

Ducie Street, Manchester

Written Scheme of Investigation for Archaeological Works

December 2021 (Updated January 2022)



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Prepared on behalf of: Urbano Property Ltd

Date of compilation: December 2021 (Updated
January 2022)

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Site code: DSM21

Local Authority: Manchester City Council

Planning Application Ref: 120149/FO/2018

Site central NGR: SJ 85018, 98254

1 INTRODUCTION

1.1 Project Background

1.1.1 This Written Scheme of Investigation (WSI) has been prepared by Archaeological Research Services Ltd (ARS Ltd) for Zerum Consult Limited acting on behalf of Urbano Property Ltd. It details a scheme of archaeological works to be carried out at Ducie Street, Manchester.

1.1.2 Planning permission has been approved by Manchester City Council (Ref. 120149/FO/2018) for the erection of 7 to 8 storey residential building (Class C3) to provide 41 apartments (7 x 1-bedroom 1-person apartments, 6x 1-bedroom 2-person apartments, 6x 2-bedroom 3-person apartments, 22x 2-bedroom 4-person apartments) with associated landscaping and other works). Condition number 18 of the approved planning permission states that:

'18. No development shall commence until the applicant or their agents or successors in title has secured the implementation of a programme of archaeological works. The works are to be undertaken in accordance with a Written Scheme of Investigation (WSI) submitted to and approved in writing by Manchester Planning Authority. The WSIs shall cover the following:

1. A phased programme and methodology of investigation and recording to include:

- ♦ *Archaeological evaluation trenching*
- ♦ *Targeted open area excavation*

2. A programme for post-investigation assessment to include:

- ♦ *Production of a final report on the results of the investigations and their significance.*

3. Deposition of the final report with the Greater Manchester Historic Environment Record.

4. Dissemination of the results of the archaeological investigations commensurate with their significance.

5. Provision for archive deposition of the report and records of the site investigation.

6. Nomination of a competent person or persons/organisations to undertake the works set out within the approved WSI and have the findings of the investigation have been signed off by GMAAS.'

1.1.3 The archaeological works will be carried out in accordance with NPPF paragraph 205 (MHCLG 2021, 58), *'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) publicly accessible.'*

1.1.4 This WSI confirms the nature of the archaeological works to be undertaken by ARS Ltd at Ducie Street, Manchester comprising an initial watching brief and a phase of archaeological evaluation trenching, in accordance with guidance provided



by the Ian Miller, Heritage Management Director with Greater Manchester Archaeological Advisory Service (GMAAS).

1.2 Site Description and Location

1.2.1 The 'red line boundary' of the proposed development area (hereafter PDA) is depicted by a red polygon on Figure 1 and is c.552m² in area. The site lies between Manchester City Centre and Ancoats, to the north side of Ducie Street and the south of Lomax Street, with both streets extending westwards from Great Ancoats Street (A655). The site itself comprises a single small car park that extends from Ducie Street to Lomax Street. It is laid with tarmac and is accessed from the south to the centre of the car park, or to the northwest corner from Lomax Street. The car park is separated from another car park to the east by a timber fence, with no defined boundaries to the north, south and west. The only structure within the site is a small ticket kiosk, present at the eastern margin of the southern access road. The site is centred at NGR SJ 85018, 98254 (Figure 1).

1.3 Geology and Soils

1.3.1 The underlying solid geology of the PDA comprises sandstone of the Chester Formation, sedimentary bedrock formed approximately 247 to 250 million years ago in the Triassic Period when the local environment was previously dominated by rivers. This is overlain by superficial deposits of Devensian Till – Diamicton (BGS 2021).

2 BACKGROUND

2.1 Archaeological and Historical Background

2.1.1 A desk-based assessment (Kathryn Sather & Associates 2018a) and heritage statement (Kathryn Sather & Associates 2018b) were produced to support the planning application, which detail the known archaeological and historical potential of the site. Whilst the Greater Manchester HER does not record any heritage assets within the site boundary, historic map regression indicates that the site has developed from the late-18th century – present day with a mixture of residential, commercial and industrial uses. The following is a summary of these results.

2.1.2 Ducie and Lomax Streets were laid out by the late 18th century, with the first development depicted within the site boundary at the beginning of the 19th century. Dean and Pigot's 1809 plan shows a large block of buildings now present within the site, though the development does not extend within the south-western corner of the site. By the time of the 1832 Ordnance Survey (OS) plan, the buildings within the site are now depicted as three distinct parallel blocks, with slender alleyways in-between, with the south-western corner of the site still undeveloped (Kathryn Sather & Associates 2018a, 13).

