Land at Savile Street, Sheffield, South Yorkshire: Archaeological Evaluation and Watching Brief Report

AOC 51043

September 2011

AOC Archaeology Group

ARCHAEOLOGY | HERITAGE | CONSERVATION

Land at Savile Street, Sheffield, South Yorkshire:
Archaeological Evaluation and Watching Brief Report

On Behalf of:	**Santon Group Developments Limited** **Saunders House** **52-53 The Mall** **Ealing** **London** W5 3TA
Planning reference:	**09/00523/FUL**
National Grid Reference (NGR):	**SK 3615 8826 (centred)**
AOC Project No:	**51043**
Prepared by:	**David Lakin**
Date of Fieldwork:	**November 2010 / March-July 2011**
Date of Report:	**September 2011**

This document has been prepared in accordance with AOC standard operating procedures.

Prepared by: David Lakin	**Date: October 2011**
Approved by: AOC Archaeology	**Date: October 2011**
Draft/Final Report Stage: FINAL	**Date: January 2014**

Enquiries to: AOC Archaeology Group
The Raylor Centre
James Street
York
YO10 3DW

tel. 01904 413404
fax. 01904 430303
e-mail. York@aocarchaeology.com

www.**aocarchaeology**.com

Contents

List of illustrations

List of plates

List of appendices

Non-Technical Summary

AOC Archaeology Group was commissioned by Faithful and Gould on behalf of SGD Ltd to undertake an archaeological evaluation and subsequent watching brief at Savile Street, Sheffield. The objectives of the evaluation were to establish the nature and extent of remains on the site and in particular to identify whether the remains of the 18th century Hall Carr House were present.

The evaluation established that construction of an Electric Light Station comprising part of the remodelling of the Midland Railway Wicker Goods Station, in the 1890's, removed all trace of earlier buildings. The remains uncovered included elements of a probable engine house, water tower and associated structures.

1. INTRODUCTION

1.1 Project Background

1.1.1 AOC Archaeology Group was commissioned by Faithful and Gould on behalf of SGD Ltd to undertake an archaeological evaluation at Savile Street, Sheffield (site centred NGR: **SK 3615 8826**). Previous desk-based assessments of the site had identified the potential for archaeological remains to survive on the site. Of particular interest was the location of Hall Carr House, present on the site from a date prior to 1736 and demolished in the latter half of the 19th century. The archaeological works were planned and initiated following discussions with South Yorkshire Archaeology Service (SYAS), which advises the local planning authority on archaeological matters. The works reported on comprise trial trenching undertaken in November and December 2010 and a subsequent watching brief undertaken intermittently between March and July 2011.

1.2 Location and topography

1.2.1 The site occupies an area north east of central Sheffield located between Savile Street and Spital Hill, centred at OS NGR SK 3615 8826. The site measures approximately 5 hectares, although the area to be evaluated was limited to an area of approximately 300m^2 adjacent to the northern limit of the site (see Figure 2) . Ground level on the majority of the site lay at approximately 45m OD rising to 46.80m OD in the vicinity of the evaluation trenches; ground level on Spital Hill to the north rises sharply to c55m OD. The northern limit of the site is formed by a substantial masonry retaining wall.

.

1.3 Project parameters

1.3.1 The project conforms to the Institute for Archaeologists' *Standard and guidance for archaeological excavation* (IfA 1995, rev. 2008). It also conforms to a detailed Project Design produced by AOC Archaeology and approved by SYAS (AOC Archaeology 2010).

2. OBJECTIVES

2.1 The objectives of the archaeological evaluation were:

- To determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development.
- To assist in the formulation of suitable mitigation strategies should significant archaeological material be discovered in quantity that will suffer an adverse impact from construction works.
- To determine whether the remains of Hall Carr House survive in the evaluated area and, if so, to record their character, method of construction, state of preservation, archaeological stratigraphy and significance; opportunities will also be taken to establish dates of construction and use.

2.2 The objective of the watching brief was:

- To identify and record any archaeological remains revealed during groundworks. Particular attention being given to identifying any possible remains of Wicker Station.

3. METHODOLOGY

3.1 Fieldwork methodology

3.1.1 Fieldwork for the project was undertaken between 24th November and 14th December 2010, and between March and July 2011.

3.1.2 Three trenches were opened (see Figure 2 for location). As a result of constraints imposed by the proximity of the retaining wall on the north of the site, the trenches were opened in a sequence which ensured that no more than two half trenches were open at any one time.

3.1.3 Overburden and modern rubble backfill were removed using a mechanical excavator fitted with a toothless bucket. All machine excavation was supervised by an appropriately experienced project archaeologist. Cleaned surfaces and sections were inspected and any potential archaeological features were investigated to determine their nature and to retrieve artefactual and environmental samples where appropriate. Drawn, written and photographic records were compiled according to AOC Archaeology's standard operating procedures (AOC Archaeology 2003, 4.1-4.7.5, 5.1-5.2.2, 8.2, Appendix 1, Appendix 7).

3.1.4 All trenches and features were related to the Ordnance Survey datum using previous site survey control established by the client. Trenches were spatially located using a Leica total station.

3.2 Artefact recovery and methodology

3.2.1 The artefact recovery policy conformed to AOC Archaeology Group's standard operating procedures (AOC Archaeology 2003, 6.1-6.2.6.2, 8.4, Appendix 2: 7.26-7.29). Retrieved artefacts were quantified and assessed in order to inform the interpretation of the site and to judge the potential of the assemblage for future research (Appendix 2).

3.3 Environmental methodology

3.3.1 The environmental sampling methodology conformed to the Project Design (AOC Archaeology 2010). No deposits were deemed suitable for sampling.

3.4 Structural analysis

3.4.1 All fieldwork records were checked and cross-referenced. Stratigraphic relationships were also checked once fieldwork was complete. Structural, artefactual and ecofactual evidence was considered in combination with information derived from other sources. This analysis provides the basis of the narrative presented in Sections 5 and 6.

4. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

4.1 An archaeological desk based assessment of the Savile Street site was undertaken in 2008. The assessment indicated that development on the left bank of the Don was largely confined to the area of The Wicker and the immediate environs of the river until the second quarter of the 19th century, although the modern alignments of Savile Street/Attercliffe Road and Spital Hill reflect earlier routes possibly dating back to the medieval period.

4.2 The site sits north of the centre of Sheffield in an area which links the Wicker, which formed a suburb of Sheffield, and Brightside which formed part of the estates of the Duke of Norfolk. Although the area was described in 1848 as a populous and extensive township (Lewis 1848, 375), it is recorded that 'until 1775 there were no buildings in

the Wicker beyond the Lady's Bridge until you came to Sam's Hill's Tavern, the Crown & Cushion' (Laedor 1905, 200). Gosling's map of 1736 shows the road to Rotherham established along the north bank of the Don and Hall Carr House indicated within the site. Fairbank's map of 1808 shows greater detail of the area including Walk Mill and other buildings to the south of Savile Street. However, only Hall Carr House and one unnamed building are shown on the site which otherwise appears put over to agricultural use. The general layout of the site remains the same in Taylor's map of 1832, which is the last to show the site in any detail before the construction of the Wicker Station in 1838.

