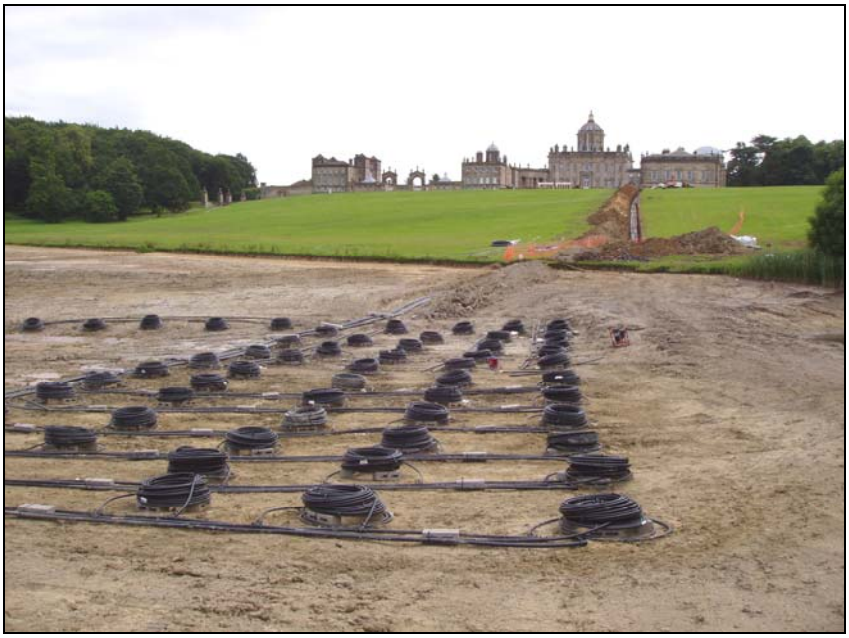
CASTLE HOWARD, MALTON, NORTH YORKSHIRE: AN ARCHAEOLOGICAL WATCHING BRIEF



CS Archaeology
August 2009

On behalf of: Mr S Howard
Castle Howard
Malton
North Yorkshire

National Grid Reference (NGR): SE 712 701

Report Number: 040

Report by: Mr C Scurfield

Pottery Assessment: Dr C G Cumberpatch

Timing: Fieldwork July 2009
Report August 2009

Enquiries to: CS Archaeology
Hawnby House
Thornton Le Beans
Northallerton
North Yorkshire
DL6 3SW

T. 01226 722571
M. 07963 586767
E. chrisscurfield@yahoo.com

CONTENTS

1. SUMMARY

1.1 An archaeological watching brief was required to record potential archaeological deposits associated with excavation of a ground source heating system which involves the excavation of a pipe trench from Castle Howard's North Lake (Dairy Pond) to the House's north elevation.

1.2 This report has been written in response to a condition placed on planning consent (App. No. 09/00434/FUL).

1.3 The archaeological watching brief has recorded:

- a revetment wall, c. 1700 part of the Vanbrugh's original design with subsequent levelling and dumping deposits;
- a carved limestone Cascade in the Dairy Pond (North Lake);
- a subterranean pump house and;
- a continual sequence of geological lake sediments.

1.4 Residual Medieval pottery was recovered from unstratified deposits. No Post-Medieval or earlier features were revealed during the excavation works.

2. INTRODUCTION

2.1 Castle Howard lies 7kms west of Malton, North Yorkshire and 5kms north of the A64 between York and Malton (Figure 1). The site lies within Castle Howards' Grade 1 Registered Park and Garden. The excavation consists of a narrow pipe trench across the north lawn, linking the Dairy Pond (North Lake) to the House. The north lawn is situated on a north northwest facing slope from the 74 to 58m contour lines.

2.2 The archaeological watching brief took place over 5 days from the 6th to the 10th July 2009 in response to a condition attached to planning consent, from Ryedale District Council (App. No. 09/00434/FUL).

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The earliest phase of the present extant house consists of the Main House with its Great Hall, the East Wing and the East Court and these were begun c.1700 and completed 1714. This early phase of construction was designed by Sir John Vanbrugh, with Nicholas Hawksmoor initially acting as Clerk of Works (Pevsner 2001, 107) under the patronage of Charles, 3rd Earl of Carlisle.

3.2 Pevsner notes that by 1709-12 the Great Hall with its great dome was being internally decorated, The western part of the Kitchen Wing had been built by 1706, the brewhouse, laundry, etc by 1710-11 and the two gateways by 1716. Pevsner also notes that in *Vitruvious Britannius*, vol. I (Figure 3: c.1715) the engraved design features two gatehouses, one to the Kitchen Court and one to the Stable Court. This arrangement was completed by a "wonderfully crazy" principal gatehouse into the c*our d'honneur* (Pevsner 2001, 112).

3.3 After this initial period of construction, design attention turned to the grounds. By 1737 the total cost of the project came in at £78,250 with the house itself costing just under half of the total (£35,000). The West Wing was built between 1753-1759 by Sir Thomas Robinson for Henry, 4th Earl of Carlisle. The building was constructed from limestone ashlar and rubble, lead and Westmorland slate roofs all in the Baroque style except for Palladian West Wing.

3.4 Castle Howard is a nationally important Grade 1 Listed: House, Park and Garden. Within the grounds are a further 21 Listed Buildings. Of these, ten are of national importance (Grade 1 and Grade II*) and eleven are of regional importance (Grade II). The concentration of so many Listed Buildings, serves to emphasise the importance of the House but also of the wider estate.

3.5 A selection of these buildings, listed chronologically are:

- The Walled Garden c. 1705;
- Victoria Gate (between the walled garden and the later stables 1705;
- The Carrmire Gate, after 1726;
- Temple of the Four Winds 1714-6;
- The Pyramid Gate 1719;
- Pretty Wood and associated Pyramids c.1727;
- The Mausoleum 1742;
- The Stewards House (The Dairy) probably mid C18$^{th;}$
- South Lake including the Cascade to the Temple Hole 1735;
- Exclamation Gate 1770;
- The Stables 1781;
- The North Lake 1798-1800.

4. AIMS AND OBJECTIVES

4.1 The aim of the watching brief is to identify and record the presence/absence, extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits which are disturbed or exposed as a result of ground works in the area of interest.

4.2 This work will mitigate the destruction of buried archaeological remains through 'preservation by record'.

5. METHODOLOGY

5.1 This has been carried out in accordance with a Written Scheme of Investigation (WSI) issued by CS Archaeology (7/2009: Appendix 1).

5.2 In addition to the WSI all exposed surfaces and spoil were surveyed for metal and examined for pottery and worked stone.

5.3 A detailed plan and sections were made of **Site 1**, *The Revetment Wall*, and its associated deposits (Figures 6, 4 and 5). **Sites 2 & 3**, *The Cascade,* and *Pump House* were recorded by informal measurements and photographs.

5.4 A Geological Palaeo-channel (Figure 2: Plate 5) was also recorded as were stratigraphic sections of the pipe trench (Figure 7: Plate 12). These sections were recorded at 30m intervals along the entire length of the pipe trench (Appendix 3).

5.5 Written records of the contexts were made on *pro-forma* recording cards summarised in Appendix 2A. A photographic record was made of all deposits in Black and White print using a 35mm single lens reflex camera. Colour digital images were taken in order to illustrate the report. All photographs have been included as part of the site archive (Appendix 2B and 2C).

5.6 Datum levels were provided via spot heights from the Ordnance Survey digital site plans (2009), and were transferred to Site 1, by a dumpy level.

5.7 The metal detecting was undertaken after de-turfing on all exposed trench surfaces and resultant spoil heaps. Apart form a series of coins (from 1990) representing the staging of outdoor events, no significant artefacts were recovered.

5.8 The site archive will be deposited with the Castle Howard Archive.

5.9 This report contains a pottery assessment which has confirmed activity on the site from the late 15th century.

5.10 Ms L Hawkins of North Yorkshire County Council was kept fully informed of the progress of the works and the initial results.

6. RESULTS

6.1 The watching brief identified three sites of archaeological significance:

- **Site 1**, a section of *Revetment Wall* was revealed during the excavation of the pipe trench;
- **Site 2**, a carved limestone *Cascade* was revealed between a feeder pond and the Diary Pond;
- **Site 3**, a subterranean pump house, situated to the north of **Site 2**, the Cascade.

6.2 A pipe trench (1.5m wide x c. 1.2m deep) linked the Dairy Pond to the House's north elevation (Figure 2). Unstratified pottery from the south end of the pipe trench close to the house revealed 16th to early 17th century abraded pottery (Appendix 2). Because the pottery was abraded it suggests agricultural use of the land before the house was constructed.

6.3 **Site 1**, The *Revetment Wall.* Before the wall was encountered the trench was cutting into a number of increasingly varied deposits, characterised by dumped building debitage (e.g. Figure 6: Plate 6). The excavator then touched upon a substantial linear stone feature, which was aligned at right angles to the pipe trench. The made ground to the north was removed by mechanical excavator but the wall was hand excavated.

6.4 This revealed three faces of a well constructed wall, which was dog-legged in plan (Figure 5: Plates 7 and 8). This dog legged shape was thought to represent an antae, or corner 'pilaster' that provided structural strength. The pipe trench to the south of Site 2 was removed revealing an extant wall up to 1m in height. A section was then hand excavated through the wall's foundation trench [116] the wall face increased in height to 1.4m. The revetment wall (Site 1) was constructed in limestone ashlar, bonded with very strong lime mortar. Its front northern face (Figure 4: Plates 10 and 11) was well defined, there was no inner or southern face to the wall just a ragged margin of the faced stone and a 2m wide limestone rubble context [114]. The wall continued into the western baulk and beneath the north lawn, uninterrupted. Loose fill to the eastern baulk, showed that the wall did not continue beyond about 0.3m, suggesting that the wall had been destroyed.

