



# Darwen Market Square, Darwen, Lancashire Archaeological Evaluation Report

September 2018

**Client: Capita on behalf of Blackburn and  
Darwen Borough Council**

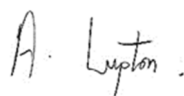
Issue No: 2018-19/1941  
OA Reference No: L11169  
NGR: SD 701 225



Client Name: Capita on behalf of Blackburn with Darwen Borough Council  
Document Title: Darwen Market Square, Darwen, Lancashire  
Document Type: Evaluation Report  
Report No.: 2018-19/1941  
Grid Reference: SD 701 225  
Planning Reference: 10/17/0774  
Site Code: MSD18  
Invoice Code: L11169  
Receiving Body: Lancashire Historic Environment Record Office

OA Document File Location: X:\Paul\Projects\L11169\_Darwen\_Market\_Square\Report  
OA Graphics File Location: X:\Paul\Projects\L11169\_Darwen\_Market\_Square\OAN\_CAD

Issue No: V.1  
Date: 17/09/2018  
Prepared by: Paul Dunn (Trainee Project Manager)  
Checked by: Dr Adam Tinsley (Senior Project Manager)  
Edited by: Dr Adam Tinsley (Senior Project Manager)  
Approved for Issue by: Dr Alan Lupton (Operations Manager)  
Signature:



**Disclaimer:**

*This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.*

**OA South**

Janus House  
Osney Mead  
Oxford  
OX2 0ES

t. +44 (0)1865 263 800

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridge  
CB23 8SG

t. +44 (0)1223 850 500

**OA North**

Mill 3  
Moor Lane Mills  
Moor Lane  
Lancaster  
LA1 1QD

t. +44 (0)1524 880 250

e. [info@oxfordarch.co.uk](mailto:info@oxfordarch.co.uk)  
w. [oxfordarchaeology.com](http://oxfordarchaeology.com)

Oxford Archaeology is a registered Charity: No. 285627



## Darwen Market Square, Darwen, Lancashire

### *Archaeological Evaluation Report*

*Written by Paul Dunn*

*and illustrations by Mark Tidmarsh*

#### Contents

Summary .....	vii
Acknowledgements .....	viii
<b>1 INTRODUCTION.....</b>	<b>1</b>
1.1 Scope of work.....	1
1.2 Location, topography and geology.....	1
1.3 Archaeological and historical background.....	1
<b>2 EVALUATION AIMS AND METHODOLOGY .....</b>	<b>3</b>
2.1 Aims .....	3
2.2 Methodology.....	3
<b>3 RESULTS .....</b>	<b>5</b>
3.1 Introduction and presentation of results .....	5
3.2 General soils and ground conditions.....	5
3.3 General distribution of archaeological deposits.....	5
3.4 Trench 1 .....	5
3.5 Trench 2 .....	7
3.6 Trench 3 .....	9
<b>4 DISCUSSION .....</b>	<b>12</b>
4.1 Reliability of field investigation .....	12
4.2 Evaluation objectives and results.....	12
4.3 Interpretation.....	12
4.4 Significance .....	13
<b>5 FIGURES .....</b>	<b>14</b>
<b>APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY .....</b>	<b>15</b>
<b>APPENDIX B BIBLIOGRAPHY .....</b>	<b>16</b>
<b>APPENDIX C SITE SUMMARY DETAILS.....</b>	<b>17</b>
<b>APPENDIX D WRITTEN SCHEME OF INVESTIGATION .....</b>	<b>18</b>

## List of Figures

- Fig. 1 Site location map  
Fig. 2 Location of Evaluation Trenches  
Fig. 3 Trench Detail

## List of Plates

- Plate 1 Trench 1 facing south, scale 1 x 1m  
Plate 2 West-facing section of demolition layers at the southern end of Trench 1, scale 1 x 1m  
Plate 3 Sandstone Cobble Setts **102** looking south-east, scale 1 x 1m  
Plate 4 Location of Trench 2 prior to excavation, showing original trench location to the left of the image, with the dotted line showing the presence of an electric cable detected in Radio mode on the CAT, drainage visible at the northern end of the trench.  
Plate 5 Trench 2 looking south-east, scales 1 x 1m and 1 x 2m  
Plate 6 Location of Trench 3 prior to excavation, showing the original trench location in the foreground of the image, the 2m gap visible towards the far end of the trench.  
Plate 7 North-facing section of sondage excavated in Trench 3 over the potential location of the bleach works eastern wall, scale 1 x 1m  
Plate 8 Trench 3 facing west, scale 1 x 1m  
Plate 9 Wall **306** and Concrete Foundation **307** looking west, scale 1 x 1m



## Summary

Oxford Archaeology (OA) North were commissioned by Capita Local Public Services, on behalf of Blackburn and Darwen Borough Council, to undertake a trial trenching evaluation of Darwen Market Square, Darwen, Lancashire (NGR SD 701 225). The evaluation fieldwork was undertaken on the 8<sup>th</sup> August 2018.

The principal aim of the evaluation was to confirm the presence, or absence, of structural remains relating to the nineteenth-century Readford bleach works which had been demolished c 1878, prior to the establishment of Market Square. The bleach works was identified on historic mapping as previously occupying the south-western part of the proposed development area (PDA). As such, three trenches were excavated in the location of the building footprint as identified on the historic mapping.

Structural remains were identified in all three trenches, however, none of these appeared to relate to the target structure. Cobble sett surfaces were identified in Trenches 1 (**102**) and 2 (**203**). The cobbles in Trench 1 appeared to stop at the point where the bleach works' northern wall was identified on the historic mapping. It may therefore have formed part of a yard surface related to the target structure. By comparison, the cobbles in Trench 2 extended over the location of the western wall of the bleach works, suggesting that the surface was established as part of Market Square following demolition of the building.

A wall (**306**) and concrete foundation (**307**) were identified in Trench 3. However, the wall was not in the correct location or alignment as the anticipated eastern wall of the bleach works. This wall likely relates to a small building identified in the location on modern satellite imagery of Market Square. The construction of this small structure may be the cause of disturbance of the cobble sett surfaces in Trench 2.

Although the structures all survive at a shallow depth there is likely to be minimal impact upon them from the proposed development. In the areas of the trenches the existing ground level is due to be built up between 0.3m and 0.8m above the current ground level and, therefore, will produce very minimal below ground impact. The only impact would likely be caused by relatively shallow drainage.

## Acknowledgements

Oxford Archaeology (OA) North would like to thank John Bryan and Suresh Collett, of Capita Local Public Services, for commissioning this project and to Greg Brett and Paul Malone, of Eric Wright Construction, for facilitating the fieldwork. Thanks, are also extended to Joanne Smith of Lancashire Archaeological Advisory Service (LAAS), who monitored the work, and for their advice and guidance.

The project was managed for OA North by Paul Dunn, who also directed the fieldwork and was supported by Paul Simkins. Survey and digitizing was carried out by Paul Dunn and Mark Tidmarsh. The archive was prepared by Dr Dot Boughton under the management of Rachel Newman.

## 1 INTRODUCTION

### 1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) North were commissioned by Capita Local Public Services, on behalf of Blackburn and Darwen Borough Council, to undertake a trial trench evaluation at the site of Darwen Market Square, Darwen, Lancashire (NGR SD 701 225, Fig 1).
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 10/17/0774). Required by representatives of the Lancashire Archaeological Advisory Service (LAAS), acting in their capacity as archaeological advisors to Blackburn and Darwen Borough Council. In this regard, LAAS identified the potential for below ground remains relating to the former premises of the Readford Bleach Works (Lancashire Historic Environment Record PRN24256), identified on historic mapping of the area as previously occupying southern aspects of the proposed development area (PDA) in full. Given the significance of such industry to the historical development of Darwen and the local area, a condition was placed on the planning application requiring implementation of archaeological works carried out in accordance with a Written Scheme of Investigation (WSI). Capita approached OA North to produce a WSI (*Appendix D*), that subsequently set out the methodology for archaeological trial trenching in the southern part of the PDA, in order to examine the survival and extent of the bleach works. The fieldwork was undertaken on the 8<sup>th</sup> August 2018. This document outlines how OA North implemented the specified requirements.

### 1.2 Location, topography and geology

- 1.2.1 The PDA occupies a roughly triangular block of land focused upon the commercial centre of Darwen, centred at National Grid Reference SD 701 225 (Fig 1). The PDA extends around the former premises of an hexagonal building functioning as a market hall (now demolished in advance of the proposed scheme) and takes in the surrounding paved and pedestrianised area of Market Square, to be subject to further modification. The topography of the area rises generally towards the east, although the octagonal building and surrounding area is up to several metres below the level of Church Street and Railway Road, which collectively form the southern and eastern boundary of the PDA.
- 1.2.2 The underlying geology of the area comprise siltstone and sandstone of the Pennine Lower Coal Measures Formation (BGS 2018). The local soils include freely draining acid loamy soils with sand and gravels (Cranfield 2018), although the PDA is entirely covered by relatively modern hard-standing.