2.1.3 It is not until the 1850 OS plan that the site is depicted in detail. The northern two rows of buildings on the 1832 plan are now shown to be a series of back-to-back housing which fronted onto either Lomax Street to the north, Bank Street to the west, or several small courtyards within the site itself, including 'Goodall Court' in



the north-eastern corner of the site from Lomax Street, 'Bank Street Court No.4' within the western half of the site, and 'Nelson's Court' within the eastern half of the development area. Within the south-eastern corner of the site, historic mapping reveals the location of Mather Street Brewery likely associated with the Lord Nelson Public House immediately adjacent to the brewery to the east. This plan also depicts part of a Machine Manufactory, occupied by Thomas and Edwin Briggs (machinists) extending into the south-western part of the site (Kathryn Sather & Associates 2018a, 14).

2.1.4 Throughout the mid-late 19th century, the brewery building within the site varied throughout the years, with the 1883 and 1895 trade directories recording the structure as being used by a 'hay and straw dealer' and 'corn dealer' respectively. Between 1893 and 1908, all the back-to-back housing within the northern half of the site had been redeveloped into through terrace housing or perhaps workshop space. Historic mapping indicates that the site as a whole remained unchanged throughout the early-mid 20th century, with the buildings extant in some form until c.1970. Subsequent late-20th century plans show the northern half of the site was included within a wider 'Works' development, likely resulting in the demolition of the terraced structures within this part of the site. The buildings within the southern half of the site appear to have remained unchanged. Google Earth aerial imagery indicates that sometime between 2003 and 2005, all the buildings within the site boundary were demolished, and a car park was established (Kathryn Sather & Associates 2018a, 14-15).

2.1.5 The DBA (Kathryn Sather & Associates 2018a, 17-20) has identified four distinct areas of archaeological potential, derived from the results of the historic map regression, as outlined below (Figure 2):

- ♦ **Site 1. Back-to-Back Housing south of Lomax Street:** Dating to the early-19th century, site of five workers houses with alley between which provided access to 'Goodalls Court'. Demolished by 1908 OS plan.
- ♦ **Site 2. Houses to the north of Nelson's Court:** Dating to early-19th century, site of two workers houses which may have been incorporated into the Brewery or demolished to make way for Brewery expansion in early-20th century.
- ♦ **Site 3. Mather Street Brewery/Hay and Straw Dealership/Corn Miller:** Dating to 19th century, site of an industrial building that may have survived in some form from early-19th century to early-21st century.
- ♦ **Site 4. Machine Manufactory:** Mid-19th century industrial complex, with the south-western of the site utilised as a yard with outbuildings. Demolished by early-21st century.

2.1.6 These areas of potential have helped outline the aims and objectives and methodologies of the archaeological fieldwork.



3 AIMS AND OBJECTIVES

3.1 Regional Research Aims and Objectives

3.1.1 Research topics relevant to this site identified in the *Updated North West England Regional Research Framework* includes the following.

The Industrial and 20th Century Period (Nevell 2021)

- ♦ Ind22: How can we take forward our understanding of the impact of industrialisation on the working class and their living conditions?
- ♦ Ind30: How have buildings changed in response to planning regulations?
- ♦ Ind32: To what extent did houses and shops incorporate workshops and warehousing?
- ♦ Ind33: How well studied and understood are the backyards of workers housing and what is their significance?
- ♦ Ind60: How can we make sense of the relative significance of historic industrial processes and building types perceived as poorly understood and recorded?

3.1.2 This regional research framework will help inform the aims and objectives of the programme of archaeological works at Ducie Street, Manchester.

3.1.3 These aims and objectives will be visited both during and after the archaeological works in order that they may be updated as necessary.

3.2 Fieldwork Aims and Objectives

3.2.1 The aim of the archaeological works is to identify and record the possible presence/absence, location, nature, extent, survival, quality, significance and date of archaeological deposits that may exist on the proposed development site.

3.2.2 The objectives of the archaeological evaluation trenching are as follows.

- ♦ Identify the presence/absence of archaeological features and deposits within the site.
- ♦ Record any archaeological features and deposits encountered.
- ♦ Sample sufficient of the archaeological features and deposits to establish relative sequence, likely dating, quality of preservation and significance.
- ♦ Gather sufficient information to establish the character, extent, form, function and likely status of any surviving archaeological deposits with a view to evaluating their significance and potential to inform the aims and objectives outlined in section 3.1 of this WSI.