6.5 The interpretation of the revetment wall was aided by an engraving in *Vitruvius Britanicus* vol.1 of Castle Howard's north elevation (Figure 3). Here the section of revetment wall can be positively correlated to an antae with a right angled extension of the north terrace which accommodated the now demolished principal gatehouse with its notable corner obelisks. As the Castle's West Wing was never completed it is not known just how much of this design was built. This watching brief has revealed a diagnostic section of the *cour d'honneur's* revetment wall proving that the courtyard had indeed been constructed to the north of the planned Baroque West Wing, and was not merely a proposed design by Vanbrugh.

6.6 The date when the *cour d'honneur* was demolished is presently unknown. However examination of the deposits abutting the revetment wall (Figure 6) indicates that a substantial levelling deposit [107] was made up of re-deposited red bricks. These bricks are very similar to those used in the Walled Garden (Plate 23). The bricks were coarsely ground clamp bricks. These probably originated from a section of the Walled Garden was extended to the west (pers. comm. Mr C Ridgeway) and demolished walling reused to level the north lawn immediately north of the revetment wall (Site 1).

6.7 In turn, these levelling deposits [104-7] were truncated by a pit or trenches [103 and possibly 118] into which an array of masonry working debitage (limestone [110 and 114]) characterised by both reused and constructional architectural fragments (Appendix 2F). One masonry fragment within [114] retained a pencilled construction line and others featured adhering lime mortar. Clearly the occurrence in the archaeological record of these deposits relates to an episode of demolition and construction. A possible candidate for this phase would be the construction of the Palladian West Wing during the 1750s.

6.8 If the above hypothesis is correct, it provides a relatively tight time-line for **Site 1.** This began with the same revetment wall's construction c.1715, and the demolition and landscaping of the of the revetment wall, sometime after 1715 and probably in association with the extension of the Walled Garden (date unknown). The last phase was the large scale dumping of building/demolition debitage during construction of the West Wing by William Robinson in the 1750s.

6.9 The installation of Castle Howard's new heat exchange system required over 7kms of pipework to be positioned, in coiled stacks, in the western end of the Dairy Pond. As part of this operation the Dairy Pond and a small feeder pond, west of the Dairy Pond, was also cleared of vegetation. This revealed **Site 2**, the *North Cascade* (Plates 13 and 14) which linked the two ponds. The *North Cascade* formed the central section of a substantial dam, with an eastern low revetment wall and a more substantial dam wall to the west. The dam may have featured a road/trackway to the Stewards House (Dairy). It contained a clay core, this was partially excavated south of the dam wall during its restoration (following a near collapse of the dam after draining the feeder pond). The cascade was probably constructed straight onto the dam's clay core, which provides a stable foundation providing the clay remains saturated.

6.10 The dam served to provide a head of water for the cascade and probably may also have served as a footpath or trackway. It was designed to supply a single sheet of water into the Dairy Pond from the dam, a drop of *c.*5.4m over a distance of 5.2m. The Cascade was built from regular limestone blocks. The water flow was 'animated' by the use of irregular stones, carved in relief from the limestone blocks (Plate 15). Some of the carved stones were hollowed and this would have forced water vertically into the air emulating a mountain 'gill' or stream. The width of the central section of carved stones is 0.95m. The curbed sides of the

Cascade are concave, again of carved limestone which takes the total width of the Cascade to 1.65m.

6.11 The southern Cascade to Temple Hole Basin dates to c.1735, and the Dairy Pond or North Lake dates to the late 18th century (Pevsner 2001). This is borne out by the differences in style between the two Cascades. The north Cascade is not as grand a design as the southern Cascade and does not boast finials and raised parapets.

6.12 Unfortunately no trace of any superstructure survives on the dam. The dam wall comprises of large limestone blocks weakly bonded in lime mortar (Plate 16). The exposed section of wall was 8m long and 0.61m wide. There were four notable features carved into the dam wall. The first was the spillway which measures 1.15m at it mouth 0.77m deep. Below the temporary flagstone cover the spillway features rounded sides which act to reduce the spillway's aperture, thereby increasing the water velocity across the causeway before it spread out across the *Cascade* (Plates 17 & 17a). A flagstone currently covers the spillway and an 8 inch diam. pipe has been inserted to carry water over the causeway. The causeway's original surface is no longer extant but represents an area of future research. The second carved feature in the dam wall was a recessed square hole (0.3m²), which accessed the bottom of the dam wall where the dam's drain hole was located. There are also more irregular rebates cut into the upper surface but it is not know what purpose these served, unless it was the location of a temporary pump (Plate 18). The dam's drain was the dam's forth feature (Plate 19). The original grate was absent but after a non original grate had been removed the rebate of the original grate was evident as was the drain which still served to drain the feeder lake into the Dairy Pond. The drain consisted of a hollowed out log, presumably of oak with an 8" (20.3cms) plug hole positioned at the top of the west end. The wood plug was still in situ and featured a hand forged looped iron handle (Plate 20).

6.13 **Site 3**, the subterranean pump house? was unfortunately flooded and it was beyond the remit of the estate works department to allow a more detailed examination of the site. The site had been blocked off by the capping of its staircase by a brick manifold, using regular well ground red bricks (0.06m x 0.22m x 0.11m) with a covering flagstone (Plate 21). There was a stone staircase with a tread height of 0.22m and the flight was set at a steep 45° incline. The walls were of well coursed limestone (0.23m blocks) with herringbone tooling. There was brick vaulted ceiling (Plate 22). The date is unknown but it is likely that it post-dates Site 2 and the construction of the North Lake (Dairy Pond). It possibly served as a pump house supplying water at pressure to the house and grounds. Further details of potential fixtures and fittings would be served by the pumping out the chamber.

7. CONCLUSIONS

7.1 The results from **Site 1** suggest a sequence of construction, demolition and dumping that spans the early 18th century. The watching brief has confirmed Vanbrugh's original revetment wall to the *cour d'honneur* (c1700-1715). The watching brief has also confirmed that after the revetments wall's construction the area was subject to further major episodes of activity. These included the revetment wall's part demolition. The raising of the ground surface by levelling deposits including bricks possibly from the walled garden. Its subsequent use as a land fill site during a substantial renovation and/or construction strongly suggests activity associated with the construction of the Palladian West Wing during the 1750s.

7.2 **Site 2**, the *North Cascade* provides an effective counterpoint, in terms of style and finish to the earlier Baroque styled S*outhern Cascade*. The dam of which the Cascade forms the central part was built to access the Stewards House (Dairy) northwest of the house and may also have formed an element within an informal footpath, part of a Georgian garden landscape.

7.3 **Site 3,** the former subterranean pump house represented an unexpected find. The contents of which remain to be discovered.

8. REFERENCES

8.1 Bibliography

CS Archaeology 2009, *Written Scheme of Investigation (WSI) for an Archaeological Watching Brief at Castle Howard, Malton, North Yorkshire (SE 712 701)*, unpublished contractors report.

Pevsner 2001, *Yorkshire: The North Riding,* Penguin Books

Ridgway C 2001, *Conservation and the Archive: Castle Howard* in Looking Forwards – The Country House in Contemporary Research and Conservation Cottbus

Watkins, J. G. 1987 *The Pottery* In: P. Armstrong and B. Ayers (Eds.) **Excavations in High Street and Blackfriargate**, Hull Old Town Report Series No. 5. East Riding Archaeologist 8, 53-181.

8.2 Cartographic References

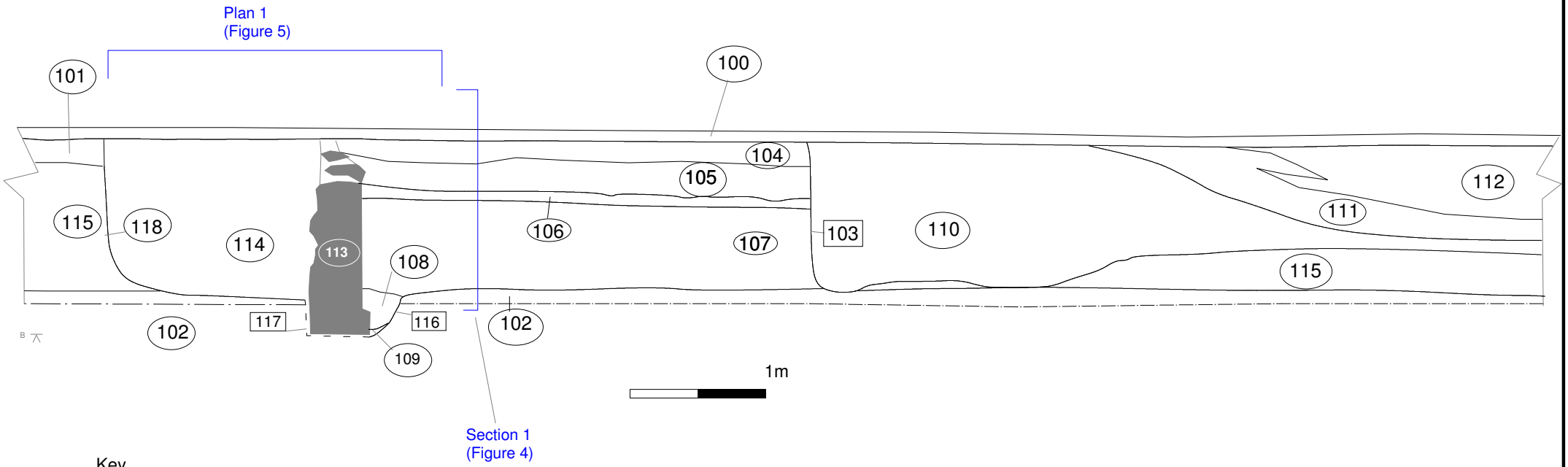
2009 Ordnance Survey digital dxf

9. ACKNOWLEGEMENTS

Thank you to Mr Simon Howard for commissioning this report and the Estate Team Mr John Chapman and Mr M Olephant for their interest and assistance. Thanks also to Ms L Hawkins (NYCC) and Ms R Smith (RDC) for ensuring an archaeological condition was attached to the excavation work.

