An Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire



ARS Ltd Report 2019/111 May 2019 OASIS ID: archaeol5 – 355086

> **Compiled By:** *Robert Cole BA*

Archaeological Research Services Ltd Angel House, Portland Square, Bakewell, Derbyshire, DE45 1HB

admin@archaeologicalresearchservices.com www.archaeologicalresearchservices.com

#### Checked By:

Zoë Cavendish BA (hons) MA Res Tel: 01629 814540 Fax: 01629 814657



# Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire

ARS Ltd Report 2019/111



### Archaeological Research Services Ltd

Angel House, Portland Square, Bakewell, Derbyshire, DE45 1HB www.archaeologicalresearchservices.com

# Contents

	Execut	ive Summary	1		
1	Intro	oduction	1		
	1.1	Background and Scope of Work	1		
	1.2	Site Location	2		
	1.3	Site Description	2		
	1.4	Geology and soils	2		
	1.5	Archaeological and Historical Background	3		
2 Aims and Objectives					
	2.1	Regional Research Aims and Objectives	3		
	2.2	The Evaluation Aims and Objectives	3		
3	3 Method Statement				
	3.1	Introduction	4		
	3.2	Coverage	4		
	3.3	Standards	4		
	3.4	Evaluation Methodology	4		
4	4 Results				
	4.1	Introduction	5		
	4.2	Evaluation trenches	6		
	4.3	Conclusions	-		
5 Publicity, Confidentiality and Copyright					
6	Statement of Indemnity10				
7	Arch	Archive10			
8	Acknowledgements12				
9 References					
	9.1	APPENDIX I: FIGURES	-		
	9.2	APPENDIX II: Context Summary Table4	.2		
	9.3	APPENDIX III: WRITTEN SCHEME OF INVESTIGATION4	-6		
	9.4	APPENDIX IV: OASIS FORM	6		

© ARS Ltd 2019

### List of Figures

### © ARS Ltd 2019

#### **Executive Summary**

Project Name:	Archaeological Evaluation at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire		
Site Code:	EWW19		
Planning	Sheffield City Council		
Authority:			
Planning	18/04237/FUL		
Reference:			
Location:	Milton Street, Sheffield, S3 7WJ		
Geology:	Pennine Lower Coal Measures Formation –		
	mudstone and siltstone		
NGR:	SK 34792 86722		
Date of	30 <sup>th</sup> April 2019 to 3 <sup>rd</sup> May 2019		
Fieldwork:			
Date of Report:	June 2019		

Archaeological Research Services Ltd was commissioned by Cinns Ltd to undertake an archaeological evaluation at Eye Witness and Ceylon Works, Milton Street, Sheffield, S3 7WL. The evaluation formed part of a scheme of works in satisfaction of conditions attached to planning consent for the construction of a six storey building forming 97 residential units, ground floor commercial units and associated landscaping works. The site lies adjacent to a grade II listed building and within the setting of further listed buildings.

The evaluation was undertaken between 30<sup>th</sup> April 2019 and 3<sup>rd</sup> May 2019 in accordance with a written scheme of works agreed with the Principal Archaeologist for South Yorkshire Archaeological Service (SYAS).

The evaluation comprised two trenches that were sited to target buildings previously extant on the site that are shown on historic maps of the area. Trench one located the cellars and partly demolished walls of back-to-back terraced houses and confirmed the accuracy of the historic mapping. Trench 2 located a demolished toilet block associated with the public house formerly occupying the site.

# **1** Introduction

### 1.1 Background and Scope of Work

- 1.1.1 This report presents the results of an archaeological evaluation undertaken by Archaeological Research Services Ltd. on behalf of Cinns Ltd. in advance of the construction of a six storey building with 97 residential units, ground floor commercial units and associated landscaping at Eye Witness Works, Milton Street, Sheffield, S3 7WJ (Figure 1). The site is centred at SK 34792 86722.
- 1.1.2 A planning application has been approved, subject to condition, for the development of the site. The Principal Archaeologist for South Yorkshire Archaeological Service (SYAS), Dinah Saich, was consulted and a condition was attached to the planning permission for a programme of archaeological works to be undertaken in accordance with a Written Scheme of Investigation (Appendix III).
- 1.1.3 Archaeology is a material consideration in the planning process. The aim of this programme of works was, in line with the National Planning Policy Framework (NPPF) paragraph 199 (MHCLG 2019), to record and to advance understanding of the significance of any heritage assets to be lost (wholly or partly) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publically accessible.
- 1.1.4 Planning condition 3 of the planning consent (18/04237/FUL) states the following:

"No development, including any demolition or groundworks, shall take place until the applicant, or their agent or successor in title, has submitted a Written Scheme of Investigation (WSI) that sets out a strategy for archaeological investigation and this has been approved in writing by the Local Planning Authority. The WSI shall include:

- The programme and method of site investigation and recording.
- The requirement to seek preservation in situ of identified features of importance.
- The programme for post-investigation assessment.
- The provision to be made for analysis and reporting.
- The provision to be made for publication and dissemination of the results.
- The provision to be made for deposition of the archive created.
- Nomination of a competent person/persons or organisation to undertake the works.

- The timetable for completion of all site investigation and post-investigation works.

Thereafter the development shall only take place in accordance with the approved WSI and the development shall not be brought into use until the Local Planning Authority has confirmed in writing that the requirements of the WSI have been fulfilled or alternative timescales agreed."

1.1.5 The work was undertaken in compliance with an approved Written Scheme of Investigation (Dyson 2019) and comprised the excavation of two evaluation

trenches both measuring 8m x 4m within the footprint of the proposed development (see figure 2).

### **1.2** Site Location

1.2.1 The site lies within Sheffield city centre in the Devonshire Quarter, south of Devonshire Green and west of the Moor. The site is centred at National Grid Reference (NGR) SK 34792 86722.

## **1.3** Site Description

1.3.1 The site is irregular in shape and covers an area of approximately 0.37 hectares. It occupies a gentle south-east facing slope and comprises two buildings separated by Egerton Lane which runs roughly south-west to north-east across the site. The proposed development area (hereafter PDA) is bounded to the north-west by Egerton Street and a car-park with residential developments beyond. To the north-east the site is bounded by Thomas Street and to the south-east by Milton Street with undeveloped land beyond. To the south-west the site is bounded by Headford Street with industrial and commercial units beyond (Figure 1).

#### Eye Witness Works

1.3.2 To the south-east of Egerton Lane the site is occupied by the former Taylors Eye Witness Works. The Grade II listed red-brick structure, a former cutlery works, is three, locally four storeys in height, with basements to at least the eastern and central sections.

#### **Ceylon Works**

1.3.3 To the north-west of Egerton Lane the site is occupied by a further three storey Grade II listed brick structure, formerly a cutlery works, occupied by the former Ceylon Works which also includes basement levels beneath the north-eastern sections, although their exact extent is unknown.

## 1.4 Geology and soils

- 1.4.1 The underlying solid geology of the PDA is the Pennine Lower Coal Measures Formation – mudstone and siltstone. This is sedimentary bedrock formed approximately 318 to 319 million years ago in the Carboniferous Period when the local environment was previously dominated by swamps, estuaries and deltas. These sedimentary rocks are fluvial, palustrine and shallow marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea).
- 1.4.2 No superficial geology is recorded within the PDA.

### **1.5** Archaeological and Historical Background

- 1.5.1 The archaeological and historical background of the site is covered in detail in the Desk Based Assessment (Lee 2018), Heritage Statement (Ives 2018) and the Written Scheme of Investigation (Dyson 2019) which is included as Appendix III of this document. Below is a brief summary.
- 1.5.2 The Ceylon Works and Eye Witness Works, both cutlery and knife works, were constructed between *c*.1850 and *c*.1890 and the street grid that is present today was established around the same time. Historic mapping indicates that the area was used for agricultural cultivation before it was turned over to industrial and residential use.
- 1.5.3 The Ceylon Works and Eye Witness Works are both Grade II listed buildings. They previously formed part of a complex of industrial and residential buildings. The Ordnance Survey maps from 1850s to 1890s show a stretch of back-to-back terraced housing along Egerton Street and Egerton Lane, and a pub, 'The Brunswick', located on the corner of Egerton Street and Thomas Street. The houses and the pub were demolished in the 1960s and 1970s and the land has been used for car parking since that time.
- 1.5.4 Evidence for human activity within the area around the PDA prior to the industrial period is very limited and there is no evidence of previous occupation from within the PDA.

## 2 Aims and Objectives

#### 2.1 Regional Research Aims and Objectives

2.1.1 The Priorities advocated in the *Yorkshire Archaeological Research Framework: research agenda* (Roskams and Whyman 2007) for the early modern period/industrial archaeology are: "a post-medieval, rather than purely industrial, agenda covering landscape setting and environmental impact, urbanisation, transport, and the archaeology of elite and religious power, of class, and of migration and culture contact" (Roskams and Whyman 2007, 38).

#### 2.2 The Evaluation Aims and Objectives

- 2.2.1 The aim of the evaluation was to identify, determine and record the nature and date of any surviving below-ground archaeological remains.
- 2.2.2 The objectives of the evaluation were as follows.
  - To identify and record any 19th 20th century domestic and industrial remains, as well as any earlier archaeological remains, within the PDA.
  - To produce a descriptive and photographic record of any surviving below ground remains.

- To produce dating and phasing for archaeological deposits recorded on the site.
- To establish the character and delimit the extent of archaeological deposits in order to define functional areas on the site, e.g. domestic and industrial.
- To produce information on the economy and local environment.

## 3 Method Statement

#### 3.1 Introduction

3.1.1 The method for the evaluation was outlined in detail in the Written Scheme of Investigation (Dyson 2019) and is summarised below:

#### 3.2 Coverage

- 3.2.1 Two trenches were excavated across the site. Both measured 8m x 4m and covered an area totalling 64m<sup>2</sup>. They were sited to target the potential remains of the back-to-back terraced housing and the Brunswick Public House located to the north-west of the Ceylon Works. The trenches were excavated in order to determine if any courtyard surfacing, floors and cellars of these 19<sup>th</sup> century buildings still survive and were located as follows:
  - Trench 1 was located to test the position of the former back-to-back housing, investigate their internal layout and record the extent of their survival below ground.
  - Trench 2 was located to test the location of outhouses shown to the rear of the former Brunswick public house and to test the nature of their use.

#### 3.3 Standards

- 3.3.1 The archaeological evaluation was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2014a) and *Standards and Guidelines for Archaeological Evaluations* (2014b).
- 3.3.2 A risk assessment was undertaken before commencement of the work. Health and Safety regulations were adhered to at all times.

#### 3.4 Evaluation Methodology

- 3.4.1 Trenches were sited in accordance with a pre-agreed trench plan using a Leica Smartrover GPS to a tolerance of 0.025m. The same GPS was later utilised to locate drawn plans and sections and to take spot heights within the trenches.
- 3.4.2 Each trench was opened using a mechanical excavator fitted with a toothless ditching bucket under continuous archaeological supervision. Excavation was undertaken in spits to the first archaeological/natural horizon.

- 3.4.3 Each trench was cleaned by hand to expose and clarify archaeological features. Preexcavation photographs were taken of exposed archaeology and each cleaned trench.
- 3.4.4 All archaeological features were drawn and recorded at an appropriate scale and were sample excavated in accordance with agreed strategies and to agreed proportions.
- 3.4.5 All features and trenches were tied into Ordnance Survey, all deposits were levelled and their spot heights calculated in metres above Ordnance Datum (aOD).

## **4 Results**

#### 4.1 Introduction

- 4.1.1 Two trenches, both measuring 8m x 4m were excavated within the proposed development.
- 4.1.2 Trench 1 was sited within the footprint of four back-to-back terraced houses identified from historic maps with the aims of identifying the extent of their preservation below ground, and characterising the style and methods used in their construction.
- 4.1.3 Trench 2 was sited on the location of apparent outbuildings identified from historic maps with the aims of establishing the extent of their preservation below ground and describing their character and potential uses.
- 4.1.4 Both trenches contained surviving archaeological remains that could be clearly identified as the structures observed on the historic maps.
- 4.1.5 The trench summary table is presented below. This provides a synthesis of the presence/absence of archaeology or potential archaeology in each of the trenches as well as the maximum thickness of the modern overburden and demolition backfill/made ground.

Trench No	Archaeology? Y/N	Period	Overburden thickness	Backfill/made ground thickness
1	Ŷ	Post-medieval	0.05 –	0.06 - 1.92 m
			0.11m	
2	Ŷ	Post-medieval	0.05m	2.18m

Table 1. Trench summary table demonstrating presence absence of archaeology/excavated deposits/structures and topsoil/subsoil depths.

4.1.6 The modern overburden was composed of dark reddish brown sandy silt with *c*.50% crushed brick and stone inclusions, and was overgrown with weeds and grass in numerous places. It covered the whole of the area adjacent to the Ceylon Works building and formed the surface of an informal carpark which comprised the former land use immediately prior to the commencement of the archaeological evaluation.

4.1.7 Full details of the dimensions and elevation of the features identified in the evaluation trenches can be found in Appendix II.