4 WATCHING BRIEF

4.1 Coverage

4.1.1 In consultation with the Heritage Management Director with GMAAS, a watching brief will be carried out during all sub-surface groundworks associated with drainage works within the site boundary (Figure 2).

4.1.2 Should significant areas of archaeological interest be uncovered during the watching brief, discussions will be undertaken with the Heritage Management Director with GMAAS on the best archaeological mitigation strategy.

4.2 Constraints

4.2.1 Work will cease if contamination is encountered during groundworks. The site manager, the client and GMAAS will be informed. An updated risk assessment will be provided.

4.2.2 The site is currently utilised as a car park. All proposed groundworks areas will be scanned with a CAT and Genny before excavation is to take place.

4.3 General Statement of Practice

4.3.1 All elements of the archaeological watching brief will be carried out in accordance with ClfA's *Code of Conduct* (2021) and *Standard and Guidance for an Archaeological Watching Brief* (2020a).

4.3.2 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording.

4.3.3 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 of the watching brief and will be given a copy of this WSI to read.

4.3.4 All ground works covered under this specification will be undertaken either by hand or by a suitable mechanical excavator fitted with a breaker, toothed and toothless ditching buckets operating under archaeological supervision.

4.3.5 ARS Ltd will ensure that plant or machinery will not be operated in the immediate vicinity of any archaeological remains until they have been recorded.

4.3.6 Contractors and plant operators must notify any observations of archaeological remains immediately to the archaeologist on site. The developer will make provision for the necessary archaeological investigation (fieldwork, post-excavation analysis, reporting and archive deposition).

4.3.7 Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the change to respond appropriately and in line with the requirements of the Heritage Management Director with GMAAS.



4.3.8 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment will be prepared before commencement on site.

4.3.9 The on-site archaeologist will be given, at their request, the opportunity to stop site work to investigate potential archaeological features. Adequate time will be negotiated and allowed for recording any such features.

4.4 Methodology

4.4.1 Any hard standing will be pecked and/or lifted by machine under archaeological supervision. Excavation will be undertaken by a suitable mechanical excavator fitted with a toothed or toothless ditching bucket or by hand. No machinery will track over areas that have previously been stripped until the area has been signed off by ARS Ltd.

4.4.2 Excavated spoil will be scanned visually to recover small finds. Finds so recovered will be recorded with their location of origin ascribed. Finds will be retained and recorded.

4.4.3 Where archaeological features and/or deposits are identified during the watching brief, then a sufficient quantity of the said features will be investigated by hand to allow their date, nature and degree of survival to be ascribed.

4.4.4 A written, drawn and photographic record will be maintained during the watching brief. All significant archaeological remains will be recorded and/or retrieved.

4.4.5 If significant archaeological features are identified during these works, the Heritage Management Director with GMAAS will be notified, and a decision made as how to proceed.

5 EVALUATION TRENCHING

5.1 Coverage

5.1.1 Based on the results of the watching brief, and in consultation with GMAAS, a phase of archaeological evaluation trenching may be required.

5.1.2 The results of the watching brief works, in particular the description of the character of the below-ground conditions across the site, and the areas of archaeological potential as identified within the DBA (see section 2.1.5 above) will inform the size, number, and location of the trenches, details of which will be appended to the WSI upon completion and review by GMAAS of the watching brief summary report.

5.1.3 Should significant archaeological remains be identified during the archaeological trenching, then a further phase of archaeological works, comprising targeted open area excavation, may be required. These works would be undertaken before any development ground works commence in the area of archaeological interest and would be subject to either an addendum to this WSI or a separate WSI.



5.2 Constraints

5.2.1 Work will cease if contamination is encountered during groundworks. The site manager, the client and GMAAS will be informed. An updated risk assessment will be provided.

5.2.2 The site is currently utilised as a car park. All trenches will be scanned with a CAT and Genny before any excavation is to take place. GMAAS will be fully consulted if any alteration to the trenches is needed.

5.3 General Statement of Practice

5.3.1 All elements of the archaeological trenching and excavation will be carried out in accordance with ClfA's *Code of Conduct* (2021) and *Standards and Guidance for Archaeological Field Evaluation* (2020b).

5.3.2 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording. All staff will be made aware of the circumstances and potential archaeological importance of the work and will be fully briefed on the requirements of this specification.