FIGURES

CS ARCHAEOLOGY
August 2009



Key

limit of Excavation

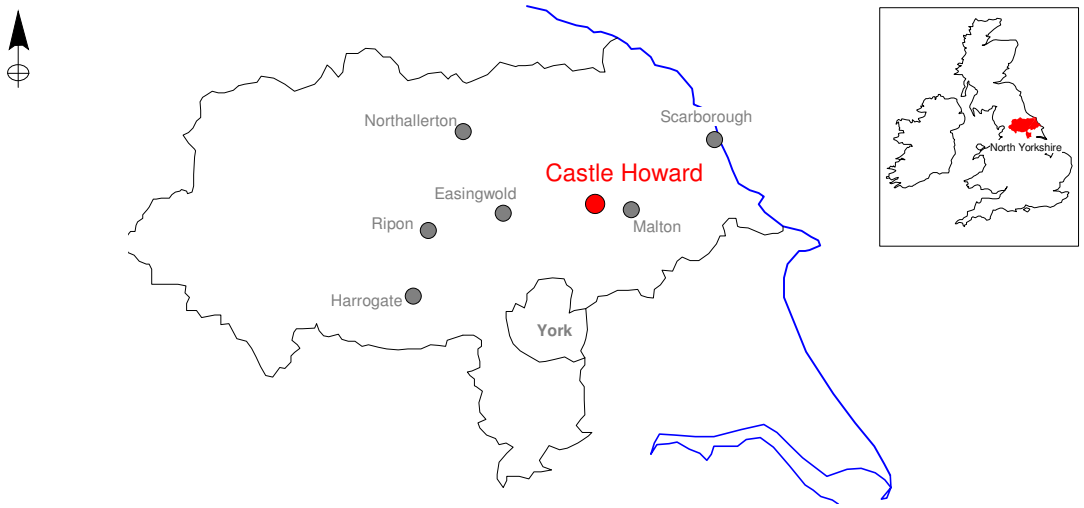
revetment Wall

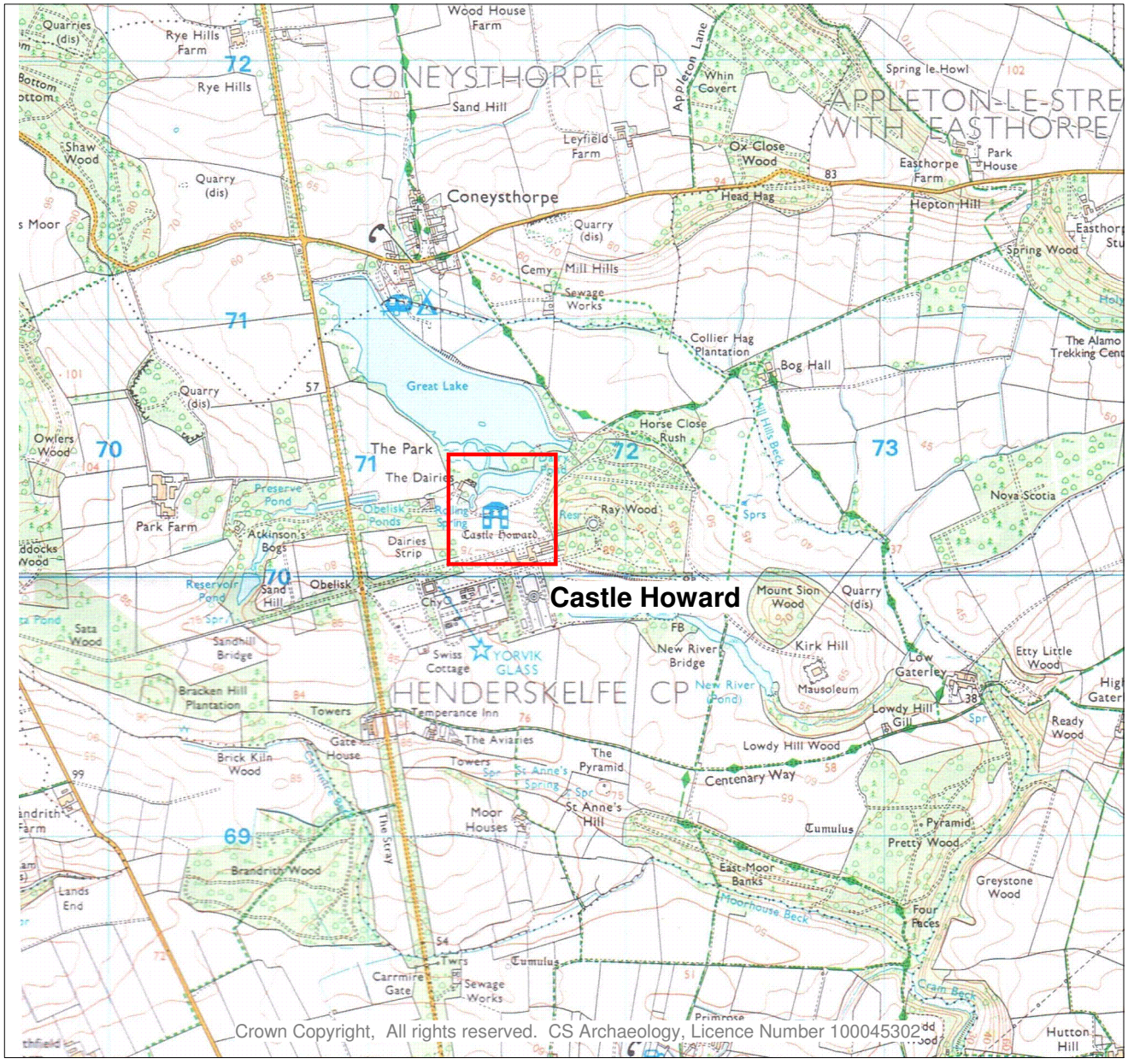
Levels AOD

B. 70.51m

not to scale

Castle Howard, Malton North Yorkshire: An Archaeological Watching Brief	CS Archaeology August 2009	Figure 6: East Facing Section of the Pipe Trench

