

Trinity Islands, Water Street, Manchester

Archaeological Desk- based Assessment



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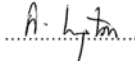
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SUMMARY

Manchester Quays Ltd, a joint venture between Manchester City Council and Allied London Properties Ltd, is devising proposals for a major new development on the south-western edge of Manchester city centre. The development involves the erection of new residential blocks and associated infrastructure, referred to as Trinity Islands, situated on the southern bank of the River Irwell on either side of Trinity Way (centred on NGR 382764 397804). The development site is currently used for car-parking purposes, and will be subject to considerable earth-moving works as part of the proposed construction programme.

In order to secure archaeological interests and inform the development process, Manchester Quays Ltd commissioned Oxford Archaeology North to undertake an archaeological assessment of the site. This aimed to establish, as far as possible, the nature and significance of the sub-surface archaeological resource within the area, and assess the impact of any future development upon this resource; this report focuses on the below-ground archaeological resource, as a detailed consideration of the above-ground historic environment is presented in a separate heritage appraisal that has been prepared for the wider proposed St John's development.

The assessment has identified a total of 66 heritage assets within a 250m radius of the Site Area. Of this total number of heritage assets, 18 are listed buildings, all of which lie beyond the boundary of the Site Area, although the site does lie within the Castlefield Conservation Area. Only eight sites of archaeological interest have been identified within the Site Area, and none of these are afforded statutory designation, and are thus not considered to be of national importance that would require preservation *in-situ*. Of these non-designated sites of buried archaeological interest, it is likely that only three have any potential to survive *in-situ*. This comprises the site of a late eighteenth-century dye works, together with two sites of lower archaeological importance, which comprise some late nineteenth-century buildings along Water Street and a pig market.

The requirement for any further archaeological recording of buried remains within the Site Area will be decided by the Greater Manchester Archaeological Advisory Service, in their capacity as archaeological advisor to Manchester City Council. However, it may be anticipated that the remains of the late eighteenth-century dye works, and possibly the former pig market, may necessitate intrusive archaeological investigation. In the first instance, an appropriate scheme of works is likely to involve the excavation of a series of trial trenches to establish the presence or absence of buried remains. Should significant remains be found which will be damaged or destroyed by the proposed development, further excavation work may be required in advance of development to ensure an appropriate record is compiled prior to the ultimate loss of the remains.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Greg Attwood of Allied London for commissioning the project on behalf of Manchester Quays Ltd, and Jessica Stanley, Laura Feekins and Oliver Jago of Deloitte LLP for their support. Thanks are also due to Norman Redhead, the Heritage Management Director with the Greater Manchester Archaeological Advisory Service (GMAAS), for his support and advice. Thanks are also expressed to Lesley Dunkley, also of GMAAS, for supplying background data from the Greater Manchester Historic Environment Record. OA North is also grateful to the staff of Manchester Central Library for their assistance with the documentary research.

The desk-based research and report was compiled by Dr Rachel Street, and the illustrations were produced by Mark Tidmarsh. The report was edited by Ian Miller, who was also responsible for project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Manchester Quays Ltd (MQL), a joint venture between Manchester City Council and Allied London Properties Ltd, is devising proposals for a major new development on the south-western edge of Manchester city centre. This landmark scheme at a prominent gateway location to the wider city centre will create a new neighbourhood on two cleared sites between Water Street and the River Irwell adjacent to the former Granada Television Estate.
- 1.1.2 The development proposals involve comprehensive redevelopment of the Site Area to provide a new residential-led, mixed-use neighbourhood comprising residential, restaurant, retail, bar, public realm, landscaping and other amenity uses. It will comprise two podium levels of five storeys each with three towers of varying heights sitting above each podium (six towers in total). The podium levels will incorporate a mix of retail, gym, restaurant and café, and bar uses at ground floor, together with four levels of car parking above, which will provide for both the residential uses in the towers and the future car-parking requirements of the proposed new cultural venue on the wider St. Johns site. The fifth level of each podium will accommodate commercial and amenity uses, which could include retail, restaurant, bar, amenity space and other uses to support the residential community above.
- 1.1.3 The development proposals will necessitate considerable earth-moving works as part of the proposed construction programme. In order to secure archaeological interests and inform the development process, Manchester Quays Limited commissioned Oxford Archaeology North (OA North) to undertake an archaeological assessment of the proposed Trinity Islands development site (referred to hereafter as the Site Area). This aimed to establish, as far as possible, the nature and significance of the archaeological resource within the area, and assess the impact of any future development upon this resource; this report focuses on below-ground archaeological remains, as a detailed consideration of the above-ground historic environment is presented in a separate heritage appraisal prepared by Stephen Levrant Heritage Architecture Ltd (2014).

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The Site Area (centred on NGR 382764 397804) is situated on the south-western edge of Manchester city centre (Fig 1). The site is bounded by the River Irwell to the north-west and Water Street to the east, with Trinity Way dividing the site into two components (Plate 1). Bordering the Site Area to the north-east is a railway viaduct, which the new Ordsall Chord rail link (under construction) will connect into. Beyond this lies the main area of the former Granada Television Estate and the Museum of Science and Industry.
- 1.2.2 A number of regeneration initiatives are currently underway beyond the River Irwell, including Salford Central and Middlewood Locks (both mixed use schemes including office, retail and residential). Immediately to the west of the River Irwell is a current development site, Wilburn Street, which comprises a mixed-use residential-led scheme of *c* 490 apartments including a tall building of up to 21 storeys. To the east of the Site Area is Castlefield, an established residential district with leisure, retail and heritage attractions including Grade I and II Listed Building and Structures associated with the Liverpool Road Station and railway.
- 1.2.3 Topographically, the Manchester Conurbation as a region lies within an undulating lowland basin, which is bounded by the Pennine uplands to the east and to the north. The region as a whole comprises the Mersey river valley, whilst the rivers Irwell, Medlock, and Irk represent the principal watercourses in Manchester (Countryside Commission 1998, 125). The Site Area, however, is situated close to the south bank of the River Irwell.
- 1.2.4 The solid geology of the area comprises Carboniferous sedimentary material and a series of Permo-Triassic rocks, consisting mainly of New Red Sandstone. The overlying drift incorporates Pleistocene boulder clays of glacial origin, and sands, gravels, and clays of fluvial/lacustrine origin (Hall *et al* 1995, 8).



