



ARCHAEOLOGICAL
SERVICES
WYAS

**Old Fire Station
Fossway
Newcastle**

Archaeological Evaluation

June 2009

Report No. 1966

CLIENT

Your Homes Newcastle Ltd.

Old Fire Station, Fossway Newcastle

Archaeological Evaluation

Summary

Two Archaeological evaluation trenches were excavated on the site of the former Fossway Fire Station in Newcastle. An area of dark-bluish grey clayey silt was located and corresponds with the upper portion of the ditch located on the northern side and running parallel with Hadrian's Wall. The edges of the ditch were truncated both to the south and north by modern contaminated ground and by a concrete beam. The natural levels were exposed in both trenches and demonstrated that the level of the natural ground had been heavily truncated by the construction of the fire station. No other archaeological features were revealed within the evaluation trenches, although several modern pipe trenches and concrete deposits were observed crossing the trench. No finds were recovered from the ditch or from the evaluation trenches.



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Report Information

Client: Your Homes Newcastle Limited
Address: 1st Floor, YHN House, Benton Park Road, Newcastle-upon-Tyne, NE7 7LX
Report Type: Archaeological Evaluation
Location: Old Fire Station, Newcastle
County: Northumberland
Grid Reference: NZ 286 655
Period(s) of activity represented: Roman and Modern
Report Number: 1966
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Site Code: OFS 09
Planning Application No.: N/A
Museum Accession No.: N/A
Date of fieldwork: 1st – 4th June 2009
Date of report: June 2009
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Acknowledgements

Archaeological Services WYAS would like to thank Andy Carr and Daniel Warnock of Your Homes Newcastle for commissioning the project and providing on site advice and help. The project was managed by Martin Lightfoot, the fieldwork was undertaken by Debora Moretti and David Williams. The project was monitored by David Hislop from The Tyne and Wear Specialist Conservation Team. The machining work was undertaken by Bill Maxwell from Bill Maxwell Demolition Services.

1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by Your Homes Newcastle Ltd. to undertake an archaeological evaluation to investigate and record suspected archaeological deposits in advance of construction at the former Fossway Fire Station in Newcastle. This report details the results of the investigations which were carried out from the 1st to the 4th of June 2009.

Site location and topography

The site is located on the land of the former Fossway Fire Station in Newcastle centred at National Grid Reference NZ 286 655 (Figs 1 and 2). The site is approximately 28m above Ordnance Datum (AOD) with a slight rise to the north.

Soils, geology and land-use

The soils of the area are mapped as Palaeozoic shale described as slowly permeable seasonally waterlogged clayey soils of the Hallsworth 1 association (SSEW 1983, 712 d). The underlying geology comprises of Westphalian Coal Measures (BGS 2001). The area is predominantly waste land within a residential suburb of Newcastle.

2 Archaeological and Historical Background

Limited archaeological work has occurred on the site, in 2001 the monitoring of boreholes in advance of the proposed redevelopment, recorded possible evidence for the Hadrian's Wall ditch, south of the Fire Station (English Heritage 2007). A portion of the southern site is located within the buffer zone of the Frontiers of the Roman Empire, World Heritage Site. Upon this basis and on further evidence, the actual line of Hadrian's Wall is believed to pass through the southern part of the site, but the exact position and degree of survival of Roman remains is unknown (Appendix 3). The development area lies just 2.49 miles south-east of *Pons Aelius* (Aelius Bridge), an auxiliary fort and small settlement on the eastern end of Hadrian's Wall, and to the west of the fort of *Segedunum* meaning Victory Fort (Wallsend). The *Pons Aelius* can trace its origins back to emperor Hadrian's visit to Britain in AD 122 and it may have been built to replace an earlier fort south of the Tyne at Gateshead. *Pons Aelius* had a strategic position, guarding the important river crossing. Much of the original fort remains buried underneath a Norman castle keep. Very few excavations have taken place due to the castle and surrounding city centre buildings being built over the layout of the fort (Wilson 2002). Hadrian's Wall originally ended at *Pons Aelius* though it was later decided that the wall should be extended further east, probably to protect the river crossing. In about AD 127, work begun on this 4-mile section of the wall, east from the fort of *Pons Aelius*, passing through the present-day Byker suburb and ending at the new fort of *Segedunum*. The new section of the wall was narrower (2.4m) than the sections previously built (3m) and the *Vallum* behind it was not present (Wilson 2002). The fort of *Segedunum* was covered by

housing in the 19th century, though its outline was discovered by trenching in 1929 (Breeze 2006). In advance of proposed redevelopment, archaeological excavations in 1975 resulted in the first complete phase plan from a fort on Hadrian's Wall. The fort perimeter was marked out and, the fort bath-house was reconstructed.

During building works in 2000, a fragment of Hadrian's Wall, mainly the foundations and a single course, was uncovered and preserved in the eastern suburb of Byker (1 mile south-west of the development area). It was identified as the Narrow wall with multiple *lilia*, three lines of defensive pits situated upon the berm, north of the wall.

3 Aims and Objectives

The aims of the archaeological evaluation trenches were to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains related to Hadrian's Wall; to establish the nature and extent of existing disturbance and intrusion to sub-surface deposits; assess the degree of survival of buried deposits of archaeological significance, and; inform the design of the subsequent re-development of the site (Appendix 3).

4 Methodology

The archaeological investigations at the Old Fire Station were undertaken in accordance with recognised professional standards (Institute for Archaeologists 2008) and ASWYAS methodologies (ASWYAS 2003). Two trenches were excavated (Fig. 2) using a mechanical excavator fitted with a toothless ditching bucket under direct archaeological supervision. Topsoil, subsoil and modern overburden were removed in level spits no more than 0.2m in thickness down to the first significant archaeological horizon or undisturbed natural. Any archaeological features uncovered were then hand cleaned and recorded in accordance with the Archaeological Services standard method (ASWYAS, 2003). A full written, drawn and photographed record of all contexts was made. Trench locations were surveyed using a Trimble 5500 series Total Station and were tied into nearby permanent structures and the Ordnance Survey National Grid. Levels were established by transferring heights from a known Bench Mark marked on Ordnance Survey maps of the area.

5 Results

In both trenches a general sequence was observed and recorded (Figs. 4 and 5). This comprised a layer of made ground (117 and 203) overlying the natural clays, above this was a layer of compacted dolomite rubble (101 and 202). This in turn was sealed by a layer of demolition rubble and topsoil (100, 200 and 201).