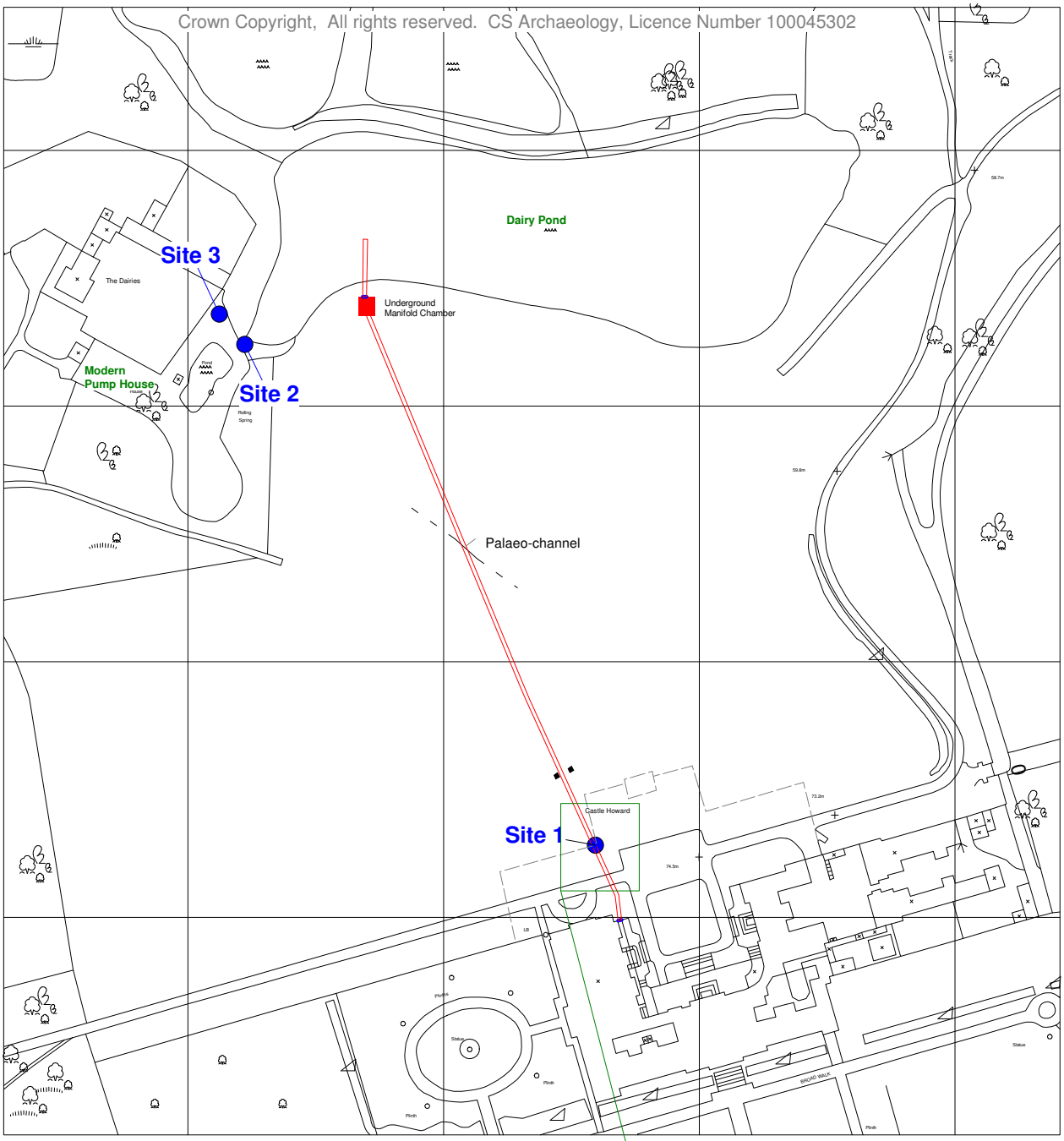




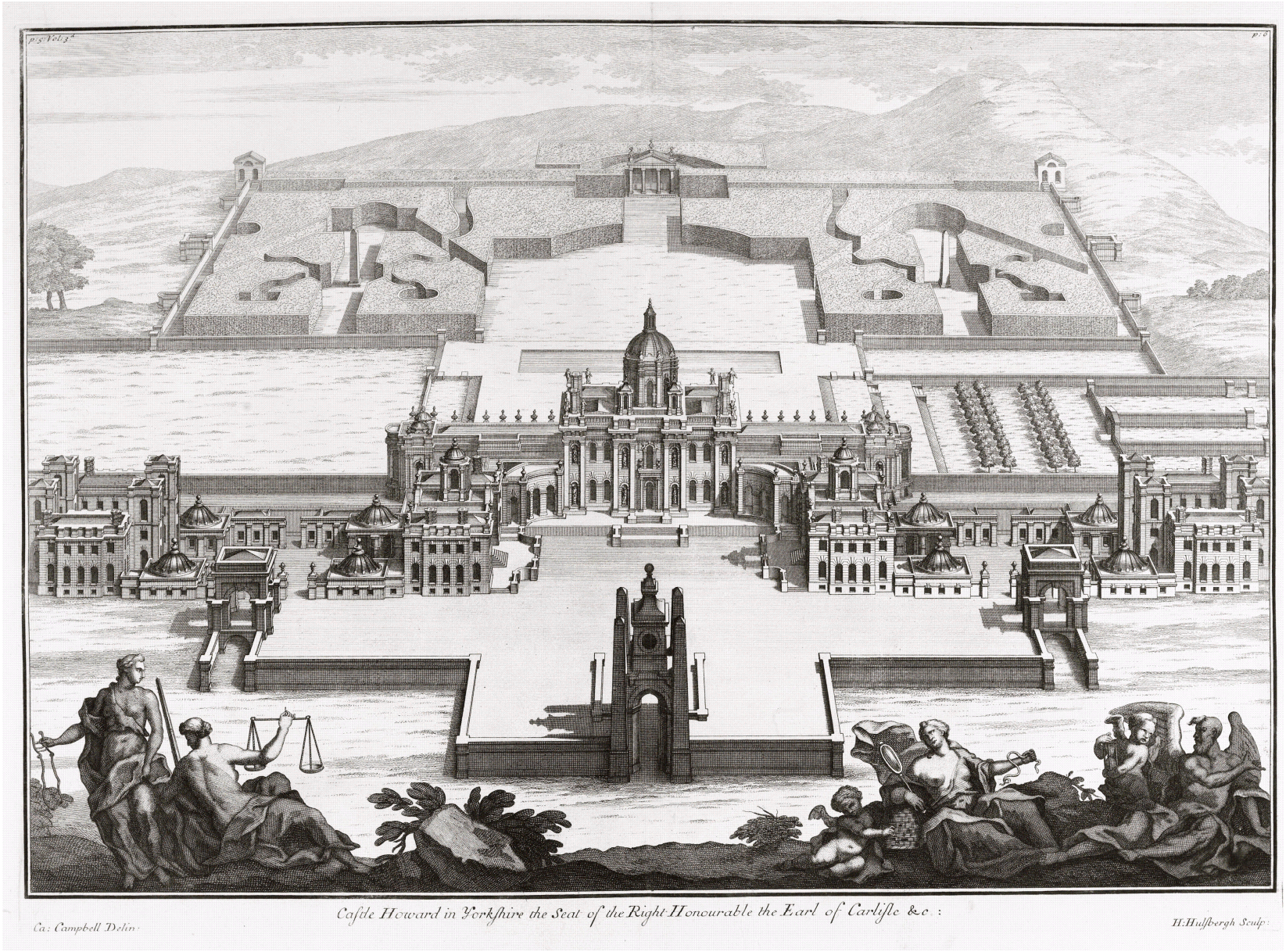
scale: 1:25000

for inset see Figure 2

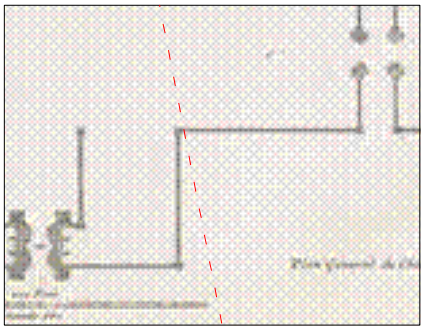
Castle Howard, Malton, North Yorkshire: An Archaeological Watching Brief	CS Archaeology August 2009	Figure 1: Site Location



Castle Howard, Malton, North Yorkshire: An Archaeological Watching Brief	CS Archaeology August 2009	Figure 2: Site Map of the Pipe Trench, with Sites 1-3



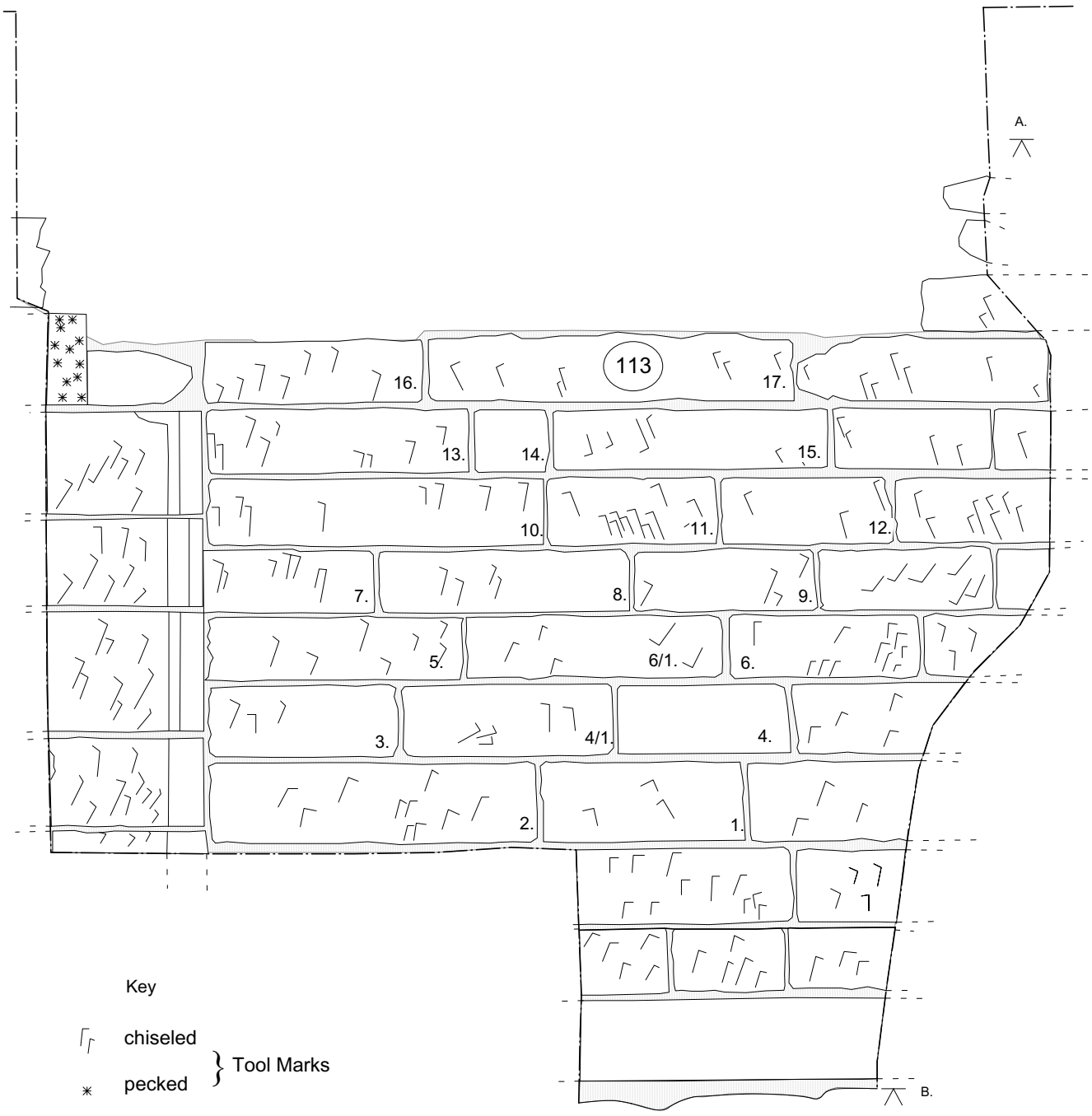
Castle Howard, Malton North Yorkshire: An Archaeological Watching Brief