#### 4.2 Evaluation trenches

#### Trench 1

- 4.2.1 The plan and section of trench 1 are reproduced as figures 3 and 4 respectively. Photographs of the trench and features are included as figures 6-19.
- 4.2.2 Modern overburden (101) and compacted demolition backfill (102) were removed by machine under continuous archaeological supervision to a depth of 0.11m below ground level where archaeology was encountered at an elevation of 78.71m aOD.
- 4.2.3 Several partly demolished walls and staircases were observed at this level. They were surrounded by, and in places covered by, a lower layer of backfill (117) which comprised a mid-pinkish brown sandy silt with frequent brick inclusions. The backfill was up to 1.80m thick and was very loose and unstable in nature which meant that the north-west and south-east sides of the trench had to be battered to prevent collapse. Safety concerns also meant that the backfill could not be fully excavated. A small sondage was excavated in the centre of the trench to establish the thickness of the deposit. Flag stone floor (116) was encountered at the bottom of the sondage at an elevation of 76.88m aOD.
- 4.2.4 Four cellars were identified within the trench; two belonging to the houses that faced north-west and fronted onto Egerton Street, identified as Number 29 and Number 31 from the 1959 Goad map, and two belonging to the houses that faced south-east and fronted onto 'Court No 3', identified as Number 2 and Number 3. Additionally a passage between the houses allowing access to 'Court No 3' from Egerton Street was identified, confirming the accuracy and detail of the map.
- 4.2.5 The location of the trench within the footprint of the houses meant that no external walls could be observed. Only a *c*.0.60m stretch of the cellars of houses 29 and 31 lay within the trench and the majority of this was under the batter on the north-west side of the trench. By contrast *c*.3.00m of the cellars of houses 2 and 3 lay within the trench.
- 4.2.6 The cellars had been formed with barrel vaulted ceilings constructed from a single skin of handmade unfrogged brick with white lime mortar. The bricks measured 0.24m x 0.11m x 0.08m and had been laid in stretcher bond with occasional irregular headers which, presumably, served to tie in the vaulting with that of the adjacent cellar. The extradoses (i.e. the outside of the arch) of all the vaults lay outside of the excavation so this supposition could not be confirmed.
- 4.2.7 The arches of brick had been placed on top of walls constructed from undressed local sandstone/siltstone laid in irregular courses with the same lime mortar bonding.

- 4.2.8 The extent of preservation of the vaulting varied across the four cellars but in all instances the centre of the arch had been removed during demolition and the remaining haunches were very weak and partly collapsed. In total six haunches of vaulting had survived to varying degrees. The properties that faced onto Egerton Street had all four haunches preserved {118}, {119}, {120} and {121}. In the southwest of the trench the southwest side of Number 3's cellar vaulting {107} survived as six courses of brickwork atop a stone wall. By contrast, at the north-east end of the trench the vaulting for Number 2's cellar survived as two incomplete courses of brickwork atop the stone wall {115}. In the centre of the trench there was no trace of the brickwork, only the stone walls survived demolition.
- 4.2.9 The north-east wall of Number 3 {110} and the south-west wall of Number 2 {113} were situated *c*.0.50m apart to create a narrow passage between the houses. It is not clear from the surviving remains if the brick walls of the houses would have been sited on the inner edges of the stone walls, leaving the narrowest possible gap for the passage of *c*.0.50m, or on the outer edges leaving the widest possible gap for the passage of *c*.1.50m, or somewhere in between. The 1959 Goad map shows the passage leading between Egerton Street and 'Court No 3' and the width as drawn seems to be closer to the maximum possible width.
- 4.2.10 At some point after the construction of the houses a pipe trench {111} was excavated along the passage between the houses and a glazed ceramic pipe laid. The pipe was set in pebbly concrete, which was not used at all in the construction of the houses and suggests that they were not contemporary. However, it seems to be the case that the houses were still standing when the pipe trench was cut because the compacted demolition backfill (102) seamlessly overlay the fill of the trench (112) sealing it stratigraphically.
- 4.2.11 Each of the four cellars was accessed via staircases which were constructed in the centre of the back-to-back terraced houses. The most south-westerly of the staircases {103} accessed the cellar of Number 3, the staircase adjacent on the north-east {104} accessed the cellar of Number 31, staircase {105} accessed the cellar of Number 2 and staircase {106} accessed the cellar of Number 29. The stairwells were constructed from the same type of brick and mortar as the barrel vaulting in a single skin of stretcher bond coursing. The risers of the stairs were also constructed from the same bricks while the treads were composed of sub-rectangular flagstones shaped to allow the stairs to curve around a sharp 90°. The space within the stairwell beneath the stairs appears to have been left as a sealed void.
- 4.2.12 The cellar of Number 3 had a table {109} built into the north-east corner. It was constructed from a single large flagstone supported on mortared brick. This design feature is thought to have been present in each of the cellars as a similar slab was found close to the same location in the cellar of Number 2 although the slab was broken and loose within the backfill. There was no trace of any supporting brickwork. The corresponding locations in the cellars of Number 29 and Number 31 could not be safely excavated due to the depth and close proximity of the batter.

4.2.13 The cellars of Number 2 and Number 3 both contained a dividing wall running north-west to south-east. Wall {108} in Number 3 was not as well preserved as wall {114} in Number 2 with only two courses of brick surviving above the safe working depth of 1.20m below ground level as opposed to 8 courses. Both walls were constructed using the same bricks and mortar as the barrel vaulting and are thought to have been part of the original design rather than later subdivisions. They were double skin rather than single skin like the other surviving walls and may have played some part in supporting the keystone of the vaulting. Only stretcher coursing survives in wall {108} but wall {114} contains a single course of headers which suggests the wall was constructed in Scottish bond or American bond.

#### Trench 2

- 4.2.14 The plan of trench 2 is reproduced as figure 5 and the photographs are included as figures 20-27.
- 4.2.15 Modern overburden (214) was removed by machine under continuous archaeological supervision to a depth of 0.05m below ground level where archaeological features were encountered at an elevation of 79.09m aOD.
- 4.2.16 Several demolished structures were observed at this level. Structure {204} was contiguous and self-contained. The other walls identified may have once been part of the same structure or might be independent and unrelated.
- 4.2.17 The structures were surrounded by and set within a heterogeneous made ground (206) that was comprised of at least three different types of material (demolition rubble, redeposited natural and a non-specific waste material that comprised a dark sandy silt with charcoal and brick inclusions). In some places these materials were well mixed and in others they were in discrete patches or bands that probably represent individual cart/barrow loads brought in and dumped on the site.
- 4.2.18 The made ground was removed from the areas adjacent to and in between the surviving walls. Excavation ceased at a safe working depth of 1.20m. A sondage was excavated in the centre of the trench to test the thickness of the made ground. This established that natural geology lay at 76.63m aOD and the thickness of the made ground was *c*.2.50m.
- 4.2.19 The location of the walls identified in trench 2 closely match the position of structures visible on the historic maps of the site. Although the mapping provides little to suggest the function of these structures there was clear evidence to indicate that structure {204} was a toilet block, presumably belonging to The Brunswick Public House. It is clearly visible on the 1959 Goad map but the preceding OS map from 1953 shows a completely different structure that must have been demolished and replaced in the intervening years.
- 4.2.20 Structure {204} comprised two rectangular rooms with walls constructed from factory made brick measuring 0.235m x 0.11m x 0.08m, slightly smaller than those used in the cellars in trench 1. A partition wall ran between the two rooms and on either side of the partition walls was a ceramic drain pipe which would have been

the outflow for a toilet. These two pipes joined together into a single pipe and issued out of a gap in the brickwork on the north-east side before running north towards Thomas Street.

- 4.2.21 Wall {201} and {207} form two sides of a structure of unknown size and function. There are possible matches with structures on the OS maps from 1894 and 1905 as well as the Goad map from 1959. The 1953 OS map, however, shows a much smaller structure in a slightly different position, suggesting that the earlier buildings were demolished and replaced.
- 4.2.22 Whatever structure walls {201} and {207} related to it was likely to have been fairly ephemeral as the walls were constructed from a single skin of stretcher bonded brick with white lime mortar. Wall {201} had a footing made from undressed mortared sandstone/siltstone suggesting that it might be contemporary with the construction of the back-to-back terraced houses in trench 1.
- 4.2.23 The two other walls found in trench 2 are much less substantial; wall {202} ran along the north-west end of the trench and comprised only two courses of bricks built directly onto the made ground.
- 4.2.24 Wall {203} ran along the north-east side of the trench and comprised three courses of stretcher bond brick with a poured concrete floor (212) adjacent to it and a ceramic drain (211) built into the north-west end. The presence of the drainpipe at the base of the wall suggests that this may have been a predecessor to the toilet block {204}.

#### 4.3 Conclusions

- 4.3.1 The evaluation trenches demonstrated unequivocally that there was good preservation of archaeological remains below the relatively thin layer of modern overburden and that these remains could be clearly correlated with the buildings shown on historic maps of the site.
- 4.3.2 The remains of the cellars from the back-to-back terrace houses match exactly the details on the 1894 OS map, including the narrow passage leading to the courtyard adjacent to the Ceylon Works building. The evaluation was unable to refine the dating of their construction any further but it demonstrated that, over the period that the houses occupied the site, improvements and alterations to the complex were being made, most notably in the laying of a pipe that appears to serve the boiler house at the rear of the Ceylon Works.
- 4.3.3 Since the external walls of the back-to-back terrace houses lay outside the excavated area, trench 1 could not provide any information on the process of constructing the houses. However, in trench 2 the surrounding material was exposed and identified as made ground brought in to raise the ground level up to the same elevation as the surrounding streets. The sondage cut in the base of trench 2 established that the height of the natural geology was roughly the same as the height of the floor of the cellars in trench 1 (76.63m aOD in trench 2 and 76.88m aOD in trench 1). This suggests that the sequence of construction started

with the cellar walls being laid out on the surface of the natural and, as the houses were built, the surrounding ground level was raised up with material brought into the site.

4.3.4 This appears to contradict the evidence from the historic maps which show the street grid laid out around empty lots (Lee 2018). One possible explanation for this is that the surveyors responsible for producing the Ordnance Survey maps may have decided not to record the houses and the works buildings if they were still under construction. Alternatively it might be the case that the made ground was deposited before any construction work began and the building foundations laid in trenches excavated through the made ground although there was no visible evidence for this in the excavated trenches.

# 5 Publicity, Confidentiality and Copyright

- 5.1.1 Any publicity will be handled by the client.
- 5.1.2 ARS Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

## 6 Statement of Indemnity

6.1.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

# 7 Archive

7.1.1 A paper archive, which will consist of all primary written documents, plans,

sections, photographs and electronic data will be submitted to a suitable repository museum, in this instance Museums Sheffield, in a format agreed in discussion with SYAS and the museum curator. The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011) and a copy will be deposited with the Archaeology Data Service at the University of York.

7.1.2 An OASIS online record <u>http://ads.ahds.ac.uk/project/oasis/</u> has been initiated and completed for this work and all parts of the OASIS online form completed for submission to the HER. This will include an uploaded pdf version of the entire report (a paper copy will also be included within the archive).

# 8 Acknowledgements

8.1.1 ARS Ltd would like to thank Cinns Ltd and Capital and Centric for commissioning the project and Dinah Saich, Principal Archaeologist for South Yorkshire Archaeological Service for her assistance with the project.

# 9 References

Archaeology Data Service/Digital Antiquity 2011. Guides to Good Practice.

- British Geological Survey 2019. Geology of Britain viewer. Available online at: http://mapapps.bgs.ac.uk/geologyofbritain/home.html? [Accessed 6th March 2019].
- Chartered Institute for Archaeologists (CIfA) 2014a. *Code of Conduct*. Reading, Chartered Institute for Archaeologists.
- Chartered Institute for Archaeologists (CIfA) 2014c. *Standards and Guidance for an Archaeological Field Evaluation*. Reading, Chartered Institute for Archaeologists.
- Chartered Institute for Archaeologists (CIfA) 2014f. Standards and Guidance for the collection,

*documentation, conservation and research of archaeological materials*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists (CIfA) 2014g. Standards and Guidance for the creation,

*compilation, transfer and deposition of archaeological archives*. Reading, Chartered Institute for Archaeologists.

- Department of Culture, Media and Sport (DCMS) 2008. The Treasure Act 1996 Code of Practice (England and Wales).
- Dyson, B. 2019 Eye Witness & Ceylon Works, Milton Street, Sheffield, Historic building recording and archaeological works Written Scheme of Investigation
- Historic England 2019a. *Taylors Eye Witness Works*. List entry available online: <u>https://historicengland.org.uk/listing/the-list/list-entry/1271198</u> (Accessed 7<sup>th</sup> March 2019).

Historic England 2019b. Taylors Ceylon Works. List entry available online:

https://historicengland.org.uk/listing/the-list/list-entry/1270893 (Accessed 7<sup>th</sup> March 2019).

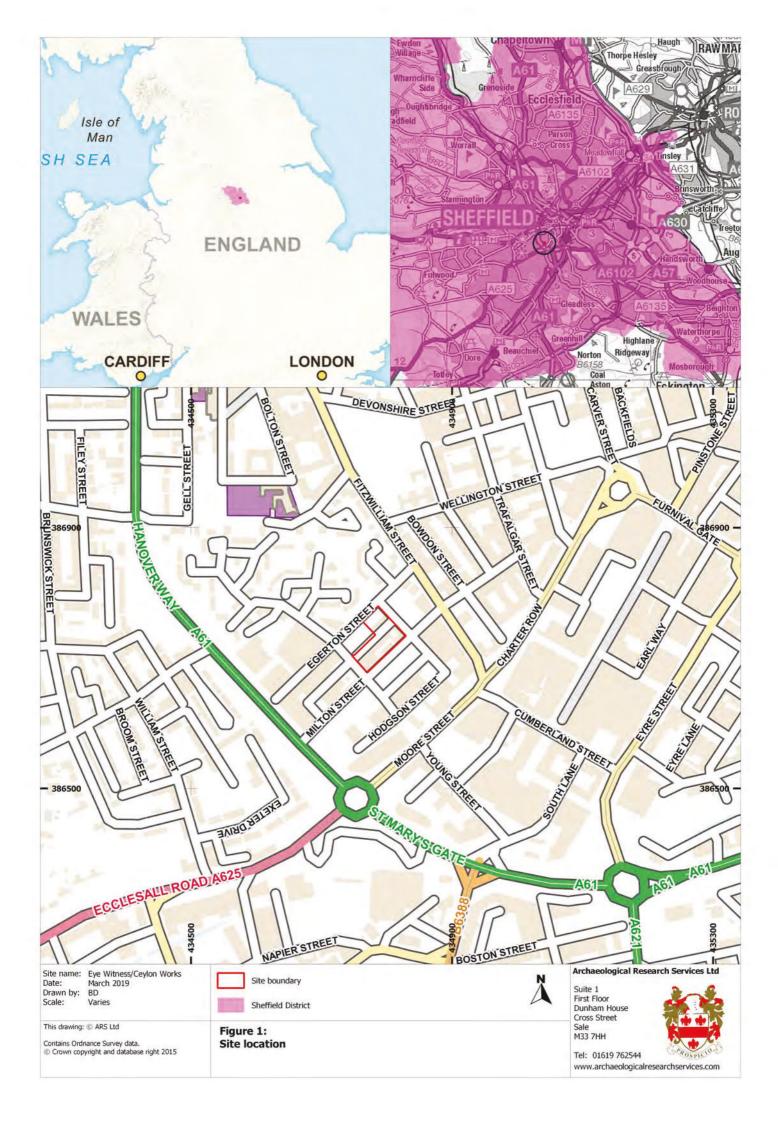
- Ives, G. 2018. *Eye Witness Works and Ceylon Works, Heritage Statement*. Graeme Ives Heritage Planning.
- Lee, A. 2018. Archaeological Desk-Based Assessment, Eye Witness Works and Ceylon Works, Sheffield. University of Salford, The Centre for Applied Archaeology Report No. 2018/48.
- Ministry of Housing, Communities and Local Government. 2018. *The National Planning Policy Framework*. London, The Stationery Office.
- Roskams, S. and Whyman, M. 2007. Yorkshire Archaeological Research Framework: research agenda. Yorkshire Archaeological Research Framework Forum and Historic England.