### 1.3 Archaeological and historical background

- 1.3.1 No archaeological works have so far been undertaken in relation to the site and the following appraisal of the archaeological potential of the PDA is based entirely upon the information provided in the tender reference document and associated HER records.



- 1.3.2 The available information indicates that the archaeological potential of the PDA can be divided into three main groups, based upon finds of specific periods identified within the wider area of the development. These are;
- 1.3.3 **Prehistoric Archaeology:** A Bronze Age barrow was excavated during the nineteenth-century, approximately 1 mile to the south, at Ashleigh Street, Whitehall, and indicates the area of Darwen held some significance during early prehistoric periods. However, no features of prehistoric date have been previously identified in the PDA and, given it has been subject to considerable development during the late post-medieval and modern periods, the potential for prehistoric remains to survive may be regarded as relatively low. If encountered, however, given the scarcity of such remains across the region, their research potential may be relatively high.
- 1.3.4 **Roman Archaeology:** Darwen is not thought to have existed as a settlement during the Roman period and there is no known focus of settlement activity in the area. No finds of this period have been recovered from directly within the PDA. With this said, a Roman road, extending between the former settlements at Manchester and Ribchester (Road 7b, Margery 1957: HER Reference PRN 15506 AND prn 26144), is known to run roughly south-east/north-west, approximately 1m to the east of the PDA, roughly corresponding to the current line of Blacksnake Road. In addition, a Roman cinery urn was recovered during the nineteenth-century from an unknown location within Darwen and indicates that Roman activity, of unknown scale and type, did occur within the area. Given the scale of late post-medieval and modern development of the PDA and wider area, the chances of encountering any remains relating to this period were considered low, but likewise any such finds may have considerable research potential.
- 1.3.5 **Post-Medieval/ Industrial Period Archaeology:** the majority of references to find spots of archaeological interest within the general area of the PDA, primarily relate to this period and undoubtedly reflect the rich industrial heritage of the wider area and the rapid development of Darwen towards the later part of the nineteenth-century. The PDA is known to have been occupied in part by the former premises of Readford Bleach Works (Lancashire Historic Environment Record PRN24256), as identified on the 1st Edition Ordnance Survey 1:10, 560 mapping (Lancashire Sheet 70). The bleach works are known to have closed c 1878, and were demolished soon after, with the area given over to the creation of the current Market Square. It is unknown how extensively the subterranean remains of these buildings were removed by demolition and subsequent re-development. The textile mills of the North West and their associated ancillary industries were of great historical significance, shaping the landscape and the communities in which they were built, including the town of Darwen. They are consequently of some considerable local as well as wider regional historical and archaeological significance. In addition, textile finishing sites such as bleach works were less common than the spinning and weaving mills which supplied them, and few such sites are known to survive. There is therefore some potential to investigate subterranean remains relating to industrial period archaeological features specifically relevant to the development of Darwen during this period, hence the requirement for the production of a WSI and a programme of archaeological evaluation.

## 2 EVALUATION AIMS AND METHODOLOGY

### 2.1 Aims

2.1.1 The general project aims and objectives were as follows:

- to adhere to and fulfill the agreed programme of works associated with the archaeological potential of the development, as set out in the WSI (*Appendix D*);
- to establish the presence/absence, level of preservation, nature and significance of any remains present, particularly those relating to the bleach works;
- to inform a decision as to whether further archaeological investigation would be required in advance of development ground works, based upon an assessment of the level of preservation of below ground remains relating to the bleach works;
- to compile a professional archival record of any archaeological remains within the PDA ahead of their potential destruction during subsequent development of the area.

### 2.2 Methodology

2.2.1 The methodology adopted during the fieldwork followed that set out in the WSI (*Appendix D*) at all times, and, as such, was fully compliant with prevailing guidelines and established industry best practice (ClfA 2014a: 2014b: 2014c: Historic England 2015).

2.2.2 The overburden was removed using a 8-ton, 360°, tracked excavator (fitted with a toothless ditching bucket and breaker) to the surface of the first significant archaeological deposit, under direct archaeological supervision at all times. Subsequent cleaning and investigation of all archaeological deposits were undertaken manually, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest were investigated and recorded. General trench depths were limited to 1m below ground level (bgl) across the general extent of a trench, for reasons of health and safety.

2.2.3 All trenches were excavated in a stratigraphic manner. The trenches were positioned on the walls of the bleach works, as identified on historic mapping (Fig 2). The trenches were then located by use of a differential Global Positioning System (dGPS), accurate to within 0.02-0.03m, and altitude information was established with respect to Ordnance Survey Datum. Once on site, the trenches were scanned using a Cable Avoidance Tool (CAT) and Signal Generator (Genny), when signals were received by the CAT, the trenches would be repositioned so that they could avoid the service and still be positioned on the walls of the bleach works.

2.2.4 All information identified during the site works was recorded stratigraphically, using a system adapted from that used by the former Centre of Archaeology of English Heritage, with an accompanying pictorial record (plans, sections, and digital photographs). Primary records were available for inspection at all times.

- 2.2.5 Results of all field investigations were recorded on *pro forma* context sheets. The site archive includes both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10).
- 2.2.6 A full professional archive has been compiled in accordance with the project WSI, and in accordance with current ClfA (2014c) and Historic England guidelines (Historic England 2015) and will be deposited with the Historic Environment Record (HER) Office in Preston.

## 3 RESULTS

### 3.1 Introduction and presentation of results

- 3.1.1 The results of the evaluation are presented below, and include a stratigraphic description of the trenches that contained archaeological remains. The full details of all trenches with dimensions and depths of all deposits can be found in *Appendix A*.
- 3.1.2 Context numbers reflect the trench numbers unless otherwise stated.

### 3.2 General soils and ground conditions

- 3.2.1 The soil sequence varied between the trenches, although the upper overburden and tarmacadam deposits were generally uniform. Natural geology was not identified within any of the trenches. The earliest deposits were identified within a sondage excavated in Trench 3, as a dark grey-blue silty clay, approximately 0.50m thick (**310**), overlain by a thin orange-yellow silty clay layer, approximately 0.20m thick (**309**). These deposits were overlain by varying layers of overburden from 1m bgl to 0.35m bgl, likely relating to the demolition of the bleach works. Dark grey hardcore was observed throughout the trenches, 0.25m thick; this was overlain by tarmacadam, 0.10m thick.
- 3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry throughout. Archaeological features, where present, were easy to identify as they were structural.

### 3.3 General distribution of archaeological deposits

- 3.3.1 Archaeological features were present as walls and floor surfaces within all three trenches.

### 3.4 Trench 1

- 3.4.1 Trench 1 the northernmost of the three trenches (Fig 2 and Plate 1), was aligned north/south and measured 8.80m long by 2m wide. The trench targeted the northern wall of the bleach works, as identified on the historic mapping (Fig 3). The location of the trench was moved from its intended position by 1.60m to the south, due to spatial constraints on site for the movement of vehicles, this also resulted in the trench being shortened slightly by 1.20m, this did not impact upon the detection of the intended structure.



Plate 1: Trench 1 facing south, scale 1 x 1m

3.4.2 The trench was excavated to a depth of 1m bgl, with the earliest deposits being identified at the southern end of the trench, and likely relating to the demolition of the bleach works (Plate 2). The earliest of these deposits was **106**, a mid-red brown sandy silt containing oxidised metal debris, 0.10m thick as exposed within the trench. This deposit was overlain by **105**, a dark grey compact silty sand with flecks of yellowish orange silty clay, and was approximately 0.20m thick. Overlying **105** was a thick layer of demolition rubble, **104**, which was dark grey silty sand containing a large amount of angular sandstone and industrial debris, including part of a cast-iron pipe visible in Plate 2.



Plate 2: West-facing section of demolition layers at the southern end of Trench 1, scale 1 x 1m

3.4.3 A sandstone cobble sett surface **102** (Plate 3), was identified at the northern end of the trench. The setts measured approximately 0.20m long by 0.15m wide and were laid in regular rows. Cobble surface **102** was truncated by a concrete encased drain running through the trench north-east/south-west. A cast iron drain cover, identified at the southern extent of cobble surface **102**, may also be part of the concrete encased drainage system. The drainage was not disturbed during the trenching due to concerns that it was still live. These features and deposits were subsequently overlain by hardcore **103** and tarmacadam **101**.