Plan of the revetment Wall c. 1715 with the line of the Pipe Trench

Figure 3: Castle Howard's Proposed (and partially built) North Elevation c.1715

CS Archaeology
August 2009



Key

chiseled
pecked
} Tool Marks

limit of excavation

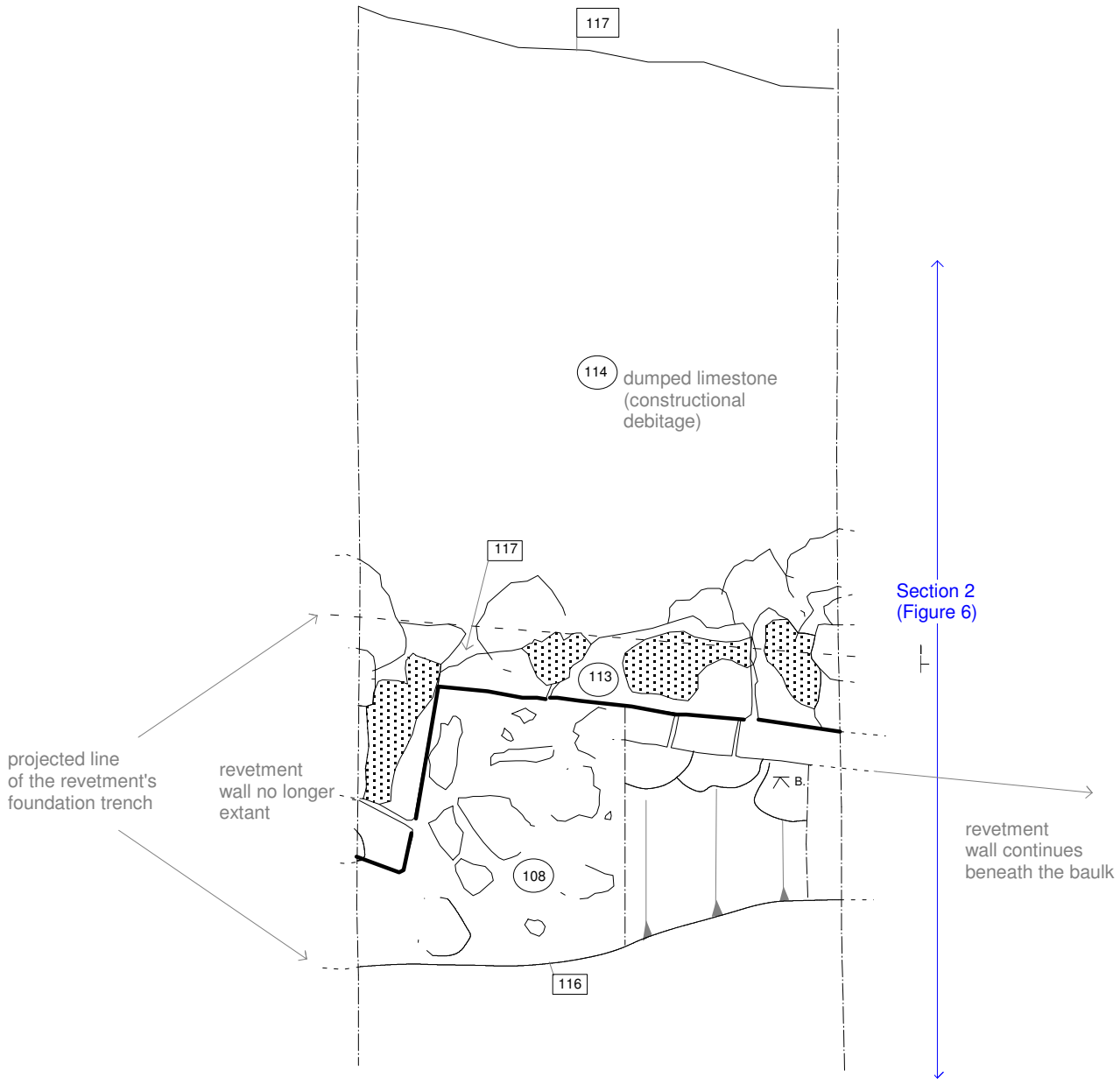
lime mortar

North Facing Section
scale: 1:10

Levels AOD

A. 72.01m
B. 70.51m

Castle Howard, Malton North Yorkshire: An Archaeological Watching Brief	CS Archaeology August 2009	Figure 4: The Outer Face of the Revetment Wall (Site 1)



scale: 1:20

Key

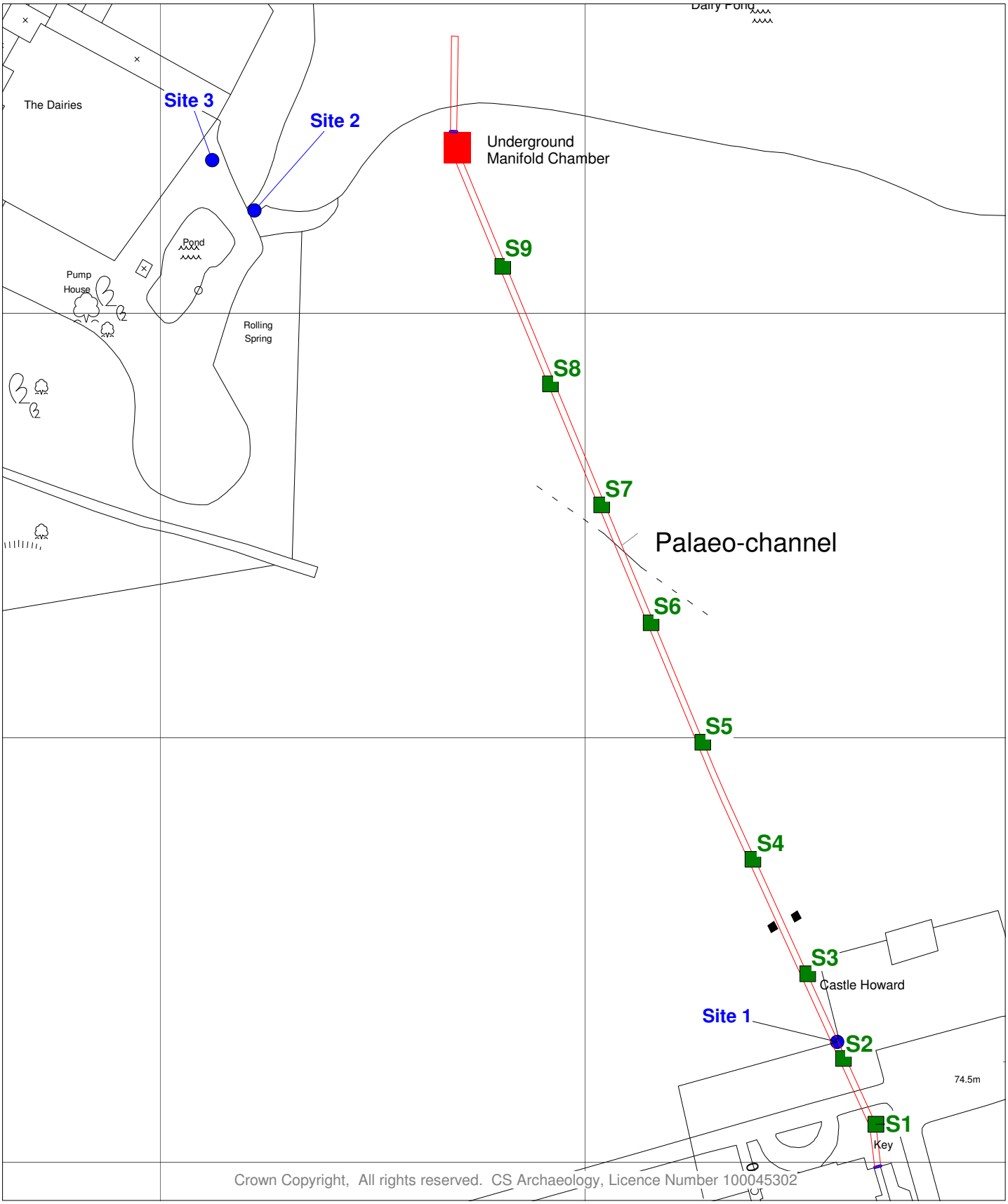
Limit of Excavation

Lime Mortar

Levels AOD

B. 70.51

Castle Howard, Malton North Yorkshire: An Archaeological Watching Brief	Figure 5: Plan of the Revetment Wall (Site 1)	CS Archaeology August 2009



scale: 1:1250

pipe trench

sections 1-9

archaeological sites

Castle Howard, Malton North Yorkshire: An Archaeological Watching Brief	CS Archaeology August 2009	Figure 7: Stratigraphic Sections

PLATES

Plate 1: general view of the northern end of the pipe trench, looking south

Plate 2: view of the northern end of the pipe trench, looking south

Plate 3: view of the north facing section of the manifold chamber, looking south

Plate 4: pre-excavation view of the pipe trench after metal detection, looking south southeast

Plate 5: view of the palaeochannel striking diagonally through the trench, looking southeast

Plate 6: view of the trench bisecting the limestone dump of construction debitage [110], looking east

Plate 7: general view of the revetment wall (Site 1), looking south

Plate 8: detailed view of the revetment wall (Site 1), looking south southeast

Plate 9: general view of the revetment wall (Site 1) with lower foundation courses revealed, looking southeast

Plate 10: plan view of the revetment wall (Site 1), looking north northwest

Plate 11: view to the rear of the revetment wall (Site 1) with the trench back fill removed, looking northwest

Plate 12: view of the natural, layers of sand and clay (S2: [115]), probably formed as part of Lake Pickering, to the southern end of the trench looking southwest

Plate 13: Site 2, the cascade once the vegetation had been cleared, looking south

Plate 14: view up the cascade (Site 2), looking southwest

Plate 15: Site 2**,** detail of the carved pebbles and finely ashlared concave edges, looking southwest

Plate 16: view of the collapsing dam wall (Site 2), looking east

Plate 17: view of the dam wall with spillway (Site 2) to the left of the ranging rod, looking north

Plate 17a: view of the spillway (Site 2), looking southeast

Plate 18: view of the dam wall (Site 2) with a small square access holes to the dam's drain and plug, looking south

Plate 19: detail of the drain to the dam wall (Site 2) with grate removed, looking northeast

Plate 20: view of the drain plug removed from the dam's drain, looking northwest

Plate 21: Site 3, surface access to the staircase with flagstone removed, looking west

Plate 22: view of the brick vaulted staircase (Site 3), looking west

Plate 23: view of an excavated brick against the extant wall of the *Walled Garden*, looking south

APPENDIX 1:
The Written Scheme of Investigation

Written Scheme of Investigation (WSI) for an Archaeological Watching Brief at Castle Howard, Malton, North Yorkshire (SE 712 701)

WSI prepared at the request of Mr S Howard to satisfy a condition placed on planning consent (Application Number 09/00434/FUL) by Ryedale District Council (RDC) who have been advised by North Yorkshire County Council (NYCC)

1 Summary

1.1 An archaeological watching brief is required to record potential archaeological deposits during the proposed excavation of a ground source heat system.

