tile/brick	2	Small fragments.	Romano-British
21	Ceramic	Vessel	1	Fragment samian, Central Gaulish.	2nd century?
22	Bone	Animal	3	Crumbling fragments bone.	n/d
22	Bone	Animal	1	Bone in soil, shattered.	n/d
22	Ceramic	Tile/brick	3	Small fragments.	n/d
22	Ceramic	Tile/brick	1	Sand-cast tile fragment, probably box tile.	Romano-British
22	Ind debris	Slag?	1	Fragment.	n/d
22	Ind debris	Slag	1	Iron-working residue.	n/d
22	Copper	Brooch	3	Headstud-type brooch.	2nd/3rd century
22	Iron	Nail	2	Nails.	n/d
24	Ceramic	Vessel	1	Mortarium rim, coarse pink fabric, hook rim.	2nd century?
24	Ceramic	Vessel	1	Small fragments of greyware.	Romano-British
24	Ceramic	Vessel	2	Fragments of orange oxidised fabric.	Romano-British
24	Ceramic	Tile/brick	1	Small fragment.	Romano-British
24	Ceramic	Vessel	1	Base of large jar. Greyware.	Romano-British
24	Ceramic	Vessel	1	Fragment mortarium, red trituration grits.	2nd century?
24	Ceramic	Vessel	1	Fragment of orange oxidised fabric with grey core, flagon. Possibly Severn Valley ware.	2nd/3rd century
27	Bone	Animal	3	Crumbling fragments bone.	n/d
27	Ceramic	Vessel	1	Small fragment amphora.	Romano-British
27	Ceramic	Vessel	2	Small fragments of samian, one South Gaulish, one Lezoux.	Late 1st/2nd century
27	Ceramic	Vessel	1	Fragment of lid, orange oxidised fabric.	Romano-British
27	Ceramic	Vessel	2	Coarse orange fabric. Shallow upright-sided dish.	Romano-British
27	Ceramic	Vessel	4	Small fragments fine orange oxidised fabric.	Romano-British
27	Ceramic	Vessel	3	Small fragments calcite-gritted fabric. Huntcliff?	4th century
27	Ceramic	Vessel	1	Rim fragment large mortarium. White fabric.	Romano-British
27	Ceramic	Vessel	1	Poorly preserved fragment of calcite gritted fabric. Huntcliff ware?	4th century
27	Ceramic	Tile/brick	6	Small worn fragments.	Romano-British
27	Ceramic	Vessel	2	Very small fragments calcite-gritted ware - Huntcliff?	4th century
27	Ceramic	Vessel	1	Fragment of Black Burnished ware 1, flaring rim.	3rd century?
27	Iron	Nail	1	Nail.	n/d
27	Iron	Nail	2	Nails.	n/d

Context	Material	Category	Quantity	Description	Date
28	Ceramic	Vessel	1	Very hard-fired brown-grey reduced fabric with brown/orange slip.	17th century?
28	Ceramic	Vessel	2	Fine completely reduced fabric. Silverdale ware.	14th/17th century
28	Glass	Vessel	1	Pushed-in base in natural bluish glass. Blown, pontil mark visible.	n/d
32	Ceramic	Vessel	1	Heavy fully reduced handle with brownish-purple to dark green glaze.	14th/16th century
32	Ceramic	Vessel	1	Incompletely reduced fabric, gritty. Internal surfaces white, badly decayed glaze.	Medieval
32	Ceramic	Vessel	1	Black-glazed redware, slip decorated.	Late 17th to 18th century
32	Ceramic	Vessel	1	Orange fabric, thin black colour-coat.	2nd century
32	Ceramic	Vessel	3	Soft orange, heavily laminated fabric.	Romano-British
34	Ceramic	Vessel	1	Orange oxidised fabric, narrow- necked jar.	2nd/3rd century
34	Ceramic	Vessel	1	Poorly preserved fragment of calcite gritted fabric. Huntcliff ware?	4th century
34	Ceramic	Vessel	2	Samian mortarium. East Gaulish. Dr 43 or Dr 45.	Late 2nd/3rd century