Plate 3: Sandstone Cobble Setts **102** looking south-east, scale 1 x 1m

## 3.5 Trench 2

3.5.1 Trench 2 the westernmost of the three trenches (Fig 2 and Plate 4), was aligned north-west/south-east and measured 8m long by 1.90m wide. The trench targeted the western walls of the bleach works, as identified on the historic mapping (Fig 3). The location of the trench was moved to the east of its intended position, using the eastern co-ordinates of the proposed trench location, owing to health and safety reasons, after the presence of a potential cable was detected running on the same alignment as the trench between two lamp posts (Plate 4). The trench was also shortened by 1.30m due to drainage identified at the northern end of the trench.



Plate 4: Location of Trench 2 prior to excavation showing original trench location to the left of the image with the dotted line showing the presence of an electric cable detected in Radio mode on the CAT, drainage visible at the northern end of the trench.

3.5.2 The trench was excavated to a maximum depth of 0.30m, with the earliest feature comprising a sandstone sett cobble surface **203**, which was identified throughout the trench (Plate 5). The setts measured approximately 0.20m long by 0.15m wide and were laid in regular rows. The surface was truncated by several modern services, not identified by the CAT, these included a cable duct, a pot-ended cable and a large concrete base at the southern end of the trench, likely for a lamp-post. Cobble setts **203** were overlain by hardcore **202**, which was subsequently overlain by tarmacadam **201**.



Plate 5: Trench 2 looking south-east, scales 1 x 1m and 1 x 2m

### 3.6 Trench 3

3.6.1 Trench 3 the southernmost of the three trenches (Fig 2 and plate 6), was aligned east/west and measured 10m long by 1.80m wide. The trench targeted the eastern wall of the bleach works, identified on the historic mapping (Fig 3). The location of the trench was moved from its intended position to the north using the northern co-ordinates of the proposed trench location, owing to its proximity to scaffolding erected around the market square. A 2m gap was also left in the trench, due to health and safety reasons, after the presence of a potential cable was detected aligned north/south, this easternmost part of the trench contained the same deposits as the rest of the trench.



Plate 6: Location of Trench 3 prior to excavation showing the original trench location in the foreground of the image, the 2m gap visible towards the far end of the trench.

3.6.2 The trench was excavated to a depth of 1m bgl, although a sondage was excavated to a maximum depth of 2m bgl in the potential location of the bleach works eastern wall identified on the historic mapping (Plate 7). The earliest deposit within this sondage was **310**, a dark grey-blue silty clay, almost peat-like, which was identified 1.50m bgl and continued beyond 2m bgl. This deposit was overlain by **309** a thin orange-yellow silty clay layer approximately 0.20m thick. Deposit **309** was overlain by a light blue-grey silty sand, **308**, which was identified in the base of the trench at 1m bgl and was 0.30m thick within the sondage.





Plate 7: North-facing section of sondage excavated in Trench 3 over the potential location of the bleach works eastern wall, scale 1 x 1m

- 3.6.3 Deposit **308** was identified at the base of the trench at 1m bgl throughout the eastern half of the trench and was overlain by a layer of sandstone rubble, **305**, a mid-brown yellow matrix containing a large amount of sandstone rubble, approximately 0.34m thick (Plate 8). Concrete foundation **307** was laid directly on layer **305** towards the western end of the trench, the foundation was 1m long by 0.52m wide and 0.10m thick, and extended south beyond the limits of the trench (Plate 9). Wall **306** was partially built on foundation **307**, although the wall followed a slightly different alignment, north-west/south-east, and extended beyond the foundation to the north of the trench. Wall **306** survived to a height of five bricks at most, and extended through the trench. The bricks were machine-made and individually measured 0.12m long by 0.09m wide and 0.06m deep, laid as stretchers in two skins bonded by Portland cement, with a narrow cavity, which appeared to be filled by concrete (Plate 9). Both wall **306** and concrete foundation **307** appeared to be of modern twentieth century construction and likely not relating to the walls of the bleach works.
- 3.6.4 Demolition layer **304** appeared to overly concrete foundation **307** and butt up to wall **306**, suggesting that it had been deposited once the wall and foundation had been constructed. There was no evidence of a construction cut for either of these features. Demolition layer **304** was observed as a dark blue-grey silty sand containing brick rubble and sandstone rubble approximately 0.16m thick.
- 3.6.5 Demolition layer **304** and wall **306** were sealed by a thin levelling deposit **303**, which was observed as light to medium white-grey sand, containing a small amount of brick rubble and stone, approximately 0.10m thick. This layer was subsequent overlain by hardcore **302** and tarmac **301**.



Plate 8: Trench 3 looking west, scale 1 x 1m



Plate 9: Wall **306** and Concrete Foundation **307** looking west, scale 1 x 1m

## 4 DISCUSSION

### 4.1 Reliability of field investigation

4.1.1 The archaeology exposed during the evaluation was predominantly structural in nature, relatively well preserved, and clearly distinguishable from the other deposits on the site. Modern activity possibly relating to the creation of Market Square, had clearly disturbed or partially removed cobble surfaces potentially relating to the bleach works. Other than these cobble surfaces, no structural elements relating to the targeted building were identified, although the absence of cobble surfaces in the area of the building identified on historic mapping, may suggest the location of the building is correct, but it had been completely demolished prior to the market square being established.

### 4.2 Evaluation objectives and results

4.2.1 The following section considers the project's success measured against the principal aims and general objectives as stated in *Section 2.1*. This report is a synthesised record of the fieldwork undertaken and its submission to both the client and the local authority alongside the fieldwork archive ensures the information is publicly available.

4.2.2 Structural remains were identified in all three of the trenches excavated. These took the form of cobble sett surfaces in Trenches 1 (**102**) and 2 (**203**), and a modern wall in Trench 3 (**306**) and were found to be well preserved. The cobble sett surfaces are of a date consistent with the known operation of the bleach works and could possibly relate to external yard surfaces. Wall **306** and foundation **307** were found to be well preserved, however, their construction, alignment and location suggests that they are of a modern date and do not correspond with the anticipated location of the bleach works.

### 4.3 Interpretation

4.3.1 The archaeological remains identified during the evaluation do not correlate particularly well with the mapping. There was no evidence of the bleach works structure, however, absence of cobble sett surface in the southern half of Trench 1 and throughout Trench 3, may suggest that the building had been completely demolished. The cobble sett surface in Trench 1, **102**, may relate to the bleach works representing an external yard surface. The cobble sett surface in Trench 2, **203**, extended into the internal area of the bleach works as identified on the historic mapping, suggesting that they actually relate to the subsequent foundation of Market Square in c 1878. The sondage excavated in Trench 3 did not find any surviving walls at a depth of 2m bgl, suggesting that the works had been completely destroyed.

4.3.2 Wall **306** and foundation **307** were of a form and construction identified as modern, machine-moulded bricks and Portland cement mortar, and therefore not relating to the bleach works. This wall likely related to a small building on the market square identified on satellite imagery dated 31/12/2000 (Google Earth 2018), seemingly erected after 1960 and then demolished by 2005. The absence of cobble setts in the southern half of Trench 1 and throughout Trench 3 may relate to the construction of this small building.

