

**The Coffee Shop Project,
Belton House NT, Grantham, Lincolnshire.**

Archaeological Watching Brief

Prepared by

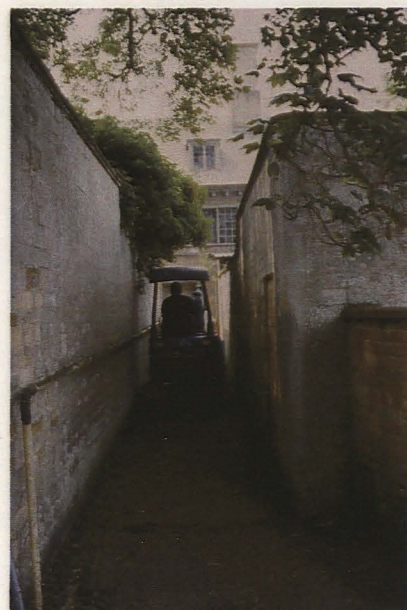
NETWORK ARCHAEOLOGY LTD

For

Belton House NT.

Report no. 525

September 2007



ELI 8051

SLI 11612

Conservation
Services

- 5 OCT 2007

Highways & Planning
Directorate

PRN 36915

Lincolnshire
County Council

5 OCT 2007

Planning &
Conservation

acknowledged receipt of report 5/10/07

Postback Ref:	254-953
Officer Dealing:	Beryl
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CM Transaction No.	

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DOCUMENT CONTROL

Client 1	The National Trust						
Client 2							
Project	The Coffee Shop Project, Belton House NT.						
Document title	Archaeological Watching Brief						
Report no.	525						
Document ref.	BEH06 1-7 v1.0						
Distribution	Trevor Guyler (National Trust), Beryl Lott (county archaeological officer, Lincolnshire County Council), Paul Brown (Craxton Brown Consultants)						
Document Comprises	Doc. Control sheet	Table of contents	List of tables	List of figures	List of Appendices	Text	Appendices
	1	1	0	1	1	14	4

Version	Status	Author(s)	Reviewer	Approver	Date
0.1	draft	Julian Sleap Project Supervisor	Mark Allen BSc (Hons) Publications Manager		19/07/06
0.2	draft	Julian Sleap Project Supervisor	Mark Allen BSc (Hons) Publications Manager		10/10/06
1.0	Issue	Julian Sleap Project Supervisor	Rachel Gardner Reports Officer	Chris Taylor Director, Network Archaeology Ltd.	18/09/07

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NON-TECHNICAL SUMMARY

An archaeological watching brief was undertaken between May and June 2006 on a development area within the old stable blocks at the National Trust property Belton House near Grantham, Lincolnshire. The watching brief comprised the recording of archaeological deposits revealed during the removal of the previous floor surface within one of the buildings, and the excavation of trenches to accommodate gas, water and electric services.

No previous archaeological work has been done in the vicinity. The later development of the area in the mid to late nineteenth century, along with further works carried out in the early twentieth century, indicated that the potential for encountering pre-nineteenth century archaeological deposits within the study area was low.

The remains revealed beneath the old floor surface included four short sections of wall, an associated floor surface, and features possibly connected with a laundry facility (all likely to be 19th - 20th century). Later activity (20th century) was represented by a large vehicle inspection pit, constructed when the building was converted into a garage. Two small brick culverts (19th - 20th century) were revealed within the service trenches, which were otherwise devoid of archaeology.

1 INTRODUCTION

This report presents the results of an archaeological watching brief undertaken during the development of the old stable blocks at the National Trust property Belton House near Grantham, Lincolnshire (Figure 1). The works included the monitoring of the excavation of associated service trenches (Figure 2).

1.1 Commissioning Bodies

The project was commissioned by The National Trust. The archaeological contractor was Network Archaeology Ltd, a professional archaeological organisation which provides consultancy advice and undertakes field services.