5.3.3 All ground works covered under this specification will be undertaken by a suitable mechanical excavator fitted with a breaker, toothed and toothless ditching bucket or by hand. Where trenches are to be excavated through tarmac, a breaker will be used.

5.3.4 Should archaeological deposits or structures be revealed that are more numerous, better preserved, or of higher status than expected or than which could reasonably be expected, consultation will take place with GMAAS to identify and agree further excavation/recording strategy.

5.3.5 ARS Ltd will ensure that plant or machinery will not be operated in the immediate vicinity of any archaeological remains until they have been recorded.

5.3.6 Contractors and plant operators will be notified that any observations of archaeological remains must be reported immediately to the archaeologist on site. Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the chance to respond appropriately and in line with GMAAS requirements.

5.3.7 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment will be prepared before commencement of works on site.

5.4 Methodology

5.4.1 Any hard standing will be pecked and/or lifted by machine under archaeological supervision. Modern overburden and topsoil will be removed by a mechanical excavator using a 2m wide toothless ditching bucket to the first significant archaeological horizon in successive level spits. No machinery will track

over areas that have previously been stripped until the area has been signed off by ARS Ltd.

5.4.2 All trenches will be appropriately cleaned using hand tools in order to expose the full nature and extent of archaeological features and deposits.

5.4.3 All spoil removed during groundworks will be visually scanned to recover small finds. Any finds recovered will be recorded and their location noted on a site plan at a relevant scale. The finds will be retained and recorded.

5.4.4 All archaeological features will be planned and sectioned. Dispensation may be sought in relation to sectioning of features from GMAAS, where said features are so large in instances where excavation may be better effected during subsequent mitigation.

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

5.4.6 Linear features, such as ditches and gullies relating to agricultural activity, will be sampled a minimum of 20% along their length, with each sample section to be not less than 1m, or a minimum of a 1m sample section, if the feature is less than 5m in length.

5.4.7 The depositions at junctions or interruptions in linear features will be sufficiently excavated for the relationship between components to be established. All termini will be investigated.

5.4.8 Any depositions relating to funerary/ritual activities, such as burials and cremation deposits, will be 100% excavated. 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.

5.4.9 Area deposits, such as buried soils, or middens, will be hand excavated at a minimum 10%. Subsequent excavation by machine will be considered.

5.4.10 Cut features of an archaeological nature which comprise structural units will be completely excavated to and respect the original interface of construction.

5.4.11 Upstanding or positive features of an archaeological nature, following recording, will be either partially or wholly excavated by hand where such excavation facilitates access to lower lying archaeological stratification. Where said features do not represent elements of a physically superimposed sequence and are observed to be truncating natural strata partial excavation, as a representative sample (to demonstrate construction technique, depth of foundation trench, construction materials etc.) will be undertaken.

6 SAMPLING, FAUNAL REMAINS AND TREASURE

6.1 This section outlines sampling methodologies to be utilised during all excavation types.



6.2 A minimum soil sample of 40 litres will be taken from sealed and stratigraphically secure deposits, that are adjudged to have the potential to provide environmental evidence relating to diet and economy, dating evidence or land use regime. A 100% soil sample of the deposit will be taken if the deposit is less than 40 litres in volume.

6.3 In the case of waterlogged or anaerobic deposits a minimum sample size of 20 litres will be taken.

6.4 Should a sequence of superimposed deposits of note be present, column sampling may be considered.

6.5 Samples will be assessed by a suitable specialist and provision will be made for scientific dating, where justified against the project aims.

6.6 Where there is evidence for industrial activity, macroscopic technological residues (or samples of them) will be collected by hand. Separate samples (c.10ml) will be collected from micro-slugs (hammer scale and spherical droplets) in accordance with *Archaeometallurgy: Guidelines for Best Practice* (Historic England 2015a) and *Archaeological Evidence for Glassworking* (Historic England 2018a).

6.7 Samples will be taken for scientific dating (such as radiocarbon dating) in specific circumstances that will apply where dating by artefacts is insecure or absent.

6.8 Appropriate consideration will be given to the need for any geoarchaeological assessment of buried soils and sediment sequences exposed. Where this is necessary, these will be inspected and recorded on site by a recognised geoarchaeologist as field inspection may provide sufficient data for understanding site formation processes. The procedures and techniques presented in *Geoarchaeology: Using earth sciences to understand the archaeological record* (Historic England 2015b) will be applied. Samples for laboratory assessment will be collected where appropriate, following discussion with GMAAS.