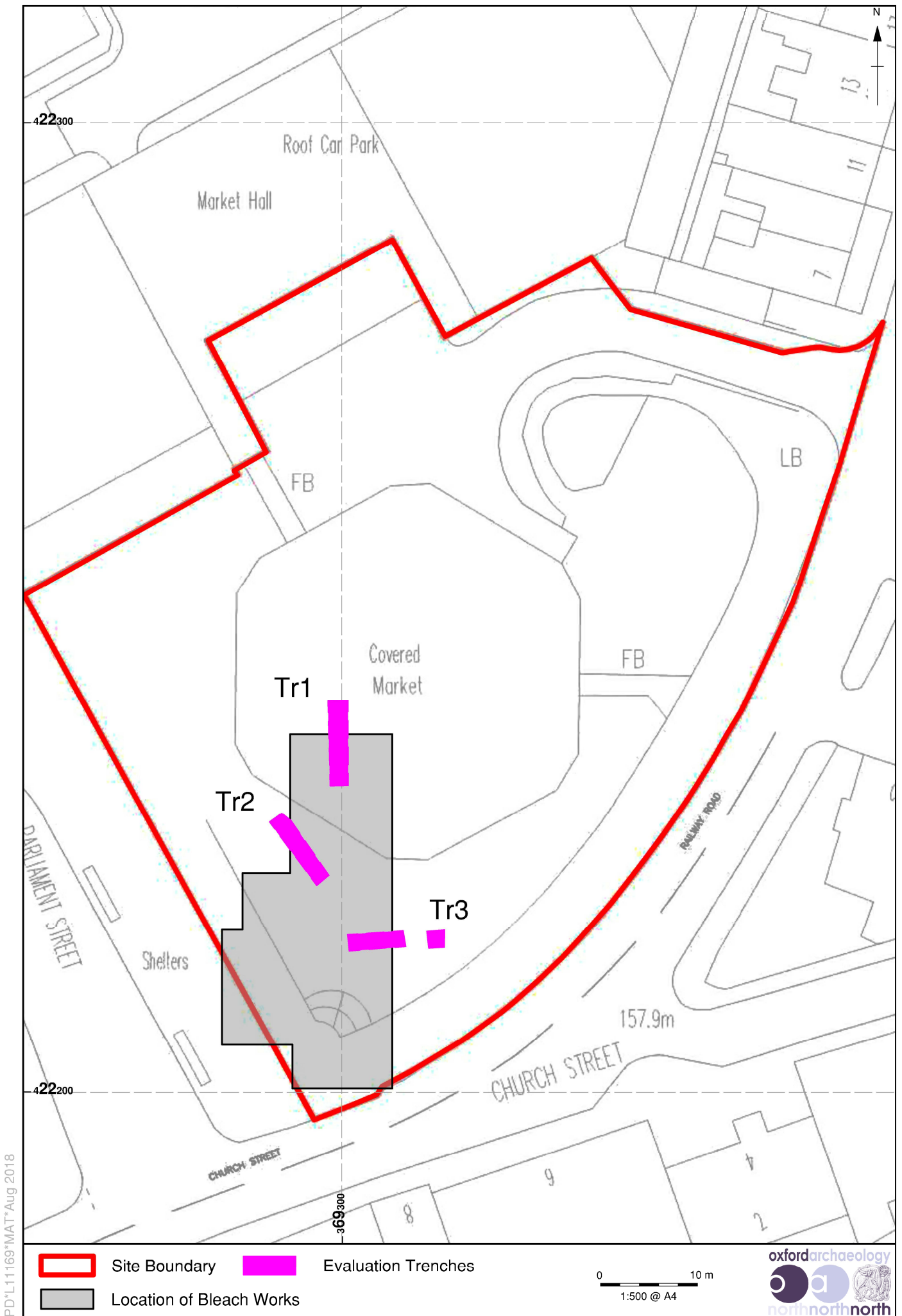
## 4.4 Significance

- 4.4.1 There was no evidence of the targeted bleach works structure in any of the evaluation trenches, although the cobble sett surface identified in Trench 1 may relate to an external yard area. With this said, this and additional cobble setts in Trench 2, which did not reflect the anticipated footprint of the bleach works, may relate to the formation of the market square following the demolition of the bleach works in c 1878. These cobble sett surfaces do survive well immediately beneath the tarmac and hardcore of the market square, although they have been heavily truncated in several areas by services and a structure, which may relate to a small building established c 1960 in the south-west corner of the market square. This building appears to survive in Trench 3 as wall **306**.
- 4.4.2 Although the cobble sett surfaces (**102** and **203**) survive at such a shallow depth there is likely to be minimal impact upon them from the proposed development. In the areas of the trenches, the existing ground level is due to be built up by between 0.3m and 0.8m and therefore will produce very minimal below ground impact. The only impact would likely be caused by relatively shallow drainage.

## 5 FIGURES



Figure 1: Site location



PD\*L11169\*MAT\*Aug 2018

- Site Boundary
- Evaluation Trenches
- Location of Bleach Works

0 10 m  
1:500 @ A4



Figure 2: Location of evaluation trenches

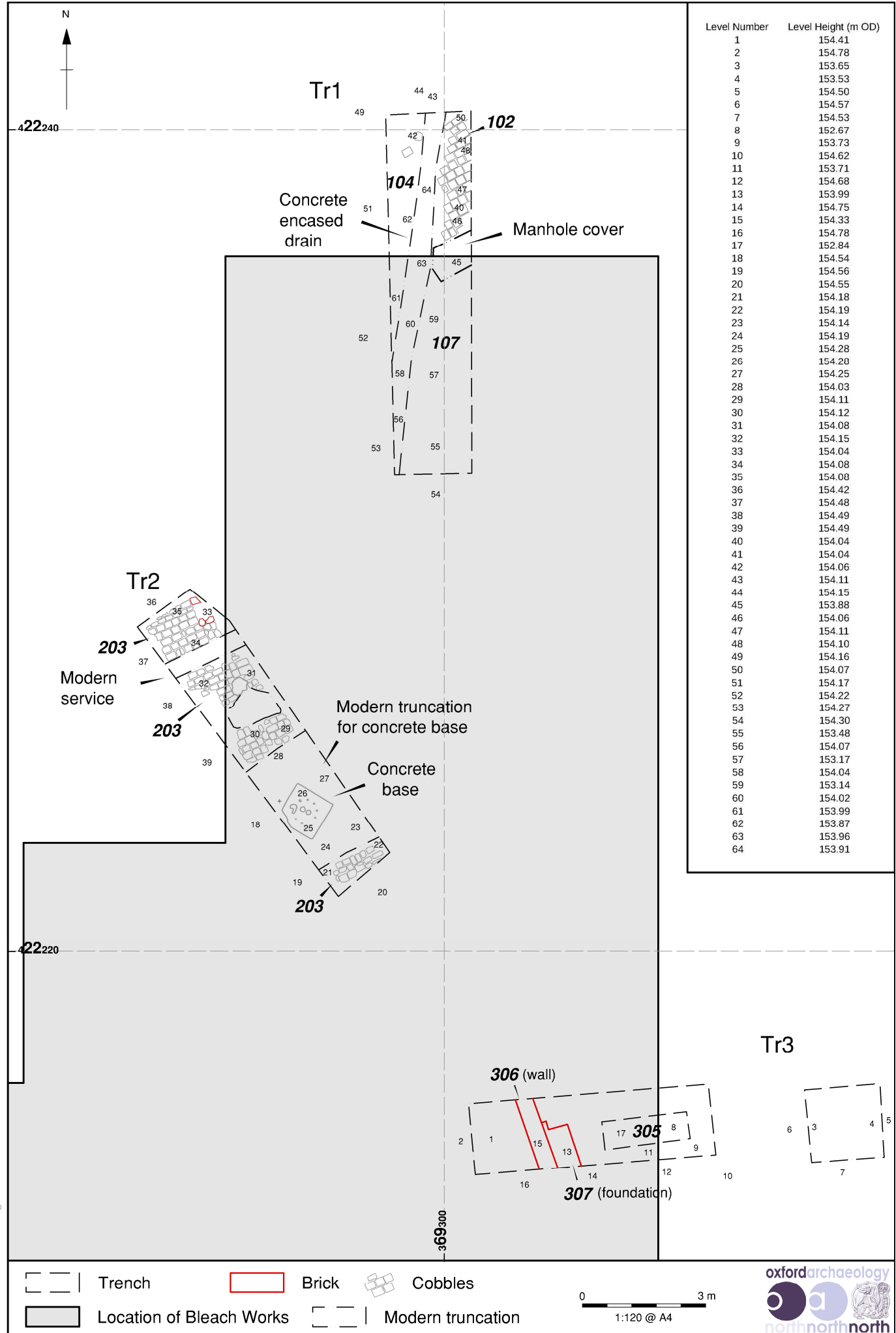


Figure 3: Trench detail

PD\*L11169\*MAT\*Aug 2018



## APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General description					Orientation	N-S
Trench contained a sandstone cobble sett surface at the northern end of the trench, truncated by a concrete encased drain aligned north-east/south-west.					Length (m)	8.80
					Width (m)	2
					Avg. depth (m)	1
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
101	Layer	-	0.15	Topsoil	-	Modern
102	Layer	-	-	Cobble Sandstone Setts	-	c. 19 <sup>th</sup> C
103	Layer	-	0.15	Hardcore	-	Modern
104	Layer	-	0.44	Demolition Rubble	-	c. 19 <sup>th</sup> C
105	Layer	-	0.20	Dark grey silty clay	-	c. 19 <sup>th</sup> C
106	Layer	-	-	Loose mid red-brown layer	-	c. 19 <sup>th</sup> C

Trench 2						
General description					Orientation	NW-SE
Trench contained sandstone cobble setts throughout, although truncated by modern services in various locations throughout the trench. Overlain by modern hardcore and tarmac.					Length (m)	8
					Width (m)	1.90
					Avg. depth (m)	0.30
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
201	Layer	-	0.15	Tarmac	-	Modern
202	Layer	-	0.15	Hardcore	-	Modern
203	Layer	-	-	Sandstone Cobble Setts	-	c. 19 <sup>th</sup> C

