



The Museum of Science and Industry, Liverpool Road, Manchester

Archaeological Watching Brief Final Report

Oxford Archaeology North



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Prepared by: Elizabeth Murray
Position: Project Supervisor
Date: March 2010

Checked by: Ian Miller
Position: Project Manager
Date: April 2010

Signed.....

Approved by: Alan Lupton
Position: Operations Manager
Date: April 2010

Signed.....

Oxford Archaeology North

Mill 3
Moor Lane Mill
Moor Lane
Lancaster
LA1 1GF
t: (0044) 01524 541000
f: (0044) 01524 848606

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

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Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

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SUMMARY

Between June 2009 and March 2010, Oxford Archaeology North (OA North) carried out an archaeological watching brief on behalf of The Museum of Science and Industry in Manchester within and adjacent to the Lower Byrom Street Warehouse, which forms part of the museum's premises on Liverpool Road (centred on NGR SJ 83172 97870). The warehouse is a Grade II listed building, and the archaeological watching brief was required as a condition of listed building consent to carry out a proposed scheme of improvements to the premises. The watching brief was also required to assess the nature of the sub-surface archaeological resource of the study area. In particular, it aimed to establish the presence or absence of any surviving Roman remains, as the site lies close to the focus of Roman activity in Manchester, which was centred on the Roman fort at Castlefield.

It was proposed that the archaeological watching brief monitored the excavation of two trial pits for geo-technical purposes adjacent to the south-facing elevation of the Lower Byrom Street Warehouse, and another trial pit that was to be excavated through the floor of the basement of the building. These were intended to ascertain the nature of the sub-surface deposits in the areas adjacent to the south-facing elevation of the Lower Byrom Street Warehouse, and beneath the floor of the basement, in preparation for the addition of two lifts and an internal stairway. In addition, dynamic window samples were taken from the area to the south of the warehouse, and these demonstrated that the solid bedrock lies at depths ranging from 2.60 – 2.90m below the modern ground surface. The window samples also indicated that the solid geology was overlain by a layer of sandy-clay, and sealed by deep deposit of made ground, which was up to 2.5m thick.

The trial pit excavated in the basement of the Lower Byrom Street Warehouse revealed that the solid geology lay immediately beneath the floor, and that any archaeological remains within the footprint of the building had been entirely destroyed. The presence of live services beneath the courtyard surface adjacent to the warehouse building, however, meant that only one trial pit was excavated outside the warehouse as part of the initial geo-technical investigations, and this was of a reduced size and depth. A second phase of the watching brief was thus carried out between December 2009 and March 2010 during construction work, and monitored the excavation of a new trench for services, associated manholes, and a pit for the new lift shaft.

No archaeological deposits of Roman date were exposed during any part of the project, and no artefacts were recovered, although the fragmentary remains of nineteenth-century cellars were exposed during the excavation for a service trench. Nevertheless, for the most part, the excavated deposits comprised demolition material and made ground associated with the construction of the Lower Byrom Street Warehouse in 1880.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Buttress Fuller Alsop Williams Ltd, acting on behalf of The Museum of Science and Industry in Manchester, for commissioning the archaeological watching brief. OA North is also grateful to the staff of Soil Mechanics Ltd for logistical support. The watching brief and subsequent report was carried out by Desmond James O'Leary, Elizabeth Murray and Charlotte Vallance. The report was edited by Ian Miller, who was also responsible for project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In June 2009, Oxford Archaeology North (OA North) was commissioned by Buttress Fuller Alsop Williams Ltd, acting on behalf of The Museum of Science and Industry in Manchester (MOSI), to carry out an archaeological watching brief during geo-technical investigation at the Lower Byrom Street Warehouse, which forms part of the museum premises on Liverpool Road in Manchester. The geo-technical investigation was required to inform a proposed scheme of improvements to the museum, and necessitated the excavation of three trial pits. These excavations were associated with two external lift and stair cores, and an internal goods lift.
- 1.1.2 The Lower Byrom Street Warehouse is a Grade II listed building, and the archaeological watching brief was required as a condition of listed building consent to carry out a proposed scheme of improvements to the premises. In addition, the watching brief was also required to assess the nature of the sub-surface archaeological resource of the study area. In particular, it aimed to establish the presence or absence of any surviving Roman remains, as the site lies close to the focus of Roman activity in Manchester, which was centred on the Roman fort at Castlefield.
- 1.1.3 It was proposed that the archaeological watching brief monitored the excavation of two trial pits for geo-technical purposes adjacent to the south-facing elevation of the Lower Byrom Street Warehouse, and another trial pit that was to be excavated through the floor of the basement of the building. In addition, dynamic window samples were taken from the area to the south of the warehouse, and these demonstrated that the solid bedrock lies at depths ranging from 2.60 – 2.90m below the modern ground surface. The window samples also indicated that the solid geology was overlain by a layer of sandy-clay, and sealed by deep deposit of made ground, which was up to 2.5m thick.
- 1.1.4 The trial pit excavated in the basement of the Lower Byrom Street Warehouse revealed that the solid geology lay immediately beneath the floor, and that any archaeological remains within the footprint of the building had been entirely destroyed. The presence of live services beneath the courtyard surface adjacent to the warehouse building, however, meant that only one trial pit was excavated outside of the warehouse as part of the initial geo-technical investigations, and this was of a reduced size and depth. A second phase of the watching brief was thus carried out between December 2009 and March 2010 during construction work, and monitored the excavation of a new trench for services, associated manholes, and a pit for the new lift shaft.