The western evaluation trench, Trench 1 was 60m in length and 2m in width (Fig. 3). Upon excavation it became apparent that the old fire station foundations had considerably disturbed the ground level and the natural levels of the site. Within Trench 1 archaeological remains were located at the southern end (Plates 1, 2 and 3), this consisted of a large area of dark

bluish grey clayey silt (116) 4.15m in length. This was cut to the north by a coarse deposit of modern contaminated ground (102) and it was also cut to the south by a concrete beam which would appear to be the front foundation of the old fire station (104). Deposit 116 would appear to be a *vallum* or *fossa*, a general term for any roman defensive ditch, in this case located to the north of Hadrian's Wall. This is not to be mistaken for *The Vallum* complex located south of Hadrian's Wall. Two wooden fragments were recorded on the eastern side of the ditch, these appeared to comprise a rectangular post and a circular stake that had been driven into the upper fill of the ditch (Plate 5). The wooden fragments were left *in situ* and not excavated.

A small extension was excavated just before backfilling in an attempt to locate the northern edge of the ditch, however, the large concrete-beam foundation cut was at least 1.10m wide along the northern edge, and had removed all trace of the edge. Due to the level of truncation it was not possible to completely confirm that this was the ditch or its relationship with the natural deposits to the north. David Hislop, the County Archaeologist from The Tyne and Wear Specialist Conservation Team, visited the site and confirmed the deposit exposed was a *vallum* or *fossa*.