Trench 3						
General description					Orientation	E-W
Trench contained a modern wall foundation aligned north-west/south-east at the western end of the trench. Sondage excavated in the vicinity of the location of the bleach works wall, with no evidence for it.					Length (m)	10
					Width (m)	2
					Avg. depth (m)	1
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
301	Layer	-	0.15	Tarmac	-	Modern
302	Layer	-	0.25	Hardcore	-	Modern
303	Layer	-	0.10	Levelling deposit	-	Modern
304	Layer	-	0.16	Demolition Layer	-	-
305	Layer	-	0.34	Rubble Layer	-	-
306	Structure	-	0.50	Wall	-	-
307	Structure	-	0.15	Concrete Foundation	-	-
308	Layer	-	0.30	Light blue-grey silty clay	-	-
309	Layer	-	0.20	Orange-yellow silty clay	-	-
310	Layer	-	-	Dark grey-blue silty clay	-	-

## APPENDIX B      BIBLIOGRAPHY

British Geological Survey (BGS), 2018, Geology of Britain Viewer, [Online], available at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (accessed August 2018)

Chartered Institute for Archaeologists (CifA), 2014a 'Code of conduct', Reading

Chartered Institute for Archaeologists (CifA), 2014b 'Standard and guidance for archaeological evaluation', Reading

Chartered Institute for Archaeologists (CifA), 2014c 'Standard and guidance for the creation, preparation, transfer and deposition of archaeological archives', Reading

Cranfield Soil and Agrifood Institute, 2018, National Soil Resources Institute', Soilscales of Britain Map, [Online], available at: <http://www.landis.org.uk/soilscales/> (accessed August 2018), Cranfield University

Google, 2018, Google Earth Pro, [Online] (accessed August 2018)

Historic England, 2015 'Management of research projects in the historic environment: The MoRPHE project managers guide', London

Margery, ID, 1957, *Roman Roads in Britain*, Volume 2, Phoenix House, London

**APPENDIX C****SITE SUMMARY DETAILS**

<b>Site name:</b>	Darwen Market Square, Darwen, Lancashire
<b>Site code:</b>	MSD18
<b>Grid Reference</b>	SD 701 225
<b>Type:</b>	Evaluation
<b>Date and duration:</b>	08/08/2018, 1 day
<b>Area of Site</b>	2,571 m <sup>2</sup>
<b>Location of archive:</b>	The archive is currently held at OA, Mill 3, Moor Lane Mills, Moor Lane, Lancaster, LA1 1QD, and will be deposited with Lancashire Historic Environment Record in due course.
<b>Summary of Results:</b>	Structural remains were identified in all three trenches, although there was no evidence of the walls of Readford Bleach Works. Sandstone cobble sett surfaces identified in trenches 1 and 2 may relate to the bleach works. The wall identified in trench 3 appeared to be much more modern in date. The features were identified at a shallow level, approximately 0.30m below ground level, although the development is unlikely to impact upon them due to the level of the site being raised substantially in the vicinity of the archaeology identified, which will likely preserve the archaeological structures <i>in situ</i> .

## **APPENDIX D      WRITTEN SCHEME OF INVESTIGATION**

# Written Scheme of Investigation for Archaeological Works Associated with the development of Market Square, Darwen

January 2018

Capita on behalf of Blackburn with Darwen  
Borough Council



Client Name: Capita on behalf of Blackburn with Darwen Borough Council  
Client Ref No.: n/a  
Document Title: Written Scheme of Investigation for Archaeological Works Associated with the development of Market Square, Darwen  
Document Type: Written Scheme of Investigation  
Report No.: 1883  
Grid Reference: NGR SD701225  
Planning Reference: 10/17/0774  
Site Code: MSD18  
Invoice Code: L11110  
Receiving Body: n/a  
Accession No.: n/a

OA Document File Location:

OA Graphics File Location:

Issue No: 1  
Date: 13/01/2018  
Prepared by: Dr Adam Tinsley  
Checked by: Dr Alan Lupton  
Edited by: Dr Adam Tinsley  
Approved for Issue by:  
Signature:

.....

**Disclaimer:**

*This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.*

**OA South**

Janus House  
Osney Mead  
Oxford  
OX2 0ES

t. +44 (0)1865 263 800

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridge  
CB23 8SG

t. +44 (0)1223 850 500

**OA North**

Mill 3  
Moor Lane Mills  
Moor Lane  
Lancaster  
LA1 1QD

t. +44 (0)1524 880 250

e. [info@oxfordarch.co.uk](mailto:info@oxfordarch.co.uk)  
w. [oxfordarchaeology.com](http://oxfordarchaeology.com)

Oxford Archaeology is a registered Charity: No. 285627



# Written Scheme of Investigation for Archaeological Works Associated with the development of Market Square, Darwen

*Written by Dr Adam Tinsley*

## Contents

1	INTRODUCTION.....	1
1.1	Scope of Document.....	1
1.2	Location, topography and geology .....	2
1.3	Archaeological and historical background .....	2
2	AIMS AND OBJECTIVES.....	4
2.1	Aims.....	4
2.2	Objectives .....	4
3	METHODOLOGY.....	5
3.1	Introduction.....	5
3.2	Trial Trenching .....	5
4	BIBLIOGRAPHY .....	13
5	FIGURES .....	14



## 1 INTRODUCTION

### 1.1 Scope of Document

1.1.1 This document constitutes a Written Scheme of Investigation (WSI), submitted by Oxford Archaeology (OA) North on behalf of Capita (here after referred to as the client), acting for Blackburn with Darwen Borough Council, in relation to proposed archaeological works associated with the redevelopment of Market Square, Darwen, Lancashire. The development will see the demolition of an existing hexagonal building towards the centre of the proposed development area (PDA), formerly the premises of the 3 Day Market Hall, and subsequent re-landscaping of the square as a whole.

1.1.2 It is required as part of the planning conditions associated with the development imposed by representatives of the Lancashire Archaeological Advisory Service (LAAS), acting in their capacity as archaeological advisor to the Blackburn with Darwen Borough Council. In this regard, LAAS identified the potential for below ground remains to exist relating to the former premises of the Readford Bleach Works (Lancashire Historic Environment Record PRN24256), identified on historic mapping of the area as previously occupying southern aspects of the PDA. Given the significance of such industry to the historical development of Darwen, and indeed the wider area, the potential for such remains are held to be of local significance and consequently to merit archaeological investigation and potential preservation by record in lieu of their destruction during the course of developmental works. In this regard the following conditions and notes have been associated with planning application 10/17/0774, stating that;

**“Condition:** No development shall take place until the applicant, or their agent or successors in title, has secured the implementation of a programme of archaeological work. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and agreed in writing by the Local Planning Authority.

**Reason:** To ensure and safeguard the recording and inspection of matters of archaeological/historical importance associated with the site.

**Note:** The programme of archaeological work should comprise i) an archaeological watching brief during the lifting of any ground slabs, foundations etc associated with the market building; ii) the excavation of trial trenches in the southern part of the site to examine the survival and extent of the bleach works remains; iii) a phase of further excavation and recording of any significant remains identified in phases i and ii above. The works should also include the production of a formal report and archive. This work should be carried out by an appropriately qualified and experienced professional archaeological contractor to the standards and guidance set out by the Chartered Institute for Archaeologists.”

1.1.3 Unfortunately, it is understood that the demolition of the former 3 Day Market Hall has already occurred and, as such, the opportunity to undertake a preliminary watching brief in order to initially assess the preservation of below grounds remains has now passed. This WSI will not, therefore, feature a methodology relating to the requirement for a proposed watching brief. It will set out, in the first instance, the methodology to govern a scheme of trial trench evaluation, designed to establish the state of preservation of structural remains relating to the bleach works. Following completion of these works, the production of a report detailing the results, and

subsequent discussion with all stake holders, the need for further archaeological excavation will be determined and agreed. The scope of such works will therefore be dependent upon the results of the evaluation and consequently be governed by a separate document. This document does not, therefore, contain methodologies for subsequent phases of excavation that may be required.

## 1.2 Location, topography and geology

- 1.2.1 The PDA occupies a roughly triangular block of land focused upon the commercial center of Market Square, Darwen, Lancashire. The PDA extends around the former premises of a hexagonal building functioning as a market hall (now demolished in advance of the proposed scheme), and takes in the surrounding paved and pedestrianized area of Market Square, to be subject to further modification. The topography of this area rises generally towards the east, although the octagonal building and surrounding area is up to several meters below the level of Church Street and Railway Road, which collectively form the southern and eastern boundary of the PDA.
- 1.2.2 The underlying geology of the area comprises siltstone and sandstone of the Pennine Lower Coal Measures Formation (BGS 2017). The local soils include freely draining slightly acid loamy soils with sand and gravels (Cranfield 2017), although the area is entirely covered by relatively modern hard-standing and structures.