1.2 The Development

Ground-disturbing activities associated with the development included the removal of the existing floor surface within the old stable block, and the excavation of foundation trenches to connect new services, using a Kubota mini excavator.

The existing floor surface was removed below the current ground surface, to between 0.4m and 0.44m in depth. The service trenches were excavated to between 0.4m and 0.8m in depth.

1.3 Legislation, Regulations and Guidance

Network Archaeology Ltd was commissioned in May 2006 by The National Trust to conduct archaeological investigations in advance of the above development (Figure 2). This work was required as part of The National Trust's own decision-making and was not in response to a planning application. Work was carried out in accordance with national standards (IFA, 2001).

1.4 Previous Archaeological Investigation

No previous archaeological investigations had been carried out prior to the development.

1.5 Archaeological Background

Belton House was built in 1685–1688 during the Restoration period of England, with the park and gardens designed by William Emes.

During the 19th century, Belton House flourished under the administration of the third Earl Brownlow. He restored the house and gardens back to the original Restoration style, rather than the Gothic fashion of the day.

The stable blocks and associated outbuildings probably date to the late 19th or early 20th century, and have undergone numerous transformations over the years to include a garage, complete with service pit.

1.6 Aims

The aims of the watching brief were to:

- identify the location, extent and condition of any archaeological remains exposed by the works;
- ensure that suitable measures were taken with regard to the preservation or recording of any such remains, as appropriate; and
- inform on the likely nature and condition of archaeological evidence in the area for the reference of future development or research projects.
- Produce a report on the archaeological findings and their impact on the surrounding environs.

1.7 Terms of Reference

This report is intended for the client, The National Trust. Copies will also be sent to the Lincolnshire County Council Principal Archaeologist for approval, and subsequently to the Lincolnshire Sites and Monuments Record for public access.

1.8 Resourcing

The watching brief was carried out in three phases between May and June 2006.

The project was overseen by a project manager. The watching brief was undertaken by one project supervisor over three visits on the 31st May and the 12th and 13th June 2006. The post excavation work was conducted during June, July and October 2006.

1.9 Limitations

Visibility of archaeological remains is always a significant factor during a watching brief. Visibility is dependent on many factors including machine type, depth and width of trenches, weather and geology. Visibility in this instance was good, both within the Old Stable Block and during the excavation of the service trenches.

1.10 Report Structure

The report has been divided into four main parts.

Introductory section: explaining the background to the project and this stage of investigation.

Results and discussion: description of the archaeology revealed within the development area and how the remains relate to each other.

Conclusions: a synthesis of the extraction area and how it fits within the wider context of its surroundings.

Appendix: context database, two figures and two plates.

1.11 Fieldwork Procedures

1.11.1 Standards

All works conform to the Institute of Field Archaeologists' (IFA) *Code of Conduct* (1985, Revised September 2002), the IFA's *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (1990, Revised September 2002), *Standard and Guidance for Archaeological Watching Briefs* (1994, Revised September 2001). The work was managed in accordance with the methods and practice described in *The Management of Archaeological Projects, second edition* (English Heritage, 1991).

1.11.2 Service trenches

A permanent-presence watching brief was carried out as and when required, by a suitably experienced archaeologist. This involved monitoring the excavation of the service trenches to the Old Stable Block and visually inspecting spoil-heaps for archaeological artefacts.

1.11.3 Locating Archaeology

The archaeology recorded within the Old Stable Block was surveyed by off-setting from the sides of the walls within the upstanding structure using 30m tapes. The plan of the development (Figure 2) was duplicated from the architects' 1:50 scale drawing.

1.12 Field Records

1.12.1 Project Code

The project code for the watching brief is BEH06.

1.12.2 Written Records

A system of *pro forma* record sheets was used for on-site recording. This system, developed by Network Archaeology Ltd, is in a format acceptable to the IFA. Multi-context recording was used for all archaeological deposits and any significant natural deposits located during surface inspection.