The natural geological layers were encountered at various depths, depending upon the level of truncation by the fire station. This ranged from 27.08m AOD in the northern part of Trench 1 where the natural had not been truncated (Plate 4). Where the natural had been truncated, within the foot print of the fire station it was at 25.82m AOD. Cutting across both trenches in an east to west direction was a series of modern concrete beams and pipes. No other archaeological features were exposed within Trench 1.

Trench 2 revealed a similar pattern of deposits (Fig. 5; Plate 6). Here only modern features consisting of concrete beams and pipe trenches associated with the former fire station were revealed. No archaeological features were exposed in the natural clays in the northern part of the trench.

6 Conclusions

The excavation of the two trial trenches revealed the existence of the northern defensive ditch associated with Hadrian's Wall. It was not possible to locate the edges of the ditch as it had been truncated by later modern activity on site. The level of truncation was heaviest within the area of the former fire station, with indications of a basement or sub-level of the building. Where the natural levels were exposed, there was no indication of additional archaeological features. The location of a *vallum* which has been identified along the course of the Wall confirms that at least part of the complex of Hadrian's Wall survives within the development area.

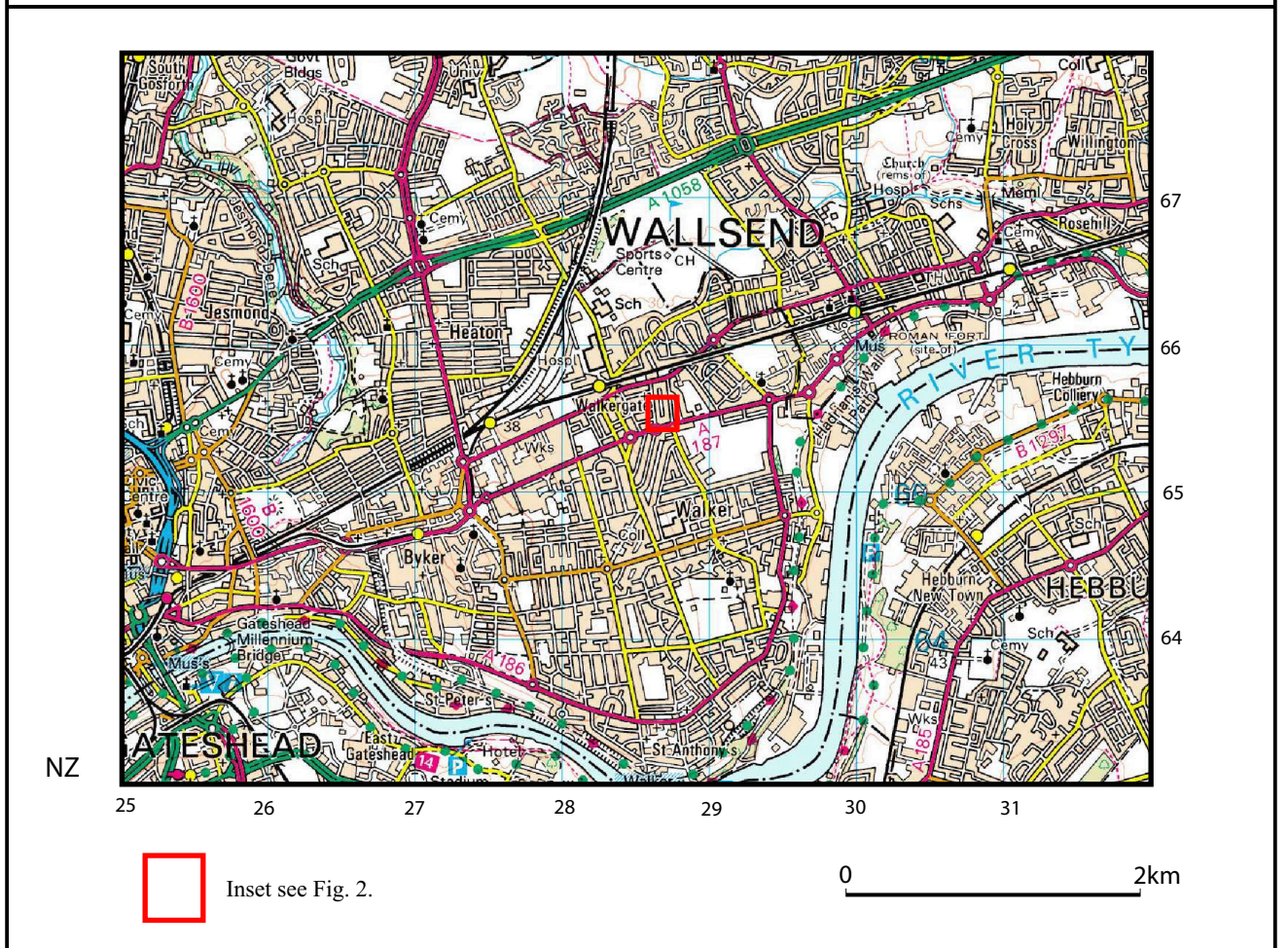
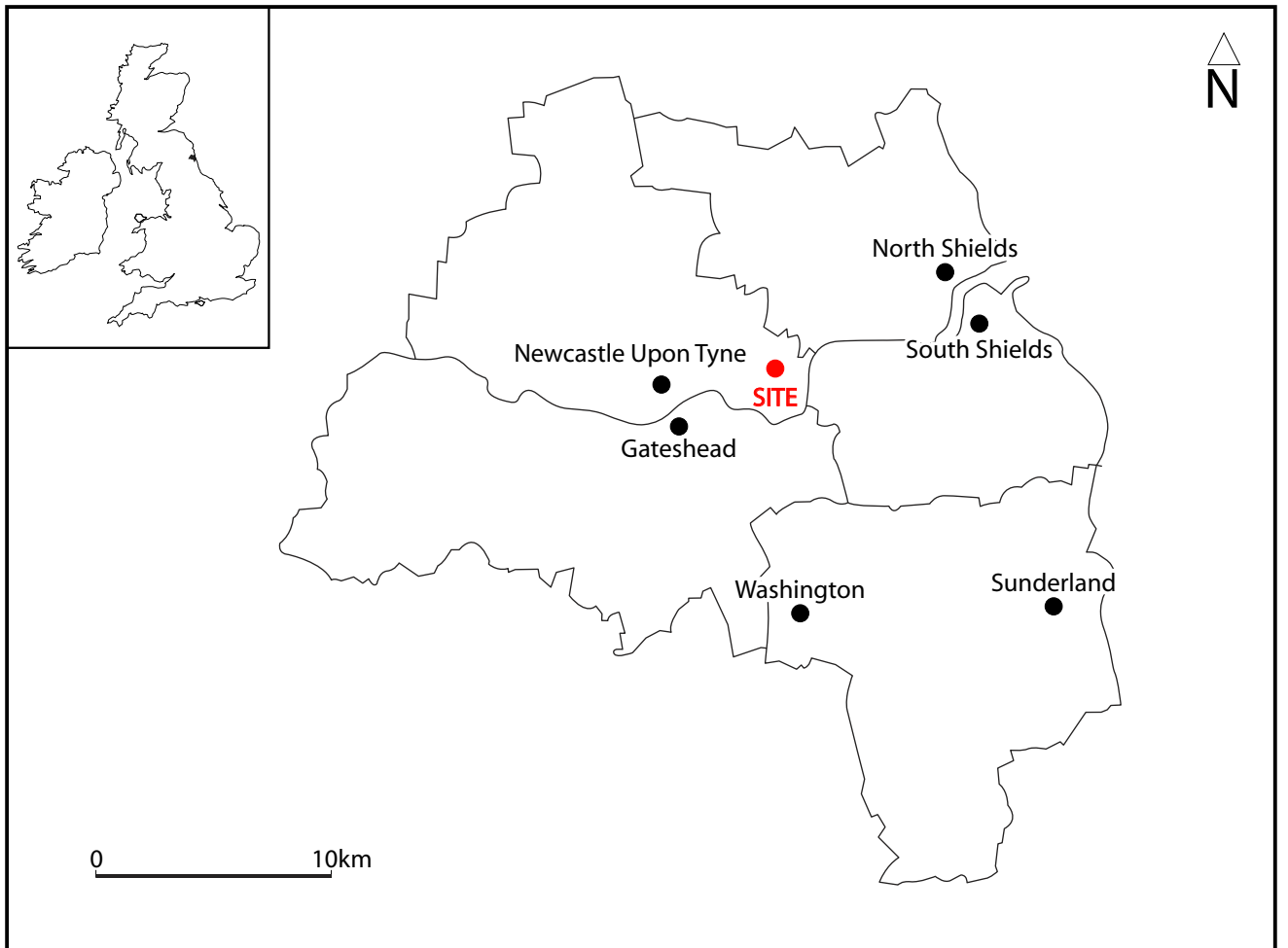