4.3 The Wicker Station was opened in October 1838 as the southern terminus of the Sheffield and Rotherham Railway and two years later was connected to the North Midland Railway at Rotherham. It was closed to passengers in 1870 on the opening of the new Midland Railway Sheffield Station on the direct route from Chesterfield. The station remained in use for goods traffic until 1965 and was demolished before 1978. Hall Carr House appears to have survived to the north of the railway lines and is noted on OS maps as late as 1855, between which date and 1894 it was replaced by a group of buildings named Ivy Cottages. These in turn were replaced before 1905 by a large building with a chimney at its eastern end.

5. RESULTS

5.1 Statement of confidence and introductory comments

5.1.1 The evaluation trenches were opened in late 2010 during a spell of severe cold weather. However, the features encountered were generally substantial masonry structures the cleaning and recording of which were not materially affected by the prevailing conditions. Health and safety considerations led to the use of trench boxes during the excavation of the northern sections of each evaluation trench potentially obscuring deposits visible in section. In practice, however, deposits in section were largely or exclusively composed of recent demolition material.

5.1.2 Watching brief observations made in the main body of the site were undertaken during strip excavations for foundations. The strips were each approximately 7m long and 1m wide and were excavated in tranches with no two adjacent strips being open at any one time. This method of operation could have restricted the visibility of structures or complex stratigraphy, although, in the event, the majority of the watching brief area proved to be devoid of archaeological deposits. Watching brief observations in the area of the site on Spital Hill were made subsequent to the ground works associated with the public open space and in some instances visibility of deposits was obstructed as a result of foundations having been laid.

5.1.3 Notwithstanding the difficulties inherent in the watching brief, the overall level of confidence in the results of the archaeological investigation can be judged to be high and the probability that significant remains went unobserved is low.

5.1.4 The area of excavation and the features recorded are shown in Figures 2-3. The results of the structural analysis are presented in Appendix 1. The following sections should be read in conjunction with these data.

5.2 Natural deposits and soil profiles

5.2.1 'Natural' subsoil was observed across the evaluated area and in the majority of the watching brief area. It comprised a yellowish brown sandy clay alluvium with variable quantities of angular sandstone fragments. Some bands of blue-grey silt were observed in the upper part of natural deposits which became stonier with depth. The upper surface of natural lay between 44.50 and 45.26m OD. The full depth of the deposit was not tested.

5.3 Midland Railway Goods Yard

5.3.1 The earliest phase of activity represented on the site comprised a substantial brick built building, elements of which were observed in all three evaluation trenches. The building measured a minimum of 40m in length and approximately 20m in width. It comprised two parallel ranges of rooms with a chimney base located at the eastern extremity of the building. The northern range of rooms appeared to be semi-basemented.

5.3.2 The northern range was comprised of at least three rooms. The westernmost room that was observed was seen in Trench 3 – here the northern wall of the building was observed to run parallel and immediately adjacent to the foundations of the access ramp (context 3/001; Plate 1). The wall ran the entire width of the northern part of the trench and survived to a height of 1.17m. It was composed of un-frogged red bricks 230 x 110 x 70 mm in size, and was laid in Old English bond with a greenish grey sandy mortar with black inclusions. One of the sampled bricks from wall 3/001 was probably manufactured between 1690 and the mid 18th century (Appendix 2). It appears to have been reused from an earlier structure, however, as the remainder of the bricks from the building date from c.1730-1850 (and possibly even later in the 19th century; Appendix 2). A north-south wall was also noted (3/002) in the north-west angle of Trench 3 which is presumed to form an internal partition wall and marks the limit of the westernmost room to be observed. A contemporary concrete floor lay at c 44.85m AOD. The southern part of the room was truncated by a later concrete intrusion (3/003), but it seems probable that the southern limit of the room was formed by wall 3/010, giving an overall north-south dimension for the room of approximately 11.5m.

5.3.3 The northern wall of the building was observed during watching brief works in the area between Trench 2 and Trench 3 where it was assigned context number (100). The adjacent concrete floor (109) lay at 44.61m AOD, slightly lower than the floor to the west, suggesting that an otherwise unobserved partition wall lay between Trenches 2 and 3.

5.3.4 The northern range of rooms continued in Trench 2 with a narrow corridor like room[1] 1.25m wide running north-south across the range (Plate 3). The eastern wall of the room (2/002) ran the width of the range and its alignment continued southwards into the south range and beyond (2/005, 2/009, 2/014). The wall was composed of red bricks in Old English Bond identical to that used in the room observed to the west and for the majority of its length had been cropped to floor level (presumably during demolition of the building). The approximate date of manufacture for the bricks falls within the range 1730-1850 (Appendix 2). The western edge of the corridor was formed by wall 2/006. This wall was identical in construction to the other walls observed in the northern range and unlike wall 2/002 had not been cropped during demolition and survived to a height of just over 1m. Wall 2/006 stopped short of the main walls of the range at both north and south ends resulting in two narrow niches or returns each less than 1m wide. The function of these niches/returns is unclear as they lay largely outside the evaluation trench and were filled with rubble. However, the floor in the corridor lay at 44.37m AOD, somewhat lower than the floor level in the room to the west, suggesting that the returns may have held flights of steps allowing movement up to the higher level.

[1] It is possible that this room may have formed the wheel pit which would have transformed the power generated by the engine house into a form useable elsewhere in the building – in the absence of any diagnostic fixtures this is however highly speculative.

5.3.5 Evidence for the location of the easternmost room in the northern range was provided by wall 1/016 in Trench 1. The composition of the wall was similar to that seen elsewhere, although, with a thickness of only 450mm, this wall was significantly less substantial than the north wall and the internal partition wall seen in Trench 2.

5.3.6 Beyond the eastern end of the northern range lay a brick-built chimney base (Plate 4). The base was polygonal with an estimated external dimension of 4.50m. The main body of the structure was composed of red brick (1/006) although the interior was lined with a double skin of fire bricks, the latter most likely of 19th century date (1/005; Appendix 2). A flue (Plate 5) ran from the north side of the chimney base curving to the west suggesting that the engine house which served the chimney lay in the northern range of rooms. The flue was composed of red bricks (1/002 and 1/007) and lined with fire bricks (1/003 and 1/013). The base of the flue was in good condition and its soft, sooty silt fill contained a quantity of fire brick rubble, suggesting that the original brick vault had collapsed into the flue (possibly during demolition).

5.3.7 The westernmost room of the southern range was observed in Trench 3. The room was delimited by walls 3/014, 3/010 and 3/011. The walls were composed of red bricks and, in the case of 3/011, sat on a concrete footing. The walls were c450mm wide and formed a room c3.5m wide, and at least 8m long. The contemporary concrete floor (3/012) lay at a height of 45.26m AOD – approximately 0.40m higher than that in the corresponding room in the northern range.