1.2 A limited amount of archaeological work consisting of a watching brief is proposed to identify and record any archaeological remains, particularly from the Medieval period, which are revealed and/or disturbed during groundworks to the site.

2 Site Location and Description

2.1 Location

The site (NGR: SE 712 701) consists of a trench linking the Dairy Pond to the House and is situated on a north northwest facing slope positioned across the 80m AOD contour line. The site is situated within the Grade 1 Registered Park and Garden, within the Castle Howard Estate. Castle Howard lies 7kms west of Malton, North Yorkshire and 5kms north of the A64 between Yorks and Malton.

3 Planning Background

Castle Howard has obtained planning consent (Planning Application No. 09/00434/FUL) for the installation of a ground source heat system. CS Archaeology has prepared this WSI in order to allow the estate to meet the terms of an archaeological condition which has been placed on the consent.

4 Archaeological Interest

4.1 Historical Background

Castle Howard's principal house, east wing and east court was begun 1700, completed 1714, by Sir John Vanbrugh with Nicholas Hawksmoor, for Charles, 3rd Earl of Carlisle. The west wing was built between 1753-1759 by Sir Thomas Robinson for Henry, 4th Earl of Carlisle. The building has been constructed from limestone ashlar and rubble, lead and Westmorland slate roofs all in the Baroque style except for Palladian west wing.

Contained within the Castle Howard's Grade 1 Park and Garden, there are 22 buildings which enjoy statutory protection. Of these buildings, eleven are of National importance (Grade 1 and Grade II*) and eleven are of regional importance (Grade II) and emphasises an extraordinary concentration of historical and archaeological sites.

4.2 Impact of proposed development

The proposed excavations could affect potential historic garden features associated with Castle Howard and earlier Medieval deposits associated with the landscape before enlosure.

5 Aims of the Project

5.1 The aim of the watching brief is to identify and record the presence/absence, extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits which are disturbed or exposed as a result of ground works in the area of interest.

5.2 This work will mitigate the destruction of buried archaeological remains through 'preservation by record'.

6. Fieldwork Methodology

6.1 CS Archaeology will be present on site during any excavation below a depth of 0.15m, whether for site preparation, excavation trench. Where archaeology is judged to be present, the excavated area will be rapidly cleaned and the need for further work assessed. Where appropriate, any features and finds will then be quickly hand excavated, sampled if appropriate, and recorded.

6.2 Features/deposits of archaeological concern will be accurately located on a site plan and recorded by photographs, scale drawings and written descriptions sufficient to permit the preparation of a report. Section drawings (at a minimum scale of 1:20) must include heights O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features.

6.3 The actual areas of ground disturbance (even if no archaeological remains are present) will be recorded on a suitable base map/development plan and the stratigraphic sequence and the depth of the excavations will be briefly recorded. If archaeological remains are identified, their location is to be accurately tied into the National Grid and located on an up-to-date 1:1250 O.S. map base.

6.4 All securely stratified contexts will be sampled for environmental analysis and scientific dating. Additional 'spot' samples will be taken if suitable material is encountered during the watching brief.

6.6 The intention of the archaeological watching brief is not to unduly delay the work of other contractors on site, however, a degree of flexibility is expected of the developer in order that the archaeologist can fulfil the terms of this specification. CS Archaeology will not excavate any area beyond those scheduled for destruction by the development.

6.7 If, in the professional judgement of CS Archaeology, the watching brief reveals below-ground conditions which indicate that potentially archaeological levels are absent, CS Archaeology will contact RDC/NYCC to discuss reducing or curtailing the requirements. The work may only be curtailed with the prior agreement of RDC/NYCC and written confirmation will be requested.

7 Unexpectedly Significant or Complex Discoveries

7.1 Will there be, in the professional judgement of CS Archaeology, unexpectedly significant or complex discoveries made that warrant more detailed recording than possible within the terms of this specification, then the archaeological contractor is to urgently contact RDC/NYCC with the relevant information to enable the matter to be resolved with the developer.

7.2 Any human remains that are discovered must initially be left *in-situ*, covered and protected. WYAAS will be notified at the earliest opportunity. If removal is necessary the remains must be excavated archaeologically in accordance with the *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England* published by English Heritage (2005), a valid Ministry of Justice licence, if appropriate, and any local environmental health regulations.

7.3 The terms of the Treasure Act, 1996 must be followed with regard to any finds, which might fall within its purview. Any such finds must be removed to a safe place and reported to the local coroner as required by the procedures laid down in the 'Code of Practice'. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

8. Post-Recording Work and Report Preparation

8.1 Report Preparation

8.1.1 Report format and content
A written report will be produced. This will include:

- an executive summary including dates of fieldwork, name of commissioning body, and a brief summary of the results including details of any significant finds
- an introduction outlining the reasons for the survey
- a discussion placing the archaeology within their local and historical contexts.

8.1.2 On completion of the fieldwork, any samples will be processed and all finds shall be cleaned, identified, analysed, dated (if possible), marked (if appropriate) and properly packed and stored in accordance with the requirements of national guidelines. Finds of 20th century date will be quantified and summarily described, but can then be discarded if appropriate. All finds of 19th century or earlier date will be retained and archived.

8.1.3 A fully indexed field archive will be compiled consisting of all primary written documents, plans, sections, and fully labelled photographs/slides. Standards for archive compilation and transfer will conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2007). Labelling will be in HB pencil on the *back* of the print and will include film and frame number; date recorded and photographer's name; name and address of site; national grid reference. Photographic prints will be mounted in appropriate archivally-stable sleeves. A quantified index to the field archive will form an appendix to the report. The original archive is to accompany the deposition of any finds, providing the landowner agrees to the deposition of finds in a publicly accessible archive (see Section 10 below). In the absence of this agreement the field archive (less finds) is to be deposited in the West Yorkshire Historic Environment Record.

8.1.4 A fully illustrated report will be produced, which will include background information on the need for the project, a description of the methodology employed, and a full description and interpretation of the results, placing them in a local and regional, and if appropriate, national context. It is not envisaged that the report is likely to be published, but it will be produced with sufficient care and attention to detail to be of academic use to future researchers.

8.1.5 Location plans will be produced at a scale which enables easy site identification and which depicts the full extent of the areas covered by the watching brief. Plans will be at an appropriate scale showing: areas excavated and the identified (and, where possible, predicted) archaeological features/deposits. Trench and feature plans will include O.D. spot heights for all principal strata and any features. Section drawings will include O.D heights and be cross-referenced to an appropriate plan.

8.1.5 All artefacts and environmental material will be analysed by a qualified and experienced specialist. Artefact analysis is to include the production of a descriptive catalogue. Finds critical for dating and interpretation will be illustrated.

8.3.6 The report will include a full bibliography, a quantified index to the site archive, details of the current and intended location of the archive and, as an appendix, a copy of this specification.

8.4 Report deposition

8.4.1 General considerations

8.4.1a The report will be supplied to the client and identical copies supplied to the North Yorkshire HER, and to the National Monuments Record (English Heritage, Kemble Drive, Swindon SN2 2GZ – for the attention of Mike Evans, Head of Archives)..

8.4.1b **Copyright** - Please note that by depositing this report, CS Archaeology gives permission for the material presented within the document to be used by RDC/NYCC (the Curator), in perpetuity, although CS Archaeology retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act* 1988 (chapter IV, section 79).

8.4.1d With the permission of the developer, CS Archaeology will consider the deposition of a copy of the report for this site with an appropriate Museum (York or Malton).

The report copy supplied to the appropriate Museum will be accompanied by both the photographic negatives and a complete set of labelled photographic prints (mounted in KENRO display pockets or similar, and arranged in such a way that labelling is readily visible) bound in a form which will fit readily into a standard filing cabinet suspension file (not using hard-backed ring-binders). Labelling will be on the *back* of the print, in HB pencil or on applied printed labels and will include:

- film and frame number
- date recorded and photographer's name
- name and address of building
- national grid reference
- specific subject of photograph.

Negatives will be supplied in archivally stable mounts (KENRO display pockets or similar), and each page of negatives will be clearly labelled with the following:

- Township name
- Site name and address
- Date of photographs (month/year)
- Name of archaeological contractor
- Film number

Colour slides will be mounted, and the mounts suitably marked with the township name – Coneysthorpe, under, at the top of the slide; grid reference at the bottom; date of photograph at the right hand side of the mount; subject of photograph at the

left hand side of the mount. Subject labelling may take the form of a numbered reference to the relevant photographic register.