Fig. 1. Site location

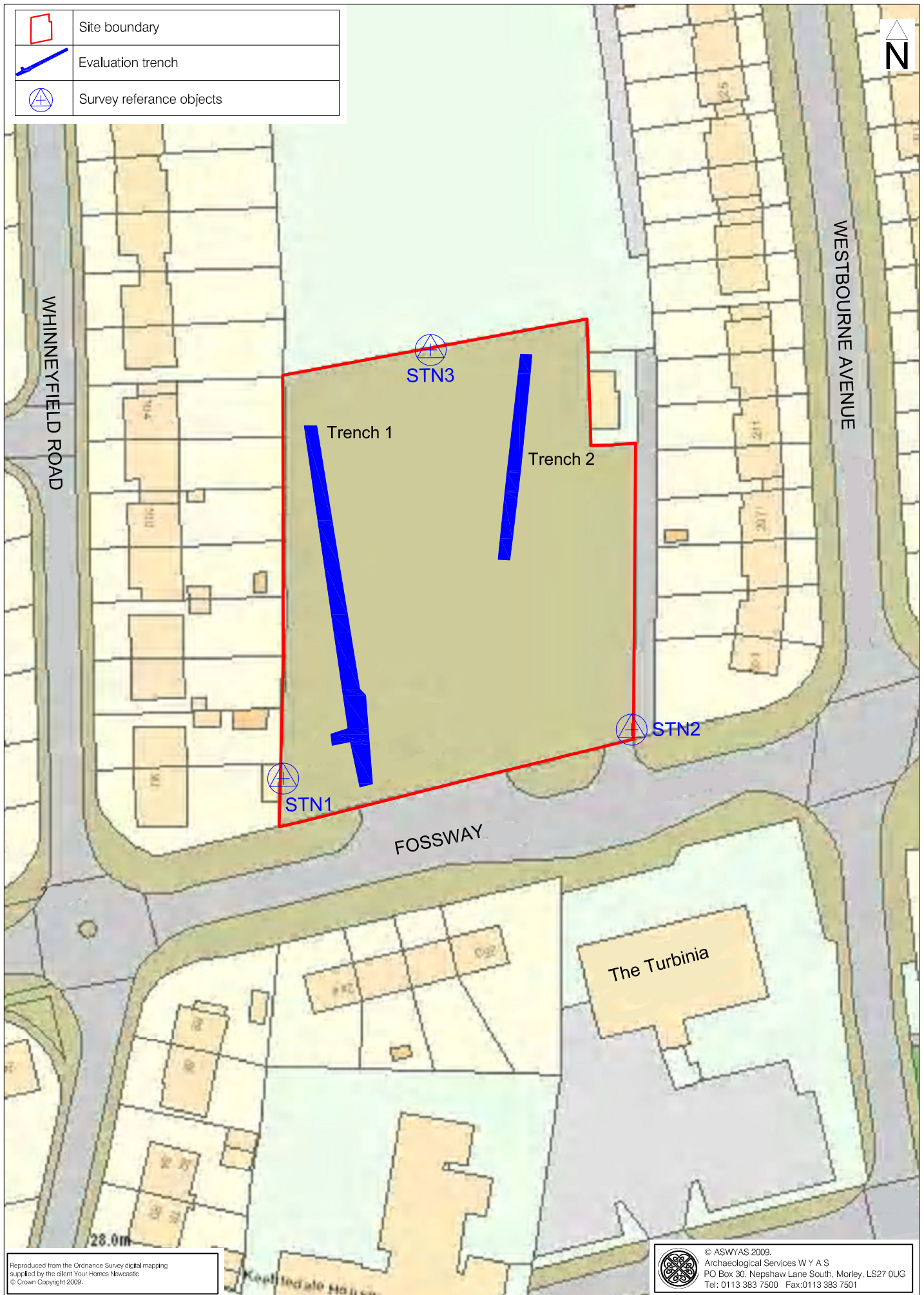


Fig. 2. Trench location 1:750 @ A4

0 30m



Plate 1. Ditch 115 truncated by contaminated ground, looking north



Plate 2. Section of Ditch 115, looking south-east



Plate 3. Trench 1, looking north



Plate 4. Trench 1, looking south

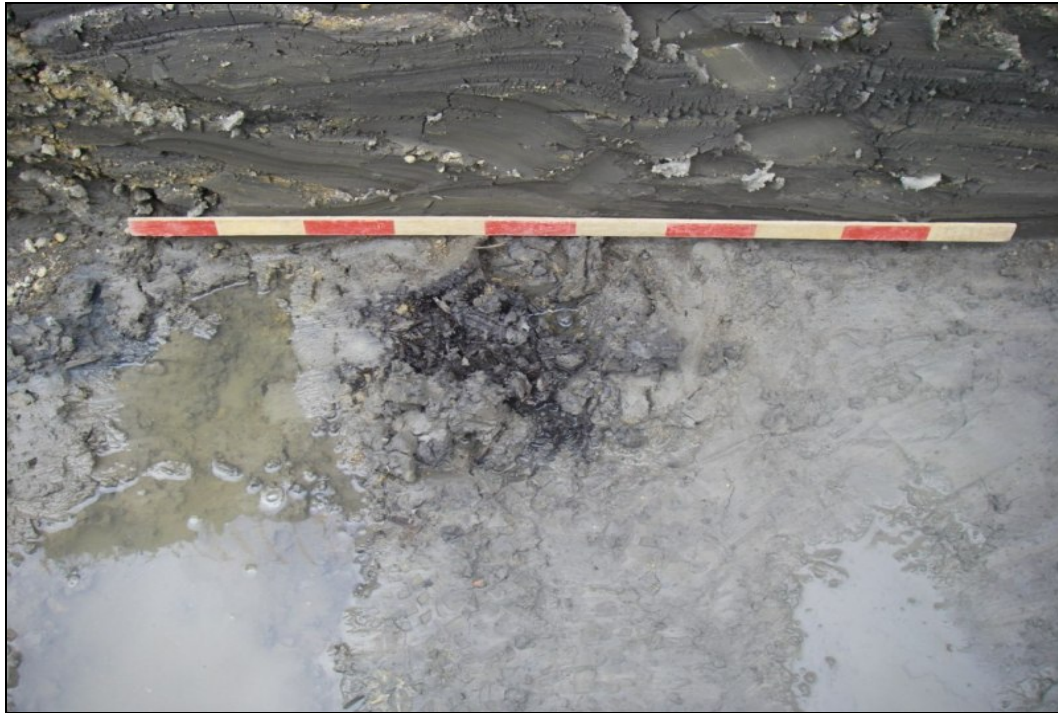


Plate 5. Timber fragments within Ditch 115, looking east



Plate 6. Trench 2, looking south

Appendix 1: Inventory of primary archive

Phase	File/Box No	Description	Quantity
Evaluation	File no.1	Context register sheets	2
		Drawing register sheets	2
		Levels sheets	3
		Trench record sheets	2
		Digital register sheet	2
		Photo register sheets	2
		Colour negative strips	1
		B&W negative strips	1
	File no. 2	Context sheets (nos. 100-125 and 200-217)	44
	File no. 3	Small drawing sheets	6

Appendix 2: Summary of contexts

Context	Trench	Description
100	1	Mid greyish brown sandy silty clay, topsoil = 200
101	1	Mid brownish yellow silty sand and crushed dolomite, hardcore
102	1	Dark bluish grey silty clay, back fill of pit 103
103	1	Cut of modern, diesel contaminated pit
104	1	Concrete beam
105	1	Concrete beam
106	1	Concrete beam
107	1	Concrete beam
108	1	Land drain
109	1	Land drain
110	1	Land drain
111	1	Brick foundation wall
112	1	Brick foundation wall
113	1	Foundation cut for 104, same as 113
114	1	Foundation cut for 105
115	1	Cut of possible ditch
116	1	Dark bluish grey clayey silt, fill of ditch 115
117	1	Dark greyish brown clayey silt and rubble, modern levelling deposit
118	1	Cut for diesel tank
119	1	Topsoil material and concrete blocks, backfill of cut 118
120	1	Same as 113
121	1	Dark grey silty sand and concrete, backfill of 113=120
122	1	Foundation cut for 105
123	1	Back fill of 122 (?)
124	1	Land drain
125	1	Mid yellowish mottled brownish grey clay, natural
200	2	Same as 100
201	2	Dark blackish grey gritty silty clay and CBM, made ground
202	2	Light yellowish brown silty and crushed dolomite, levelling deposit = 101
203	2	Dark greyish silty clay and CBM, levelling deposit
204	2	Same as 125, natural
205	2	Concrete beam
206	2	Dark black brown silty clay, fill of modern pipe trench
207	2	Cut of pipe trench
208	2	Concrete cover for modern pipe
209	2	Foundation cut for concrete feature
210	2	Concrete cover for pipe
211	2	Cut for concrete cover 210
212	2	Same as 203
213	2	Cut of modern linear feature
214	2	Concrete beam
215	2	Dark greyish silty clay and CBM, levelling deposit, fill of 216
216	2	Cut for modern pipe trench
217	2	Brick foundation wall

Appendix 3: Specification for Evaluation work to record suspected archaeological deposits at the former Fossway Fire Station, Newcastle

TYNE AND WEAR SPECIALIST CONSERVATION TEAM

**SPECIFICATION FOR EVALUATION WORK TO RECORD SUSPECTED
ARCHAEOLOGICAL DEPOSITS AT THE FORMER FOSSWAY FIRE STATION,
NEWCASTLE**

Introduction

Two evaluation trenches are needed to investigate the character of archaeological deposits on the site of the former fire station on Fossway. The line of Hadrian's wall is believed on good evidence to pass through the southern part of the plot, but the exact position and degree of survival of roman remains is unknown. The western trench will cover the full N-S extent of the site, to establish the location and character of the Wall at this point, the eastern trench will concentrate on the area to the north of the wall line, running from the northern edge of the fire station building. A Desk Based Assessment for the site details the land-use history for the area. (T&WHER 2005/128). The excavations must be carried out by a suitably qualified and experienced archaeological organisation. The work will record and environmentally sample any archaeological deposits of importance found on the plot. The purpose of this brief is to obtain tenders for this work.