2. METHODOLOGY

2.1 ARCHAEOLOGICAL WATCHING BRIEF

- 2.1.1 The archaeological watching brief was undertaken by OA North in two stages. The first element was carried out in June 2009, and monitored the excavation of two trial pits for geo-technical purposes. In addition, eight dynamic window samples for geo-technical purposes were taken using a Competitor 130 drilling unit, along the paved area alongside the Lower Byrom Street Warehouse.
- 2.1.2 The second element of the watching brief was carried out between December 2009 and March 2010, and monitored earth-moving works associated with the scheme of improvements to the museum. This required the excavation of a pit for a new lift shaft, and a new service trench that was 33m long, and four associated manholes.
- 2.1.3 The subsoil horizons exposed during this programme of works were cleaned by hand then examined, and recorded stratigraphically using a system adopted from that used by the Centre for Archaeology Service of English Heritage. In addition, a full photographic archive was maintained throughout the period of work.

2.2 ARCHIVE

- 2.2.1 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 (*Management of Archaeological Projects*, 2nd edition, 1991). This archive will be provided in the English Heritage Centre for Archaeology format, and a synthesis will be submitted to the Greater Manchester Historic Environment Record (the index to the archive and a copy of the report).
- 2.2.2 OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the County Record Office in Manchester, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with The Museum of Science and Industry in Manchester.

3. BACKGROUND

3.1 SITE LOCATION AND GEOLOGY

- 3.1.1 The Museum of Science and Industry in Manchester is situated in the Castlefield area, centred at NGR SJ 83172 97870, which forms part of the township of Manchester (Fig 1). The museum occupies a large area, bounded by Liverpool Road to the south, Water Street to the west and Lower Byrom Street to the east. The present study area lies in the centre of the museum complex, focused on the Lower Byrom Street Warehouse (Plate 1).



Plate 1: Aerial view of Lower Byrom Street Warehouse

- 3.1.2 The solid geology of the area, as mapped by the Ordnance Survey geological Survey, comprises Permo-Triassic Bunter Sandstone. The overlying drift geology comprises glacial sands and gravels, and late glacial flood gravels.

3.2 HISTORICAL BACKGROUND

- 3.2.1 The Museum of Science and Industry in Manchester (MOSI) is located on the historic site of the world's oldest surviving passenger railway station, and is housed in five listed buildings, including the former Liverpool Road Railway Station and Station Master's House (Grade I), the old warehouse to the north of Liverpool Road Railway Station (Grade I), and the market hall of Upper Campfield (Grade II). The proposed scheme, however, concerns the Lower Byrom Street warehouse (Grade II). This three-storey former railway goods warehouse was erected in 1880, and is of brick construction with dressings of red brick and some sandstone, and a slate and glass roof. In addition to the immense significance of the museum building in terms of its industrial heritage, the site also has some potential to retain buried remains of

archaeological interest. In particular, the site occupies an area of known Roman remains, lying some 100m to the north-west of the Roman fort.