6.9 Sampling strategies for wooden structures should follow the methodologies presented in Historic England's (2010) *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood*. For other waterlogged organic finds, guidance provided by Historic England's (2018b) *Waterlogged Organic Artefacts. Guidance on their Recovery, Analysis and Conservation* will be followed.

6.10 Should other types of environmental deposits be encountered, appropriate specialist advice will be sought and an appropriate sampling strategy devised. Samples will be assessed by a suitable specialist with provision for further analysis as required. Advice from the Historic England Science Advisor will be taken as appropriate.

6.11 In all instances sampling strategies will be in accordance with guidelines issued by Historic England's *Environmental Archaeology: A Guide to the Theory and Practice Methods, from sampling and recovery to post excavation* (Campbell *et al.* 2011) and will be targeted in order to explore the levels and types of preservation present.



6.12 Any human remains will initially be left *in-situ*, covered and protected. Removal will be undertaken, if deemed necessary, once a Coroners licence has been obtained in accordance with the relevant Ministry of Justice regulations, in line with current guidelines (Brickley and McKinley 2004; English Heritage 2004; English Heritage/Church of England 2005; APABE/English Heritage 2013; APABE/Historic England 2017; Mitchell and Brickley 2017) and in discussion with GMAAS.

6.13 All finds that may constitute 'treasure' under the Treasure Act, 1996, will be removed to a safe place and reported to the local Coroner in accordance with the Treasure Act (DCMS 2008). The Portable Antiquities Liaison Officer will also be notified.

HM Coroner	Finds Liaison Officer
Mr Graham Jackson	Heather Beeton
Coroner's Office	National Museums Liverpool
Crown Square	Department of Archaeology
Manchester	Pier Head, Liverpool Waterfront
Greater Manchester	Liverpool
M60 1PR	L3 1DG
Tel: 0161 830 4222	Tel: 0151 4784259
	Email: Heather.Beeton@liverpoolmuseums.org.uk

6.14 GMAAS 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. Where removal cannot take place on the same working day as discovery, suitable security measures will be taken to protect the finds from theft.

7 RECORDING

7.1 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.

7.2 The site will be tied into the National Grid and located on a 1:2500 or 1:1250 map of the area.

7.3 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 sections/elevations will be drawn where required at the appropriate scale and in accordance with best practice. In addition to relevant illustrations, provision for rectified photographic recording shall be made, if deemed necessary.

7.4 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).

7.5 Sample representative levels will be taken to record the maximum depth of excavation and /or natural should no archaeological features be uncovered.



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

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

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

7.9 Site photography will comprise high resolution (minimum of 16.4 megapixels) colour photography. The photographic record will encompass all encountered archaeological entities as well as recording the general environs of the site and working practices. In addition, key relationships between entities, where these help demonstrate sequence or form, will also be photographed. A clearly visible, graduated metric scale will be included in all record shots. A supplementary record of working images will be taken to demonstrate how the site was investigated and what the prevailing conditions were like during excavation. The photographs will be archived in accordance with Historic England guidance (2015c) and a register of all photographs will be kept.

8 FINDS PROCESSING AND STORAGE

8.1 All finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *Excavated Artefacts and Conservation* (UKIC 2001). All finds processing, conservation work and storage of finds will be carried out in accordance with the ClfA (2020c) *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*.

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

8.3 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.

8.4 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.

8.5 Metal finds will be sampled, processed and analysed in line with *Archaeometallurgy: Guidelines for best practice* (Historic England 2015a), and *Guidelines on the X-radiography of archaeological metalwork* (English Heritage 2006a). 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* (English Heritage 2010) and *Waterlogged Organic Artefacts. Guidelines on their Recovery, Analysis and Conservation* (Historic England 2018b).



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

8.7 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.

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

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

9 POST-EXCAVATION

9.1 The archaeological fieldwork will be followed by post-excavation analysis and reporting. This will include the cataloguing and analysis of any finds, samples and the preparation of the archive for the site report and its subsequent deposition. Where artefacts are recovered from identified features they will be quantified by date class and type; in other circumstances, they will be quantified by period and class and type (e.g. 5 sherds, late Roman grey ware pottery); in other circumstances, as a minimum, they should be quantified by period and class (e.g. 5 sherds, Roman pottery).

9.2 Artefacts, biological samples and soils will be assessed for evidence of site and deposit formation processes and for evidence of recent changes that may have been caused by alterations in the site environment. Assessment will, where necessary, include x-radiography of all iron objects, (after initial screening to exclude obvious recent debris), and a selection of non-ferrous artefacts (including all coins).