The client will establish the fact that there are no live services in the areas to be disturbed.

All staff on site must understand the project aims and methodologies.

All work must be carried out in compliance with the codes of practice of the Institute of Field Archaeologists and must follow the IFA Standard and Guidance for Archaeological Field Evaluations, Excavation or Watching Briefs as appropriate. The archaeological contractor must refer to the Desk Based Assessment of the site before work commences.

The North-East Regional Research Framework for the Historic Environment (2006) notes the importance of research as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past allowing commercial contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The aim of NERRF is to ensure that all fieldwork is carried out in a secure research context and that commercial contractors ensure that their investigations ask the right questions.

Notification

The County Archaeologist needs to know when archaeological fieldwork is taking place in Tyne and Wear so that he can inform the local planning authority and can visit the site to monitor the work in progress. The Archaeological Contractor must therefore inform the County Archaeologist of the start and end dates of the Evaluation. He must also keep the County Archaeologist informed as to progress on the site. The CA must be informed of the degree of archaeological survival and of any significant finds. The Client will give the County Archaeologist reasonable access to the development to undertake monitoring.

ARCHAEOLOGICAL BRIEF

The work can be split into two sections;

- 1) evaluation of archaeologically sensitive deposits
- 2) post-evaluation analysis and report production including recommendations for further work on the site, if appropriate

FIRST SCHEDULE

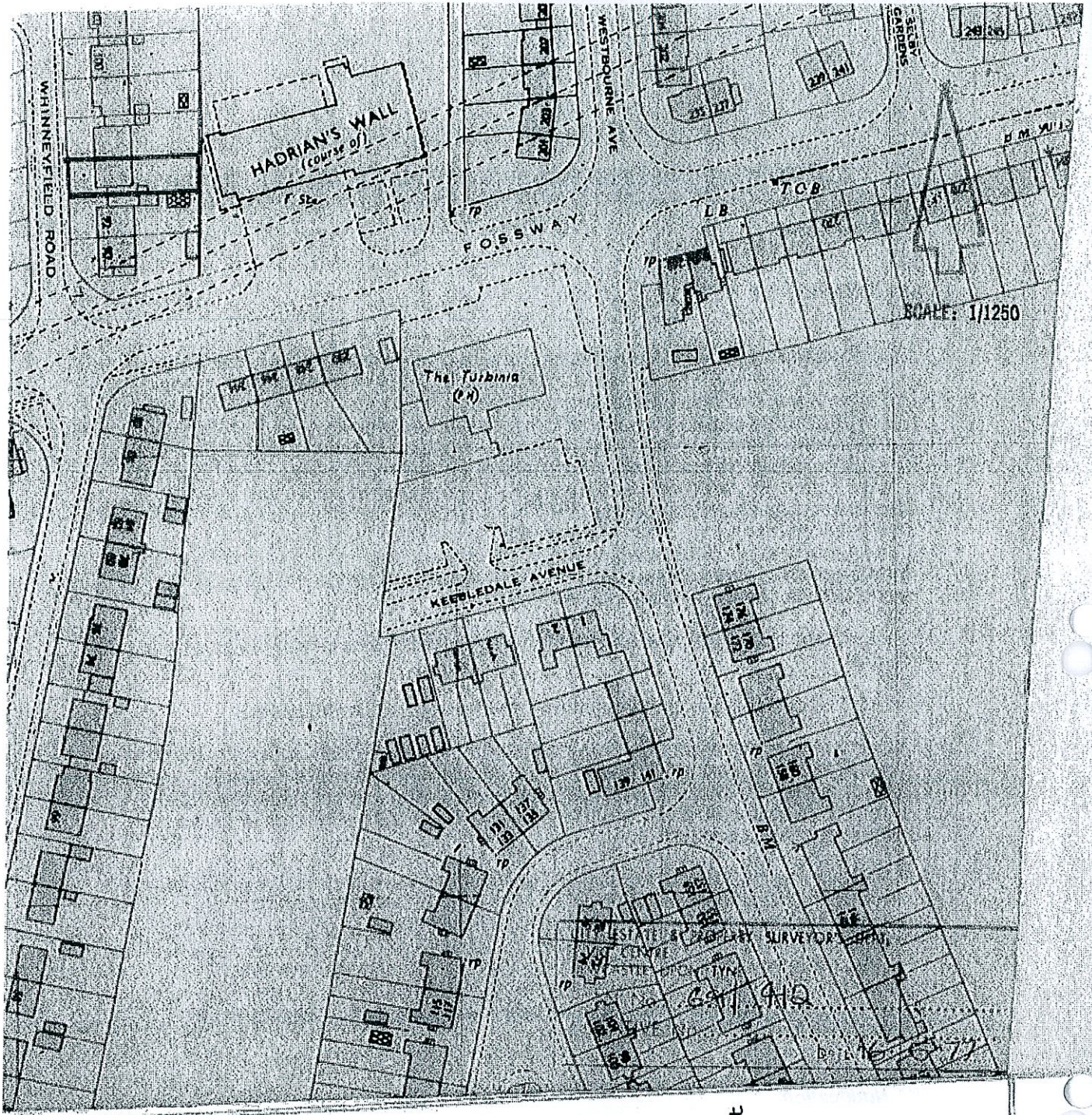
is the Scheduled Lease

made between (1) The
City & County of Newcastle
and (2) Harold Thompson for the term of
years ending on the 25th March 1931 at the yearly

rent of SIXTEEN SHILLINGS

SECOND SCHEDULE

of the property hereby conveyed
situated in the City of Newcastle
and containing 314 Square Yards
more or less and formerly known as
Whinneyfield Road Walkergate
and being the whole of the property
SUBJECT to the apportioned yearly rent



1) Archaeological evaluation

The trenches are shown on the accompanying plan. The trenches will cross the site from north to south, one on the eastern part of the site, and the other on the western part. The site is currently covered in the demolition debris of the former fire station, which was levelled to the height of the floor slabs. Work will involve the machine removal of overburden and the breaking out of the floor slabs of the fire station, and then hand-excavation of the soil beneath down to natural, or structural Roman remains, which should be left in-situ. The purpose of the trenches is to locate the line of the Wall and other associated remains, and provide information to enable the design of the subsequent re-development of the site, as regards landscaping, service provision etc. The dimensions of the trenches are as follows

Trench 1 (western trench) 60 m x 2 m in plan.