5.3.8 In Trench 2 and the adjacent watching brief area a room in the southern range was identified which has been tentatively identified as a ‘machine room’ (Plate 2). The room was formed by walls 2/004, 2/005, 2/009, 2/010, 2/017 and 102. The walls were composed of red bricks set in a grey mortar in Old English bond and were approximately 0.75m wide. The room had internal dimensions of approximately 8m x 4m with its long axis running parallel with the alignment of the range. The floor of the room was composed of blue (reduced) engineering bricks with two large gritstone blocks inset into the floor. The engineering bricks are thought to date from the 19th or 20th centuries (Appendix 2). The gritstone blocks measured 2m x 2m, and a circle of just under 2m in diameter was inscribed within the blocks to a depth of approximately 2mm (these are presumed to be machinery settings). At the cardinal points of the eastern setting four deeper indentations (c 100mm) were noted, one of which contained the remains of a metal lug suggesting that these would have formed the fixing point for the machine. A pierced stone drain cover lay between the two stone slabs and ceramic drain pipes were set vertically against the opposing inner faces of the slabs, both of which suggest that water management formed part of the function of this room. Each slab was surrounded by an octagonal ‘ghost’ impression suggesting that the machine settings lay within a frame of timber or other organic material. Two rectangular recesses, the thickness of the brick floor, lay adjacent to the northern side of the machine settings. Two post settings, 300mm x 300mm, were also sunk into the floor against the north and south walls of the room. A line between these two post holes crosses the easternmost machine setting centrally and it is assumed that the posts assisted in the functioning of the machinery in some fashion. The floor in the machine room lay at 45.30m AOD, approximately 0.70m higher than the floor in the adjacent room in the north range and approximately 0.90m higher than the ‘corridor’.

5.3.9 Fragmentary remains noted in Trenches 1 and 2 suggested that a further room in the southern range lay to the east of the machine room. This room was represented by concrete foundations 1/017, 1/018 and 2/014. The foundations were 0.50m to 0.60m wide and traces of a brick superstructure 0.45m wide survived on top of the southern part of 2/014. The estimated dimensions of the room are 16.5m x 8m. No traces of internal floors were seen. Two stone and brick bases, 1/019 and 2/015, were observed to lie outside of the south-east and south-west corners of the room. The stone blocks forming the bases were similar in form, with a well finished ashlar face on the upper surface and rougher sides and base. Both showed evidence of metal bolts or fittings on the upper surface and, in the case of 1/019, traces of a rusted hollow iron pipe or column 460mm in diameter were visible.

5.3.10 The structures noted above seemed to form a single phase of construction with few indications of subsequent modification. However, in Trench 1 the flue (1/002) connecting the putative engine house with the chimney base had clearly been partially demolished before a very slight brick foundation (1/001) was constructed over it. The foundation was only one brick wide and may have served as the foundation for a lean-to or shed; it may be related to a similar foundation (1/007) which lay at right-angles to it.

5.4 The Brick Assemblage

5.4.1 Samples from the main walls of the brick structure and samples of engineering and fire bricks from the site were submitted for assessment (Appendix 2). The main walls employed bricks that were most probably manufactured between 1730 and 1850, although a single brick of very late 17th century date and a single brick that probably post-dated 1850 were also recorded. The fire bricks most likely date from the 19th century, and the engineering bricks from the late 19th or 20th century. No evidence of phasing was apparent in the excavated remains during the archaeological works and it is assumed that the structures revealed are substantially of one build. The bricks therefore indicate a late 19th or early 20th century date of construction, although bricks from earlier structures were clearly reused (a common building strategy during the 19th and early 20th centuries).

5.4.2 The sampled bricks included examples that were hand-made, pressed and machine-made. Three bricks displayed slop-moulding traits and one from cellar wall 2/004 was possibly ‘pressed’. One of the fire bricks bore a manufacturer’s stamp within an impressed frog. The stamp appeared to represent the initials ‘N(A?)CF Co’, but it has not been possible to identify the individual manufacturer or production factory.

6. DISCUSSION

6.1 The building remains observed in the evaluation trenches and adjacent watching brief seem to have formed part of a larger structure extending westwards beyond the limit of observations. The building appears to have been rectilinear with a double range of rooms, the northern range of rooms being semi-basemented with floor levels approximately 0.50m lower than their southern counterparts. A chimney base lay to the east of the building and separated from it slightly; it is presumed that an engine house lay within the adjacent building.

6.2 Comparison of the Ordnance Survey mapping dated to 1894 (Figure 4) and 1905 (Figure 5) suggests that the remains are those of a rectilinear building located between the railway lines north of Wicker Station and the ramped access from Spital Hill constructed between 1894 and 1905. Comparison of the observed and conjectured remains with the historic mapping (Figure 5), allowing for the inevitable inaccuracies of matching surveyed data with historic mapping, suggests that there is a strong correlation between the observed remains and the building noted on the 1905 map.

6.3 The function of the building could not be determined from the excavated remains as the interior was devoid of any material which might have indicated its use and plant had likewise been stripped from the machine room. A photograph of the Wicker Station taken in 1912 (Plate 6) shows the building and its prominent chimney quite clearly (far right of photograph). Most noticeable is the three storey tower-like construction which appears to sit in the approximate position of the machine room, perhaps explaining the more substantial nature of the foundations in this part of the south range of rooms. The tower is strongly reminiscent of a water tower, a feature which might be expected in a station where steam trains were operating. The machine room may therefore have contained

pumps to raise water to the upper part of the tower, perhaps explaining the drainage arrangements noted above[2]. The eastern end of the southern range of the building appears to have lain very close to the tracks leading to the Spital Hill tunnel and it is possible, therefore, that the brick and stone bases noted above may represent the location of water cranes from which train tenders were filled.

6.4 Documents held at the Midland Railway Study Centre at The Silk Mill Museum in Derby indicate that the structures uncovered are probably the remains of an Electric Light Station noted on a plan of the Wicker Station dated 1916 (Figure 7). The building appears to have been constructed as part of a general redevelopment of the goods station which, according to evidence from Minute Books, was initiated in 1891[3]. No evidence was uncovered for buildings pre-dating the construction of the Electric Light Station, yet it is known that Hall Carr House lay approximately in the same location and was extant on the site well into the 19th century[4]. Close examination of the 1894 Ordnance survey map suggests that the buildings to the north of the railway line leading into Spital Hill tunnel may have sat on a slight rise or embankment above the level of the adjacent goods yard. This rise is no longer indicated on the 1905 map, suggesting that the construction of the new building may have involved ground reduction to a level common across the entire site. This possible levelling along with the further excavation necessary to provide semi-basementing in the northern range of rooms seems to have been sufficient to remove all remains of Hall Carr House. The early 18th century brick re-used in the later building may well have been derived from the demolition of Hall Carr House.

.

7. ACKNOWLEDGEMENTS

7.1 AOC Archaeology Group would like to thank the following for their assistance in the successful conclusion of this project: Duncan Cooney of McDermotts, Christian Parnell of Bowmer & Kirkland, Sue Freestone and the staff of Sheffield Local Studies Library, the staff of the National Railway Museum Archive (Search Engine) and Jim McNeil of SYAS. AOC would like to make particular mention of the assistance provided by Dave Harris and Tony Overton of the Midland Railway Society, without which the positive identification of the structures uncovered would not have been possible.