- 3.2.2 The fort was developed in association with a substantial extramural settlement, or *vicus*, which developed in both a northerly direction and along the line of Chester Road to the south (Bryant *et al* 1986). It seems that this settlement originated largely during the early second century, and incorporated numerous buildings and a concentration of iron-working hearths or furnaces. Much of the current understanding of the Roman *vicus* in Manchester is derived from the analysed results obtained from three major excavations, which have all focused on the area to the north of the fort: excavations on the southern side of Liverpool Road, centred on the former White Lion Street in 1972 (Grealey 1974), excavations on Tonman Street in 1978 (Jones and Reynolds nd), and an excavation between Liverpool Road and Rice Street (Gregory 2007). The excavations undertaken in 1972 and 1978 revealed extensive evidence for Roman buildings, representing several successive phases of occupation commencing during the late first century and continuing into the third century. In total, the remains of 13 buildings were identified during the excavations in 1972, whilst the investigations at Tonman Street revealed another 15. These results were enhanced considerably by the conclusions drawn from excavations between Liverpool Road and Rice Street, which concluded that this site lay close to the periphery of the *vicus* on the north side of the fort (Gregory 2007).
- 3.2.3 In addition, recent excavations at Beetham Tower concluded that Deansgate is the route of a Roman road, lined with Roman buildings (PCA 2005). The earliest activity on site was a group of quarry pits, probably excavated for the construction of the nearby roads. The site appears to have been incorporated into the *vicus* in the second century, when boundary ditches are found to have divided the area into plots. The buildings found on site were within grid-like plots, which possibly fronted on to a road. The site appears to have been abandoned in the third century, a trait seen in other sites across Castlefield, possibly indicating economic decline at this time (*ibid*).

4. RESULTS

4.1 INTRODUCTION

4.1.1 The first stage of the archaeological watching brief was carried out in June 2009, and monitored the excavation of a hand-dug trial pit adjacent to the south-facing elevation of the Lower Byrom Street Warehouse, and a second pit excavated through the floor of the basement of the building. In addition, a series of dynamic window samples were also taken during the geo-technical investigation (Fig 2).

4.2 TRIAL PIT 1

4.2.1 Trial Pit 1 was located in the niche of the window adjacent to the entrance of the Lower Byrom Street Warehouse (Fig 2). The pit measured 0.85 x 0.70m, and was excavated to a maximum depth of 1.35m (Plate 2). The foundations of the warehouse were exposed at the base of the trial pit, and were seen to comprise hand-made bricks, each measuring 120 x 240 x 80mm, laid in stretcher bond. Beneath the corner of the window niche, the bricks were corbelled to provide support to the window column. The material removed from the trial pit comprised the fill of the foundation trench for the warehouse. This was composed of reddish-brown clayey, gravelly sand, overlain by slightly clayey, gravelly sand, both components containing numerous small fragments of brick. No other deposits were exposed, as the trial pit did not extend beyond the edge of the foundation cut for the warehouse. No artefacts were recovered from the trial pit.



Plate 2: Trial Pit 1

4.3 TRIAL PIT 2

- 4.3.1 Trial Pit 2 was located in the basement of the Lower Byrom Street Warehouse, and measured 1 x 0.6m (Fig 2). The uppermost surface of the trench, forming the basement floor, comprised blue engineering bricks. These had been laid on a layer of light grey concrete, which was 0.11m thick, and had been set on a levelling deposit of brown clay-sand that contained numerous small stones and fragments of brick. The levelling deposit was 0.15m thick, and overlay the natural sandstone bedrock (Plate 3). No archaeological deposits or artefacts were present in the excavated trial pit.



Plate 3: Trial Pit 2

4.4 DYNAMIC WINDOW SAMPLES

- 4.4.1 A series of dynamic window samples were taken using drilling apparatus along the paved concrete sidewalk along the south-facing elevation of the Lower Byrom Street Warehouse (Fig 2). The samples located the natural sandstone bedrock at depths ranging from 2.6m below the modern ground surface (WS1) to 2.9m (WS4A). The solid geology was overlain by a layer of greyish-brown, fine sandy silty clay of variable depth; it could not be ascertained whether this deposit was in any way of anthropogenic origin. It was overlain by a thick deposit of made-ground, which extended to depths ranging from 1.6m (WS1) to 2.5m (WS4A) below the modern surface.