1.12.3 Drawn Records

The drawing numbering system began at 1. Plans were listed together on an overall drawing register. Each sheet was also allocated a sheet number from a sequence starting at 1.

The drawn records include:

- Development area plans at 1:100 scale, detailing the location of archaeological features and deposits.

1.12.4 Photographic Records

Colour slide photographs were taken in 35mm format. These included shots of excavated archaeological features and deposits. A full written record was made of all photographs taken. The context number, appropriate scales, and a north arrow appeared in all photographs whenever possible.

1.13 Post-excavation Procedures

1.13.1 Consolidation of Archive

The archive has been consolidated in accordance with the standards set out in Appendix 3 of the Management of Archaeological Projects (MAP 2, Stage 2).

1.13.2 Finds Processing

No finds were retrieved from the watching brief.

1.14 Client Report

1.14.1 Figures

Two figures are presented. These comprise one overall A4 location map (Figure 1), and a plan showing the development and archaeology revealed (Figure 2).

1.14.2 Publication

Dissemination of the results will be the final stage of work. This will be in the form of an OASIS form (Online AccesS to the Index of archaeological investigationS), and a note in the periodical Lincolnshire History and Archaeology.

1.14.3 Archive and Archive Deposition

The project archive has been prepared in accordance with the guidelines outlined in Management of Archaeological Projects (English Heritage 1991, Appendix 3). The archive is currently housed at the Lincolnshire office of Network Archaeology Ltd. Lincolnshire County Sites and Monuments Record will receive the document archive. A digital copy of the report will be uploaded to the OASIS project's online library of unpublished fieldwork reports.

2 DESCRIPTION OF THE DEVELOPMENT AREA

2.1 Location and Topography

The development area is located at Belton House, approximately 4km north of Grantham and less than 1km east of the River Witham (SK 931 396) (Figure 1).

SK 92857 39403? (location is unclear)

The development is situated towards the northern end of the Belton House estate.

2.2 Composition of the Development Area

The development area consists of a rectangular structure, approximately 18m by 8m, oriented north to south and east to west respectively (Figure 2).

A service trench was excavated from the south-east end of the development, continuing east for approximately 15m before turning to connect to the mains supply 13m further south.

Previous land use consisted of stables and associated yard areas from the nineteenth century, later converted into a possible laundry facility in the early twentieth century, with a later garage/service area.

2.3 Geology (Solid and Drift)

The solid geology is the Jurassic Brant Mudstone Formation. The drift geology consists of the Belton Sand and Gravel beds derived from the River Witham (British Geological Survey Sheet 127, 1996).

2.4 Soils and Land Use

The local soil comprised type 821b Blackwood, a deep permeable sandy and coarse loamy soil, best suited for growing cereals, sugar beet, occasional grassland and coniferous woodland. The current land use is 'developed', with numerous outbuildings along with substantial brick and stone buildings.

3 RESULTS

Two possible phases of activity were revealed within the Old Stable Block.

- Phase 1: Early modern brick and concrete features, possibly associated with a laundry facility.
- Phase 2: Modern brick and concrete feature associated with the later garage.

The contexts revealed within the service trenches, although early modern in date, remain unphased, along with walls recorded within the boiler room, and a well situated immediately outside The Old Stable Block.

3.1 The Old Stable Block

3.1.1 Phase 1 (101, 102, 103, 104, 105, 106, 116 and 117)

The earliest context within the Old Stable Block was a red brick 'platform', 102, approximately 4.3m in length and 2.7m in width, oriented east to west. The bricks were arranged in stretcher bond, up to five courses high. Each brick measured 0.22m in length by 0.11m in width and 0.08m thick, bonded together by a buff coloured mortar.