7.2 The project was managed by David Lakin. Fieldwork was undertaken by Stephen Potten, Andy Sibley, Kevin Paterson, Charlie Morris, Alan Duffy and David Lakin.

8. SITE ARCHIVE

The site archive consists of:

3	Trench record sheets
56	Context sheets
3	Context register sheets
1	Drawing register sheets
1	Photograph register sheets

[2] An alternative possibility is that the plant in the machine room was related to the use of hydraulic power within the station – a notable feature of Midland Railway operations (pers comm. D Harris).

[3] AOC is grateful to Tony Overton for making his research on this subject available.

[4] The buildings supervisor for the Sheffield & Rotherham Railway, Isaac Dodds, lived at Hall Carr House in the 1840s and the house appears to have remained in railway use into the 1860s when it was the residence of the Station Master. Latterly it was renamed Ivy Cottages and was leased out (ARCUS 2002), see also Figure 6.

1	Environmental register sheets
1	Level register sheets
0	Survey data sheets
9	Scale drawings
105	Digital photographs
50	Black and white negatives
50	Black and white prints

The project archive is intended to be deposited at: TBC

9. BIBLIOGRAPHY

AOC Archaeology 2003, *Fieldwork sector on-site handbook*, unpublished document.

AOC Archaeology 2008, An archaeological desk-based assessment of Savile Street, Sheffield, South Yorkshire, unpublished report.

ARCUS 2002 An Archaeological Desk Based Assessment of a Proposed Route for the Sheffield Inner Relief Road, Northern Section:Stage 2

Laedor, R.E. 1905 *Sheffield in the Eighteenth Century*, Sheffield

Lewis, S. 1848, *A topographical dictionary of England*, ed. by (1848).

SYAS 2007, Brief for archaeological strip and record: proposed development (09/00523/FUL), Savile Street, Sheffield: Area B, South Yorkshire Archaeology Service, March 2007.

SYAS 2010, Brief for archaeological monitoring (Watching Brief): proposed development (09/00523/FUL), Savile Street, Sheffield: Area C, South Yorkshire Archaeology Service, May 2010.

Land at Savile Street, Sheffield, South Yorkshire: Archaeological Evaluation and Watching Brief Report

Appendices

APPENDIX 1

Context summaries

Context	Classification	Description
1/001	Masonry	Brick built foundation. Single course laid on bed.
1/002	Masonry	Brick built flue outer element composed of red brick. English bond with hard grey mortar. See also 1/003
1/003	Masonry	Brick built flue outer element composed of red brick. English bond with hard grey mortar. See also 1/002
1/004	Deposit	Demolition fill of upper part of flue. Frequent brick fragments and moderate burnt clay patches.
1/005	Masonry	Fire brick lining for flue. Laid on bed bonded with soft yellow brown mortar.
1/006	Masonry	Forms outer element of chimney base , composed of red brick.
1/007	Masonry	Brick built foundation. Single course laid on bed.
1/008	Deposit	Dark brown silty sand trample layer
1/009	Deposit	Fill of flue sooted silty matrix with collapsed fire brick vault
1/010	Deposit	Upper fill of interior of chimney base.
1/011	Deposit	Loosely compacted lower fill of interior of chimney base
1/012	Deposit	Soft, sooted, lower fill of flue
1/013	Masonry	Fire brick lining base of flue. Laid on bed bonded with soft yellow brown mortar.
1/014	Deposit	Dark brown silty sand demolition layer
1/015	Deposit	Crushed sandstone deposit packed around chimney base and flue – redeposited natural.
1/016	Masonry	Brick built wall foundation , bonded with pale grey mortar, 450mm wide, forming right angle.
1/017	Masonry	Concrete foundation, 500mm wide.
1/018	Masonry	Concrete foundation.
1/019	Masonry	Brick and stone base. Stone 760 x 760mm in plan and at least 200mm deep – ashlar finish to top , 4 bolt or clamp fixtures on upper surface along with rust stain of circular iron pipe or column 460mm in diameter.
1/020	Deposit	Moderately compacted mid-yellow brown sandy clay with occasional brick fragments pressed into surface – disturbed natural.
2/001	Masonry	Red brick cellar wall. 0.60m wide at base, 0.49m at top. Old English bond with hard mid-grey mortar.
2/002	Masonry	Red brick wall. 0.74 m at top. Old English bond with hard mid-grey mortar.
2/003	Masonry	Red brick post pad or similar. Hard grey cement like mortar.
2/004	Masonry	Red brick cellar wall.. Old English bond with hard mid-grey mortar. See also 2/017
2/005	Masonry	Red brick foundation. 1.05 m wide continuous build with 2/002 and 2/004. See also 2/009
2/006	Masonry	Red brick cellar wall. Width not seen.
2/007	Masonry	Red brick stub wall – on build with 2/004.
2/008	Deposit	Possible demolition deposit of clay and brick rubble.
2/009	Masonry	Red brick foundation. 0.84 m wide continuous build with 2/002 and 2/004. See also 2/005
2/010	Masonry	Red brick foundation. 0.72m wide continuous build with 2/009
2/011	Masonry	Bkue engineering bricks laid on bed. Two gritstone slabs set into floor – 2m x 2m. Stones have indented

		circular settings for machinery and traces of retaining bolts/clamps. Stone drain cover between settings, ceramic drain pipes set vertically into floor adjacent to slabs.
2/012	Cut	Construction cut for 2/010.
2/013	Deposit	Construction backfill between wall 2/010 and cut 2/012
2/014	Masonry	Red brick on concrete foundation. Concrete 0.60m wide. Bricks boded with pale grey mortar. Forms L-shape
2/015	Masonry	Brick and stone base. Stone 750 x 750mm in plan and at least 200mm deep – ashlar finish to top , 2 bolt or clamp fixtures on upper surface
2/016	Deposit	Yellow brown sandy clay with sandstone frags. Natural
2/017	Masonry	Red brick cellar wall.. Old English bond with hard mid-grey mortar. See also 2/004
3/001	Masonry	Red brick cellar wall. Old English bond. 1.17m high. See also 100
3/002	Masonry	Red brick cellar wall. Old English bond. 0.56m high.
3/003	Masonry	Concrete floor
3/004	Deposit	Modern overburden
3/005	Cut	Cut for modern concrete intrusion 3/006
3/006	Masonry	Modern concrete intrusion 3/006
3/007	Masonry	Red brick pillar base , heavily truncated.
3/008	Masonry	Concrete foundation below floor 3/003. See also 3/009
3/009	Masonry	Degraded concrete foundation below floor 3/003. See also 3/008
3/010	Masonry	Red brick wall foundation. 0.49m wide.
3/011	Masonry	Red brick wall foundation. 0.49m wide.
3/012	Masonry	Concrete floor.
3/013	Deposit	Yellow grey sandy gravel. Natural
100	Masonry	Red brick wall, Old English bond with mid grey mortar
101	Masonry	Red brick wall, Old English bond with mid grey mortar
102	Masonry	Red brick stub wall or buttress.
103	Masonry	Red brick stub wall or buttress.
104	Deposit	Brick rubble overburden
105	Deposit	Brick rubble overburden
106	Deposit	Brick rubble overburden
107	Deposit	Brick rubble overburden
108	Deposit	Yellow brown sandy clay silt with angular stones. Natural.
109	Masonry	Concrete floor.