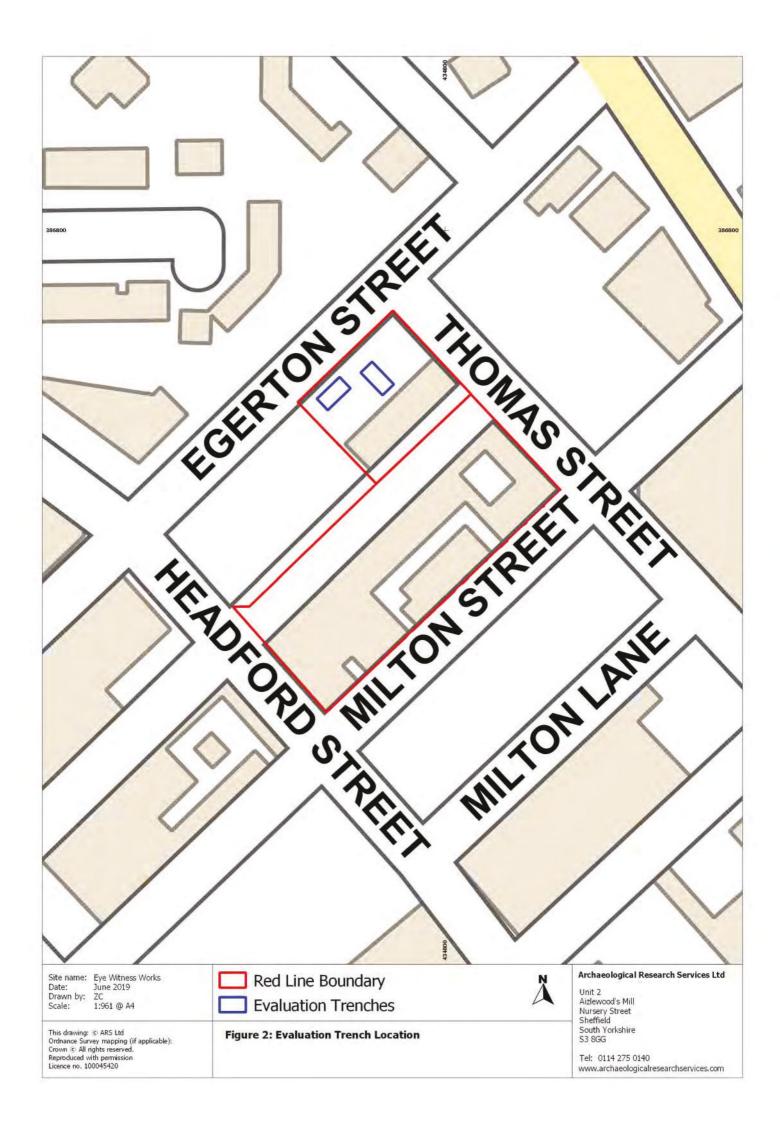
Society of Museum Archaeologists 1993. Selection, Retention and Dispersal of Archaeological collections. Guidelines for use in England, Wales and Northern Ireland. London: Society of Museum Archaeologists.

South Yorkshire Archaeology Service 2018. Yorkshire, the Humber & the north east: A regional statement of good practice for archaeology in the development process. Available online at:

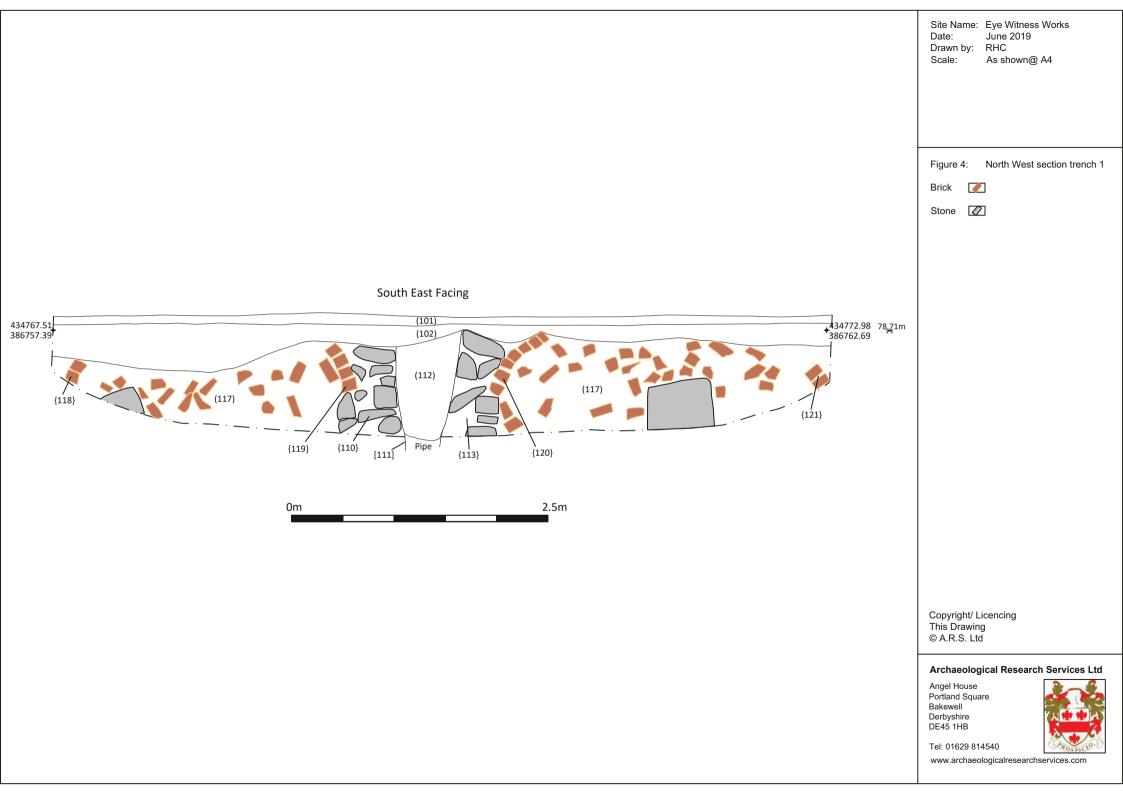
https://www.sheffield.gov.uk/content/dam/sheffield/docs/planning-anddevelopment/archaeology/Good\_Practice\_Guide\_Rev\_Nov\_18.pdf [Accessed 7th March 2019].

## 9.1 APPENDIX I: FIGURES









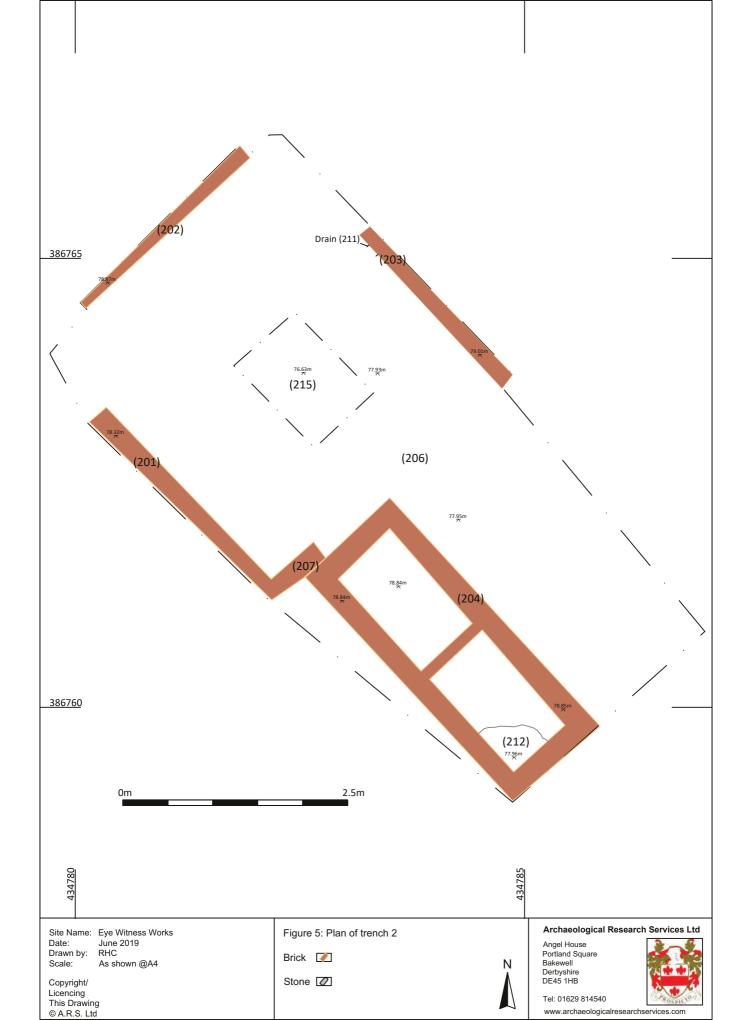




Figure 6: Trench 1 looking south-west

Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire



Figure 7: Trench 1 looking north-east



Figure 8: Staircase 103



Figure 9: Staircase 104



Figure 10: Staircase 105



Figure 11: Staircase 106



Figure 12: Cellar wall 107



Figure 13: Internal dividing wall 108



Figure 14: Stone table 109



Figure 15: Wall 110



Figure 16:Wall 113



Figure 17: Internal dividing wall 114



Figure 18: Cellar wall 115



Figure 19: Cellar floor 116 in sondage



Figure 20: Pipe trench [111]

Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire

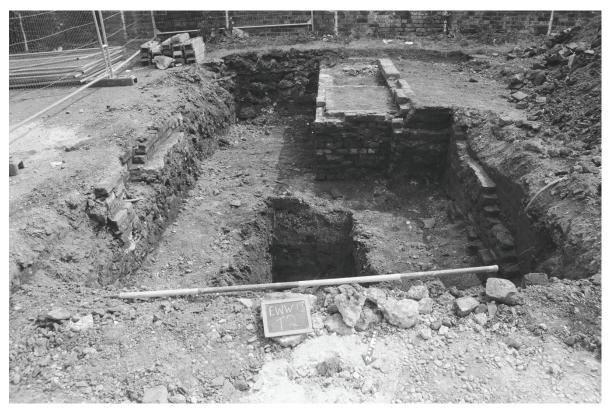


Figure 21: Trench 2 looking south-east

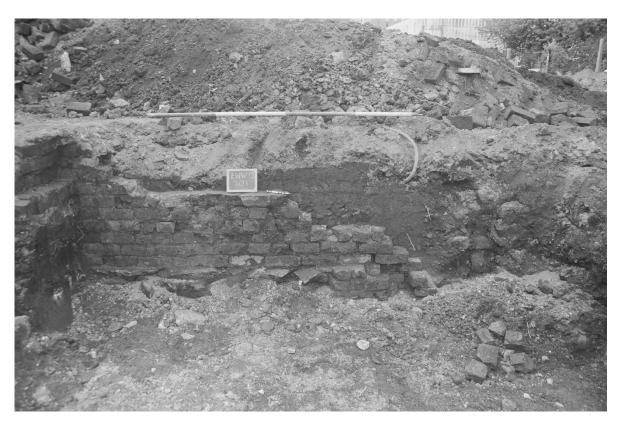


Figure 22: Wall 201



Figure 23: Wall 202

#### Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire



Figure 24: Wall 203



Figure 25: Toilet block 204



Figure 26: Deposit 206 with sondage in foreground and wall 202 behind

# Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire



Figure 27: Wall 207



Figure 28: Sondage exposing geological natural (215)

9.2 APPENDIX II: Context Summary Table

Trench	Context	Type/	Description / Processual Interpretation	Thickness	Depth
				/extent	to top
				(feature =	(BGL)
				length x	
				width x	
				depth)	
1	101	Deposit/Overburden	Modern car park surface comprised of crushed brick and stone	0.10m/wh	0
				ole site	
	102	Deposit/backfill	Compact mid greyish red sandy silt with 50% brick rubble	0.50m/wh	0.10m
				ole trench	
	103	Structure/Stair case	Staircase constructed from bricks and flagstones	1.08m x	0.60m
				1.13m	
	104	Structure/Stair case	Staircase constructed from bricks and flagstones	1.13m x	0.60m
				1.23m	
	105	Structure/Stair case	Staircase constructed from bricks and flagstones	1.16m x	0.60m
				0.85m	
	106	Structure/Stair case	Staircase constructed from bricks and flagstones	1.28m x	0.60m
				1.20m	
	107	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	2.30m x	0.60m
				0.15m	
	108	Structure/wall	Internal cellar dividing wall constructed from brick with lime mortar	1.53m x	0.60m
				0.22m	
	109	Structure/Table	Flagstone table supported on by brick with lime mortar	1.10m x	0.60m
				0.75m	
	110	Structure/Wall	External house wall constructed from stone and lime mortar.	4.16m x	0.34m
				0.48m	
	111	Cut/service trench	Linear cut of pipe trench running NW – SE. Filled by (112)	1.20m/4.0	0.20m
				0m x	
				0.70m	
	112	Deposit/Fill	Dark greyish brown sandy silt backfill of pipe trench. Fill of [111]	1.20m/4.0	0.20m
				0m x	
				0.70m	
	113	Structure/Wall	External house wall constructed from stone and lime mortar.	4.40m x	0.20m
				0.58m	

#### Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire

Trench	Context	Туре/	Description / Processual Interpretation	Thickness /extent (feature = length x width x depth)	Depth to top (BGL)
	114	Structure/wall	Internal cellar dividing wall constructed from brick with lime mortar	2.20m x 0.23m	0.60m
	115	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	2.87m x 0.10m	0.60m
	116	Structure/Floor	Flagstone cellar floor. Full extent not found	0.68m x 0.38m	2.00m
	117	Deposit/Backfill	Mid pinkish grey sandy silt with brick rubble 35%	1.80m/8.0 0m x 4.00m	0.20m
	118	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	0.23m/0.3 0m x unknown	0.42m
	119	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	0.96m/0.2 7m x unknown	0.20m
	120	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	1.02m/ 0.60m x unknown	0.20m
	121	Structure/wall	Cellar wall/vaulted ceiling constructed from stone and brick with lime mortar	0.27m/0.2 8m x unknown	0.46m
2	201	Structure/Wall	Factory made brick with cement mortar supported on mortared stone	2.84m x 0.21m	0.10m
	202	Structure/Wall	Brick and mortar wall. Two courses surviving. Possible garden wall	2.51m x 0.19m	0.10m
	203	Structure/Wall	Brick and mortar wall. Two courses surviving. Possibly part of previous external toilet block	3.73m x 0.20m	0.10m
	204	Structure/Wall	External toilet block comprised of two cubicles	3.49m x 1.31m	0.10m

#### Archaeological Evaluation at Eye Witness & Ceylon Works, Milton Street, Sheffield, South Yorkshire

Trench	Context	Туре/	Description / Processual Interpretation	Thickness	Depth
				/extent	to top
				(feature =	(BGL)
				length x	
				width x	
				depth)	
	205	Structure/Drain	Ceramic drain. Part of same structure as (203)		0.50m
	206	Deposit/Made ground	Dark blackish grey sandy silt. Made ground/backfill	2.20m/wh	0.10m
				ole trench	
	207	Structure/wall	Brick and mortar wall on clay footing (208)		
	208	Deposit/Made ground	Dark yellowish brown clay. Footing for wall (207)		
	209	VOID	VOID		
	210	Deposit/Made ground	Dark yellowish brown clay. Footing for wall (202)		
	212	Structure/Floor	Concrete floor of possible toilet block		
	213	Deposit/Made ground	Concrete levelling deposit/possibly former surface of modern car park		
	214	Deposit/Overburden	Modern tarmac/crushed brick and concrete surface	0.10m	0
	215	Deposit/Geological	Mid brownish yellow silty sand	Extent not	2.20m
		natural		found	

9.3 APPENDIX III: WRITTEN SCHEME OF INVESTIGATION

# Eye Witness & Ceylon Works, Milton Street, Sheffield Historic Building Recording and Archaeological Works

Written Scheme of Investigation

March 2019

Version 2



ARCHAEOLOGICAL RESEARCH SERVICES LTD

© Archaeological Research Services Ltd 2019 Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG

www.archaeologicalresearchservices.com

Prepared on behalf of: Capital And Centric (Arctic) Ltd
Date of compilation: March 2019
Compiled by: Ben Dyson ACIfA
Planning Reference: 18/04236/FUL
Local Authority: Sheffield City Council
Site central NGR: SK 34792 86722

Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

# **TABLE OF CONTENTS**

1	INTRODUCTION		
2	BACKGROUND		
	2.1	Site Location and Geology	2
	2.2	Historical and Archaeological Background	2
3	AIMS A	ND OBJECTIVES	4
	3.1	Regional Research Aims and Objectives	4
	3.2	Building Recording Aims and Objectives	4
	3.3	Trial Trenching Aims and Objectives	5
	3.4	Watching Brief Aims and Objectives	5
4	BUILDIN	NG RECORDING	5
	4.1	Coverage	5
	4.2	Methodology	6
	4.3	Report	8
	4.4	Archive Deposition	9
	4.5	Standards and Staffing	10
	4.6	Monitoring Arrangements	10
5	TRIAL T	RENCHING	11
	5.1	Coverage	11
	5.2	Methodology	11
	5.3	Recording	13
	5.4	Finds Processing and Storage	13
	5.5	Post-excavation and Reporting	15
	5.6	Archive Deposition	16
	5.7	Standards, Staffing and Timetable	17
	5.8	Monitoring Arrangements	18
6 WATCHING BRIEF		ING BRIEF	19
	6.1	Coverage	19
	6.2	Methodology	19
	6.3	Recording	20
	6.4	Finds Processing and Storage	20
	6.5	Reporting	21
	6.6	Archive Deposition	22
	6.7	Standards, Staffing and Timetable	22
	6.8	Monitoring Arrangements	24
7	GENER/	AL ITEMS	24
	7.1	Health and Safety	24
	7.2	Insurance Cover	24

# Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

7.3	Changes to the Written Scheme of Investigation	5		
7.4	Publication25	5		
FIGURES				

# **1** INTRODUCTION

1.1 Planning permission (18/04236/FUL) and Listed Building Consent (18/04237/LBC) have been granted (conditionally) by Sheffield City Council for the part demolition and extension of existing buildings, conversion of existing buildings and erection of a six-storey building to create a total of 97 residential units, ground floor commercial unit and associated landscape works at the Eye Witness and Ceylon Works, Milton Street, Sheffield, S3 7WJ.

1.2 Condition 3 of the planning permission is as follows.

"3.No development, including any demolition and groundworks, shall take place until the applicant, or their agent or successor in title, has submitted a Written Scheme of Investigation (WSI) that sets out a strategy for archaeological investigation and this has been approved in writing by the Local Planning Authority. The WSI shall include:

- The programme and method of site investigation and recording.

- The requirement to seek preservation in situ of identified features of importance.

- The programme for post-investigation assessment.

- The provision to be made for analysis and reporting.

- The provision to be made for publication and dissemination of the results.

- The provision to be made for deposition of the archive created.

- Nomination of a competent person/persons or organisation to undertake the works.

- The timetable for completion of all site investigation and postinvestigation works.

Thereafter the development shall only take place in accordance with the approved WSI and the development shall not be brought into use until the Local Planning Authority has confirmed in writing that the requirements of the WSI have been fulfilled or alternative timescales agreed."

1.3 This document comprises a Written Scheme of Investigation (WSI) confirming the nature of archaeological works, including historic building recording and trial trenching in the first instance to be undertaken by Archaeological Research Services Ltd (ARS Ltd) at the Eye Witness and Ceylon Works in accordance with guidance from Dinah Saich, Principal Archaeologist of South Yorkshire Archaeology Service (SYAS). Should significant archaeological features/deposits be identified by the trial trenching then a phase of excavation might also be required.

1.4 Archaeology is a material consideration in the planning process. The aim of this programme of works is, in line with the *National Planning Policy Framework (NPPF)* paragraph 199 (MHCLG 2018), to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner

proportionate to their importance and the impact, and to make this evidence (and any archive generated) publically accessible.

# 2 BACKGROUND

#### 2.1 Site Location and Geology

#### Site Location

2.1.1 The site is irregular in shape and covers an area of approximately 0.37 hectares. It occupies a gentle south-east facing slope and comprises two buildings separated by Egerton Lane which runs roughly south-west to north-east across the site. The proposed development area (hereafter PDA) is bounded to the north-west by Egerton Street and a car-park with residential developments beyond. To the north-east the site is bounded by Thomas Street and to the south-east by Milton Street with undeveloped land beyond. To the south-west the site is bounded by Headford Street with industrial and commercial units beyond (Figure 1). The site is centred at National Grid Reference (NGR: SK 34792 86722).

#### Eye Witness Works

2.1.2 To the south-east of Egerton Lane the site is occupied by the former Taylors Eye Witness Works. The Grade II listed red-brick structure is three, locally four storeys in height, with basements to at least the eastern and central sections.

#### **Ceylon Works**

2.1.3 To the north-west of Egerton Lane the site is occupied by a further threestorey Grade II listed brick structure occupied by the former Ceylon Works which also includes basement levels beneath the north-eastern sections, although their exact extent is unknown.

#### Geology

2.1.4 The underlying solid geology of the site comprises mudstone and siltstone of the Pennine Lower Coal Measures Formation; sedimentary bedrock formed approximately 318 to 319 million years ago in the Carboniferous Period when the local environment was dominated by swamps, estuaries and deltas. No overlying superficial deposits are recorded for the area (BGS 2019).

#### 2.2 Historical and Archaeological Background

#### Historical Background

2.2.1 Detailed accounts of the development and significance of the PDA are presented in an Archaeological Desk-Based Assessment (DBA) (Lee 2018) and a Heritage Statement (Ives 2018) that have been submitted in support of the planning application. A brief overview is given below.

2.2.2 Taylor's Eye Witness Works was listed as a Grade II building in 1988. The list description advises that it is an important survivor of an integrated cutlery works retaining the layout and building types designed to house specific processes. The buildings retain fragments relating to earlier functions and they have a strong Group

Value with Beehive Works, Milton Street and Taylor's Ceylon Works, Thomas Street (Historic England 2019a).

2.2.3 The cutlery works was constructed in phases between the early 1850s and *c*.1890. However, the 1855 Ordnance Survey Map indicates that although the street pattern had been set out by that time, the plots that were to be occupied by Taylor's works remained undeveloped. By 1894 the distorted grid pattern of streets to the south-west of the city centre had been fully developed with high density housing interspersed with manufacturing premises, including the Eye Witness Works and Ceylon Works. The three integrated courtyards of the Eye Witness Works are evident by that time and were enclosed by long ranges of factory buildings and offices in a similar layout to that found today (Ives 2018, 3-4).

2.2.4 The Ceylon works was also used for cutlery manufacturing and incorporates two distinctive building types, firstly the three-storey frontage to Thomas Street that was designed with a domestic appearance, and secondly the workshop and warehouse range to the rear (Ives 2018, 15). The single storey extension, to the rear elevation, is considered to represent the former W. Beet & Sons Horncutters, who manufactured the handles for the adjoining cutlery works (Lee 2018, 21). The Ceylon Works was first listed as a Grade II listed building in 1995. The list description advises that the name of the works may refer to the market it was intended to serve, as this was a frequent practice of Sheffield manufacturers (Historic England 2019b).

#### Archaeological Potential

#### Prehistoric to Romano-British Periods

2.2.5 The potential for buried archaeological remains deriving from prehistoric to Romano-British activity within the PDA is considered to be low. The possibility of isolated artefacts should not be dismissed, given the finding of a Roman coin hoard and the route of a Roman road both potentially being located within the wider study area, although it is considered most unlikely that artefacts will be found *in situ* given the intensive development of the site since the 19<sup>th</sup> century (Lee 2018, 12).

#### Medieval Period

2.2.6 Given the location of the PDA away from known medieval settlement activity, the potential for buried archaeological remains is considered to be unlikely. The possibility of medieval finds should not be ruled out completely given the historic landscape, although it is very unlikely that any *in-situ* finds will be recovered due to the intensive development of the site during the 19<sup>th</sup> century.

#### Post-Medieval and Industrial Period

2.2.7 Fairbank's map of 1808 shows the area of the PDA within agricultural land, only being developed as part of the expanding centre of industrial Sheffield in the early to mid-19<sup>th</sup> century. Residential and industrial spread between the 1830s and 1850s led to the grid pattern of development to the south-west of the city centre with the plot for the cutlery works clearly visible on the 1853 First Edition OS map. Maps between the 1850s and 1890s show the development of the Eye Witness, Ceylon and Beehive cutlery works with an area of back-to-back residential dwellings

along Edgerton Street which bounds the north-west edge of the PDA. The Brunswick Public House is depicted at the corner of Edgerton Street and Thomas Street on maps from the 1890s. The back-to-backs and the pub were demolished in the 1960s and 1970s (Lee 2018, 17-21).

2.2.8 Recommendations in the DBA highlight the archaeological potential of the site to yield below-ground evidence for the configuration of the steam-power plant installed in a 19<sup>th</sup> century cutlery works, evidence for crucible or cementation furnaces, and evidence of 19<sup>th</sup> century workers' housing (Lee 2018, 36). Figure 2 shows areas of below-ground archaeological potential that might be impacted upon by the development. In addition to this any demolition or conversion of standing buildings within the PDA might reveal hidden historic building fabric that merit recording so that significant heritage assets are not lost (see section 4.2.7 below).

# **3** AIMS AND OBJECTIVES

# 3.1 Regional Research Aims and Objectives

3.1.1 Priorities advocated in the *Yorkshire Archaeological Research Framework: research agenda* (Roskams and Whyman 2007) for the early modern period/industrial archaeology are: "a post-medieval, rather than purely industrial, agenda covering landscape setting and environmental impact, urbanisation, transport, and the archaeology of elite and religious power, of class, and of migration and culture contact" (Roskams and Whyman 2007, 38).

3.1.2 The archaeological works will be undertaken in accordance with the regional guidance document *Yorkshire, The Humber & The North East: a regional statement of good practice for archaeology in the development process* (SYAS 2018).

# **3.2** Building Recording Aims and Objectives

3.2.1 The aims of the building recording will be to produce the following.

- A formal description of the buildings on the site, their architectural plans, elevations, roof structure, flooring, internal layout and spaces, detailing, form, fabric, and evidence for phasing and development. The descriptive account will include all associated buildings, structures and spaces within the grounds.
- A set of measured survey drawings of the building, at an appropriate scale, including floor plans, one cross section through each identified building and one long section through each range (with a contingency allowance for an additional cross-section and an additional long-section, as required).
- A photographic record comprising black & white, colour slide and supplemented by digital photography, with photographic scales with all photographs descriptively captioned and cross referenced to a plan, plans and/or elevations clearly showing the viewing position, direction and photographic image reference.