4.5 SERVICE TRENCH WATCHING BRIEF

- 4.5.1 A second stage of watching brief, carried out in December 2009, monitored the re-routing of the services around the areas designated for the new lift shafts external to the building. The service trench was excavated using a tracked mini-excavator fitted with 0.45m wide toothed bucket.
- 4.5.2 The service trench was excavated to a maximum depth of approximately 1.5m. The earliest deposit encountered was a layer of a mid-greyish-brown clay, which was exposed in several places along the base of the trench. This deposit is likely to have represented the natural drift geology, and whilst it may have been redeposited, this could not be established with confidence.
- 4.5.3 The layer of clay had been cut by three brick walls, the fragmentary remains of which were exposed at a depth of 1.5m below the modern ground surface (Plate 4). The walls were aligned broadly north/south, and all appeared to comprise hand-made bricks, bonded with a lime-based mortar, indicative of an early nineteenth-century date of construction.



Plate 4: Fragmentary remains of a brick wall exposed in the excavated service trench

- 4.5.4 Two of the brick walls were set 8m apart in the central part of the service trench. The western wall was one and a half bricks wide, whilst that to the east was only a single-brick wide. The remains of several flagstones were exposed between the two walls, seemingly representing the floor of a cellar. The position of these two wall corresponded with a dwelling situated on the eastern side of New Street (Fig 3). These properties date to the early nineteenth century, and are first shown on Swires' map of 1824.

- 4.5.5 Another wall was exposed towards the eastern end of the service trench, and similarly comprised hand-made bricks bonded with lime-based mortar. The fragmentary remains of this wall incorporated a right-angled return, seemingly representing the corner of a building (Plate 5). The position of this wall corresponded with a back-to-back dwelling situated on the western side of Sage Street (Fig 3).



Plate 5: Fragmentary remains of a former building on Sage Street, exposed in the excavated service trench

- 4.5.6 The remains of the walls were sealed by demolition rubble, forming a layer of made ground that varied in depth between 1.3m and 1.5m. This deposit was rarely excavated completely along the length of the service trench. The demolition material/made ground was sealed by a 0.3m thick layer of sand and ash, which provided a bedding layer for the stone setts that form the modern ground surface.

4.6 LIFT SHAFT TRENCHES

- 4.6.1 The final element of the archaeological watching brief monitored the excavation of two lift shaft bases adjacent to the south-facing elevation of the Lower Byrom Street Warehouse. The eastern shaft was intended to house a ground-floor lift, and thus only required a trench with total dimensions of 6.7 x 4.9m, although this was excavated in three parts. Each part was excavated to the top of the solid geology, which was exposed at a depth of approximately 4m below the modern ground surface.
- 4.6.2 The solid geology was exposed in the base of the excavated trenches, and was overlain by natural clay drift geology. This was sealed by the demolition material/made ground exposed in the service trench immediately to the south (Fig 3). This material had been cut by the foundation trench for the Lower Byrom Street Warehouse, which similarly had a depth of nearly 4m. No finds were recovered from the excavation of these trenches.
- 4.6.3 The shaft to the west intended for a basement-level lift, and had maximum dimensions of 9.02 x 6.64m (Fig 3). This was similarly excavated to the top of the solid geology, which was exposed at a depth of approximately 4.2m below the modern ground surface. The stratigraphic sequence was identical to that revealed in the small (eastern) lift shaft, comprising a layer of natural clay, overlain by demolition rubble/made ground of late nineteenth-century date, which had an average depth of 2m (Plate 6). No finds were recovered.



Plate 6: Excavating the western lift shaft

5. CONCLUSIONS

5.1 CONCLUSION

- 5.1.1 The programme of initial geo-technical investigation did not expose any deposits of archaeological interest. However, this was largely due to the location of Trial Pit 1 being entirely within the foundation trench for the Lower Byrom Street Warehouse; the watching brief was unable to determine the presence or absence of any buried archaeological remains to the south of the warehouse. Conversely, the trial pit excavated in the basement of the Lower Byrom Street Warehouse revealed that the solid geology lay immediately beneath the floor, and that any archaeological remains within the footprint of the building had been entirely destroyed.
- 5.1.2 The watching brief that was maintained during the construction programme confirmed that no archaeological remains of Roman date survive *in-situ* in the area immediately to the south the Lower Byrom Street Warehouse. However, the fragmentary remains of early nineteenth-century workers' cottages were exposed in the service trench for the redirected services to the south of the two lift shaft excavations.