APPENDIX 2

Ceramic Building Material assessment report, by J Tibbles

Report No 3072

Summary

The assemblage contained seventeen examples of brick ranging in date from the very late 17th century to the 19th / 20th century. The majority of the samples were either fire-bricks or engineering bricks with only seven bricks manufactured from brick earths. The latter bricks were all within the cellar construction. A single fire-brick displayed a makers stamp which has not yet been identified.

Introduction

A total of seventeen complete/near complete bricks with a combined weight of 60.306 kgs were submitted for assessment. The assemblage was recovered from seventeen stratified contexts, and comprised material dated from the late 17th to the 18th and 19th / 20th centuries.

Methodology

The assemblage was visibly examined using a 15x-magnification lens and was subject to basic quantification by count and weight. Information regarding the dimensions and shape was recorded and catalogued accordingly (see Tables 1 and 2).

It should be noted that the diversity of size and colour within bricks and tiles that is caused during the manufacturing process, must be taken into consideration when comparing examples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln and the location of the brick/tile within the kiln. Fire-bricks and engineering bricks however, were not subjected to such variations due to their clays.

The Assemblage

Table 1. Assemblage Quantification.

Form	No.	Weight (g)
Brick	7	24134
Refractory Brick/Engineering	7	11212
Fire-brick	3	24960
Totals	**17 No**	**60306gm**

Range and variety of material

Of the identifiable brick within the assemblage, examples of hand-made, pressed and machine-made brick manufactured in brick-earth and refractory clays were identified. Manufacturing techniques and fabrics suggest a possible date range of very late 17th-18th-19th / 20th century date of manufacture.

With the exception of sample 2 from cellar wall 3/001, none of the assemblage was dateable to earlier than the mid-18th century, although bricks of the same dimensions were manufactured into the 18th century.

Discussion

All the material within the brick assemblage displayed diagnostic qualities of length, width, thickness and on one example, manufacturers stamp.

The assemblage was sub-divided into bricks manufactured from brick earths and those manufactured from fire clays.

Standard bricks

The standard brick-earth clay bricks were all recorded from within the cellar walls, basement partition and foundations. Their sizes were generally the same with little variation (230mm-240mm x 110-115mm x 70mm (9-9½" x 4⅜-4½" x 2¾")) suggesting a date range of between 1730-1850. The example from cellar wall 3/001 displayed traits of a slightly earlier manufacture range of between 1690 and the mid-18th century. The thickness of the brick example from 2/004 (3") tends to suggest a post-1850 date of manufacture (Dobson 1850). Three of the brick-earth clay bricks displayed slop-moulding traits and one from cellar wall 2/004 possibly 'pressed'. The latter brick also displayed two different mortars suggesting repairs.

Fire-bricks

Approximately 18% of the brick assemblage was manufactured from fire clays where bricks needed to withstand high temperatures and stress, particularly in furnace linings. Such bricks have been hand-made in the Black Country from the 1700's until the 1960's (Cooksey 2003). However, Bourry suggests that fire clay goods (firebricks etc) made in special factories dates from the beginning of the 19th century (Bourry 1901). The examples within the assemblage were identified as 'plain bricks' described by Bourry as:

Plain bricks: Usually the shape and dimensions of building bricks (9.44" x 4.72" x 3.15").

Within the fire brick assemblage only one example from context 1/003 bore a manufacturer's stamp within an impressed frog. The initials N(A?)CF Co have not yet been identified.

Engineering bricks

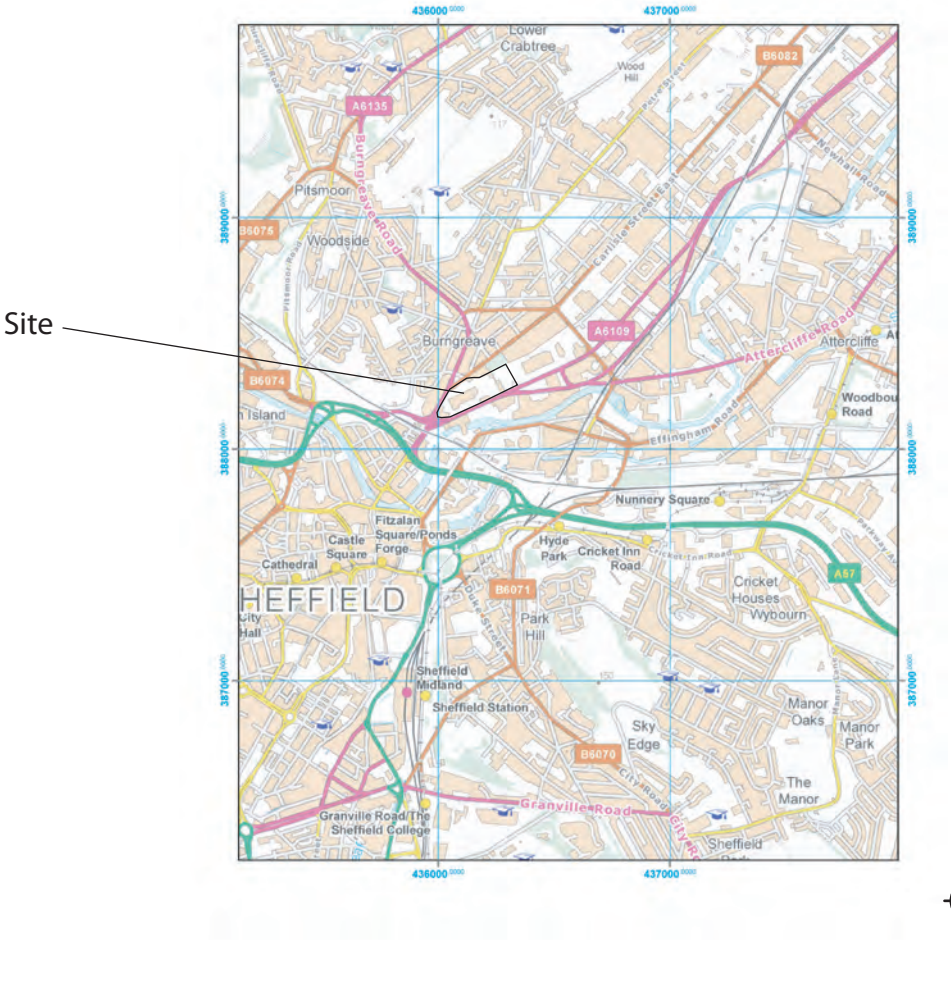
The remainder of the assemblage (41%) was also manufactured in refractory clays to create engineering bricks which could withstand great weights and pressures, which is required in engineering and where great durability was needed. All the bricks were of a similar size (230-236mm x 110mm x 75-80mm (9-9¼" x4⅜" x3-3⅛")) suggesting a late 19th-20th century date of manufacture.