8.4 Summary for publication

8.4.1 A summary sheet will be completed and submitted to the NYCC Heritage Service for inclusion in the summary of archaeological work in North Yorkshire.

8.4.2 Preparation and deposition of the archive After the completion of all recording and post-recording work, a fully indexed field archive will be compiled consisting of all primary written documents and drawings, and a set of suitably labelled photographic contact sheets (only). Standards for archive compilation and transfer will conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2007).

9 General considerations

9.1 Technical queries

Any technical queries arising from this specification will be addressed to CS Archaeology without delay.

9.2 Archive Deposition

9.2.1 Before commencing any fieldwork, the archaeological contractor must contact the relevant District museum to determine the museum's requirements for the deposition of an excavation archive.

9.2.3 CS Archaeology will endeavour to obtain consent of the landowner, in writing, to the deposition of finds with the receiving District Museum.

9.2.4 CS Archaeology will meet the Museum's requirements with regard to the preparation of fieldwork archives for deposition.

9.3 Valid period of specification

This WSI is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

CS Archaeology
Hawnby House
Thornton Le Beans
Northallerton
North Yorkshire
DL6 3SW

Tel: 01226 722571
Mob: 07963586767
Email: chrisscurfield@yahoo.com

APPENDIX 2:
The Archive Inventory

A. Context Descriptions

Context No.	Description
100	Dark brown sandy loam (topsoil), up to 0.2m deep and present throughout the trench. Above [101, 112, 110 & 104].
101	Brown sandy clay subsoil. Below [100], above [115].
102	Natural limestone bedrock, beneath the sands and clays [115]. The bedrock is also associated with a pale yellow clay.
103	Cut, steeply inclined with a flat base gradually rising up to the north. Contains [110]. Above [104
104	Brown silty sand with buff and red mottles, comprising of lime mortar, brick and limestone fragments. Redeposited layer of rubble. Below [103], above [105].
105	Reddish grey silt with occasional burnt bone. Up to 0.12m deep. Below [104] above [106].
106	Dark brown sandy silt with a high organic charcoal content. Up to 0.02m deep. Below [105], above [107]. This represents charcoal waste from large scale iron working activity NB not in situ.
107	Reddish brown layer of C18th brick rubble mainly whole clamped bricks with lime mortar adhering.
108	Mid brown silty clayey with frequent limestone. Represents a back fill deposit for trench [116]. Above [109], below [107].
109	Reddish brown sand (primary fill). Below [108], above [116].
110	Buff coloured limestone. Consisting mainly of angular stone-working debitage. Below [100], above cut [118] and similar to [114].
111	Dark brown silty loam. Representing a buried soil with a north sloping tip line. Above [110], below [112].
112	Light brown sandy clay with frequent C18th brick fragments.
113	Buried wall in coursed limestone, with a north facing ashlared face. Tool marks very well preserved predominately of chisel marks. Chisel size s varied 0.004m on the top and bottom with 0.009m used on the facing side.
114	Buff coloured limestone, representing a rubble back fill/levelling deposit, characterised by angular limestone up to 0.5m diam. With frequent voids and architectural fragments. Below [100], similar to [110].
115	Reddish brown sandy clay. Close examination reveals that this naturally accumulated deposit consists of alternate layers of sand and clay probably from lacustrian deposits of glacial Lake Pickering. Ground conditions has resulted in a colour difference with the an upper orange context 115a and a lower pale yellow, NB Stratigraphic section S2.
116	Cut of a foundation trench for wall [113]. Truncates limestone bedrock [102]. Above [108] (trench back fill)
117	Associated with foundation trench [117], probably the same but unconfirmed. Represents the southern edge of the *Revetment* wall's [113] foundation trench. Below [113].
118	Cut for construction trench possibly for the revetment wall, although clearly this was far wider than the subsequent wall [113] required. Represents the northern edge of the foundation trench. Filled and below [114].

B. Photographic Register: black and white (HP5 film)

Plate	Film/Frame Nos.	Trench	Description	From
	1/26	1	General view of the pipe manifold with lake outlet	NW
	1/25	1	General view of the pipe manifold before the trench was extended to the House	NNW
2	1/24	1	General view of the northern end of the pipe trench	N
	1/23	1	General view of the lake outlet section	N
3	1/22	1	General view of the north facing section of the manifold chamber	NNW
	1/21	1	General view of a causeway featuring ashlared masonry	W
13	1/20	-	General view of the exposed cascade, revealed during overgrowth clearance	N
15	1/19	-	Detail of the cascade – the carved limestone rills	NE
	1/18	-	Working shot of the excavator clearing the dam's drain	SW
	1/17	-	View along the dam wall	SE
	1/16	1	General view of the excavated trench	S
5	1/15	1	View of the palaeochannel striking diagonally through the trench	NW
	1/14	1	Working shot of the palaeochannel striking diagonally through the trench	NNW
	1/13	-	View along the dam wall	NW
16	1/12	-	View of the dam wall with exposed drain	S
	1/11	-	view of the dam wall with a small square access hole to the feeder pond's drain and plug,	N
18	1/10	-	Detail of the dam wall with access hole to the drain plug (square hole with associated grate) and unknown recesses to the foreground	NW
	1/9	-	View of the cascade with further length of the front wall revealed	N
	1/8	-	Detail of the cascade – the carved limestone pebbles (rills)	NE
	1/7	-	Detail of the cascade's concave curb	NE
6	1/6	1	View of the trench bisecting the construction deposit [110]	W
8	1/5-4	1	General view of the revetment wall [113]	NNW
	1/3	1	General view of the revetment wall [113]	W
10	1/2	1	plan view of the revetment wall [113]	SSE
	1/1	1	Detail of the revetment wall's foundation (with the limestone bedrock)	NNW
	2/36	1	View of the architectural stone fragments [110]	S
11	2/35-34	1	View of the of the rear of the revetment wall with historic backfill removed	SSE
12	2/33	1	General trench section showing natural, layers of sand and clay, probably formed as part of Lake Pickering, to the southern end of the trench	N
	2/32	-	View of the bricks from the walled garden (brick comparison)	N
	2/31	-	View of the bricks from the walled garden (brick comparison)	NW
	2/30	-	General view of the shoring up of the dam before it collapsed	SE
	2/29	-	View of the excavated inner face of the SW facing dam wall	N
	2/28	-	Detail of the tooling to the revetment wall	NW
	2/27	1	Detail of the revetment wall after the stones were removed	E

	2/26	1	Detail of the east facing section with material abutting the revetment wall	E
	2/25	-	brick comparison shot from the material abutting the revetment wall and the walled garden	N
	2/24	-	Architectural stone fragments G (carved relief) & H (pencil lines)	E
	2/23	-	Architectural stone fragment G (carved relief)	E
	2/22	1	General trench section	S
	2/21	1	General trench section	S
	2/20	1	General trench section	S
	2/19	1	General trench section	S
	2/18	1	General trench section	S
	2/17	1	General trench section	S
	2/16	1	General trench section	S
	2/15	-	View of the removed stones (numbered) from the revetment wall	S
	2/14	1	General view of Trench 1 (southern end)	SE
	2/13	1	General view of Trench 1 (southern end)	SSW
	2/12	1	General view of Trench 1 (southern end)	SSW
	2/11	-	General view of the cascade	E
	2/10	-	General view of the cascade	E
	2/9	-	Upwards view of the carved limestone cascade	NE
22	2/8-7	-	Internal view of the subterranean 'pump house'	NE
21	2/6	-	External view of the 'pump house' entrance	NE
	2/5	1	General view with the drained lake and pipe trench	NNW
	2/4	1	General view of the pipe trench between the road and the House	S
	2/3	1	General trench section	W
	2/2	1	General view of the pipe trench beneath the road	N

C. Photographic Register: colour slide (sensia 400 film)

No.	Pipe Trench	Description	from
1	N	the exposed cascade, revealed during overgrowth clearance	N
2	N	View of the bricks from the walled garden (brick comparison)	NW
3	Y	General trench section showing natural, layers of sand and clay, probably formed as part of Lake Pickering, to the southern end of the trench	N
4	Y	Detail of the revetment wall after the stones were removed	E
5-6	Y	Detail of the revetment wall's foundation (with the limestone bedrock)	NNW
7	Y	General view of the revetment wall	W
8-10	Y	General view of the revetment wall	NNW

D. Drawing Register

No.	Dwg.	Trench	Description
1	Section 1	1	The north face of wall [113]
2	Plan 1	1	The plan of wall [113]
2	Section 2	1	East facing baulk section