## 1.3 Archaeological and historical background

- 1.3.1 No archaeological works have so far been undertaken in relation to the site and the following appraisal of the archaeological potential of the PDA is based entirely upon information provided in the tender reference document and associated HER records.
- 1.3.2 The available information indicates that the archaeological potential of the PDA can be divided into three main groups, based upon finds of specific archaeological periods identified within the wider area of the development. These are;
- 1.3.3 **Prehistoric Archaeology:** A Bronze Age barrow was excavated during the nineteenth-century, approximately 1 mile to the south, at Ashleigh Street, Whitehall, and indicates the area of Darwen held some significance during early prehistoric periods. However, no features of prehistoric date have been previously identified in the PDA and, given it has been subject to considerable development during the late post-medieval and modern periods, the potential may be regarded as relatively low. If encountered, however, given the scarcity of such remains across the region, their research potential may be relatively high.
- 1.3.4 **Roman Archaeology:** Darwen is not thought to have existed as a settlement during the Roman period and there is no known focus of settlement activity in the area. No finds of this period have been recovered from directly within the PDA. With this said, a Roman road, extending between the former settlements at Manchester and Ribchester (Road 7b, Margery 1957: HER Reference PRN 15506 AND prn 26144), is known to run roughly south-east/north-west, approximately 1m to the east of the PDA, roughly corresponding to the current line of Blacksnape Road. In addition, a Roman cinery urn was recovered during the nineteenth-century from an unknown

location within Darwen and indicates that Roman activity, of unknown scale and type, did occur within the area. Given the scale of late post-medieval and modern development of the PDA and wider area, the chances of encountering any remains relating to this period must again be considered low, but likewise any such finds may have considerable research potential.

**1.3.5 Post Medieval/Industrial Period Archaeology:** the majority of references to find spots of archaeological interest within the general area of the PDA, primarily relate to this period and undoubtedly reflect the rich industrial heritage of the wider area and the rapid development of Darwen towards the later part of the nineteenth-century. The PDA is known to have been occupied in part by the former premises of Readford Bleach Works (Lancashire Historic Environment Record PRN24256), as identified on the 1st Edition Ordnance Survey 1:10, 560 mapping (Lancashire Sheet 70). The bleach works are known to have closed c 1878, and were demolished soon after, with the area given over to the creation of the current Market Square. It is unknown how extensively the subterranean remains of these buildings were removed by demolition and subsequent re-development. The textile mills of the North West and their associated ancillary industries were of great historical significance, shaping the landscape and the communities in which they were built, including the town of Darwen. They are consequently of some considerable local as well as wider regional historical and archaeological significance. In addition, textile finishing sites such as bleach works were less common than the spinning and weaving mills which supplied them, and few such sites are known to survive. There is therefore some potential to investigate subterranean remains relating to industrial period archaeological features specifically relevant to the development of Darwen during this period, hence the requirement for this WSI and a programme of archaeological evaluation.

---

## 2 AIMS AND OBJECTIVES

### 2.1 Aims

2.1.1 Given the archaeological potential of the PDA primarily resides with potential buried remains relating to the former premises of the Readford Bleach Works, held to be of local historical and archaeological significance and identified on historic mapping to be located towards the southern extent of the area, the aim of the evaluative works identified in this document will be to establish the presence/absence and state of preservation of any features relating to the works. A scheme of targeted trial trenching, comprising three small trenches, has therefore been devised, which will hopefully allow investigation of the target area and potential structures (Figure 3, *Section 3*).

### 2.2 Objectives

2.2.1 The objectives of the project can be summarised as follows;

- to adhere to and fulfill current planning conditions associated with the archaeological potential of the development, as issued by LAAS, and consequently to successfully discharge those conditions in whole or in part;
- to inform a decision as to whether further archaeological investigation will be required in advance of development ground works, based upon an assessment of the level of preservation of below ground remains relating to the target structure. It will also aim to provide sufficient information that a fully and accurately costed subsequent mitigation scheme can be developed, should such remains be identified, in lieu of their potential damage or destruction during intended development of the PDA;
- to compile a professional archival record of any archaeological remains within the PDA ahead of their potential destruction during subsequent development of the area.

## 3 METHODOLOGY

### 3.1 Introduction

- 3.1.1 Experience has shown the importance of a close working relationship between the client and their archaeological contractor on any development projects. Such a relationship will help to ensure the timely and successful completion of the project in an efficient and cost-effective manner, achieving high technical and academic standards, whilst meeting all the requirements of the tender documentation, and fulfilling all the client's archaeological obligations. This ethic is at the heart of our approach to this project.
- 3.1.2 The PDA will be investigated via the implementation of a phase of intrusive evaluation by trial trench excavation, as stipulated in the Notes attached to the planning conditions issued by LAAS (see *Section 1.1.2*).
- 3.1.3 This document does not set out the conditions and methodology for the following;
- A phase of watching brief, as requested in the same planning conditions, originally requested to accompany the demolition of the former hexagonal market building, now demolished.
  - A phase of subsequent wider archaeological excavation (should it be required), the potential requirement for which is stipulated in the same planning conditions. This will require a separate WSI document, the need for and scope of which will be dictated by and based upon the results of the trial trench evaluation.

### 3.2 Trial Trenching

- 3.2.1 As the primary aim and objective of the work programme is to establish the state of preservation of below ground remains associated with the former premises of the Readford Bleach Works, a scheme of targeted trial trenching has been devised with which to achieve these goals. Based upon historic mapping of the area, primarily the 1<sup>st</sup> Edition OS Map of Darwen (Figure 2), three 10m x 2m trenches have been positioned in order to test the mapped position of the former building and its current state of preservation (Figure 3).
- 3.2.2 **Site set up:** as an initial stage in the programme of works the client will provide any service plans and ground contamination reports to allow the safe progression of ground works. Unless otherwise provided by the client or their representatives, appropriate welfare facilities will be established, preferably within a designated compound area, at a suitable location, with good access to the PDA, prior to commencement of works. Given the proximity to the town centre and continued presence of the general public, the compound and excavation areas should be enclosed by Herras-type fencing in order to prevent un-authorized access.
- 3.2.3 Upon deployment to site, the proposed location of all individual trenches will be marked out using a Global Positioning System (GPS) accurate to within 0.10m. Following this, and prior to commencement of any excavation, a CAT-scan will be carried out to check for the presence of unknown services within the excavation areas.

This will also be carried out at any times deemed appropriate by the site supervisor. The presence of any services so detected will be clearly marked out and the position of any trenches adjusted as required. If any undetected services are suspected or encountered during excavation, an appropriate mitigation strategy will be developed, ie excavations halted, trenches relocated, if appropriate, or stand-off areas established, subject to the judgement of the attending supervisory archaeologist. The final location of all trenches will be fixed relative to ordnance datum using the GPS survey kit.

- 3.2.4 **Fieldwork:** unless otherwise undertaken by the client, or their appointed representatives, any hardstanding in the target excavation areas will be broken out using a mechanical excavator of appropriate size, equipped with a breaker. Material removed during this process will be stored at a safe distance from trench edges, within the line of any safety fencing, and kept separate from any other materials, awaiting appropriate disposal. Unless otherwise instructed, disposal of this material will be the responsibility of the client or their appointed representatives.
- 3.2.5 Following the removal of all necessary hardstanding, excavation of the uppermost levels of modern overburden material will be undertaken by a hydraulically powered mechanical excavator, of suitable size and power, fitted with a toothless ditching bucket. Excavations will be progressed in controlled spits of no more than 0.20m, to the top of the first natural horizon or first significant archaeological level. Mechanical excavation will be closely monitored at all times by a suitably experienced archaeologist. Spoil from each trench will be separated by material, as appropriate, and stored immediately adjacent to, but at a safe distance from, the edge of excavation. For safe access to each trench, points of access and egress by foot will be established, the machine being used to step or batter back the edge of excavation as required. The machine may be used to remove modern overburden infilling any structural features, as appropriate and safe to do so, in the same controlled fashion as identified above.
- 3.2.6 Following mechanical excavation of each trench, any structural features or other archaeological deposits will be manually cleaned. Given the anticipated character of archaeological remains, manual excavation of features is unlikely, but will be conducted if required. The level of any such sample excavation will be determined by the nature of the archaeology identified, and will follow standard archaeological practice as set out below;
- Discrete features (pits, post and stake holes): will be subject to 50% excavation in the first instance, with the remaining fill excavated should the feature be found to contain significant artefactual material;
  - Linear features (ditches and gullies of non-domestic nature): will be subject to a 10% sample of its exposed length, with slots excavated across its width to be a minimum of 1m wide. Slots will focus upon key nodes of interest including all intersections and termini;
  - Domestic structures (ditches, beam slots, gullies etc associated with identifiable concerted domestic activity); at this stage will be subject to 25% sample of their exposed length with slots excavated as above.