6 BIBLIOGRAPHY

SECONDARY SOURCES

Bryant, S, Morris, M, and Walker, JSF, 1986 *Roman Manchester: A Frontier Settlement*, GMAU, Manchester

Countryside Commission, 1998 *Countryside Character: Volume 2: North West*, Cheltenham

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, Swindon

Grealey, S (ed), 1974 *Roman Manchester*, Altrincham

Gregory, RA, 2007 *Roman Manchester: The University of Manchester's Excavations within the Vicus 2001-5*, Oxford

Jones, GBD, and Reynolds, P, nd *Roman Manchester: The Deansgate Excavations 1978*, unpubl rep

PCA, 2005 *An Archaeological Excavation at the Beetham Tower Site, Deansgate, Manchester. Post-excavation Assessment report*, unpubl rep

UKIC, 1990 *Guidelines for the Preparation of Archives for Long-term Storage*, London

APPENDIX 1: PROJECT DESIGN

**MUSEUM OF SCIENCE
AND INDUSTRY,
LIVERPOOL ROAD,
MANCHESTER**

**Archaeological Watching Brief
Project Design**



Oxford Archaeology North

June 2009

Museum of Science and Industry

OA North Ref: t10764

1. INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 The Museum of Science and Industry in Manchester (MOSI) has proposed a scheme of improvements to their premises on Liverpool Road, Manchester. The museum is located on the historic site of the world's oldest surviving passenger railway station, and is housed in five listed buildings, including the former Liverpool Road Railway Station and Station Master's House (Grade I), the old warehouse to the north of Liverpool Road Railway Station (Grade I), and the market hall of Upper Campfield (Grade II). The proposed scheme, however, concerns the Lower Byrom Street warehouse (Grade II). This three-storey former railway goods warehouse was erected in 1880, and is of brick construction with dressings of red brick and some sandstone, and a slate and glass roof (Fig 1).
- 1.1.2 In addition to the immense significance of the museum building in terms of its industrial heritage, the site also has some potential to retain buried remains of archaeological interest. In particular, the site occupies an area of known Roman remains, lying some 100m to the north-west of the Roman fort.
- 1.1.3 The fort was developed in association with a substantial extramural settlement, or *vicus*, that developed in both a northerly direction and along the line of Chester Road to the south (Bryant *et al* 1986). It seems that this settlement originated largely during the early second century, and incorporated numerous buildings and a concentration of iron-working hearths or furnaces. Much of the current understanding of the Roman *vicus* in Manchester is derived from the analysed results obtained from three major excavations, which have all focused on the area to the north of the fort: excavations on the southern side of Liverpool Road, centred on the former White Lion Street in 1972 (Grealey 1974), excavations on Tonman Street (Jones and Reynolds 1978), and an excavation between Liverpool Road and Rice Street (Gregory 2007). The excavations undertaken in 1972 and 1978 revealed extensive evidence for Roman buildings, representing several successive phases of occupation commencing during the late first century and continuing into the third century. In total, the remains of 13 buildings were identified during the excavations in 1972, whilst the investigations at Tonman Street revealed another 15. These results were enhanced considerably by the conclusions drawn from excavations between Liverpool Road and Rice Street, which concluded that this site lay close to the periphery of the *vicus* on the north side of the fort (Gregory 2007).
- 1.1.4 In addition, recent excavations at Beetham Tower concluded that Deansgate is the route of a Roman road, lined with Roman buildings (PCA 2005). The earliest activity on site was a group of quarry pits, probably excavated for the construction of the nearby roads. The site appears to have been incorporated into the *vicus* in the second century, when boundary ditches are found to have divided the area into plots. The buildings found on site were within grid-like plots, which possibly fronted on to a road. The site appears to have been

abandoned in the third century, a trait seen in other sites across Castlefield, possibly indicating economic decline at this time (*ibid*).

- 1.1.5 The proposed scheme of development necessitates three small areas of excavation that may impact upon buried archaeological remains: excavations associated with two external lift and stair cores; and excavation for an internal goods lift (Fig 2). In order to secure archaeological interests, Manchester City Council has attached a condition to planning and Listed Building consents that requires an appropriate scheme of archaeological investigation to accompany the proposed scheme of works.