• The historic building recording will comply with a Level 2-3 standard as outlined in the Historic England volume *Understanding Historic Buildings*. A *Guide to Good Recording Practice* (Historic England 2006a).

#### 3.3 Trial Trenching Aims and Objectives

3.3.1 The aim of the trial trenching is to identify, determine and record the nature and date of any surviving below-ground archaeological remains.

3.3.2 The objectives of the trial trenching are as follows.

- To identify and record any 19<sup>th</sup> 20<sup>th</sup> century domestic and industrial remains, as well as any earlier archaeological remains, within the PDA.
- To produce a descriptive and photographic record of any surviving belowground remains.
- To produce dating and phasing for archaeological deposits recorded on the site.
- To establish the character and delimit the extent of archaeological deposits in order to define functional areas on the site, e.g. domestic and industrial.
- To produce information on the economy and local environment.

# 3.4 Watching Brief Aims and Objectives

3.4.1 The aim of the watching brief is to monitor the lifting of any foundation slabs and associated ground works in one of the existing courtyards of the Eye Witness Works complex. The proposed area for watching brief falls within an area designated by the DBA as containing potential below-ground remains of a crucible furnace.

3.4.2 The following objective will contribute towards accomplishing this aim:

• To record the nature, extent and date of any surviving archaeological remains revealed by the demolition of the existing building and the lifting of its foundation slab and associated works.

# 4 BUILDING RECORDING

#### 4.1 Coverage

4.1.1 "Although only recently vacated by the cutlery business, it is clear that parts of the building, particularly the upper floors to Egerton Lane and the workshop range between the westerly and central courtyards, have been vacant or under-used for a considerable time and the fabric of the building has deteriorated accordingly" (Ives 2018, 25). As a result, some of the upper floors are unsafe to enter. A Level 2-3 standard (Historic England 2006a) Historic Building Recording will be undertaken, comprising recording externally and of those areas accessible internally to produce a photographic and descriptive record and cross section drawings through each range making up the Eyewitness and Ceylon Works buildings prior to any demolition or alteration works taking place.

4.1.2 A methodology for the implementation of all elements of the historic building recording is presented below.

#### 4.2 Methodology

4.2.1 All aspects of the building recording will be conducted according to the guidelines in *Recording Historic Buildings* published by the Royal Commission on the Historical Monuments of England (1996), *Understanding Historic Buildings –A guide to good recording practice* by Historic England (English Heritage 2006a) and the CIFA's *Code of Conduct* (2014a) and *The Standards and Guidance for Archaeological Building Recording* (2014b).

4.2.2 The archaeologist on site will carefully examine all parts of each building prior to the commencement of the photographic and drawn recording, in order to identify all features relevant to original and later use. As part of this exercise, the archaeologist on site will produce written observations (e.g. on phasing; on detailing, on building function), sufficient to permit the preparation of a report on the structures identified. Each external wall or internal space should be examined individually and the results of that examination noted in a systematic fashion. These site records will be adequate to allow a full architectural and archaeological description of the building to be included in the subsequent report, as a walk around and through each building, starting with setting, then progressing to all sides of the structure in sequence, and finally to the interior from the ground floor up.

4.2.3 The building recording drawn record will include the following.

- Site location plans at suitable scales (preferably indicating the position of the site within the country, within the county and a clear plan of the precise location/outline of the building i.e. 1:50).
- A plan(s) indicating the position and orientation of photographs/images included in the report.
- A set of detailed measured survey drawings including floor plans and, if accessible, one cross section through each identified building and one long section through each range (with a contingency allowance for an additional cross-section and an additional long-section, as required) with annotations and conventions following Historic England standards (2006). These will be based on architect's drawings of the site provided by the client, but it is the responsibility of the archaeological contractor to check the drawings supplied and to make any necessary adjustments or corrections.
- Phased plans showing the development of the building.

4.2.4 The general photographic record will be undertaken using black and white photography. These will be taken with a 35mm SLR camera (a Medium Format camera may also be used). Detailed photographs will also be taken with a Medium camera with perspective control. This record will be supplemented by colour slide photography where colour is an aspect that needs to be recorded. Digital photography (16 megapixels) will be used in addition to, but must not form part of,

the formal archive created.

4.2.5 Where possible, photographs will include a graduated scale and cameras will be mounted on tripods for extra stability. Details of the photographs will be recorded on pro-forma index sheets, which include location, subject an orientation. The location and direction of the photographs will be plotted on scaled plans forming part of the general archive.

4.2.6 The photographic record will cover as a minimum:

- Photographs of the interior, exterior and setting of the building. A two metre ranging rod will be included in a selection of general shots in order that the scale of all elements of the building can be sufficiently established.
- The buildings' external appearance is to be recorded. Typically a series of oblique views will show all external elevations of the structure and give an overall impression of size and shape. Where an individual elevation embodies complex historical information or have been conceived as formal compositions, views at right angles to the plane of the elevation may also be appropriate.
- The overall appearance of principal rooms and circulation areas for all rooms and areas that are accessible.
- Photographs of any internal or external detail, structural or decorative, which is relevant to the building's design, development or use and which does not show adequately on general views.
- Photographs of any internal or external fixtures, fittings or machinery relevant to the building's use or development.
- Copies of maps, drawings, views, photographs, dates, inscriptions, or contents present in the building and illustrating its development/use, or that of its site.

4.2.7 The historic building recording may identify opportunities for hidden structural evidence to be exposed during the proposed conversion process. In addition, it should be possible to access areas that may not have been safe to access when the historic building recording is undertaken and thus have the opportunity to provide additional photographic, descriptive and cross section drawing details. Accordingly, intra-conversion monitoring and recording will be undertaken. The additional recording work undertaken will be incorporated with the initial building recording to create the final report.

4.2.8 A contingency will be allowed for paint/plaster/wallpaper analysis, should relevant materials be identified during the recording – use of the contingency will be discussed and agreed with SYAS.

4.2.9 Development works may not commence until the on-site historic building recording has been approved by SYAS.

#### 4.3 Report

- 4.3.1 The report will contain the following as a minimum.
  - Non-technical executive summary
  - Introductory statement
  - Aims and purpose of the project
  - Methodology
  - Precise location of buildings, by name or street number, civil parish, town and National Grid reference
  - The date when the record was made, the names of the recorders and the archive content/character and location
  - A note of any relevant statutory designations
  - A discussion of the building's form, function, date, and sequence of development and significance. Together with a discussion of the names of architects, builders, patrons and owners if known. This will include a note of any evidence for demolished structures or removed plant associated with the building
  - An architectural and archaeological description of the buildings will be produced
  - A set of detailed measured survey drawings including floor plans, elevations, and sections with annotations and conventions following Historic England standards (2006a) to ensure they are informative
  - A discussion of published sources relating to the buildings and their setting, an account of its history and an analysis of historic map evidence, including an element of additional archival research to supplement the information produced in the original building appraisal
  - Discussion and conclusions
  - References
  - Statement of intent regarding publication
  - Supporting data tabulated or in appendices
  - A register of photographs taken
  - Confirmation of archive transfer arrangements
  - A copy of the WSI and OASIS form
- 4.3.2 The report illustrations will contain the following as a minimum.
  - A location map at not less than 1:2500
  - A site plan at not less than 1:500

- Photographs used to illustrate all key points and a complete set of site drawings, at an appropriate scale, executed to publication standard
- Extracts from relevant historic maps will also be included within the report with the building(s) of interest clearly visible
- The photographic record plan will also be included
- In addition to those photographs used as illustrations, a complete set of all photographs, excluding duplications, will be included with the digital copy of the report and referenced as necessary.

4.3.3 Record photographs will be printed at a minimum of 5" x 4" and they will be accompanied by a fully indexed field archive consisting of all primary written documents, plans, sections, photographic negatives and a complete set of labelled photographic prints. A selection of photographs (showing the most significant rooms/features/elevations) will also be printed at 8" x 10", to enhance the illustrative record made (the format of film chosen used will need to lend itself to this approach). The photographic prints will be labelled with indelible ink on the back of the print and will include:

- Film and frame number
- Date recorded and photographers name
- Name and address of feature/building
- National grid reference.

4.3.4 One bound copy of the final report with a digital copy of the report in PDF/A format on disk will be deposited with the South Yorkshire Sites and Monuments Record (SMR). A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeological Data Service.

4.3.5 At the start of work (immediately before fieldwork commences) an OASIS online record <u>http://ads.ahds.ac.uk/project/oasis/</u> will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

4.3.6 The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011).

#### 4.4 Archive Deposition

4.4.1 A digital and paper archive, which will consist of all primary written documents, plans, sections, photographs and electronic data will be submitted to the suitable repository, in this instance Sheffield Archives, Sheffield, in a format agreed in discussion with SYAS and the Archivist.

4.4.2 Copyright on the deposited material will either be assigned to the archive, or the archive will be licensed to use the material, in perpetuity; this licence would

allow the archive to reproduce material, including for use by third parties, with the copyright owner suitably acknowledged.

4.4.3 A full set of annotated, illustrative pictures of the buildings will be deposited with the South Yorkshire SMR and deposited with the archive as digital images on a CD ROM that will be attached with the report.

4.4.4 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, will be included as part of the final report.

4.4.5 SYAS will be notified of the final deposition of the archive.

#### 4.5 Standards and Staffing

4.5.1 ARS Ltd is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). Registered Organisations are continuously assessed to ensure that the highest standards of work are carried out, in line with CIfA's *Code of Conduct* (2014a). The archaeological building recording and investigation will be carried out by Emma Grange of ARS Ltd or by another member of staff with commensurate experience (to be discussed and agreed with SYAS).

4.5.2 The projected timetable for the historic building recording and associated works is as follows:

Proposed Commencement Date	Task
Week commencing 25 <sup>th</sup> March 2019	Initial historic building recording on-site
Week commencing 1 <sup>st</sup> April 2019	Checking/approval of on-site historic building recording by SYAS.
Week commencing 8 <sup>th</sup> April 2019	Initial historic building recording report preparation
Week commencing 15 <sup>th</sup> April 2019	Intra-conversion monitoring and recording
Week commencing 29 <sup>th</sup> April 2019	Final historic building recording report preparation and completion
Week commencing 13 <sup>th</sup> May	Historic building recording archive preparation, completion and deposition

# 4.6 Monitoring Arrangements

4.6.1 SYAS will be responsible for monitoring the building recording. A minimum of one week's notice of the commencement of fieldwork must be given by ARS Ltd to SYAS in order that arrangements for monitoring the fieldwork may be made.

4.6.2 A progress update will be supplied to SYAS, in writing, on a monthly basis following this until submission of the final copy of the building recording report.

# 5 TRIAL TRENCHING

#### 5.1 Coverage

5.1.1 Following consultation with SYAS the scheme of archaeological works involves excavating two trenches each measuring *c*.8m by 4m in size, as depicted in the northern area of the site on Figure 3-7 at the corner of Egerton Street and Thomas Street.

5.1.2 The trial trenches are located to target the potential remains of workers' housing and the Brunswick Public House that developed to the north of the Ceylon Works in the mid to late-19<sup>th</sup> century (Figure 3). The trenches will be excavated in order to determine if any courtyard surfacing, floors and cellars of these 19<sup>th</sup> century buildings still survive as follows.

- Trench 1 (the western trench) is located to test the position of the former back-to-back workers' housing and to investigate their internal layout, for example arrangements for access to cellars.
- Trench 2(the eastern trench) is located to test the location of outhouses shown to the rear of the former Brunswick Hotel PH and to test the nature of their use, for example were they domestic, commercial or industrial structures.

5.1.3 Any proposed modifications to the trench locations, for example to avoid any live services, will be agreed with SYAS. Should significant archaeological remains be identified within the trial trench, it might be necessary to extend the trenches in consultation with SYAS. Depending on the results of the trial trenching, a strip, map and record or targeted open area excavation in the area adjacent to Egerton Street may also be requested by SYAS, which would be the subject of an Addendum to this WSI. The proposed methodology of this scheme of works is as follows.

#### 5.2 Methodology

5.2.1 Two trenches measuring *c*.8m by 4m will be excavated and will need to be stepped if archaeological remains, e.g. any buried soils or land surface, are encountered at depth. The excavations will be undertaken in accordance with CIfA's *Code of Conduct* (2014a) and *Standard and Guidance for an Archaeological Field Evaluation* (2014c) and will follow the methodology outlined below.

5.2.2 Any hard standing will be pecked and/or lifted by machine, under continuous archaeological supervision. Any recent overburden will be removed mechanically by a machine using a wide toothless ditching bucket down to the first significant archaeological horizon in successive level spits. No machinery will track over areas that have previously been exposed until the area has been signed off by ARS Ltd.

5.2.3 The areas will be appropriately cleaned using hand tools in order to expose the full nature and extent of archaeological features and deposits.

5.2.4 All spoil removed during ground works will be scanned visually to recover small finds. Any finds so recovered will be recorded and their location noted on a site

plan at a relevant scale. The finds will be retained and recorded.

5.2.5 All archaeological features will be investigated, planned and sectioned as a minimum objective.

5.2.6 Isolated, discrete features such as pits and postholes not belonging to structures or industrial activities will be 50% sampled, although if they produce artefacts then provision is made for full excavation.

5.2.7 Sampling of linear features such as ditches and gullies relating to agricultural activity will be sufficient to determine their character, stratigraphy and relationship to other features and attempts made to obtain dating evidence.

5.2.8 Domestic/industrial activity (such as walls, postholes, floors, hearths) will be sufficiently excavated to understand their form and function and to recover potential dating evidence and artefact and ecofact assemblages.

5.2.9 Any deposits relating to funerary/ritual activities, such as burials and cremation deposits will be left *in situ*, where feasible. However, should it be deemed necessary to remove any such human remains, this will be undertaken in line with best practice (Historic England 2004; Historic England and The Church of England 2005; APABE/ Historic England 2013; Brickley and McKinley 2004).