- 3.2.7 Due to Health and Safety considerations, no trench depth will exceed 1m below current ground level (bgl) without prior notification and justification. If manual excavation of slots within the base of any trench exceeds such depths, edges will be stepped accordingly, and every effort should be made to position such slots safely.
- 3.2.8 In the unlikely event that substantial levels of overburden are encountered, to the point where an archaeological or natural horizon have not been achieved before reaching 1m bgl, it may be necessary to mechanically excavate selective and suitably positioned sondages below the base level of the trench. This will be conducted in order to test further depths and levels of preservation. Any such sondages will be appropriately stepped within the practicable confines of the trench and immediately backfilled following any necessary recording. Under no circumstances will a member of staff enter any such sondage for purposes of recording. Recording will therefore be achieved via appropriate measurements and photography, to be enacted from a suitable and safe location.
- 3.2.9 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, using a system adapted from that used by the Centre for Archaeology Service of English Heritage. Results of the excavation will be recorded on pro-forma context sheets, and will be accompanied with sufficient pictorial record (plans, sections and digital photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.2.10 A full and detailed photographic record of individual contexts will be maintained and similarly general views from standard view points of the overall site at all stages of the excavation will be generated. Photography will be undertaken using high-resolution digital cameras, and all frames will include a visible, graduated metric scale. Photographic records will be maintained on special photographic pro-forma sheets. In addition, trenches may be recorded primarily through the use of rectified digital photography. This has been found to be a particularly effective means of recording anticipated structural features. In the event such a means of recording is utilised, appropriate survey control measures will be established through the positioning of rectified photography cards. The position of these reference points will be surveyed using the GPS system in order to accurately locate each and every record.
- 3.2.11 The precise location of individual trenches, and the position of all archaeological features and deposits encountered, will be surveyed by either a GPS or else an EDM tacheometry using a total station linked to a pen computer data logger. This process will generate scaled plans within AutoCAD software, which will then be subject to manual survey enhancement, as appropriate. The drawings will be generated at an accuracy appropriate for 1:20 scale, but can be output at any scale required. Sections will be manually drafted as appropriate at a scale of 1:10. All information will be tied in to Ordnance Datum.
- 3.2.12 **Human remains:** are not expected to be present, but if they are found they will, if possible, be left *in-situ*, covered, and protected. If removal is necessary, then the relevant Home Office permission will be sought, and the removal of such remains will be carried out with due care and sensitivity as required by the Burials Act 1857.

- 3.2.13 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996.
- 3.2.14 **Finds policy:** finds recovery and sampling programmes will be in accordance with best practice following current Chartered Institute for Archaeologists (CIfA) guidelines, and subject to expert advice in order to minimise deterioration. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC). Samples will also be collected for technological, pedological and chronological analysis as appropriate.
- 3.2.15 **Environmental Sampling:** the strategy for palaeo-environmental sampling will be developed on site, in consultation with appropriate specialists, as necessary. The environmental sampling strategy will therefore evolve from a discussion between those specialists and the field team and will be in accordance with current best practice.
- 3.2.16 In broad terms, however, while it is unlikely that substantial environmental sampling will be undertaken, given the anticipated character of archaeological remains, any sampling strategy will be aimed at recovering palaeo-botanical, palaeo-zoological and pedological evidence. It is anticipated that environmental samples (bulk samples of a minimum of 40 litres volume, or 100% of the fill if the feature is too small to allow such a sample, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features, should any such features be identified during the course of the excavation.
- 3.2.17 **Monitoring:** during the course of fieldwork, LAAS and their representatives, will be afforded regular consultation, including full access to the site archive, and the opportunity to attend site in order to assess first hand, the ongoing results of the excavations, and offer advice accordingly, in line with their role as archaeological advisor to the Local Planning Authority (LPA).
- 3.2.18 LAAS will be regularly informed of the ongoing results and their estimated significance and allowed the opportunity to attend site in order to assess if all archaeological objectives have been achieved. The ultimate release of the planning conditions will be dependent upon the successful completion of these archaeological aims, but also the production of a complete archaeological report detailing the results of the excavation and an interpretation of their significance. The need for further phases of archaeological mitigation, as well as analysis and dissemination of the results can only be assessed upon completion of this process and further consultation with LAAS.
- 3.2.19 Upon completion of the fieldwork, and pending completion of a full report detailing the results of the excavation, a meeting between all stake holders should be arranged in order to discuss and agree the need for and scope of any subsequent archaeological mitigation arising from those results.
- 3.2.20 **Post-Excavation**
- 3.2.21 Post-excavation work will comprise the following:
- checking of drawn and written records during and on completion of fieldwork;



- production of a stratigraphic matrix of the archaeological deposits and features present on the site, if appropriate;
- cataloguing of photographic material, which will be mounted appropriately;
- cleaning, bagging and labelling of finds according to the individual deposits from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to an appropriate Conservation Laboratory. Finds will be identified and dated by appropriate specialists;
- assessment of all material categories of finds recovered from the excavation;
- assessment of any palaeo-environmental material and/or technological residues recovered will be undertaken, providing recommendations for further analysis.

### 3.2.22 **Archive and Reporting**

3.2.23 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (2015a), and in accordance with the Guidelines for the Preparation of Excavation Archives for Long-Term Storage (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the CSMR (the index to the archive and a copy of the report).

3.2.24 The paper and finds archive for the archaeological work undertaken at the site will be deposited with Blackburn Museum. The archive will be deposited with the museum within twelve months of the completion of the fieldwork. Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the museum. An accession number for the project archive will be obtained from the museum prior to the commencement of the fieldwork.

3.2.25 The Arts and Humanities Data Service (AHDS) online database project Online Access to index of Archaeological Investigations (OASIS) will be completed as part of the archiving phase of the project.

3.2.26 **Reporting:** the level of reporting will depend upon the archaeological significance of the results. If only locally important archaeological remains are discovered, then only an archive report will be produced. If remains of regional or national importance are revealed then an English Heritage MAP2 style of post-excavation assessment report will be compiled, and will define the resource implications of completing the post-excavation programme. The decision as to which reporting strategy will be followed will be made in conjunction with representatives of LAAS.

3.2.27 **Archive Report for Locally Important Remains:** a draft copy of a written synthetic post-excavation assessment report will be submitted for comment to the archaeological curator (LAAS) for comment within three months of completion of the fieldwork, although the time frame for production of the report can be tailored to the clients requirements upon prior agreement. The report will include a copy of this WSI, and indications of any agreed departure from that design. It will present, summarise, and

interpret the results of the programme detailed above and present an assessment of the history of the site. The report will include the following:

- a title page detailing site address, NGR, author/originating body, client's name and address;
- full content's listing;
- a non-technical summary of the findings of the fieldwork; a description of the methodology;
- a description of the archaeological background;
- a detailed account of the historical development of the site, accompanied with map regression analysis;
- a description of the topography and geology of the study area;
- a description of the methodologies used during the fieldwork;
- a description of the findings of the fieldwork;
- detailed plans of the excavated trenches, showing the archaeological features exposed;
- an overall phased plan with sections of the excavated archaeological features;
- interpretation of the archaeological features exposed and their context within the surrounding landscape;
- specialist assessment reports on the artefactual/ecofactual/industrial remains from the site;
- appropriate photographs of specific archaeological features;
- a consideration of the importance of the archaeological remains present on the site in local, regional and national terms;
- a complete bibliography of sources from which data has been derived.
- Illustrative material will include a location map, site map, a trench location map, trench plans, trench sections, survey maps, palaeoenvironmental figures, and pertinent photographs.

3.2.28 ***Post-Excavation Assessment for Regionally / Nationally Important Remains:*** if the archaeological results are deemed to be of regional or national importance as a result of discussions with the LAAS, then an assessment of the archive will be undertaken, and the resource requirements for analysis and publication will be defined, in accordance with the guidelines of MAP2 (English Heritage 1991). This will involve an assessment of the dataset, followed by a review of the project archive to establish the potential for further analysis. The assessment will take place in close consultation with the client and LAAS, and the format for the final report will also be agreed at this stage of the work. The Harris Matrix, largely produced during the excavation programme, will be completed and checked as part of the assessment. The assessment will involve the compilation of a brief archive report, outlining the significance of the structural, artefactual and environmental evidence, and presenting recommendations for further

analysis, as appropriate. The report will also include a short summary of the stratigraphic history of the site.

3.2.29 The project assessment will include an updated project specification, which will comprise a full project design for a programme of full analysis and publication, and will be in accordance with MAP2 (English Heritage 1991). This document will be submitted to LAAS within three months of the completion of the fieldwork.