Trench 2 (eastern trench, on same alignment as Tr 1) 30 m x 2 m in plan.

Trench positions should be accurately surveyed prior to excavation and tied in to the national grid.

The trenches should be excavated to natural subsoil.

Tasks

Hand excavation, recording and environmental sampling (as stipulated below) of deposits down to the depth specified above.

Any modern overburden or levelling material can be machined-off using a wide toothless ditching bucket under strict archaeological supervision and the remaining deposits are to be excavated by hand.

Excavation is to be carried out with a view to avoid damage to any archaeological features which appear to worthy of preservation in-situ. In particular, structures associated with the Imperial frontier World Heritage Site must not be removed without prior discussion with the County Archaeologist and the English Heritage Hadrian's Wall Officer.

Excavation is to be carried out by single context planning and recorded on *pro forma* context sheets. Features over 0.5 m in diameter can be half sectioned.

The spoil can be kept close-by and rapidly backfilled into the trenches at the conclusion of this work.

Fieldwork - General Conditions

The Archaeological Contractor will provide an outline methodology of excavation and provide details of recording procedures employed.

The Archaeological Contractor must detail measures taken to ensure the safe conduct of excavations, and must consult with the client's structural engineers concerning working in close proximity to the foundations of the surrounding buildings. The Client may wish to see copies of the Archaeological Contractor's Health and Safety Policies.

The Archaeological Contractor must be able to provide written proof that the necessary levels of Insurance Cover are in place.

The Archaeological Contractor must maintain a Site Diary for the benefit of the Client, detailing the nature of work undertaken on a day by day basis, with full details of Site Staff present, duration of time on site, etc. and contact with third parties.

All staff employed by the Archaeological Contractor shall be professional field archaeologists with appropriate skills and experience to undertake work to the highest professional standards.

Recording

A full written, drawn (accurate scale plans, elevations and section drawings) and photographic record (of all contexts in black and white print and colour transparency with clearly visible graduated metric scale) will be made.

Pro-forma context sheets will be used.

All deposits and the base of the trench will be levelled. Levels will be expressed as metres above Ordnance Datum.

Stratigraphy shall be recorded even when no archaeological features have been recognised.

A 'Harris' matrix will be compiled where stratified deposits are recorded.

Environmental Sampling and Scientific Dating

This is a compulsory part of the evaluation exercise.

Scientific investigations should be undertaken in a manner consistent with "The Management of Archaeological Projects", English Heritage 1991 and with "Archaeological Science at PPG16 Interventions: Best Practice for Curators and Commissioning Archaeologists", English Heritage, 2003.

Aims of environmental sampling – to determine the abundance/concentration of the material within the features and how well the material is preserved, to characterise the resource (the site) and each phase, to determine the significance of the material and its group value, what crop processing activities took place on the site? What does this tell us about the nature of the site? Is there any evidence for changes in the farming practice through time? How did people use this landscape? Can we place certain activities at certain locations within the site? Function and date of individual features such as pits, hearths etc. Are the charred assemblages the result of ritual deposition or rubbish? Is the charcoal the result of domestic or industrial fuel?

Advice on the sampling strategy for environmental samples and samples for scientific dating etc. must be sought from Jacqui Huntley, English Heritage Regional Advisor for Archaeological Science (0191 3341137 or 07713 400387) **before** the evaluation begins. The sampling strategy should include a reasoned justification for selection of deposits for sampling.

Deposits should be sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains (English Heritage 2002). Flotation samples and samples taken for coarse-mesh sieving from dry deposits should be processed at the time of fieldwork wherever possible. Sieving recovers fish, amphibian, small bird and mammal bone, small parts of adult mammals and young infused bones which may be under-represented otherwise. However it is noted that clay soils in this region make sieving difficult. Discuss the potential for sieving with Regional Advisor for Archaeological Science.

Environmental samples (bulk soil samples of 30 litres volume, to be sub-sampled at a later stage) will be collected by the excavator from suitable (i.e. uncontaminated) deposits. It is suggested that a large number of samples be collected during evaluation from which a selection of the most suitable (uncontaminated) can be processed. All tenders will give a price for the full analysis, report production and publication per sample.

Deposits will be assessed for their potential for radiocarbon, archaeomagnetic (guidance is available in the Centre for Archaeology Guideline on Archaeometallurgy 2001) and Optically Stimulated Luminescence dating. Timbers will be assessed for their potential for dendrochronology dating. Sampling should follow procedures in "Dendrochronology: guidelines on producing and interpreting dendrochronological dates", Hillam, 1998. All tenders will quote the price of these techniques per sample.

The following information should be provided with the environmental samples to be processed – brief account of nature and history of the site, aims and objectives of the project, summary of archaeological results, context types and stratigraphic relationships, phase and dating information, sampling and processing methods, sample locations, preservation conditions, residuality/contamination etc.

Laboratory processing of samples shall only be undertaken if deposits are found to be reasonably well dated, or linked to recognisable features and from contexts the derivation of which can be understood with a degree of confidence.

A range of features, and all phases of activity, need to be sampled for charred plant remains and charcoal. Aceramic features should not be avoided as the plant remains from these features may help to date them. Deep features should be sampled in spits to pick up changes over time. Part, or all of each of the contexts should be processed. In general samples should be processed in their entirety. All flots should be scanned, and some of the residues.

Pollen samples can be taken from features such as lakes, ponds, palaeochannels, estuaries, saltmarshes, mires, alluvium and colluvium, and from waterlogged layers in wells, ditches and latrines etc. Substances such as honey, beer or food residues can be detected in vessels. Activities such as threshing, crop processing and the retting of flax can be identified. When taken on site, pollen samples should overlap. Your regional science advisor can advise on the type of corer or auger which would be most appropriate for your site. Samples need to be wrapped in clingfilm and kept dark and cool. Make a description of the sediments in which the pollen was found, and send this with the sample to be assessed.

Coastal or estuary sites (even those which are now well drained) are suitable for sampling for foraminifera. Diatoms can also be found on marine sites, but also in urban settings (sewers, wells, drains, ditches etc). They only survive in waterlogged conditions. These aquatic microfossils are used as proxy indicators of the former aquatic ecological conditions on site, changes in sea levels and temperature, salinity, PH and pollution. Forams are taken from cores, monolith tins or bulk samples. Diatoms are cut from monolith tins or cores or taken as spot samples.