Recommendations

It is recommended that any published account of this excavation should include a short discursive account of the ceramic building material. Upon completion of work on the ceramic building material assemblage, a selective discard policy should be implemented. Such a policy would normally entail the discard of all standard bricks that have few, if any, diagnostic qualities beyond their dimensions, and the retention of those with features that are rare or which have some potential to be informative, particularly when assessing similar artefacts from other sites. In the case of the

Savile Street assemblage, it is recommended that only the brick bearing a manufacturer's stamp is retained.

The material deemed worthy of retention as part of the archive should be processed and packaged in accordance with the delegated museum's guidelines, prior to deposition of the finds assemblage as a whole within the appropriate museum.

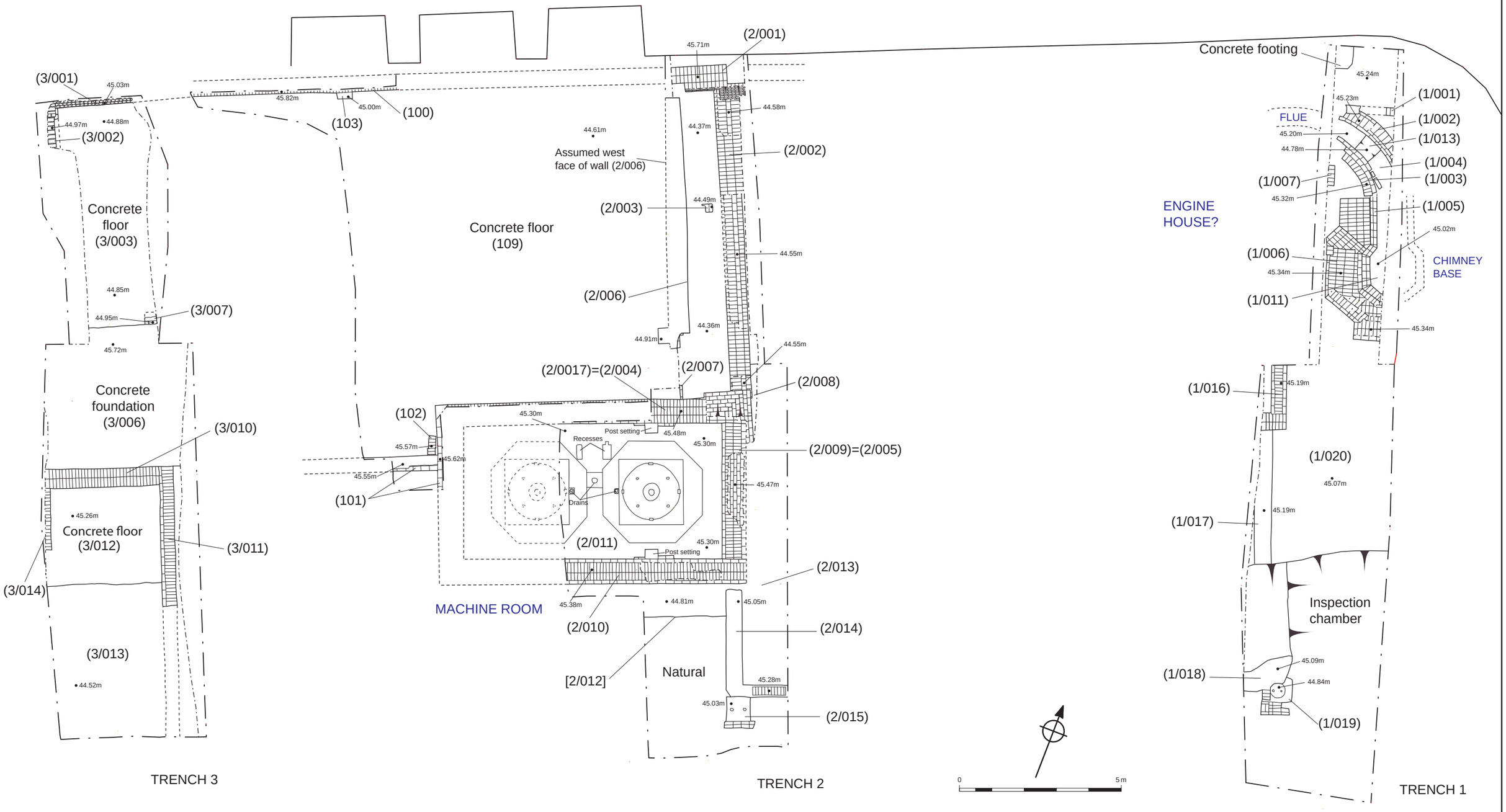


Data derived from OS Open Data, Crown copyright.