9.3 Where necessary, active stabilisation or consolidation will be carried out, to ensure long-term survival of the material with due consideration to possible future investigation.

9.4 Once assessed, all material will be packed and stored in optimum conditions, as described in *First Aid for Finds* (Watkinson and Neal 2001).

9.5 Assessment of any technological residues will be undertaken.

9.6 Any samples for dating will be promptly submitted and prior agreement will be made with the laboratory on turn-around time and report production.

9.7 Processing of all soil samples collected for biological assessment, or subsample of them, will be completed. The preservation state, density and significance of material retrieved will be assessed by recognised specialists. Special



consideration will be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment. Unprocessed sub-samples will be stored in conditions specified by the appropriate specialists.

9.8 Samples collected for geoarchaeological assessment will be processed as necessary by a recognised specialist and appropriate assessment be undertaken. Where preservation *in-situ* is a viable option consideration should be given to the possible effects of compression on the physical integrity of the site and to any hydrological impacts of development.

9.9 Animal bone assemblages, or sub-samples of them, will be assessed by a recognised specialist.

9.10 Where human remains have been lifted assessment will be undertaken by a recognised specialist.

10 REPORTING

10.1 Following completion of the watching brief works, a summary report will be submitted to the Heritage Management Director with GMAAS within 2 weeks of the completion of fieldwork. This summary report will detail the initial results of that phase of work and highlight any issues that may need to be addressed going forwards.

10.2 Following completion of all phases of archaeological fieldwork, ARS Ltd will produce a comprehensive report to be submitted to the Heritage Management Director with GMAAS within two months of the completion of the fieldwork. This will include the following as a minimum.

- ◆ A non-technical summary
- ◆ Introductory statement
- ◆ Aims and purposes of the project
- ◆ 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.

10.3 Within the report:

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

10.4 One digital PDF/A copy of the final report will be deposited with the Greater Manchester Historic Environment Record (HER). A copy of the report will be updated as part of the OASIS record for online access via the Archaeological Data Service.

11 TIMETABLE, STAFFING AND RESOURCES

11.1 The projected timetable for the archaeological works is as follows. GMAAS will be updated by email as work progresses.

Task No	Task	Proposed Commencement Date
1	Drainage watching brief work	TBC
2	Summary report preparation and completion	Immediately following Task 1
3	Archaeological evaluation trenching site set up and mobilisation	TBC
4	Evaluation trenching and site sign off	Immediately follows Task 3
5	Post excavation assessment including any specialist reporting required	Immediately follows Task 4
6	Comprehensive report preparation and completion	Immediately follows Task 5
7	Archive preparation, completion and deposition	Immediately follows Task 6 and to be completed within 6 months of Task 5

11.2 All archaeological fieldwork projects are overseen by Reuben Thorpe MCIfA, Head of Field Archaeology at ARS Ltd. The fieldwork Project Manager and Project Officer will be drawn from ARS Ltd's pool of experienced staff and will have



demonstrable experience in their respective roles. Additional ARS Ltd Archaeological Officers may be allotted to the project as necessary and required.

11.3 Finds analysis will be carried out by appropriately qualified specialists as detailed subject to availability.

♦ Flint and prehistoric pottery:	Dr Robin Holgate MCIfA
♦ Romano-British pottery, CBM and tile:	Dr Phil Mills MCIfA
♦ Samian ware:	Dr Gwladys Monteil
♦ Romano-British small finds:	Alex Croom
♦ Medieval and post-medieval pottery:	Dr Chris Cumberpatch
♦ Medieval and post-medieval metalwork, glass and clay pipes:	Mike Wood MCIfA
♦ Industrial Remains:	Dr Roger Doonan
♦ Plant macrofossils and charcoals:	Luke Parker
♦ Human and animal bone:	Milena Grzybowska
♦ Radiocarbon dating:	Professor Gordon Cook (SUERC)
♦ Finds conservation:	Vicky Garlick (Durham University)

12 MONITORING ARRANGEMENTS

12.1 The Heritage Management Director for GMAAS will be responsible for monitoring the archaeological works. A minimum of two weeks' notice of the commencement of each phase of fieldwork will be given by ARS Ltd to the Heritage Management Director for GMAAS in order that arrangements for monitoring the fieldwork may be made.