Constructed within this brick structure were several features, the most distinctive being 'pit' 103, which was 1.5m in length by 0.45m in width and 0.3m deep. Oriented north to south and located at the southern end of 102, pit 103 had vertical east and west sides and more gradually sloping north and south sides. This feature may possibly be the housing for a flywheel although no associated fixing points were visible.

Adjacent to pit 103 was pit 104, measuring c.1.7m in length by 0.75m in width and 0.56m deep. Oriented east to west and located towards the northern end of 102, pit 104 had vertical sides, descending to a flat base where a 0.1m diameter ceramic pipe (117) was located, feeding in from the southern side of 104. The north side of pit 104 had a small narrow ledge running along the top, approximately 0.06m deep, forming the upper ledge of channel feature 105 at the north-west end of 104. The eastern extent of pit 104 also contained the remains of single fill 116, which comprised mid brown grey silty sand with frequent rubble inclusions.

Channel 105 comprised a small rectangular slot, 0.65m in length by 0.3m in width and 0.1m deep. This shallow feature may represent an overspill channel, feeding off, and contemporary with, possible large water containment feature 104.

Sealing all the above contexts was a concrete render, 101, approximately 0.08m thick.

Situated towards the northern end of the Old Stable Block were the remains of a wall (106) oriented north to south. This wall was constructed from red bricks, 0.08m thick, 0.11m wide and 0.22m in length. Four courses that were bonded by a buff coloured mortar were recorded at the northern end, adjacent to Phase 2 vehicle inspection pit 107. The southern extent of wall 106 consisted of only a single course and appeared to be on the same alignment as the

upstanding internal wall forming the western side of the boiler room, demolished when the building was converted into a garage and phase 2 pit 107 was constructed.

3.1.2 Unphased walls (110, 111, 112 and 113)

The remains of a limewashed brick floor (113) was recorded within the boiler room, located in a separate internal area immediately north-east of Phase 1 pit 104. Floor 113 appeared to be constructed of small red bricks, 0.08m by 0.11m, indicating that they may be headers laid out in stretcher bond.

Constructed upon floor 113 were the degraded remains of three walls (110, 111 and 112), also rendered in a thick limewash. Walls 110 and 112 were both oriented north to south and 0.6m in length and 0.22m in width. Wall 110 was three courses high (0.24m) by two wide, arranged in stretcher bond. Wall 112, located 1.2m west of wall 110, was more substantial, being up to eight courses high (0.64m) by two wide. Wall 111 was 1.65m in length and 0.22m in width. Oriented east to west, wall 111 butted onto walls 110 and 112, and was recorded as being four courses high (0.31m) at the eastern end and up to eight courses high (0.64m) at the western end. Where visible, it appeared that all brickwork was bonded by a buff coloured mortar.

All the above contexts and phases were subsequently covered by a layer of dark red brown silty sand, 100, approximately 0.4m+ thick, soft in compaction with frequent small rubble inclusions.

3.1.3 Unphased well (114 and 115)

Although it was not possible to place this feature within any specific phase, its location immediately adjacent to the Old Stable Block suggests it may be contemporary with at least some part of the structure.

Constructed from red bricks, well 114 was 0.7m in diameter and over 0.37m in depth (depth of excavation). The brick work was arranged with headers radiating outwards and bonded by a pale grey mortar. Four courses of bricks were revealed, exposed within the northern approach of an abandoned service trench. The top edge of the bricks and the internal surface were covered in a concrete render that was degraded and cracked, perhaps as a result of constant submersion in water. A small, narrow, ephemeral channel was noted in the western side of well 114, oriented towards Phase 1 features 103, 104 and 105 within the Old Stable Block. This may possibly indicate that well 114 was a source of water for these internal features.