Figure 1: Site location plan

AOC Archaeology Group

Figure 2: Location of observations



Key

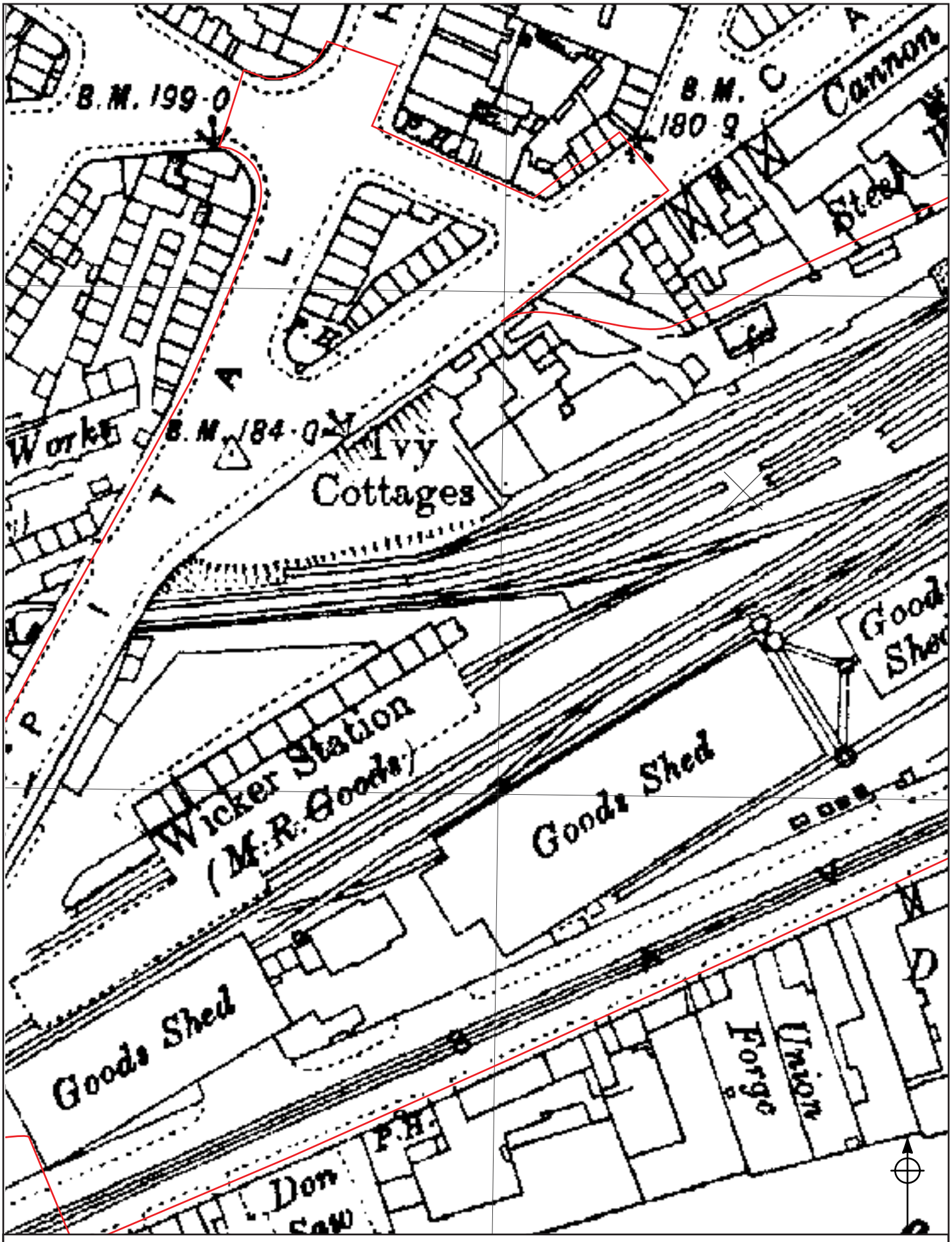
Projected course of wall

Limit of excavation

Spot height

Figure 3: Plan of structures in Trenches 1-3 and adjacent watching brief

AOC Archaeology Group



Key

Site boundary

Figure 4: OS 1:2500 plan dated 1894

AOC Archaeology Group

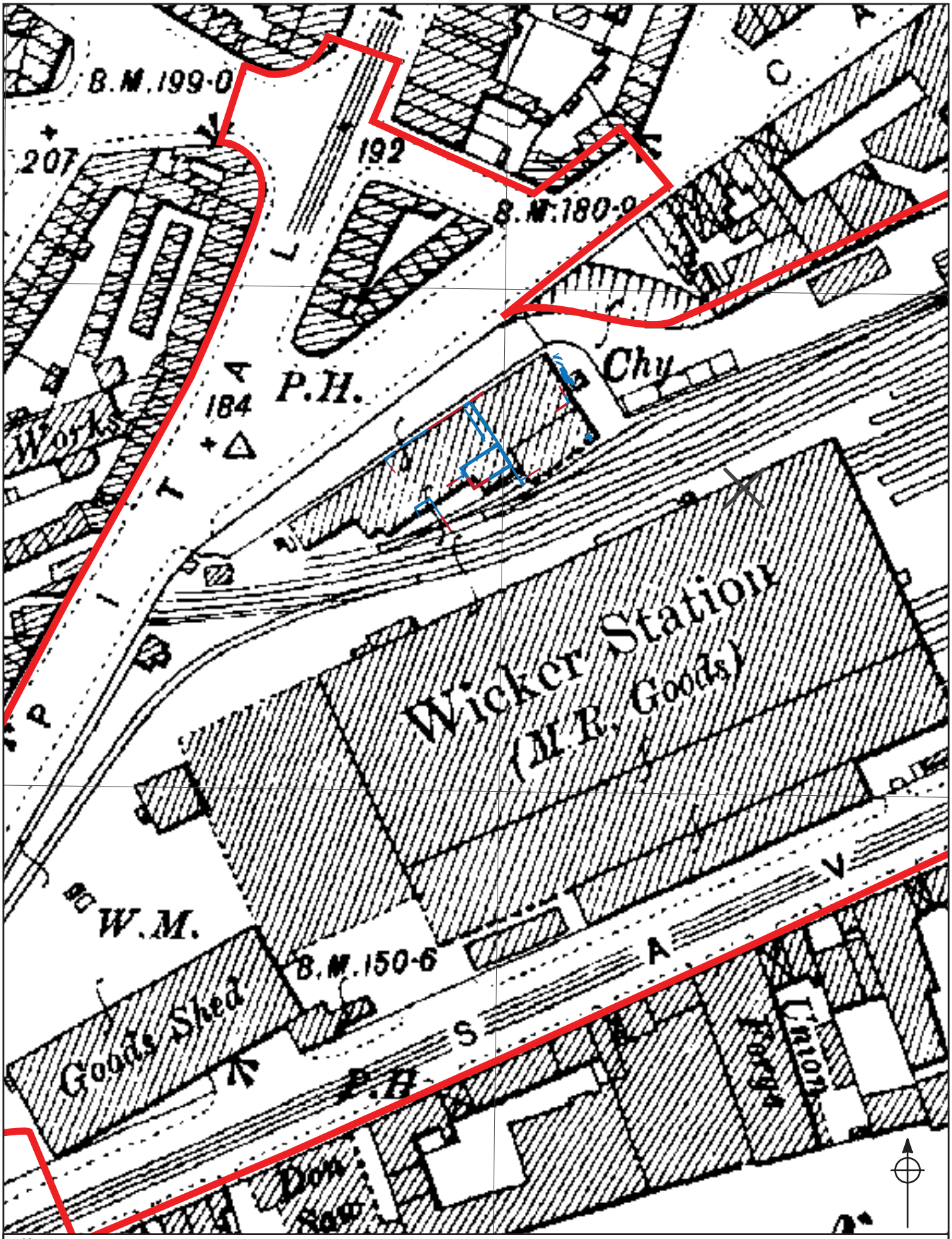


Figure 5: OS 1:2500 plan dated 1905
with overlain detail of structures observed

AOC Archaeology Group

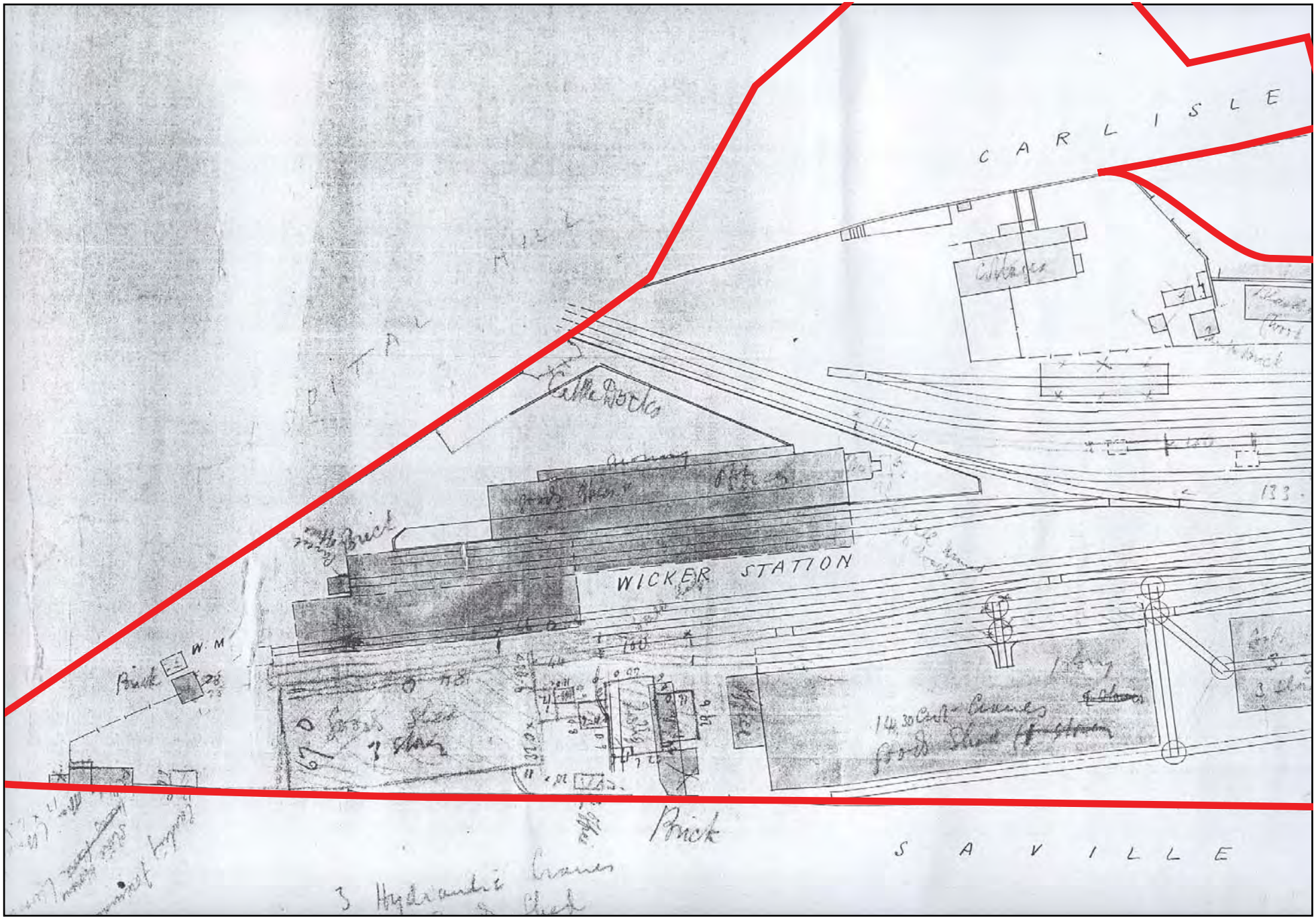


Figure 6: Wicker Station Engineering Survey dated August 1874 (courtesy of Midland Railway Study Centre)