5.2.10 Area deposits such as buried soils, or middens, will be hand excavated at a minimum 10%. Subsequent excavation by machine will be considered. Large intrusions, such as reservoirs, will be sufficiently excavated by machine, within safe limits, to provide information on their character.

5.2.11 Limited representative samples of bricks from brick-built structures will be retained for specialist analysis where appropriate.

5.2.12 Discovery of any human remains will be reported to the coroner and excavated following receipt of the appropriate Ministry of Justice Guidelines.

5.2.13 Finds of "treasure" will be reported to the HM Coroner for South Yorkshire West District in accordance with the Treasure Act (DCMS 2008). The Finds Liaison Officer for South and West Yorkshire will also be notified.

Finds Liaison Officer
Amy Downes
West Yorkshire Archaeology Advisory Service
c/o WYJS, Nepshaw Lane South
Morley, Leeds
West Yorkshire
LS27 7JQ
Tel: 0113 3939953

5.2.14 SYAS will also be notified and, if necessary, a site meeting arranged to determine if further investigation in the vicinity of the find spot is required.

5.2.15 Historic England's Science Advisor for Yorkshire, Samantha Stein, who will be provided with advance notice of the commencement of the fieldwork and afforded the opportunity to visit the site once the fieldwork is underway. For any deposits

encountered that are relevant to the aims of the sampling strategy, 40-60 litres of sample will be taken, or 100% of the sample if smaller. This material will be floated and passed through graduated sieves, the smallest being a 500µ mesh. Should other types of environmental deposits be encountered appropriate specialist advice will be sought and, where appropriate, arrangements made for specialists to visit the site in order to devise a suitable sampling strategy. Provision will also be allowed for other sampling, e.g. of industrial residues. The recovery of materials suitable for scientific dating techniques is a particular priority. Samples will be assessed by a suitable specialist with provision for further analysis as required. All environmental sampling will be undertaken in line with *Environmental Archaeology a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (Historic England 2011).

5.2.16 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. Deep sections such as those across ditches or pits will be stepped as necessary. A risk assessment will be prepared before commencement on site.

# 5.3 Recording

5.3.1 The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 OS base map of the area. The site will be recorded using a single context planning system in accordance with the ARS Ltd field recording manual.

5.3.2 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro-forma record sheets and text descriptions appropriate to the work. All trenches will be planned at 1:50, with individual features being planned at 1:20 where additional detail is required. One representative long section of each trench will be produced, at an appropriate scale. Sections and profiles of each feature sampled will be drawn at 1:10 or 1:20, depending on the size of the feature.

5.3.3 The stratigraphy of the site will be recorded even where no archaeological deposits have been identified.

5.3.4 All archaeological deposits and features will be recorded with above ordnance datum (AOD) levels.

5.3.5 Site photography will be in 35mm b/w print film and 35mm colour slide, supplemented by high resolution (minimum of 16 megapixels) colour DSLR photography. Photography will include general site shots, shots of each trench, and shots of individual features and groups of features. All photographs will include a suitable photographic scale and will be recorded on a photographic register with the subject and direction of each shot.

5.3.6 Where stratified deposits are encountered, a 'Harris' matrix will be compiled.

# 5.4 Finds Processing and Storage

5.4.1 All finds processing, conservation work and storage of finds will be carried out in accordance with the CIfA (2014f) *Standard and Guidance for the collection*,

#### Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

documentation, conservation and research of archaeological materials and the UKIC (1990) Guidelines for the Preparation of Archives for Long-Term Storage and Excavation and Conservation (UKIC 2001).

5.4.2 Artefact collection and discard policies will be appropriate for the defined purpose.

5.4.3 Bulk finds which are not discarded will be washed and marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

5.4.4 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated. For ceramic assemblages, recording shall be carried out in a manner compatible with existing typological series in local pottery reference collections, e.g. the South Yorkshire and North Derbyshire medieval ceramics reference collection :

(http://archaeologydataservice.ac.uk/archives/view/ceramics\_eh\_2003/)

and the guidelines for handling Post Roman ceramics produced by the Medieval Pottery Research Group (MPRG) (2001) *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* will be followed.

5.4.5 Metal finds will be sampled, processed and analysed in line with *Centre for Archaeology Guidelines: Archaeometallurgy* (Historic England 2001), and *Guidelines on the X-radiography of archaeological metalwork* (Historic England 2006b). Any waterlogged artefacts or ecofacts will be sampled, processed and analysed using *Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood* (Historic England 2010) and *Waterlogged Organic Artefacts. Guidance on their Recovery, Analysis and Conservation* (Historic England 2012).

5.4.6 Artefacts, ecofacts and deposits suitable for dating purposes will be identified and obtained in line with *Dendrochronology: Guidelines on producing and interpreting dendrochronological dates* (Historic England 1998), *Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates* (Historic England 2006c), and *Luminescence Dating: Guidelines on using luminescence dating in archaeology* (Historic England 2008).

5.4.7 Any finds deemed to constitute 'treasure' under the terms of the *Treasure* (*Designation*) *Order 2002* will be dealt with in line with *The Treasure Act 1996 Code of Practice* (*England and Wales* (DCMS 2008).

5.4.8 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have

appropriate security provision.

5.4.9 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of Museums Sheffield. Museums Sheffield will be contacted at the outset of the project to make sure that they are aware of the proposed future deposition of an archive. The museum will then be included in discussions about retention/discard, conservation etc. In the first instance, a Project Initiation Form will be submitted to them, followed in due course by a mid-point review form, and a completion form.

#### 5.5 Post-excavation and Reporting

5.5.1 The aims of the post-fieldwork phase of the project are to achieve the following.

- An assessment of finds/samples will be undertaken with recommendations for analysis to be carried out as part as a subsequent phase of work. The need for and scope of any further analysis will be discussed and agreed with SYAS.
- Prepare an orderly archive of the records of the fieldwork.
- Clean, conserve and prepare artefacts/ecofacts for long-term museum storage.
- Prepare specialist reports as appropriate as part of the second stage of postexcavation (analysis). Contingency costs have also been agreed with the client for scientific dating techniques if suitable material is recovered. The use of contingencies will be decided in consultation with SYAS.
- Prepare a report describing the basic nature of the archaeological deposits discovered.
- Outline any further analyses that may be required to allow a full and detailed final report to be produced as part of the condition of the planning permission.
- 5.5.2 The written report will include as a minimum the following.
  - A non-technical summary.
  - Introduction and objectives of the fieldwork.
  - Methodology of the fieldwork.
  - An objective summary statement of results.
  - A phased stratigraphic discussion of the archaeological features.
  - An interpretive discussion of the results, placing them in a local and regional framework and an assessment of the significance of any remains.
  - Appropriate supporting illustrations, including a site plan, a site location plan on an OS base map of a suitable scale, trench and section plans, feature sections and plans, a phased site plan as appropriate, photographs of work in progress on the site, and appropriate finds illustrations.
  - The results of an assessment of artefacts, ecofacts and industrial residues

carried out by suitable specialists, who will be furnished with relevant contextual and stratigraphic information.

- If sufficiently significant remains are recovered than an analysis of the above based upon the specialist assessment recommendations.
- In the event that significant remains are encountered, then a timetable for wider dissemination will be included in the report.
- Conclusions.
- Supporting data including a detailed context index, tabulated or in appendices.
- Index to archive and details of archive location.
- The proposed date of the deposition of the archive.
- References.
- Statement of intent regarding publication.
- Confirmation of archive transfer arrangements.
- A copy of the WSI and OASIS form.

5.5.3 Within the report,

- all plans will be clearly related to the national grid, and
- all levels will be quoted relative to ordnance datum.

5.5.4 Both a printed and bound hard copy and a digital copy of the final report will be deposited with the South Yorkshire SMR and a digital copy will be forwarded to Historic England's Science Advisor.

5.5.5 A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeology Data Service.

#### 5.6 Archive Deposition

5.6.1 A digital, paper and artefactual archive, which will consist of all primary written documents, plans, sections, photographs and electronic data will be submitted to a suitable repository museum, in this instance Museums Sheffield, in a format agreed in discussion with SYAS and the museum curator. The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011) and a copy will be deposited with the Archaeology Data Service at the University of York.

5.6.2 All artefacts and associated material will be cleaned, marked, properly stored and deposited in the archive (see above), in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2007), the Society of Museum Archaeologists' *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland* (1993) and *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2014g). 5.6.3 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the South Yorkshire SMR and deposited with the archive as digital images on a CD ROM, in addition to the report in PDF/A format.

5.6.4 SYAS will be notified on completion of fieldwork, with a timetable for reporting and archive deposition.

5.6.5 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, will be included as part of the final report.

5.6.6 At the start of work (immediately before fieldwork commences) an OASIS online record <u>http://ads.ahds.ac.uk/project/oasis/</u> will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

5.6.7 SYAS will be notified of the final deposition of the archive.

## 5.7 Standards, Staffing and Timetable

5.7.1 ARS Ltd is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). Registered Organisations are continuously assessed to ensure that the highest standards of work are carried out, in line with CIfA's *Code of Conduct* (2014a). In addition to our key management staff, who have achieved the highest grade of corporate CIfA membership, many of our field staff also hold corporate grade membership.

5.7.2 All staff employed on the project will be suitably qualified and experienced for their respective project roles and have practical experience of archaeological excavation and recording. All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification. Each member of staff will be fully conversant with the aims and methodologies and will be given a copy of this WSI to read. All members of staff employed by ARS Ltd are fully qualified and experienced archaeologists, this will ensure that appropriate decisions regarding excavation and sampling will be made in the field.

5.7.3 All work will be undertaken in accordance with the regional guidance document *Yorkshire, The Humber & The North East: a regional statement of good practice for archaeology in the development process* (SYAS 2018).

5.7.4 The Project Manager for the archaeological works will be Reuben Thorpe MCIfA, Projects Manager at ARS Ltd. The Fieldwork Project Officer will be Tom Parker ACIfA or other as may be appointed with ARS Ltd.

5.7.5 The use of appropriate specialists, to provide on-site advice regarding sampling, etc. and for post-excavation works will also be discussed and agreed with SYAS. The project team is expected to include the following.

• Pottery and CBM specialists: Dr Robin Holgate MCIfA/

Dr Phil Mills MCIfA (consultant)/

		Dr Chris Cumberpatch (consultant)
٠	Humanly-struck flint:	Dr Robin Holgate MCIfA
٠	Metalworking:	Dr Rod Mackenzie (consultant)
٠	Clay pipe, glass and metalwork:	Mike Wood MCIfA (consultant)
•	Charcoal, botanical macro remains and pollen:	Luke Parker PCIfA
٠	Human and animal bone:	Milena Grzybowska
٠	Radiocarbon dating:	Prof Gordon Cook (SUERC)
٠	Finds conservation:	Vicky Garlick (Durham University)

5.7.6 The projected timetable for the trial trenching and associated works is as follows.

Proposed Commencement Date	Task
Week commencing 15 <sup>th</sup> April 2019	Trial trenching on-site
Week commencing 22 <sup>nd</sup> April 2019	Trial trenching post-excavation analysis, including any specialist reporting required
Week commencing 6 <sup>th</sup> May 2019	Trial trenching report preparation and completion
Week commencing 27 <sup>th</sup> May 2019	Trial trenching archive preparation, completion and deposition

Any additional elements of archaeological work required as requested by SYAS, for example a strip, map and record or targeted open area excavation in the area adjacent to Egerton Street and publication, would lead to an amendment/update of the projected timetable.

#### 5.8 Monitoring Arrangements

5.8.1 SYAS will be responsible for monitoring the fieldwork. A minimum of one week's notice of the commencement of fieldwork must be given by the archaeological contractor to the SYAS in order that arrangements for monitoring the fieldwork may be made.

South Yorkshire Archaeology Service Howden House 1 Union Street Sheffield S1 2SH Tel. 0114 273 6354/0114 273 6428 5.8.2 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stage of fieldwork and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled.

5.8.3 An interim note will be submitted to SYAS within a fortnight of fieldwork finishing. This will include the following.

- A brief summary of fieldwork results
- A basic description of material recovered
- An initial assessment of character and significance
- A sketch plan of archaeological features on the site
- An updated post-excavation timetable

5.8.4 A progress update will be supplied to SYAS, in writing, on a monthly basis following this until submission of the full report.

# **6 WATCHING BRIEF**

#### 6.1 Coverage

6.1.1 An archaeological watching brief will be undertaken during the lifting of a foundation slab and associated ground works within the central courtyard of the Eye Witness Works. The area concerned is highlighted in Figures 3-7 within an area that will be landscaped as part of the proposed development works and has been identified in the DBA as containing potential below-ground remains of a crucible furnace. This will be undertaken so that if any structural fabric and evidence that relates to the development, history, sequence, function or other aspect of the site is revealed, it can be suitably recorded.

#### 6.2 Methodology

6.2.1 The watching brief will be undertaken in accordance with CIfA's *Code of Conduct* (2014a) and *Standard and Guidance for Archaeological Watching Briefs* (2014e) and will follow the methodology outlined below.

6.2.2 The duration of the works will be dictated by the length and scope of the enabling works as well as the nature of the potential archaeological remains to be recorded. Consultation between the client, ARS Ltd and SYAS will be required on completion of the enabling works to ensure that any archaeological remains affected by development have been adequately recorded.

6.2.3 The on-site archaeologist will be given the opportunity to stop work in order to investigate potential structural building elements and adequate time will be allowed for the recording of any such features.

6.2.4 A written, drawn and photographic record will be maintained during the watching brief plus all significant archaeological elements will be recorded. A photographic survey any remains will be conducted using 35mm b/w print film and 35mm colour slide, supplemented by high resolution (minimum of 16 megapixels)

colour DSLR photography. Where possible, photographs will include a graduated scale. Details of the photographs will be recorded on pro-forma index sheets, which include location, subject and orientation.

6.2.5 For brick structures, the record will include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins). Brick samples will be taken for structures that are likely to pre-date the mid-19th century.