3.1.4 Phase 2 (107, 108 and 109)

Located at the northern end of the Old Stable Block was large rectangular feature 107 constructed from red brick 109, 4.85m in length and 1.3m in width. The bricks were 0.08m thick, 0.11m wide and 0.22m in length. Only three partially bonded courses were visible to a height of 0.44m above the current ground surface, with further courses forming the foundation to a depth of approximately 1.1m. The foundations for 107 cut through deposit 100, although no cut could be clearly seen or defined. Two stepped ledges were incorporated within the upper sides of the feature, the first being 0.07m below the top edge, and the second 0.46m below the first. Both of these stepped ledges reduced the internal dimensions of 107 by 0.55m to 3.35m.

Feature 107, which has been interpreted as a vehicle inspection pit, was subsequently sealed with a render of grey concrete, 108, approximately 0.08m thick. During a period of disuse the area was levelled, covered with flooring and carpeted.

3.2 Service Trenches

The earliest deposit encountered within the service trenches was 119, mid orange brown clean sand located at the western end of the development, towards the Old Stable Block. This material was over 0.6m thick and appears to be the same as 125 situated towards the eastern end of the development, possibly representing either a levelling deposit or alluvial sand.

At the south-east end of the development two narrow brick culverts (120 & 124) were located above sand 125. These drainage features were constructed from red brick to form a 'hollow box', approximately 0.24m in width, 0.3m in height with an internal dimension of 0.18m by 0.1m.

Above culvert 124 was a levelling deposit of mid brown loose silty sand (123), 0.35m thick, containing frequent rubble inclusions. This was in turn partially covered by very mixed black, brown and orange silty clay (121), 0.6m thick and containing frequent rubble inclusions. This deposit covered culvert 120 and also levelling/sand 119, and has been interpreted as a disturbed levelling deposit, truncated numerous times by later service trenches.

Covering all the above were modern consolidation deposits of hardcore 118 and tarmac 122.

4 DISCUSSION

4.1 Phase 1

The features recorded within The Old Stable Block suggest an association with processes involving a constant supply of clean water, probably occurring during the late 19th or early 20th century. Flywheel pit 103 and rectangular pit 104, with their associated channel, 105, were housed within brick base 102. Pipe 117 may have brought water into pit 104 from well 114, and the small channel (105) may have functioned as an overspill facility for 104. It was not possible to deduce what the Phase 1 activities specifically entailed, although it is suggested that they may have involved laundry processing, or an unrecognised domestic or agricultural process.

4.2 Phase 2

Phase 2 represents the conversion of the Old Stable Block into a garage and service area, initiated by the levelling of the Phase 1 features and building by deposit 100. A large brick and concrete service pit was constructed to the north of the building for the maintenance of vehicles, and perhaps machinery. Numerous murals decorated the walls, depicting garage logos and scenes of vehicles, highlighting the function of this building in later years.

4.3 Service Trenches

The service trenches revealed no evidence as to previous activity on the development site apart from two small narrow brick culverts of probable early modern date.

5 CONCLUSIONS

The potential for pre-early modern archaeology was anticipated, and this was confirmed by the findings of the watching brief. The archaeological remains appeared to be early modern in date and represent various stages in the evolution of The Old Stable Block.

6 ACKNOWLEDGEMENTS

Network Archaeology Ltd would like to thank the following for their contribution to the project:

Client

The National Trust

Mr Trevor Guyler

Construction Contractor

Carmalor Construction

Mr Wayne Creed

Mr Mick Brown

Consultants

Paxton Brown Consultants

Mr Paul Brown

Curator

Lincolnshire County Council

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Editors

Charlotte Bentley

Illustrations

7 STATEMENT OF INDEMNITY

Every effort has been taken in the preparation and submission of this report in order to provide as complete an assessment as possible within the terms of the brief and all statements and opinions are offered in good faith. Network Archaeology Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by any third party, or for any loss or other consequences arising from decisions or actions made upon the basis of facts or opinions expressed in this report and any supplementary papers, howsoever such facts and opinions may have been derived, or as a result of unforeseen and undiscovered sites or artefacts.