E. Finds Register (Site Code CH09)

No.	Context	Trench	Description	Period
100	110/114	1(S)	Roof tile red body fabric and a dark brown glaze	18th century
101	110/114	1(S)	Roof tile red body fabric unglazed	18th century
102	110/114	1(S)	Limestone fragment apparently freshly broken (no abrasion)	18th century
103	110/114	1(S)	Charcoal fragment (oak)	unknown
104-5	110/114	1(S)	Animal bones	18th century?
106	110/114	1(S)	Roof tile red body fabric unglazed	18th century
107	110/114	1(S)	Roof tile red body fabric and a dark brown glaze	18th century
108	110/114	1(S)	Roof tile red body fabric and a dark brown glaze	Post Med
109	110/114	1(S)	Fragment of floor slate smooth upper face with lime mortar still adhering to the sides and base	18th century
110	110/114	1(S)	Fragment of floor slate smooth upper face with lime mortar still adhering to the sides and base	18th century
111	110/114	1(S)	Animal bone	Pos Med?
112	110/114	1(S)	Fragment of floor slate smooth upper face with lime mortar still adhering to the sides and base	C16th - EC17th
113-7	110/114	1(S)	Glass wine bottle, base sherds	18th century
118	110/114	1(S)	Glazed pottery rim sherd red fabric and a brown glaze	C17th - C18th
119	110/114	1(S)	Abraded pottery sherd, unglazed with a grey fabric	C15th - C16th
120	110/114	1(S)	Abraded pottery sherd, green glazed with a buff fabric	?Late C15th - C16th
121	110/114	1(S)	Pottery green glaze	C16th – early C17th
122	110/114	1(S)	Pottery sherd with an internal and external green glaze	Medieval
123	110/114	1(S)	Pottery sherd (large) with an internal and external green glaze	C16th - EC17th
124	110/114	1(S)	Oyster shell	C18th ?
125	110/114	1(S)	Chamfered stone fragment	C18th ?
126	110/114	1(S)	Lead fragment (scrap)	unknown
127	110/114	1(S)	Lead fragment (scrap)	unknown
128	100	1(S)	Lead pipe (compressed)	C20th
129	110/114	1(S)	Lead waste	unknown
130	110/114	1(S)	Iron nail (bent)	C18th ?
131	110/114	1(S)	Brick fragments	C18th ?
132	110/114	1(S)	Brick fragments	C18th ?
133	110/114	1(S)	Glass sherd	Post Med
134	110/114	1(S)	Glass sherd	Post Med
135-7	110/114	1(S)	Glass sherds	Post Med
138	110/114	1(S)	Glass wine bottle, base sherd	C18th ?
139	110/114	1(S)	Glass wine bottle, base sherd	C18th ?
140	100	1(S)	Pottery sherd with a green glaze	Medieval?
141	100	1(S)	Glazed tile fragment	Post Med
142	100	1(S)	Glass wine bottle, base sherd	C18th ?
143	100	1(S)	Bone, animal	unknown
144	100	1(S)	Oyster shell	18th?
145	100	1(S)	Pottery sherd with a green glaze	Medieval?
146-8	101	1(S)	Clay pipe stems fragments (no decoration)	C18th

F. Architectural Stone Register

No.	Context	Trench	Description	Adhering Mortar
A	110/114	1(S)	Irregular Sandy Limestone with roughed out faces, tooled long sides and chiselled flat ends with adhering lime mortar, dimensions: 0.68m x 0.44m x 0.095m	Y
B	110/114	1(S)	Regular Sandy limestone block representing a prepared ashlared stone, dimensions: 0.695m x 0.46m x 0.92m	Y
C	110/114	1(S)	Regular ashlared sandy limestone, dimensions: 0.47m x 0.46m x 0.14m	Y
D	110/114	1(S)	Regular fine grained sandstone with deep chamfer probably represents a door or window jamb, dimensions: 0.64m x 0.22m x 0.19m	Y
E	110/114	1(S)	Irregular fine grained sandstone chiselled on 2 faces with one end smooth ground, dimensions: 0.43m x 0.45m x 0.3m	Y
F	110/114	1(S)	Irregular sandy limestone worked up as a facing stone, historically broken, dimensions: 0.39m x 0.16m x 0.12m	Y
G	110/114	1(S)	Regular fine sandstone with decorative frieze consisting of a recessed panel with rolled inner border foliate border with a plain concave outer border, dimensions: 0.34m x 0.14m x 0.19m	N
H	110/114	1(S)	Irregular fine grained sandstone with 'S' shaped tooling to one side and a on the smooth upper face a single pencil line representing a setting out line created during manufacture, dimensions: 0.3m x 0.26m x 0.18m	N
I	110/114	1(S)	Regular fine grained sandstone with three faced side with chamfer. Two sides inc the chamfer have been historically damaged leaving 2 deep chisel marks, indicating deliberate masonry discard so it could not be re-used, dimensions: 0.19m x 0.17m x 0.21m	N
J	110/114	1(S)	Regular circular fragment with tooling to 5 sides characterised by fine vertical lines to the circumference and a 0.02 wide border of horizontal tooling, dimensions: 0.61m x 0.37m x 0.145m	Y
K	110/114	1(S)	Similar to stone J but appears to have been subject to post constructional wear dimensions: 0.68m x 0.44m x 0.095m	Y
L	110/114	1(S)	Regular fine grained sandstone with bull nose to 3 sides. NB Diagonal setting out lines etched into the upper smooth face, dimensions: 0.54m x 0.25m x 0.085m	Y

APPENDIX 3

Stratigraphic Sections (Figure 7)

Position	Context Depth (metres)	Description
S1	0.4 0.5 0.4 (1.3)	Top soil [100] Brown sandy clay pre 1700 subsoil, [119] pale yellow clay [115] overlying natural limestone bedrock [102] Limit of excavation
S2	0.4 0.5 0.45 0.45	Top soil [100] Brown sandy clay pre 1700 subsoil, [119] Orange sandy clay featuring natural interleaved sands and clays [115a] pale yellow clay overlying natural limestone bedrock [115b] Limit of excavation
S3	0.2 0.3 0.3 (0.9)	Top soil [100] Mixed sandy clay Natural interleaved sands and clays [115a] Limit of excavation
S4	0.4 0.3 0.6 (1.3)	Dark brown mixed clay with topsoil and pale yellow mottling Brown sandy clay pre 1700 subsoil, [119] Natural, interleaved sands and clays [115a] Limit of excavation
S5	0.3 0.5 0.28 (1.08)	Dark brown mixed clay with topsoil and pale yellow mottling Brown sandy clay pre 1700 subsoil, [119] Brown sands clay, natural interleaved sands and clays [115a] Limit of excavation
S6	0.23 0.27 0.7 (1.4)	Top soil [100] Brown sandy clay , pre 1700 subsoil [119] Natural sands and clays [115a] with iron panning throughout Limit of excavation
S7	0.5 0.2 0.5 (1.2)	Top soil [100] Pale yellow clay with dark brown (Fe) mottling [115b] Natural clay with pale blue/orange mottling Limit of excavation
S8	0.45 0.2 0.65 (1.3)	Top soil [100] Pale orange clay [115b] Natural Clay (firm) Limit of excavation
S9	0.25 0.2 0.33 0.82 0.5 (2.1)	Top soil [100] Brown silty clay with charcoal Brown silty clay [119] Pale orange sandy clay [115b] Natural pale blue clays Limit of excavation

APPENDIX 4

Pottery from Castle Howard, North Yorkshire

C.G. Cumberpatch BA PhD

Introduction

The pottery assemblage from Caste Howard was examined by the author on 3rd August 2009. It consisted of eight sherds of pottery and two fragments of black glazed roof tile as set out in Table 1.

Discussion

The pottery assemblage was dominated by sherds of Green Glazed Sandy ware type of 16th to early 17th century date. Although the source of this pottery is unknown it is not uncommon in post-medieval contexts in north-east England and Watkins has drawn attention to the presence of a number of potteries in the Howardian Hills of North Yorkshire (1987:114) which were active at this time. Relatively little work has been done to investigate the types of pottery produced at these sites but Watkin's broad term 'Ryedale ware' seems to include a range of similar fabrics and the sherds can be assigned to this broad regional group with some degree of certainty.

Other sherds included two soft buff examples possibly slightly earlier in date than the Green Glazed Sandy wares but probably also of local origin. Both were heavily abraded, in contrast to the remainder of the assemblage.

The latest sherd from the site was a piece of a Redware jar with a sharply everted rim. This was most probably of 17th or early 18th century date and was also most probably of local manufacture.

The date and origin of the tile fragments lie outside the author's experience and competence but almost certainly post-date the medieval period.

Context	SFN	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
110/114	108	Roof tile	1	145	1	Fragment	Roof tile	Black glazed on upper side	Undated	Fabric & glaze are similar to Brown Glazed Coarseware
110/114	112	Green Glazed Sandy ware	1	7	1	BS	U/ID	Pale green glaze int & ext	C16th - EC17th	Fine pale grey sandy textured fabric w/ fine rounded quartz grit
110/114	118	Redware type	1	49	1	Rim	Jar	Clear glaze int w/ slight mottling	C17th - C18th	
110/114	119	Buff Sandy ware	1	8	1	BS	Hollow ware	U/Dec	C15th - C16th	Heavily abraded buff fabric w/ grey core; fine quartz, mica, occasional pale grey round incs & red grit
100	120	Buff Sandy ware	1	10	1	BS	?Bowl	Green glazed int only	?LC15th - C16th	Very soft pale buff fabric no visible incs; abraded edges
U/S	121	Green Glazed Sandy ware	1	110	1	Rim	Jar	Green glaze int & ext	C16th - EC17th	Lid seated rim w/ wide thumbed band below everted lid-seated rim; fine dull orange body w/ thin grey core
110/114	123	Green Glazed Sandy ware	1	201	1	BS	Jar/cistern	Green glaze int & partially ext	C16th - EC17th	Fine dark orange body w/ thin grey core; fine sandy textured body
100	140	Green Glazed Sandy ware	1	89	1	Base	Bowl/ pancheon	Pale green glaze internally only	C16th - EC17th	Fine, even pale grey to buff body w/ occasional fine mica at surface
100	141	Roof tile	1	19	1	Fragment	Roof tile	Black glaze on one side	Undated	The fabric and glaze are similar to Brown Glazed Coarseware
100	145	Green Glazed Sandy ware	1	16	1	Rim	Jar	Pale green glaze int & ext	C16th - EC17th	Clubbed rim; Pale grey reduced fabric w/ darker core
		Total	**10**	**654**	**10**					

Table 1. Pottery from Castle Howard