Insects, which are useful as palaeoenvironmental indicators, survive best in waterlogged deposits such as palaeochannels and wells. They can provide information on climate change and landscape reconstruction as some species are adapted to particular temperatures, habitats or even particular trees. Certain insects can indicate the function of a feature or building (eg. Weevils, which were introduced by the Romans, often indicate granary sites, parasites will indicate the presence of particular animals such as sheep or horse, latrine flies survive in the mineral deposits in latrines, or in the daub of medieval buildings etc). Samples need to be sealed (eg. in a plastic box).

Where there is evidence for industrial activity, macroscopic technological residues should be collected by hand. Separate samples should be collected for micro-slugs (hammer-scale and spherical droplets). Guidance is available in the English Heritage "Archaeometallurgy" guidelines, 2001.

Buried soils and sediment sequences should be inspected and recorded on site by a recognised geoarchaeologist. Procedures and techniques in the English Heritage document "Environmental Archaeology", 2002 and "Geoarchaeology", 2004 should be followed.

Sampling strategies for wooden structures should follow the methodologies presented in "Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood" R. Brunning, 1996. If timbers are likely to be present on your site, contact a wood specialist beforehand. Pre-excavation planning – determine questions to ask, agree on a sampling strategy, allocate reasonable time and budget. Soil samples should be taken of the sediments surrounding the timber. Keep the timbers wet! Record them asap on-site – plan, photograph, record the size and orientation of the wood (radial, tangential, transverse), any toolmarks, joints, presence of bark, insect damage, recent breaks, and if another piece of wood was on top of or below the piece sampled. Both vertical and horizontal positioning of wattle must be recorded. Wood samples can provide information on woodland management such as medieval coppicing, type of taxa (native or foreign), conversion technology (how the wood was turned into planks), building techniques and type of tools used.

Waterlogged organic materials should be dealt with following recommendations in "Guidelines for the care of waterlogged archaeological leather", English Heritage and Archaeological Leather Group 1995.

Animal Bone

Animal bone can explore themes such as hunting and fowling, fishing, plant use and trade, seasonality, diet, age structures, farrowing areas, species ratios, local environment.

Animal bone assemblages should be assessed by a recognised specialist.

The specialist will need to know a brief account of the nature and history of the site, an account of the purpose, methods (details of sampling) for recovery of animal bones, and the main aims and results of the excavation, details of any specific questions that the excavator wants the animal bone specialist to consider, information about other relevant finds from the excavation (e.g. bone tools, fishing equipment, weaving equipment), specific information about each context that has produced significant quantities of animal bone (recovery method, phase, context type, position in relation to major structures, contamination by more recent material, some indication of the amount of bone (by weight or by container size). See "Ancient Monuments Laboratory Advisory Note, "Assessment of animal bone collections from excavations", Sebastian Payne, 1991 and "The Assessment of a collection of animal bones", S. Davis, n.d., Ancient Monuments Laboratory.

Human Remains

Human remains must be treated with care, dignity and respect.

Excavators must comply with the relevant legislation (essentially the Burial Act 1857) and local environmental health concerns. If found, human remains must be left in-situ, covered and protected. The archaeological contractor will be responsible for informing the police, coroner and County Archaeologist. If it is agreed that removal of the remains is essential, the archaeological contractor will apply for a licence from the Home Office and their regulations must be complied with.

Site inspection by a recognised osteologist is desirable for isolated burials and essential for cemeteries. The remains will be recorded in-situ and subsequently lifted, washed in water (without additives). They will be marked and packed to standards compatible with "Excavation and post-excavation treatment of cremated and inhumed human remains", McKinley and Roberts, 1993. After excavation, the remains will be subject to specialist assessment.

Analysis of the osteological material should take place according to published guidelines "Human Remains from Archaeological Sites, Guidelines for producing assessment documents and analytical reports, English Heritage, 2002.

Some of the potential benefits from the study of human skeletons – demography, growth profiles, patterns of disease, genetic relationships, activity patterns, diet, burial practices, human evolution. New scientific techniques available include DNA and stable isotope analyses.

The final placing of the remains after scientific study and analysis will be agreed beforehand.

Further guidance is available in:

"Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England", The Church of England and English Heritage, 2005 (www.english-heritage.org.uk/upload/pdf/16602_HumanRemains1.pdf)
"Church Archaeology: its care and management", Council for the Care of Churches, 1999

The Advisory Panel on the Archaeology of Christian burials in England can provide free well-informed advice with consideration of relevant religious, ethical, legal, archaeological and scientific issues. Panel's website:
<http://www.britarch.ac.uk/churches/humanremains/index.html>
or email the secretary simon.mays@english-heritage.org.uk

Treasure

Defined as:

- Any metallic object, other than a coin, provided that at least 10% by weight of metal is precious metal and that is at least 300 years old when found
- Any group of two or more metallic objects of any composition of prehistoric date that come from the same find
- All coins from the same find provided that they are at least 300 years old when found, but if the coins contain less than 10% gold or silver there must be at least ten
- Any object, whatever it is made of, that is found in the same place as, or had previously been together with, another object that is Treasure
- Any object that would previously have been treasure trove, but does not fall within the specific categories given above. Only objects that are less than 300 years old, that are made substantially of gold or silver, that have been deliberately hidden with the intention of recovery and whose owners or heirs are unknown will come into this category

If anything is found which could be Treasure, under the Treasure Act 1996, it is a legal requirement to report it to the local coroner within 14 days of discovery. The Archaeological Contractor must comply with the procedures set out in The Treasure Act 1996. Any treasure must be reported to the coroner and to The Portable Antiquities Scheme Finds Liaison Officer, Rob Collins (0191 2225076 or Robert.Collins@newcastle.ac.uk) who can provide guidance on the Treasure Act procedures.

2) Post-excavation and report production

Finds Processing and Storage

Finds shall be recorded and processed in accordance with the IFA Guidelines for Finds Work

Finds will be assessed by an experienced finds specialist.

The Archaeological Contractor will process and catalogue the finds in accordance with Museum and Galleries Commissions Guidelines (1992) and the UKIC Conservation Guidelines, and arrange for the long term disposal of the objects on behalf of the Client. A catalogue of finds and a record of discard policies, will be lodged with the finds for ease of curation.

Assessment should include x-radiography of all iron objects (after initial screening to exclude recent debris) and a selection of non-ferrous artefacts (including all coins). Refer to "Guidelines on the x-radiography of archaeological metalwork, English Heritage, 2006.

If necessary, pottery sherds and bricks should be recommended for Thermoluminescence dating.

Finds processing, storage and conservation methods must be broadly in line with current practice, as exemplified by the IFA "Standard and guidance for the collection, documentation, conservation and research of archaeological materials", 2001. Finds should be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication "First Aid for Finds" (Watkinson and Neal 1998). Proposals for ultimate storage of finds should follow the UKIC publication "Guidelines for the Preparation of Excavation Archives for Long-term Storage" (Walker 1990). Details of methodologies may be requested from the Archaeological Contractor.