8 REFERENCES

British Geological Survey, 1996, England and Wales Solid and Drift Geology Sheet 127: Grantham.

British Geological Survey (NERC 2004), *GeoIndex*
<http://www.bgs.ac.uk/magazine/geology/html>>, accessed 22 Apr. 2005

Soil Survey of England and Wales, *Sheet 4, Eastern England*.

APPENDIX A: CONTEXT SUMMARY

Appendix A

CTX	TYPE	DESCRIPTION	INTERPRETATION
100	Layer	Dark red/brown soft, silty sand, with frequent small rubble inclusions.	Levelling deposit.
101	Masonry	Pale grey concrete.	Render.
102	Masonry	Red bricks, 5 courses in stretcher bond, bonded by buff coloured mortar.	Brick block base.
103	Cut	Rectangular in plan, oriented NE-SW. Vertical SE-NW sides with the NE-SW ends forming a gradual concave profile.	Flywheel pit.
104	Cut	Rectangular in plan, oriented NW-SE. Vertical sides descending to a flat base.	Drainage/water containment feature.
105	Cut	Small rectangular feature in plan, part of and contemporary with 104.	Channel or over spill feature.
106	Masonry	Red bricks, arranged in a NE-SW alignment, approximately two courses wide and four courses high.	Wall, demolished part of present upstanding wall.
107	Masonry	Rectangular feature oriented SE-NW. length 4.85m, width 1.3m and elevation 1.54m.	Vehicle inspection pit.
108	Masonry	Pale grey concrete, approximately 0.08m thick.	Render for inspection pit 107.
109	Masonry	Red bricks. Three courses visible under render 108, no bonding agent present apart from a few isolated 'blobs' of mortar.	Construction materials for pit 107.
110	Masonry	Linear arrangement of red bricks. Oriented NE-SW, three courses high.	Unknown internal structural feature.
111	Masonry	Linear arrangement of red bricks. Oriented NW-SE, four courses high.	Unknown internal structural feature.
112	Masonry	Linear arrangement of red bricks. Oriented NE-SW, eight courses high.	Unknown internal structural feature.
113	Masonry	Small limewashed bricks (headers?), covering a surface area 0.6m by 1.15m.	Floor surface for unknown internal feature.
114	Masonry	Circular arrangement of red bricks bonded by pale grey mortar and rendered on the inside by light grey concrete.	Well.
115	Fill	Mid brown/grey silty sand 0.37m+ thick. Also contains frequent brick rubble, tile and scrap iron.	Fill of well 114.
116	Fill	Mid brown/grey silty sand 0.56m thick containing frequent brick rubble.	Fill of pit 104 and 105.
117	Masonry	Ceramic drain, 0.1m diameter located at base of 104.	Water outlet/inlet pipe?
118	Layer	Hardcore and rubble, 0.2m thick.	Levelling/consolidation deposit.
119	Layer	Mid olive, brown silty sand, 0.6m thick.	Levelling deposit or possibly natural sand?
120	Masonry	Bricks, arranged in stretcher bond to form a hollow box.	Brick culvert.
121	Layer	Mixed black, brown and orange silty, sandy clay, frequent rubble inclusions.	Mix of levelling and previous service trench fills.
122	Layer	Tarmac, 0.05m thick.	Consolidation layer of Tarmac.
123	Layer	Mid brown, loose, silty sand, 0.35m thick with frequent rubble inclusions.	levelling deposit.
124	Masonry	Bricks, arranged in stretcher bond forming a hollow box.	Brick culvert.
125	Layer	Mid orange, brown soft, sand, 0.05m+ thick.	Levelling deposit or possibly natural sand?