Ian Miller
Heritage Management Director
Greater Manchester Archaeological Advisory Service
School of Environment & Life Sciences
Room LG20, Peel Building
University of Salford
Salford
M5 4WX
Email: i.f.miller@salford.ac.uk

12.2 ARS Ltd will liaise with GMAAS at regular intervals throughout the course of the work.

12.3 The client will afford reasonable access to GMAAS, or their representatives, for the purposes of monitoring the archaeological works.



13 ARCHIVE

13.1 Archive Selection Strategy

13.1.1 Selection of the working project archive will be guided by: the aims and objectives as set out in this WSI (section 3 above), the *Toolkit for Selecting Archaeological Archives* (ClfA 2019), the *Updated North West England Regional Research Framework* and the Science and Industry Museum in Manchester's deposition policy.

13.2 Documentary Archive

13.2.1 All original documentary material created and collected during the archaeological works will be selected for inclusion in the final archive. Any duplicates (including photocopies) of original documents will not be included in the final archive, in line with the recipient museum's deposition policy.

13.2.2 The deselected documents will be recycled, subject to final checks by ARS Ltd's Post-Excavation and Archives Officer.

13.3 Digital Archive

13.3.1 All digital data created over the course of this project will be collected, stored, and selected for final deposition in line with the project's Data Management Plan. This is likely to see final online deposition with the Archaeology Data Service (ADS) based at York University (ADS 2011). The key types of digital data produced will include the following:

Type	Data
Text	Digital copies of the Written Scheme of Investigation and final report
Images	Site photography, scans of site drawings, graphics for reports, digitised drawings
Finds Data	Finds reports and tables, conservation records, images

13.3.2 Only final copies of any digital data will be selected and deposited in the final project archive.

13.3.3 Digital data to be included in the final archive will be reviewed during the post-excavation and archiving phase of works.

13.3.4 The project manager and digital archive repository will be consulted on the fate of any deselected material. Deselected material is expected to include duplicates and any non-final versions of data. Digital photographs will be assessed during post-excavation works and selected in line with Historic England's *Digital Image Capture and File Storage* (2015c). The deselected material will be stored on the ARS Ltd server for a period before being reviewed and deleted.

13.4 Material Archive

13.4.1 The selection of material finds for final deposition in the archaeological archive will be decided in collaboration with the finds specialist during the post-excavation phase, based on addressing the aims and objectives of the project set out

in this WSI, the *Updated North West England Regional Research Framework* and the recipient museum's deposition policy.

13.4.2 No material will be discarded without processing and recording. Deselected material can be retained as part of a handling or teaching collection, returned to the landowner, or discarded as agreed by the landowner, specialists, collecting museum and planning archaeologist.

13.5 Deposition

13.5.1 Should the project produce archaeologically significant finds, the repository museum will allocate an archive accession number at the beginning of the post-excavation stage and a project archive prepared for deposition by ARS Ltd with the recipient museum. This digital, paper and artefactual archive will comprise all the primary written documents, plans, sections, photographs and electronic data and an accompanying metadata statement.

13.5.2 High resolution digital photographs would, in discussion GMAAS, be submitted to the Archaeological Data Service (ADS) digital archive repository with the associated photographic registers and metadata. The digital archive will be prepared in line with current best practice as outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011).

13.5.3 A digital PDF/A copy of the final reports will be deposited with the Greater Manchester HER. A copy of the archaeological evaluation report will be updated as part of the OASIS record for online access via the Archaeological Data Service.

13.5.4 The archive will be deposited in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2011), ClfA's (2020c) *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, and Society of Museum Archaeologists (SMA 1993) *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*. In addition, the archive will be prepared in accordance with the recipient museum's deposition policy. The archive will be deposited within six months of the completion of the archaeological evaluation report.

13.5.5 GMAAS and the Museum Curator will be notified at the earliest opportunity should the site produce archaeologically significant, unusual, or unexpected finds.

13.5.6 GMAAS will be notified in writing on completion of the fieldwork with projected dates for the completion of the report and deposition of the archive. The date for deposition of the archive and its contents will be outlined in the report and GMAAS informed in writing on final deposition of the archive.

13.5.7 All retained artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive.

13.5.8 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts deposited with the archive as digital images on disc.

13.5.9 At the start of work (immediately before fieldwork commences) an OASIS



online record <http://ads.ahds.ac.uk/project/oasis/> 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.

14 GENERAL ITEMS

14.1 Health and Safety

14.1.1 All work will be carried out in accordance with The Health and Safety at Work Act 1973. Specific health and safety policies existing 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 health and safety consultants. The Health and Safety Officer for ARS Ltd is Mark Potter.