3.2.30 **Analysis:** an appropriate programme of analysis should then be undertaken to prepare a research archive, as detailed in Appendix 6 of Management of Archaeological Projects; the precise scope for this element will be defined within the updated project specification. Following the analysis of the excavation results, a report will be written which will present, summarise, and interpret the results of the programme and will incorporate specialist reports on artefact assemblages and environmental reports. It will include an index of archaeological features identified in the course of the project, with an assessment of the site's development. It will incorporate appropriate illustrations, including copies of the site plans and section drawings all reduced to an appropriate scale. The archive report will be submitted within 12 months of the completion of the fieldwork.

3.2.31 **Other Matters**

3.2.32 **Health and Safety:** full regard will be given to all constraints during the course of the project. All site procedures will be in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers.

3.2.33 The client and its archaeological contractor will undertake to safeguard, so far as is reasonably practicable, the health, safety and welfare of staff and of others who may be affected by our work. This applies in particular to providing and maintaining suitable premises, ensuring the safety of all equipment supplied by the contractor, and providing all reasonable safeguards and precautions against accidents. The archaeological contractor will also take all reasonable steps to ensure the health and safety of all persons not in their employment, such as volunteers, students, visitors, and members of the public (this includes trespassers). The archaeological contractor will ensure, as far as is reasonably practicable, that no one suffers injury because of dangers arising from the state of the premises, or things done, or omitted to be done, on the premises.

3.2.34 The archaeological contractor should be fully familiar and will comply with all current and relevant legislation, including, but not limited to:

- The Health and Safety at Work Act (1974);
- Management of Health and Safety at Work Regulations (1999);
- Manual Handling Operations Regulations 1992 (as amended in 2002);
- The Construction (Design and Management) Regulations (2015);
- The Control of Asbestos Regulations (2006);
- Confined Spaces Regulations (1997);

- The Workplace (Health, Safety and Welfare) Regulations (1992);
- Construction (Health, Safety and Welfare) Regulations (1996);
- The Work at Height Regulations (2005);
- The Control of Substances Hazardous to Health Regulations (2002);
- The Health and Safety (First-Aid) Regulations (1981);
- The Regulatory Reform (Fire Safety) Order (2005);
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (1995);
- The Provision and Use of Work Equipment Regulations (1998);
- Lifting Operations and Lifting Equipment Regulations (1998).

## 4 BIBLIOGRAPHY

British Geological Survey (BGS), 2017, Geology of Britain Viewer, [Online], available at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (accessed January 2018)

Chartered Institute for Archaeologists (CifA), 2014a 'Code of conduct', Reading

Chartered Institute for Archaeologists (CifA), 2014b 'Standard and guidance for archaeological evaluation', Reading

Chartered Institute for Archaeologists (CifA), 2014c 'Standard and guidance for the creation, preparation, transfer and deposition of archaeological archives', Reading

Chartered Institute for Archaeologists (CifA), 2014d Standards and Guidance for an Archaeological Geophysical Survey, Reading

Cranfield Soil and Agrifood Institute, 2017, National Soil Resources Institute', Soilscales of Britain Map, [Online], available at: <http://www.landis.org.uk/soilscales/>, Cranfield University

English Heritage, 1991 The Management of Archaeological Projects, 2nd edn, London

Historic England, 2015a 'Management of research projects in the historic environment: The MoRPHE project managers guide', London

Historic England 2015b, 'Digital image capture and file storage: guidelines for best practice', London

Margery, ID, 1957, *Roman Roads in Britain*, Volume 2, Phoenix House, London

SCAUM (Standing Conference of Archaeological Unit Managers), 1997 Health and Safety Manual, Poole

United Kingdom Institute for Conservation (UKIC), 1990 Guidelines for the preparation of archives for long-term storage

## 5 FIGURES



Figure 1: Site location



Site Boundary
  Proposed Trenches

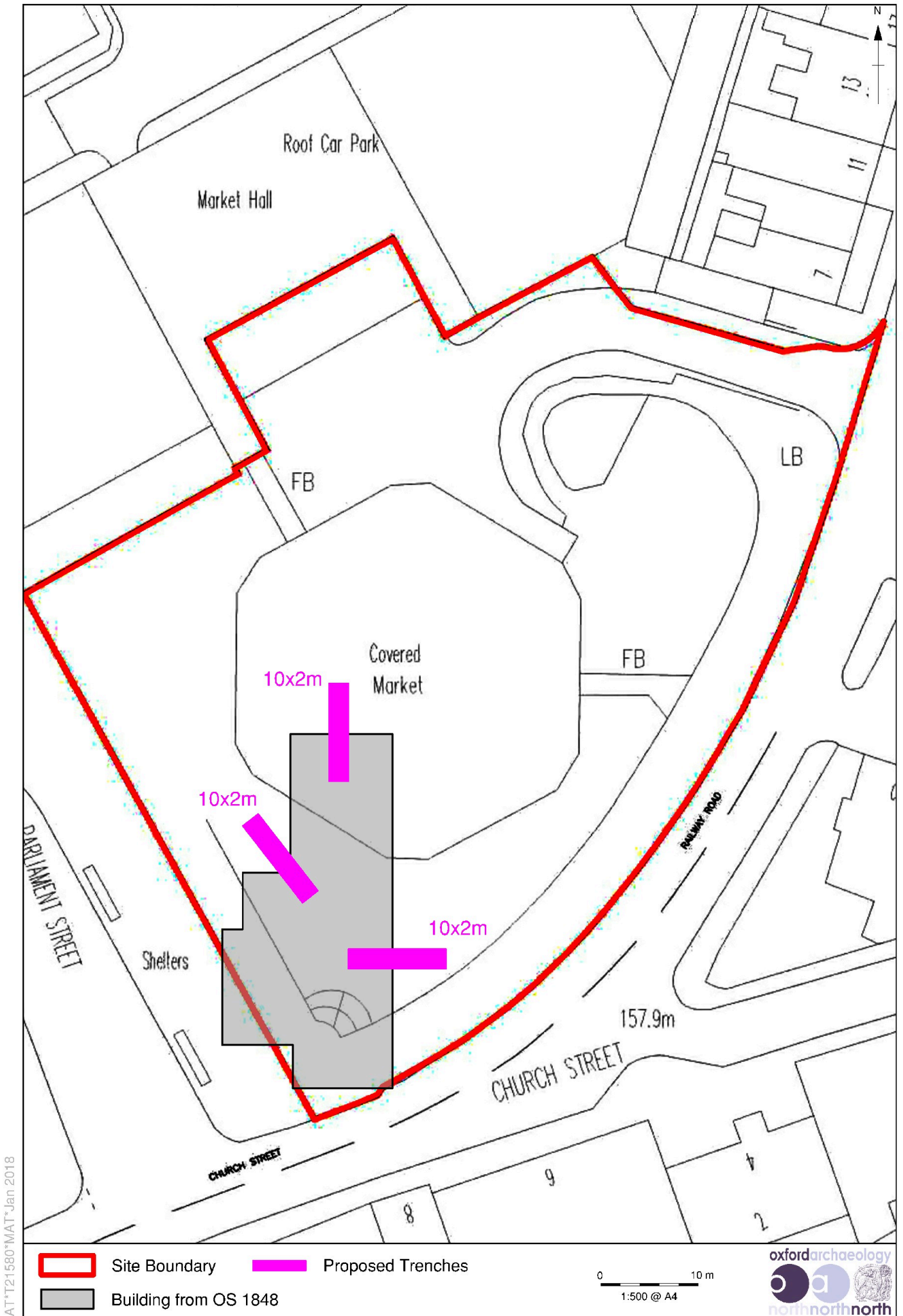
0  50 m  
 1:2000 @ A4



AT\*T21580\*MAT\*Jan.2018

Figure 2: Proposed evaluation trenches superimposed on the Ordnance Survey first edition 6":1 mile map of 1848





AT\*T21580\*MAT\*Jan 2018

Figure 3: Proposed evaluation trenches



**Head Office/Registered Office/  
OA South**

Janus House  
Osney Mead  
Oxford OX2 0ES

t: +44 (0) 1865 263 800  
f: +44 (0) 1865 793 496  
e: [info@oxfordarchaeology.com](mailto:info@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA North**

Mill 3  
Moor Lane  
Lancaster LA1 1QD

t: +44 (0) 1524 541 000  
f: +44 (0) 1524 848 606  
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridgeshire  
CB23 8SQ

t: +44 (0) 1223 850500  
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>



**Director:** Gill Hey, BA PhD FSA MCifA  
*Oxford Archaeology Ltd is a  
Private Limited Company, N<sup>o</sup>: 1618597  
and a Registered Charity, N<sup>o</sup>: 285627*