APPENDIX B: FIGURES 1-2



Figure 1: Location of Belton House NT (scale: 1:250 000)

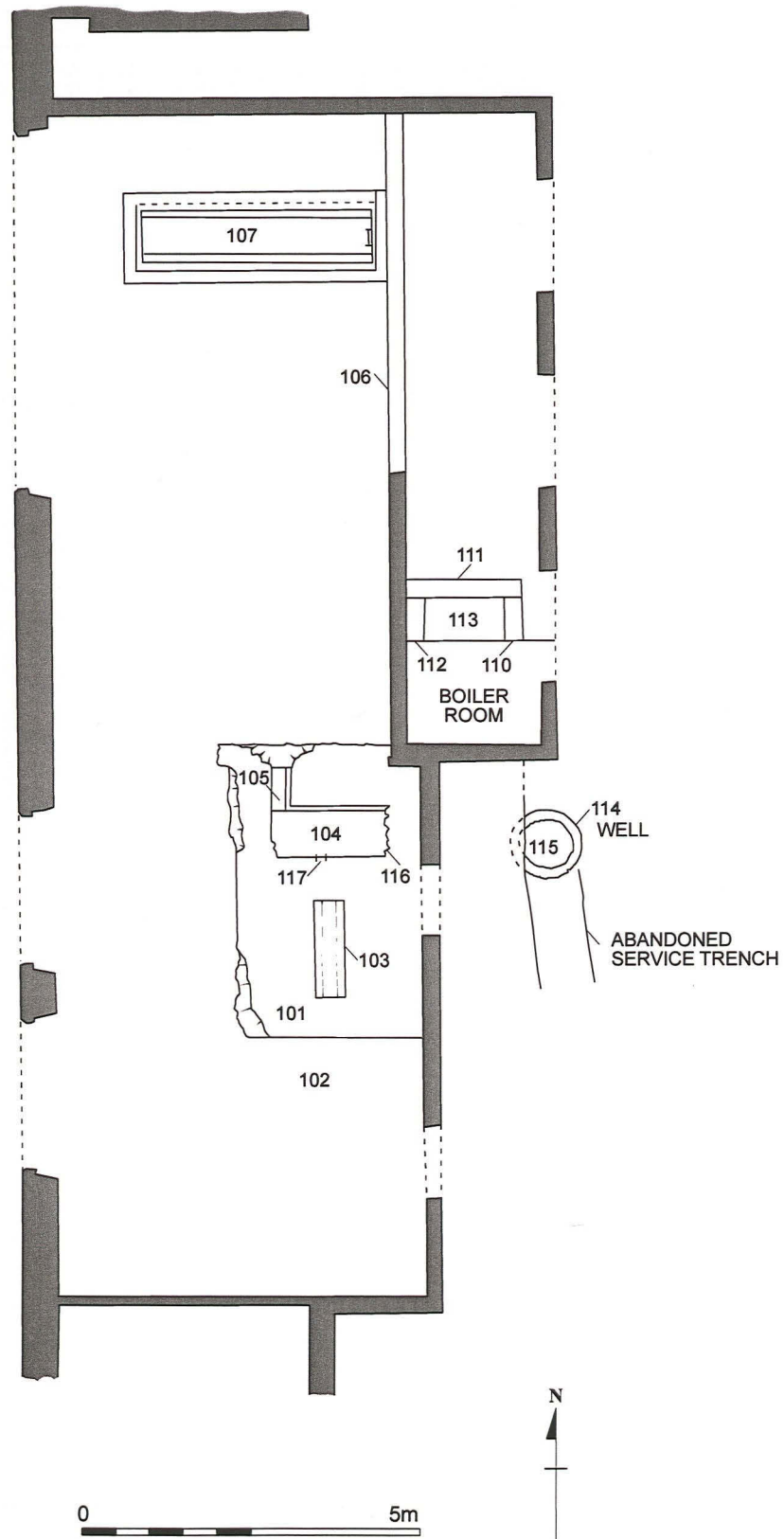


Figure 2: Plan of the Old Stable Block (scale: 1:100)

APPENDIX C: PLATES



Plate 1: Well 114



Plate 2: Water containment pit 104