## 6.3 Recording

6.3.1 The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. The site will be recorded in accordance with the ARS Ltd's field recording manual and single context recording system, and will include as a minimum: context record sheets, an accurate site plan and record photography where no archaeological features are present.

6.3.2 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro-forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings will be drawn where required at 1:50, 1:20 and 1:10 scales, as appropriate. In addition to relevant illustrations, provision for rectified photographic recording shall be made, if deemed necessary.

6.3.3 The stratigraphy of the site will be recorded even where no archaeological deposits have been identified.

6.3.4 All archaeological deposits and features will be recorded with above ordnance datum (AOD) levels.

6.3.5 Where stratified deposits are encountered, a 'Harris' matrix will be compiled.

## 6.4 Finds Processing and Storage

6.4.1 All finds processing, conservation work and storage of finds will be carried out in accordance with the CIfA (2014f) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* and the UKIC (1990) *Guidelines for the Preparation of Archives for Long-Term Storage*.

6.4.2 Artefact collection and discard policies will be appropriate for the defined purpose.

6.4.3 Bulk finds which are not discarded will be washed and, with the exception of animal bone, marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

6.4.4 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated.

6.4.5 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

6.4.6 The deposition and disposal of artefacts will be agreed with the legal owner and the recipient museum prior to the work taking place. All finds except treasure trove are the property of the landowner.

6.4.7 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

#### 6.5 Reporting

6.5.1 A report shall be produced to include background information, a summary of the works carried out and a description and interpretation of the findings. The report will also include the following.

- Non-technical executive summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- Illustrations of all archaeological features with appropriately scaled hachured plans and sections
- An objective summary statement of results
- Conclusions
- Supporting data tabulated or in appendices
- Index to archive and details of archive location
- References
- Statement of intent regarding publication
- Confirmation of archive transfer arrangements
- A copy of the WSI and OASIS form

6.5.2 Both a printed and bound hard copy and a digital copy of the final report will be deposited with the South Yorkshire SMR. Pertinent digital copies will also be submitted to Historic England's Scientific Advisor.

6.5.3 A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeological Data Service.

6.5.4 Depending on the outcome of the watching brief, and in consultation with SYAS, the 'watching brief' report might be incorporated into the 'trial trenching' report (see section 5.5 above).

#### 6.6 Archive Deposition

6.6.1 A digital, paper and artefactual archive, which will consist of all primary written documents, plans, sections, photographs and electronic data will be submitted to a suitable repository museum, in this instance Museums Sheffield, in a format agreed in discussion with SYAS and the museum curator. The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011) and a copy will be deposited with the Archaeology Data Service at the University of York.

6.6.2 All artefacts and associated material will be cleaned, marked, properly stored and deposited in the archive (see above), in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2007), the Society of Museum Archaeologists' *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland* (1993) and *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2014g).

6.6.3 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the South Yorkshire SMR and deposited with the archive as digital images on a CD ROM, in addition to the report in PDF/A format.

6.6.4 SYAS will be notified on completion of fieldwork, with a timetable for reporting and archive deposition.

6.6.5 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, will be included as part of the final report.

6.6.6 At the start of work (immediately before fieldwork commences) an OASIS online record <u>http://ads.ahds.ac.uk/project/oasis/</u> will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

6.6.7 SYAS will be notified of the final deposition of the archive.

#### 6.7 Standards, Staffing and Timetable

6.7.1 ARS Ltd is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). Registered Organisations are continuously assessed to ensure that the highest standards of work are carried out, in line with CIfA's *Code of Conduct* (2014a) and *Standard and Guidance for Archaeological Watching Briefs* (2014e). In addition to our key management staff, who have achieved the highest grade of corporate CIfA membership, many of our field staff also hold corporate grade membership.

Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

6.7.2 All staff employed on the project will be suitably qualified and experienced for their respective project roles and have practical experience of archaeological excavation and recording. All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification. Each member of staff will be fully conversant with the aims and methodologies and will be given a copy of this WSI to read. All members of staff employed by ARS Ltd are fully qualified and experienced archaeologists, this will ensure that appropriate decisions regarding excavation and sampling will be made in the field.

6.7.3 All work will be undertaken in accordance with the regional guidance document *Yorkshire, The Humber & The North East: a regional statement of good practice for archaeology in the development process* (SYAS 2018).

6.7.4 The Project Manager for the archaeological works will be Reuben Thorpe MCIfA, Projects Manager at ARS Ltd. The Project Officer for the open-area excavation will be Tom Parker ACIfA or other as may be appointed with ARS Ltd. Additional ARS Ltd Archaeological Officers may be allotted to the project as necessary and required.

6.7.5 Appropriate specialists will be discussed and agreed with SYAS. It is anticipated that the following qualified specialists may be involved in the post-fieldwork.

٠	Pottery and CBM specialists:	Dr Robin Holgate MCIfA/
		Dr Phil Mills MCIfA (consultant)/
		Dr Chris Cumberpatch (consultant)
٠	Humanly-struck flint:	Dr Robin Holgate MCIfA
٠	Metalworking:	Dr Rod Mackenzie (consultant)
٠	Clay pipe, glass and metalwork:	Mike Wood MCIfA (consultant)
•	Charcoal, botanical macro remains and pollen:	Luke Parker PCIfA
٠	Human and animal bone:	Milena Grzybowska
٠	Radiocarbon dating:	Prof Gordon Cook (SUERC)

- Finds conservation: Vicky Garlick (Durham University)
- 6.7.6 The timetable for the works is as follows.

Proposed	Task
Commencement Date	
Week commencing 3 <sup>rd</sup> June 2019	Watching Brief on-site
Week commencing 10 <sup>th</sup> June 2019	Watching Brief post-excavation analysis, including any specialist reporting required

Week commencing 17 <sup>th</sup> June 2019	Watching Brief report preparation and completion
Week commencing 24 <sup>th</sup> June 2019	Watching Brief archive preparation, completion and deposition

#### 6.8 Monitoring Arrangements

6.8.1 SYAS will be responsible for monitoring the archaeological works. A minimum of one week's notice of the commencement of fieldwork must be given by the archaeological contractor to the SYAS in order that arrangements for monitoring the fieldwork may be made.

6.8.2 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stage of the archaeological works and/or so that the site can be inspected when fieldwork is near to completion but before any excavated areas have been backfilled.

6.8.3 An interim note will be submitted to SYAS within a fortnight of fieldwork finishing. This will include:

- A brief summary of fieldwork results
- A basic description of material recovered
- An initial assessment of character and significance
- A sketch plan of archaeological features on the site
- An updated post-excavation timetable

6.8.4 A progress update will be supplied to SYAS, in writing, on a monthly basis following this until submission of the evaluation full report.

# 7 **GENERAL ITEMS**

#### 7.1 Health and Safety

7.1.1 All work will be carried out in accordance with The Health and Safety at Work Act 1974. Specific health and safety policies exist for all our workplaces and all staff employed will be made aware of the policy and any relevant issues. The particular risks involved with this project will be assessed, recorded and relevant mitigation measures put in place as part of a full risk assessment, which will be compiled in advance of fieldwork and will be read and signed by all on-site operatives. ARS Ltd retains Citation as its expert health and safety consultants and the appointed Health and Safety Officer for the company is Tony Brennan.

#### 7.2 Insurance Cover

7.2.1 ARS Ltd has full insurance cover for employee liability (£10 million) public liability (£5 million), professional indemnity (£5 million) and all-risks cover.

## 7.3 Changes to the Written Scheme of Investigation

7.4.1 Changes to the approved methodology or programme of works will only be made with prior written approval of SYAS.

#### 7.4 Publication and Community Engagement

7.4.1 Summary reports of an appropriate length, accompanied by illustrations (at 300dpi resolution), if required by SYAS, will be prepared and submitted in digital format, for publication in the appropriate volume of Archaeology in South Yorkshire.

7.4.2 Illustrated notices will be displayed on site, explaining what work is in progress and why, with the client's agreement.

7.4.3 In the event of significant remains being encountered and excavated but no further fieldwork takes place, there may be the need for a more formal publication than in the summary form. In this instance a suitable programme and timetable for publication and dissemination will be discussed and agreed upon by all stakeholders. This may include a note or short article in an appropriate archaeological journal. Provision will be made for engaging the local community in any archaeological findings and publicising the results of the work locally, e.g. press release (at the client's discretion), dissemination of information via ARS Ltd's website and social media, a guided site tour and/or by presenting a paper at South Yorkshire Archaeology Day and talking to local societies.

# 8 **REFERENCES**

APABE/ Historic England 2013. Science and the dead: A Guideline for the Destructive Sampling of Archaeological Human Remains for Scientific Analysis.

Archaeology Data Service/Digital Antiquity 2011. Guides to Good Practice.

Brickley, M. and McKinley, J.I. 2004. Guidelines to the standards for recording human remains. CIfA paper no. 7.

British Geological Survey 2019. Geology of Britain viewer. Available online at: http://mapapps.bgs.ac.uk/geologyofbritain/home.html? [Accessed 6th March 2019].

- Brown, D. 2007. Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation. Archaeological Archives Forum.
- Chartered Institute for Archaeologists (CIfA) 2014a. *Code of Conduct*. Reading, Chartered Institute for Archaeologists.
- Chartered Institute for Archaeologists (CIfA) 2014b. *Standards and Guidance for Archaeological Building Recording.* Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists (CIfA) 2014c. *Standards and Guidance for an Archaeological Field Evaluation*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists (CIfA) 2014d. *Standards and Guidance for Archaeological Excavation*. Reading, Chartered Institute for Archaeologists.

#### Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

Chartered Institute for Archaeologists (CIfA) 2014e. *Standards and Guidance for Archaeological Watching Briefs*. Reading, Chartered Institute for Archaeologists.

- Chartered Institute for Archaeologists (CIfA) 2014f. *Standards and Guidance for the collection, documentation, conservation and research of archaeological materials*. Reading, Chartered Institute for Archaeologists.
- Chartered Institute for Archaeologists (CIfA) 2014g. *Standards and Guidance for the creation, compilation, transfer and deposition of archaeological archives*. Reading, Chartered Institute for Archaeologists.
- Department of Culture, Media and Sport (DCMS) 2008. The Treasure Act 1996 Code of Practice (England and Wales).
- Historic England 1998. Dendrochronology: Guidelines on producing and interpreting dendrochronological dates.
- Historic England 2001. Centre for Archaeology Guidelines: Archaeometallurgy.
- Historic England 2004. Human Bones from Archaeological Sites: Guidelines for producing assessment documents and analytical reports (Centre for Archaeology Guidelines).
- Historic England 2006a. *Understanding Historic Buildings. A Guide to Good Recording Practice*. London, Historic England.
- Historic England 2006b. Guidelines on the X-radiography of archaeological metalwork.
- Historic England 2006c. Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates.
- Historic England 2008. Luminescence Dating: Guidelines on using luminescence dating in archaeology.

Historic England 2010. Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood (3rd edition).

- Historic England 2011. Environmental Archaeology: A Guide to the Theory and Practice of Methods, from sampling and recovery to post excavation (second edition).
   Centre for Archaeology Guideline. Nottingham: Nottingham Archaeological Monographs.
- Historic England 2012. Waterlogged Organic Artefacts. Guidance on their Recovery, Analysis and Conservation.
- Historic England 2019a. *Taylors Eye Witness Works*. List entry available online: <u>https://historicengland.org.uk/listing/the-list/list-entry/1271198</u> (Accessed 7<sup>th</sup> March 2019).
- Historic England 2019b. *Taylors Ceylon Works*. List entry available online: <u>https://historicengland.org.uk/listing/the-list/list-entry/1270893</u> (Accessed 7<sup>th</sup> March 2019).
- Historic England/The Church of England 2005. Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England.
- Ives, G. 2018. *Eye Witness Works and Ceylon Works, Heritage Statement*. Graeme Ives Heritage Planning.

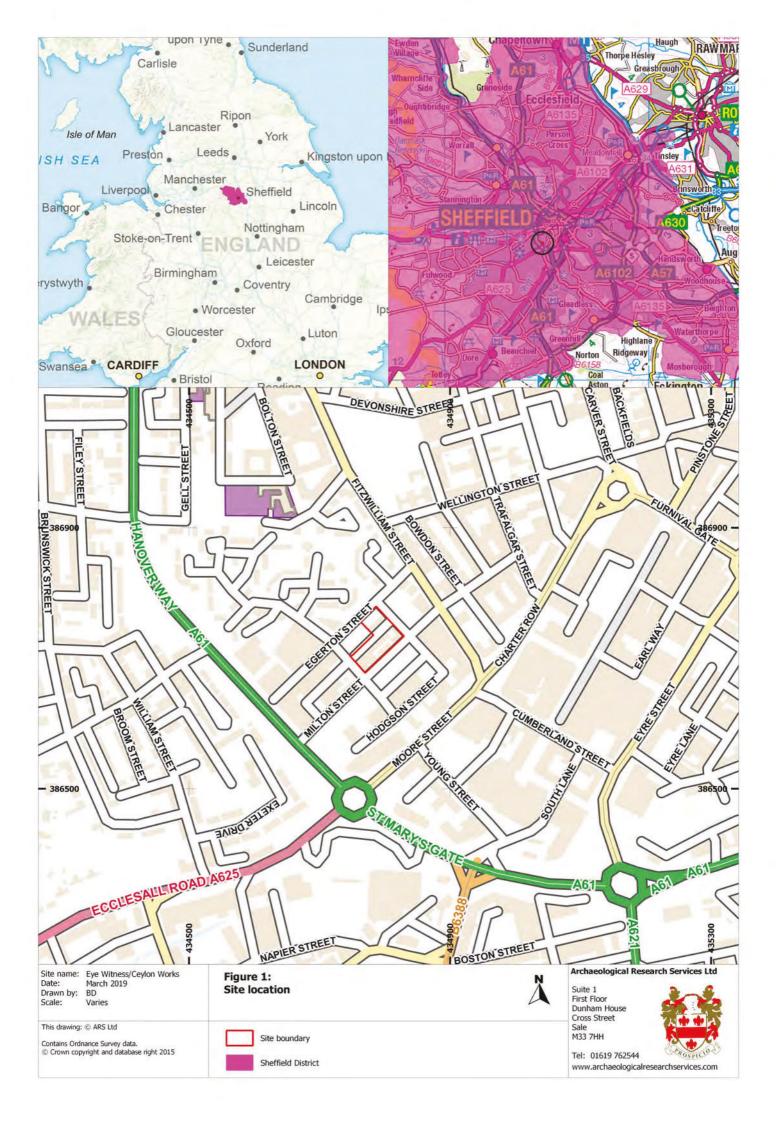
- Lee, A. 2018. Archaeological Desk-Based Assessment, Eye Witness Works and Ceylon Works, Sheffield. University of Salford, The Centre for Applied Archaeology Report No. 2018/48.
- Medieval Pottery Research Group (MPRG) (2001) *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics.*
- Ministry of Housing, Communities and Local Government. 2018. *The National Planning Policy Framework*. London, The Stationery Office.
- Roskams, S. and Whyman, M. 2007. *Yorkshire Archaeological Research Framework: research agenda.* Yorkshire Archaeological Research Framework Forum and Historic England.
- Royal Commission on the Historical Monuments of England 1996. Recording Historic Buildings. Swindon: RCHME.
- Society of Museum Archaeologists 1993. Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland. London: Society of Museum Archaeologists.
- South Yorkshire Archaeology Service 2018. Yorkshire, the Humber & the north east: A regional statement of good practice for archaeology in the development process. Available online at:

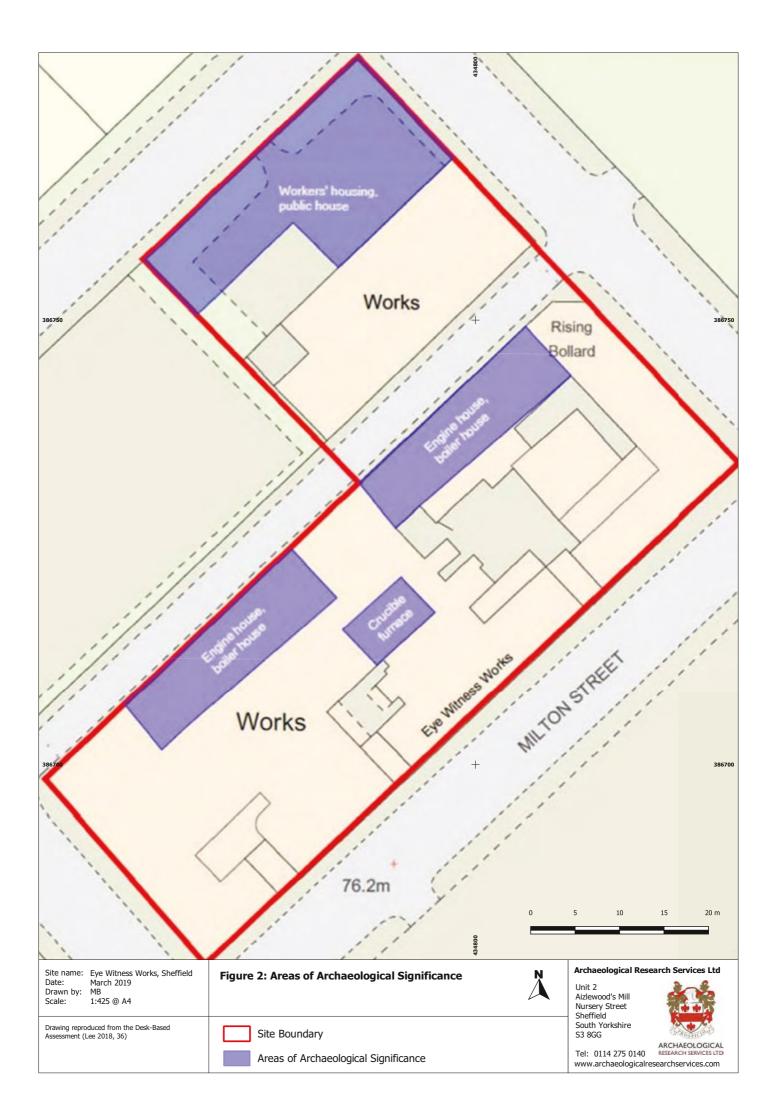
https://www.sheffield.gov.uk/content/dam/sheffield/docs/planning-anddevelopment/archaeology/Good Practice Guide Rev Nov 18.pdf [Accessed 7th March 2019].

- United Kingdom Institute for Conservation (UKIC). 1990. Guidelines for the Preparation of Archives for Long-Term Storage.
- United Kingdom Institute for Conservation (UKIC). 2001. Excavated Artefacts and Conservation (UKIC Guideline No.1).

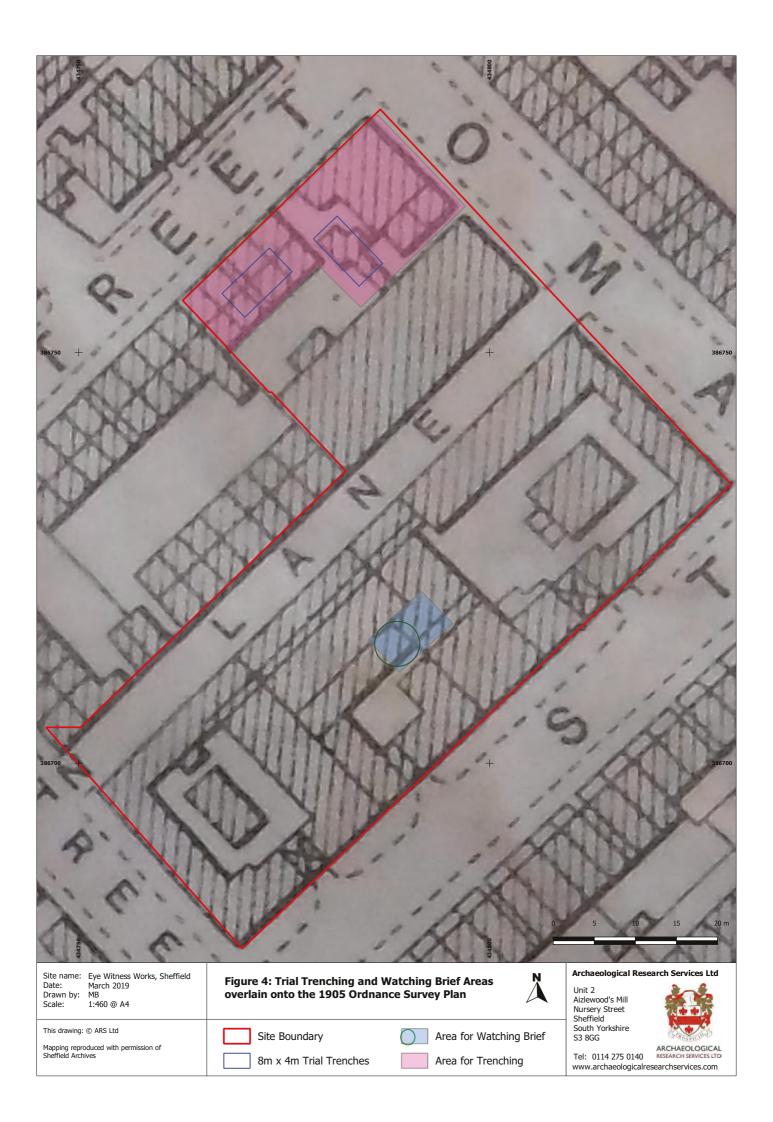
Written Scheme of Investigation for Historic Building Recording and Archaeological Works at Eye Witness and Ceylon Works, Milton Street, Sheffield, South Yorkshire.

# **FIGURES**

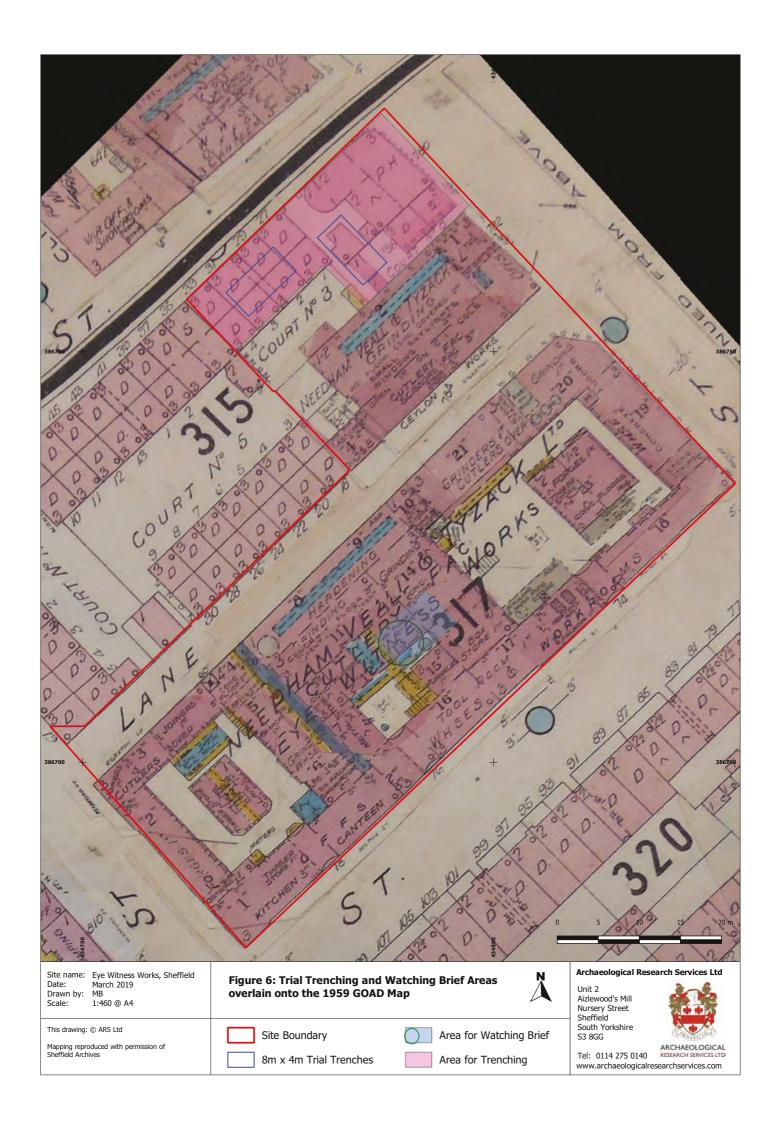




		13100	
386750 +		254.5	36750
386700			5670
Site name: Eye Witness Works, Sheffield Date: March 2019 Drawn by: MB Scale: 1:460 @ A4 This drawing: © ARS Ltd Mapping reproduced with permission of Sheffield Archives	Figure 3: Trial Trenching and V         overlain onto the 1894 Ordnam         Site Boundary         8m x 4m Trial Trenches	Watching Brief Areas       No.         Natching Brief Ar	Archaeological Research Services Ltd Unit 2 Aizlewood's Mill Nursery Street Sheffield South Yorkshire S3 8GG Tel: 0114 275 0140 Www.archaeologicalresearchservices.com









9.4 APPENDIX IV: OASIS FORM

# Summary for archaeol5-355086

OASIS ID (UID)	archaeol5-355086
Project Name	An Archaeological Evaluation at Eye Witness and Ceylon Works, Milton Street, Sheffield
Sitename	Eye Witness and Ceylon Works, Milton Street, Sheffield
Activity type	TRIAL TRENCH
Project Identifier(s)	
Planning Id	18/04237/FUL
Reason For Investigation	Planning requirement
Organisation Responsible for work	Archaeological Research Services Ltd
Project Dates	30-Apr-2019 - 03-May-2019
Location	Eye Witness and Ceylon Works, Milton Street, Sheffield
	NGR : SK 34792 86722
	LL : 53.3762145143848, -1.47849043011003
	12 Fig : 434792,386722
Administrative Areas	Country : England
	County : South Yorkshire
	District : Sheffield
	Parish : Sheffield, unparished area
Project Methodology	The Archaeological evaluation consisted of two trenches measuring 8m x 4m. Trenches were sited in accordance with a pre-agreed trench plan using a Leica Smartrover GPS to a tolerance of 0.025m. The same GPS was later utilised to locate drawn plans and sections and to take spot heights within the trenches. Each trench was opened using a mechanical excavator fitted with a toothless ditching bucket under continuous archaeological supervision. Excavation was undertaken in spits to the first archaeological/natural horizon. Each trench was cleaned by hand to expose and clarify archaeological features. Pre-excavation photographs were taken of exposed archaeology and each cleaned trench. All archaeological features were drawn and recorded at an appropriate scale and were sample excavated in accordance with agreed strategies and to agreed proportions. All features and trenches were tied into Ordnance Survey, all deposits were levelled and their spot heights calculated in metres above Ordnance Datum (aOD).
Project Results	Trench 1 was sited within the footprint of four back-to-back terraced houses identified from historic maps with the aims of identifying the extent of their preservation below ground, and characterising the style and methods used in their construction. Features uncovered included floors, staircases and walls related to the cellars within the back-to-back houses. Additionally, remains of a later drain between the houses was uncovered. Trench 2 was sited on the location of apparent outbuildings identified from historic maps with the aims of establishing the extent of their preservation below ground and describing their character and potential uses. Walls were located, which relate to the toilet block identified in historic maps. The evaluation trenches demonstrated unequivocally that there was good preservation of archaeological remains below the relatively thin layer of modern overburden and that these remains could be clearly correlated with the buildings shown on historic maps of the site.
Keywords	FLOOR - POST MEDIEVAL - FISH Thesaurus of Monument Types
	WALL - POST MEDIEVAL - FISH Thesaurus of Monument Types

Funder	
HER	South Yorkshire Archaeology Service - noRev - LITE
Person Responsible for work	null, Cole, R
HER Identifiers	
Archives	Documentary Archive - to be deposited with Museums Sheffield; Digital Archive - to be deposited with Archaeology Data Service Archive;