Other useful guidance – "A Strategy for the Care and Investigation of Finds", English Heritage, 2003, "Finds and Conservation Training Package", English Heritage, 2003.

All objects must be stored in appropriate materials and conditions to ensure minimal deterioration. Advice can be sought from Jacqui Huntley of English Heritage (0191 3341137 or 07713 400387) where necessary.

The report

1. The Archaeological Contractor must produce an interim report of 200 words minimum, two weeks after the completion of the field-work, for the Client and the Planning Authority, with a copy for information to the County Archaeologist. This will contain the recommendations for any further work needed on site.
2. The production of Site Archives and Finds Analysis will be undertaken according to English Heritage Guidelines (Managing Archaeological Projects 2nd Edition).
3. A full report with the following features should be produced within six months of the completion of the field-work. All drawn work should be to publication standard. The report must include:
 - * Location plans of trenches and grid reference of site
 - * Site narrative – interpretative, structural and stratigraphic history of the site
 - * Plans showing major features and deposit spreads, by phase, and section locations
 - * Sections of the two main trench axes and through excavated features with levels
 - * Elevation drawings of any walls etc. revealed during the excavation
 - * Artefact reports – full text, descriptions and illustrations of finds
 - * Tables and matrices summarising feature and artefact sequences.
 - * Archive descriptions of contexts, grouped by phase (not for publication)
 - * Deposit sequence summary (for publication/deposition)
 - * Colour photographs of trenches and of archaeological features and finds
 - * Laboratory reports and summaries of dating and environmental data, with collection methodology.
 - * A consideration of the results of the field-work within the wider research context (ref. NERRF).
 - * Recommendations for further work on site, or further analysis of finds or environmental samples
 - * Copy of this specification
4. Four bound and collated copies of the report need to be submitted:
 - one for the commissioning client

- one for the planning authority (Newcastle City Council)
- one for deposition in the County HER at the address below. A digital copy of the report on CD is also required by the HER in a plastic case. Please do not attach this to the report.
- one for Mike Collins, English Heritage's Hadrian's Wall Archaeologist (Bessie Surtees House, 41-44 Sandhill, Newcastle upon Tyne NE1 3JF)

The report and CD for the HER must be sent by the archaeological consultant or their client directly to the address below. If the report is sent via the planning department, every page of the report will be stamped with the planning application number which ruins the illustrations. The HER is also often sent a photocopy instead of a bound colour original which is unacceptable.

5. If significant archaeological features are found during the evaluation, the results may also warrant publication in a suitable archaeological journal. The tender should therefore include an estimated figure for the production of a short report of, for example 20 pages, in a journal such as *Archaeologia Aeliana*, or the *Arbeia Journal*. This is merely to give the commissioning client an indication of potential costs.

Before preparing a paper for publication, the archaeological contractor must discuss the scope, length and suitable journal with the County Archaeologist.

Site Archive

The site archive (records and materials recovered) should be prepared in accordance with *Managing Archaeological Projects, Second Edition, 5.4 and appendix 3 (HBMC 1991), "Archaeological documentary archives" IFA Paper No. 1, "Archaeological Archives – creation, preparation, transfer and curation" Archaeological Archives Forum etc. and Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990).*

This should include indexing, ordering, quantification and checking for consistency of all original context sheets, object records, bulk find records, sample records, skeleton records, photographic records, drawing records, photographs, drawings, level books, site note-books, spot-dating records and conservation records etc. All artefacts and ecofacts retained from the site must be packed in appropriate materials. A summary account of the context record, prepared by the supervising archaeologist, should be included.

The archive will be placed in a suitable form in the appropriate museum (typically Museum of Antiquities, Newcastle for sites north of the Tyne and Tyne and Wear Museums for sites south of the Tyne, but there are different rules for Roman sites etc. check with these institutions) with the landowner's permission.

A letter will be sent to the County Archaeology Officer within six months of the report having been submitted, confirming where the archive has been deposited.

OASIS

The Tyne and Wear County Archaeologist supports the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index/access to the large and growing body of archaeological grey literature, created as a result of developer-funded fieldwork.

The archaeological contractor is therefore required to register with OASIS and to complete the online OASIS form for their evaluation at

<http://ads.ahds.ac.uk/project/oasis/>. Please ensure that tenders for this work takes into account the time needed to complete the form.

Once the OASIS record has been completed and signed off by the HER and NMR the information will be incorporated into the English Heritage Excavation Index, hosted online by the Archaeology Data Service.

The ultimate aim of OASIS is for an online virtual library of grey literature to be built up, linked to the index. The unit therefore has the option of uploading their grey literature report as part of their OASIS record, as a Microsoft Word document, rich text format, pdf or html format. The grey literature report will only be mounted by the ADS if both the unit and the HER give their agreement. The grey literature report will be made available through a library catalogue facility.

Please ensure that you and your client understand this procedure. If you choose to upload your grey literature report please ensure that your client agrees to this in writing to the HER at the address below.

For general enquiries about the OASIS project aims and the use of the form please contact: Mark Barratt at the National Monuments Record (tel. 01793 414600 or oasis@english-heritage.org.uk). For enquiries of a technical nature please contact: Catherine Hardman at the Archaeology Data Service (tel. 01904 433954 or oasis@ads.ahds.ac.uk). Or contact the Tyne and Wear Archaeology Officer at the address below.

The tender

Tenders for the work should contain the following:-

1. Brief details of the staff employed and their relevant experience
2. Details of any sub-contractors employed
3. A quotation of cost, broken down into the following categories:-
 - * Costs for the excavation, incl. sub-headings of staff costs on a person-day basis, transport, materials, and plant etc.
 - * Post-excavation costs, incl. storage materials
 - * Cost of Environmental analysis and scientific dating per sample
 - * Estimated cost for full publication of results in an archaeological journal
 - * Overheads
4. An indication of the required notification period (from agreement to start date) for the field-work; the duration of fieldwork and the expected date for completion of the post-excavation work (a maximum of 6 months after completion of the fieldwork)

Monitoring

The Archaeological Contractor will inform the County Archaeologist of the start and end dates of the excavation to enable the CA to monitor the work in progress.

Should important archaeological deposits be encountered, the County Archaeologist must be informed. If further archaeological evaluation is required on this site, then the archaeological contractor must submit a written scheme of investigation for approval by the CA before extending the size of the trenches.

David Heslop
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Jesmond Old Cemetery

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Ref: MON6950EVA
**** 2007

Planning Application:

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