1.2 OXFORD ARCHAEOLOGY NORTH

- 1.2.1 Oxford Archaeology North has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 24 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.2.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) **registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

2 OBJECTIVES

- 2.1 The following programme has been designed to identify any surviving archaeological deposits, and provide for accurate recording of any buried remains that are disturbed by ground works for the proposed development.
- 2.2 **Watching brief:** to carry out a watching brief during associated ground disturbance, to record and determine the quality, extent and importance of any archaeological remains on the site.
- 2.3 **Report and Archive:** a report will be produced for the client within eight weeks of completion of the fieldwork. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3. METHOD STATEMENT

3.1 WATCHING BRIEF

- 3.1.1 **Methodology:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the proposed ground disturbance. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 3.1.2 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (*ie* selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 3.1.3 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 watching brief will be recorded on *pro-forma* context sheets, and will be accompanied with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.1.4 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 evaluation will be generated. Photography will be undertaken using 35mm cameras on archivable black and white print film as well as colour transparency, and all frames will include a visible, graduated metric scale. Extensive use of digital photography will also be undertaken throughout the course of the fieldwork for presentation purposes. Photographs records will be maintained on special photographic *pro-forma* sheets.
- 3.1.5 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 3.1.6 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*.

- 3.1.7 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.
- 3.1.8 **Finds policy:** finds recovery and sampling programmes will be in accordance with best practice (following current Institute of Field Archaeologists guidelines) and subject to expert advice in order to minimise deterioration. OA has close contact with Ancient Monuments Laboratory staff at the University of Durham and, in addition, employs in-house artefact and palaeoecology specialists, with considerable expertise in the investigation, excavation, and finds management of sites of all periods and types, who are readily available for consultation.
- 3.1.9 Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC). Emergency access to conservation facilities is maintained by OA North with the Department of Archaeology, the University of Durham. Samples will also be collected for technological, pedological and chronological analysis as appropriate.
- 3.1.10 **Contingency plan:** in the event of significant archaeological features being encountered during the watching brief, discussions will take place with the Planning Archaeologist or his representative, as to the extent of further works to be carried out. All further works would be subject to a variation to this project design. In the event of environmental/organic deposits being present on site, it would be necessary to discuss and agree a programme of palaeoenvironmental sampling and or dating with the Planning Archaeologist.

3.2 ARCHIVE/REPORT

- 3.2.1 **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 (*Management of Archaeological Projects*, 2nd edition, 1991). This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the County Record Office in Manchester, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with the Museum of Science and Industry in Manchester. Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the receiving museum.
- 3.2.2 **Report:** four copies of a bound and collated final report will be submitted to the client within six weeks of the completion of the fieldwork. Further copies will be sent to the Greater Manchester Assistant County Archaeologist. The final report will include a copy of this project design, and indications of any agreed departure from that design. It will include an historical background to the study area, an outline methodology of the investigation, and present, summarise, assess, and interpret the results of the programme of

archaeological works detailed above. It will also include an assessment of any finds recovered from the evaluation trenching.

- 3.2.3 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

4 HEALTH AND SAFETY

- 4.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). OA North will liaise with the client to ensure all health and safety regulations are met. A risk assessment will be completed in advance of any on-site works. It is assumed that any information regarding health and safety issues on site will be made available by the client to OA North prior to the work commencing on site.

5 PROJECT MONITORING

- 5.1 Monitoring of this project will be undertaken through the auspices of the Greater Manchester County Archaeologist, or his representative, who will be informed of the start and end dates of the work.