14.2 Insurance Cover

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

14.3 Community Engagement and Outreach

14.3.1 Any opportunities will be sought for engaging the local community in any archaeological findings, for example a guided site tour and/or dissemination of information via ARS Ltd's website, social media and local media.

14.4 Changes to the Written Scheme of Investigation

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

14.5 Publication

14.5.1 As a minimum, a short (c.300) word summary of the project results will be sent through to the editor of *Post-Medieval Archaeology* for inclusion in their annual round-up, with a copy forwarded to GMAAS.

14.5.2 In the event of significant remains being encountered, there may be the need for a more formal publication than in the summary form. The requirement for, and the final form of, any publication arising from the project will be agreed with GMAAS and the client dependent on the results of the fieldwork. Provision will be made for publicising the results of the work locally, e.g. via ARS Ltd's website, social media and local media (at the client's discretion) and talking to local societies.



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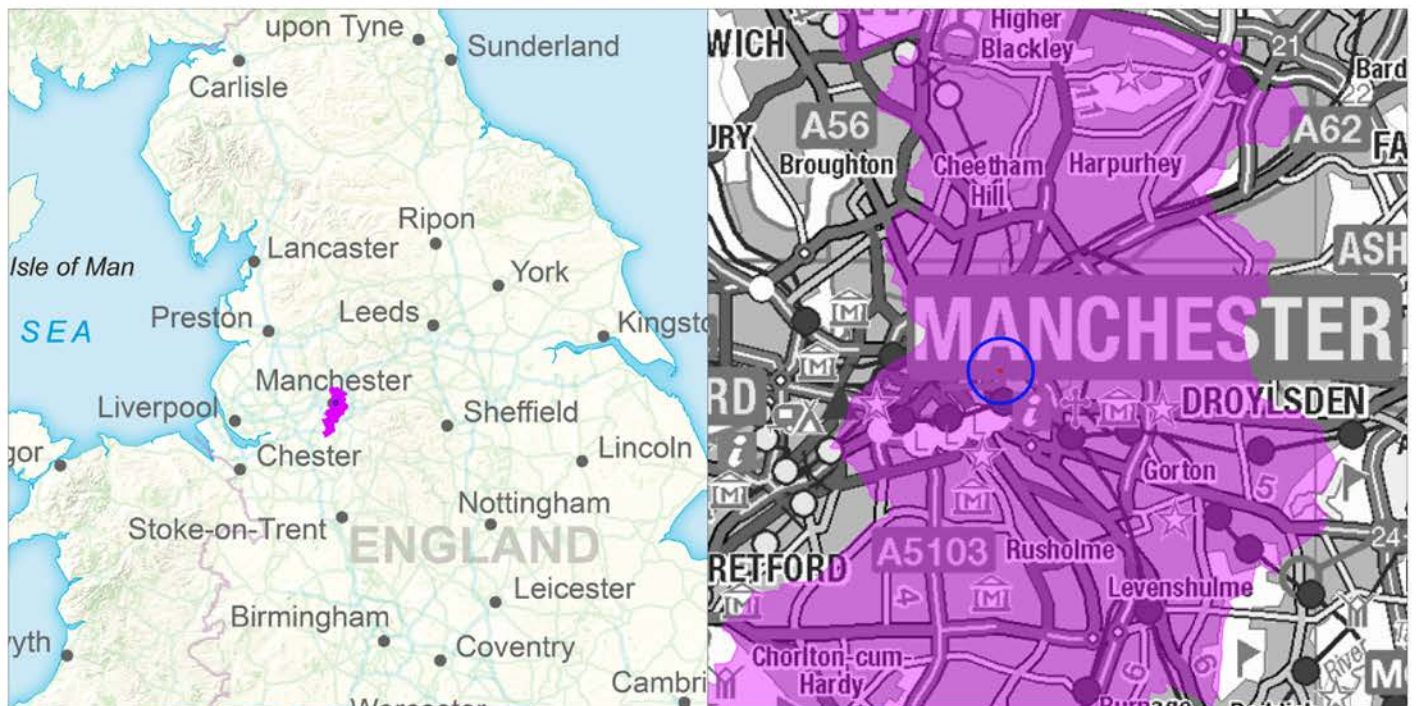
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FIGURES





Site name: Ducie Street, Manchester
 Date: December 2021
 Drawn by: MB
 Scale: Varies

This drawing: © ARS Ltd
 Contains Ordnance Survey data.
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**Figure 1:
Site location**

- Site Boundary
- Manchester City Council



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