AOC Archaeology Group

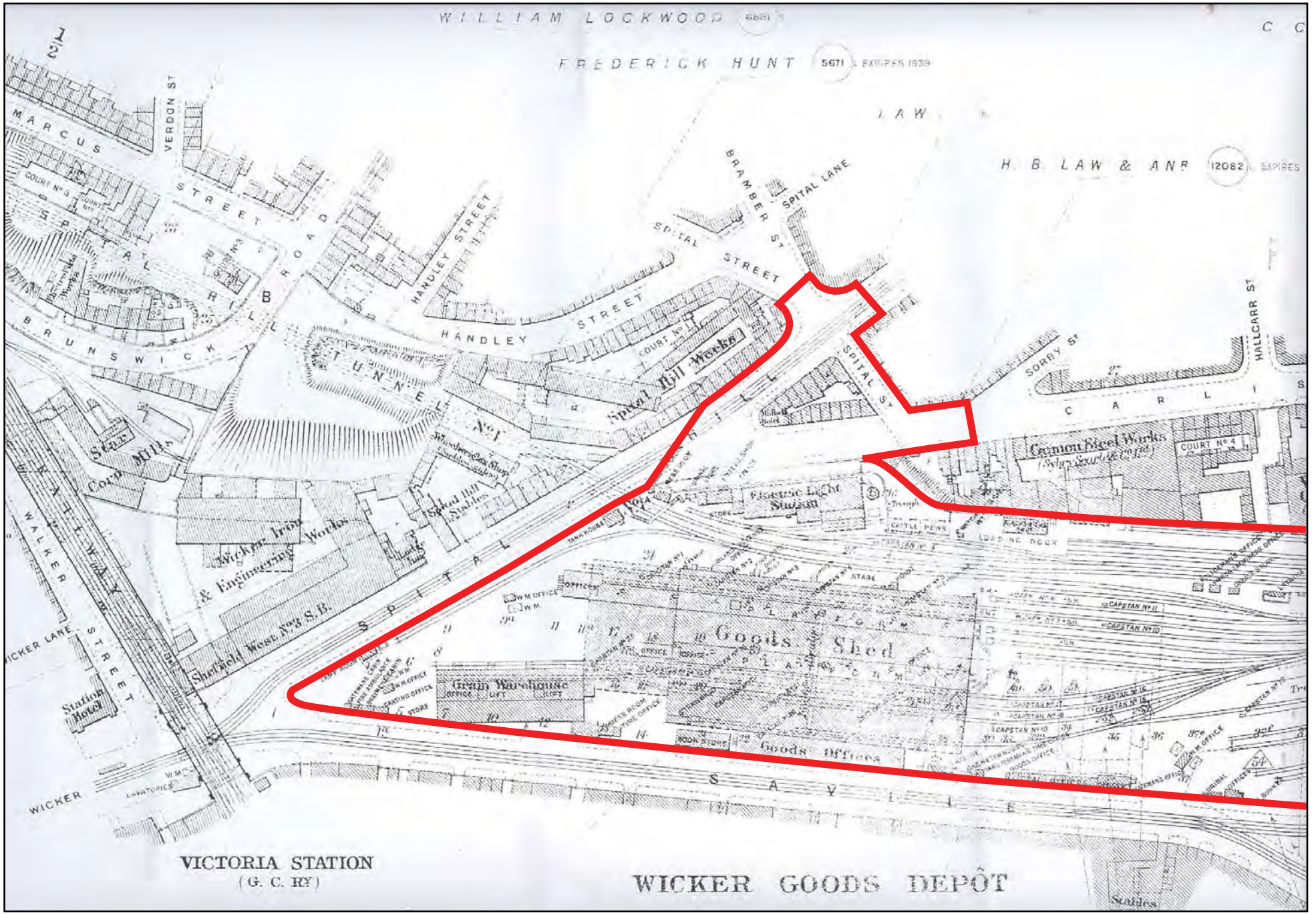


Figure 7: Midland Raily Estate Agent's survey of Wicker Station dated November 1916

AOC Archaeology Group

Plate 1: Northern Wall (3/001) of building seen in Trench 3

Plate 2: Trench 2 Machine Room

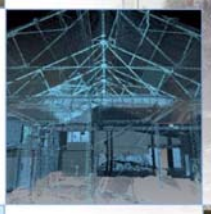
Plate 3: Trench 2 'Corridor'

Plate 4: Trench 1 Chimney Base

Plate 5: Flue detail of cross-section

Plate 6: View of Midland Railway Goods Yard 1912, showing the Electric Light Station building on the far right






AOC Archaeology Group, The Raylor Centre, James Street, York. YO10 3DW

tel: 01904 413 404 | fax: 01904 430303 | e-mail: york@aocarchaeology.com