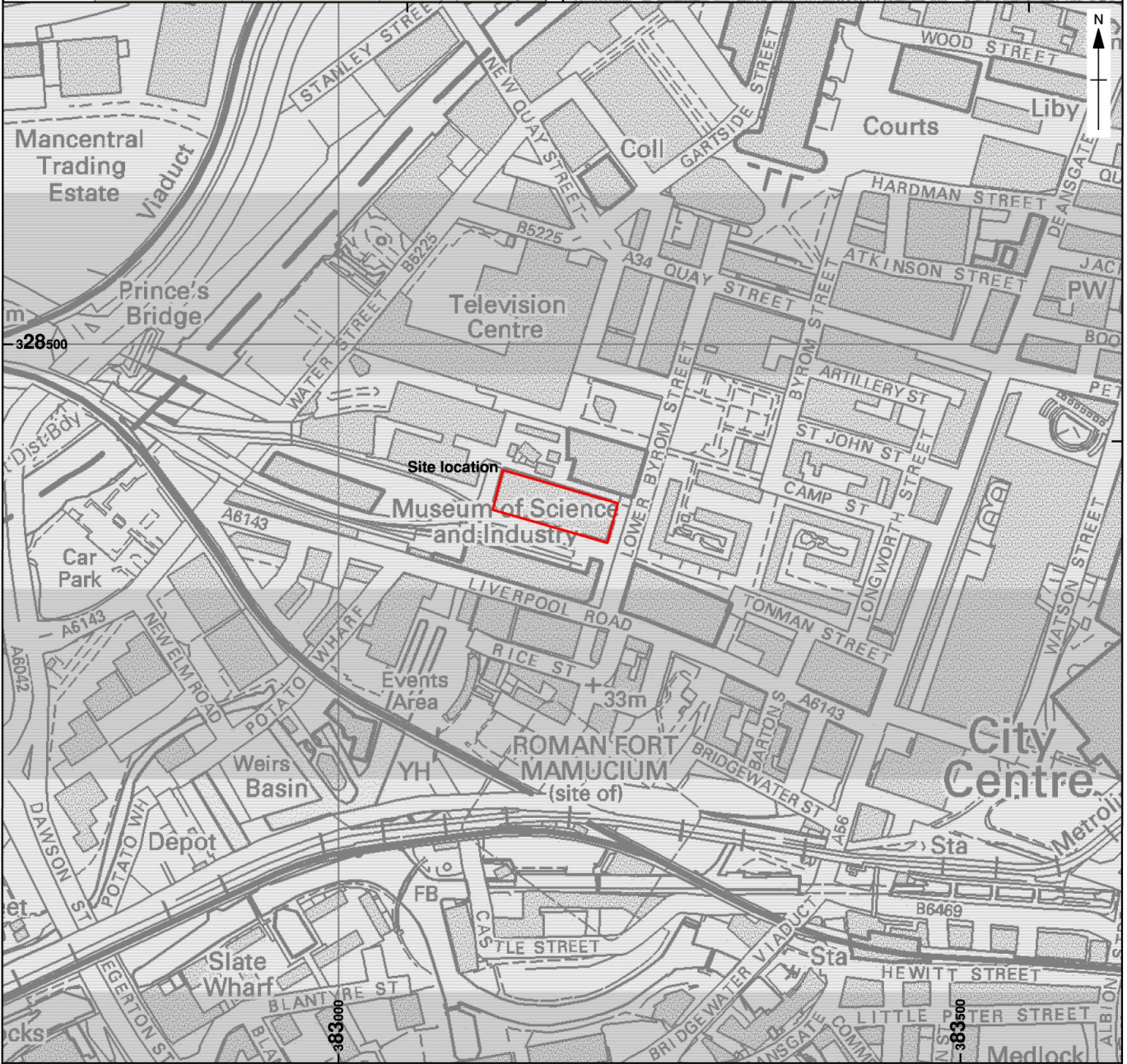
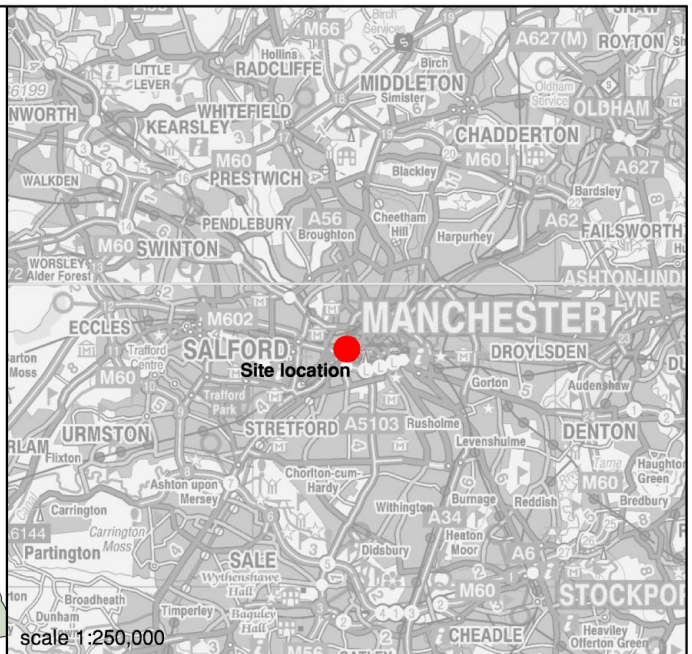
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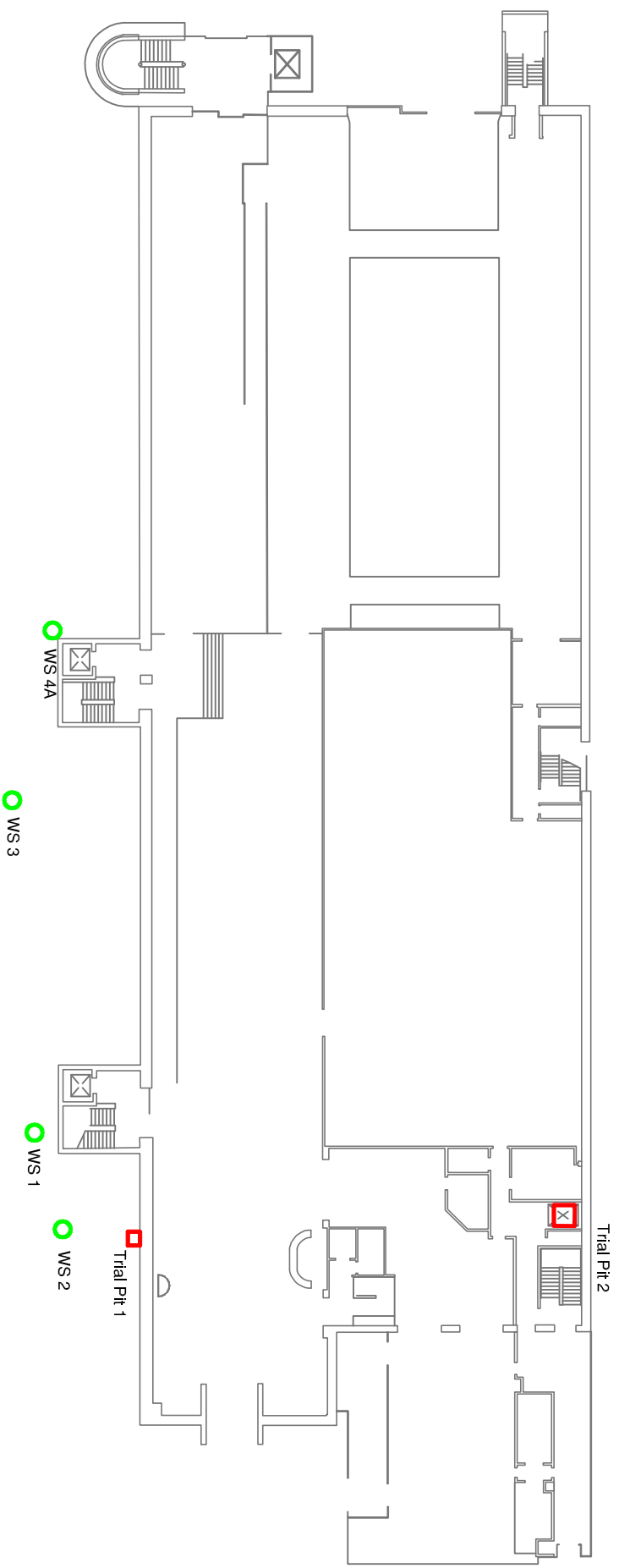
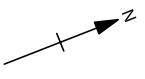


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1:5000 @ A4



Figure 1: Site location



Excavated Trial Pits



Excavated Window Samples

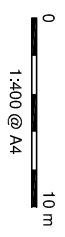


Figure 2: Plan showing the location of the initial trial pits and dynamic window samples excavated for geo-technical purposes



Figure 3: Plan showing the location of the excavated service trench, lift shaft and exposed walls, superimposed on the Ordnance Survey map of 1849