Plate 1: Recent aerial view across the St John area, marking the present Site Area

1.3 STATUTORY SITES

- 1.3.1 The Site Area does not contain any Scheduled Monuments or Registered Parks and Gardens, although it does lie within the Castlefield Conservation Area, and in close proximity to the St John Street and the Peter Street conservation areas. There are also 18 designated buildings or structures of special architectural interest within a 250m radius of the Site Area. These include two Grade II listed nineteenth-century railway viaducts, which lie immediately to the north-east of the Site Area (Fig 12). Most of the designated buildings in the wider study area are afforded statutory designation as Grade II listed buildings, although also include four Grade I listed buildings (Table 1).

HER ref.	Description	Grade	NGR
99.1.0	Remains of Railway Station Terminus	I	SJ 8296 9785
99.1.1	Old Main Goods Warehouse (1830 Warehouse)	I	SJ 8299 9788
12145.1.0	Railway Bridge Over River Irwell to Former Liverpool Road Station	I	SJ 8285 9793
15708.1.0	Railway Viaduct Linking Bridge over Irwell to Liverpool Road Station	I	SJ 82833 97944
2087.1.0	Giant's Basin Weir	II	SJ 8297 9767
3081.1.0	Railway Viaduct Over River Irwell	II	SJ 8281 9793
8385.1.0	Castlefield Railway Viaduct	II	SJ 8287 9755
8646.1.0	Victoria Warehouse, Albert Warehouse and Quay	II	SJ 8306 9810
8647.1.0	Railway Viaduct linking bridge over River Irwell to Liverpool Road Station	II	SJ 8289 9790
11681.1.0	Manchester South Junction and Altrincham Railway Viaduct	II	SJ 8382 9770
11750.1.0	Hulme Junction Locks	II	SJ 8277 9746
12146.1.0	Railway Viaduct over River Irwell to Lower Byrom Street Warehouse	II	SJ 8293 9792
12068.1.0	123 Liverpool Road	II	SJ 8299 9783
12069.1.0	Commercial Hotel, Liverpool Road	II	SJ 8298 9783
12070.1.0	Colonnaded railway viaduct	II	SJ 8298 9788
12078.1.0	Pair of culvert arches over River Medlock and associated overflow channel	II	SJ 8294 9771
15483.1.0	Bridgewater Canal Basin at Potato Wharf	II	SJ 8290 9762
15709.1.0	Girder Bridge to Lower Byrom Street Warehouse	II	SJ 82838 97957

Table 1: Summary of listed buildings within 250m of the Site Area

2. METHODOLOGY

2.1 DESK-BASED ASSESSMENT

- 2.1.1 The archaeological assessment has focused on the site of the proposed development, although information for the immediate environs has been considered in order to provide an essential contextual background. The assessment was carried out in accordance with the relevant CIfA and Historic England guidelines (IfA 2011, *Standard and Guidance for Archaeological Desk-based Assessments*; IfA 2010 *Code of Conduct*; English Heritage 2006, *Management of Research Projects in the Historic Environment* (MoRPHE)).
- 2.1.2 The principal sources of information consulted were historical and modern maps, although published and unpublished secondary sources were also reviewed. The following repositories were consulted during the data-gathering process:
- ***Greater Manchester Historic Environment Record (HER)***: the HER holds data on the historic environment for Greater Manchester, including listed buildings, all known archaeological sites, along with the location and results of previous archaeological interventions in a linked GIS and database format. The HER was consulted to establish the extent of sites of archaeological and historic interest within the study area;
 - ***Lancashire County Record Office (LRO), Preston***: holds an extensive series of mapping for Greater Manchester, as well as a collection of secondary sources about the city and its suburbs;
 - ***Manchester Archives***: the catalogue of the Manchester Archives within Manchester Central Library was searched for information relating to the study area;
 - ***Oxford Archaeology North***: OA North has an extensive archive of secondary sources relevant to the study area, incorporating both published work and unpublished client reports.
- 2.1.3 All archaeological sites in the Site Area and within a radius of 250m are depicted on Figures 11 and 12.

2.2 ASSESSMENT METHODOLOGY

2.2.1 The results of the assessment have identified the significance of the archaeological resource of the Site Area. In order to assess the potential impact of any future development, consideration has been afforded to:

- assessing in detail any impact and the significance of the effects arising from any future development of the Site Area;
- reviewing the evidence for past impacts that may have affected the archaeological sites of interest identified during the desk-based assessment;
- outlining suitable mitigation measures, where possible at this stage, to avoid, reduce, or remedy adverse impacts.

2.2.2 Such impacts on the identified archaeological sites may be:

- positive or negative;
- short, medium or long term;
- direct or indirect;
- reversible or irreversible.

2.2.3 Key impacts have been identified as those that would potentially lead to a change to the archaeological site. Each potential impact has been determined as the predicted deviation from the baseline conditions, in accordance with current knowledge of the site and the proposed development. Table 2 shows the sensitivity of the site scaled in accordance with its relative importance using the following terms for the cultural heritage and archaeology issues, with guideline recommendations for a mitigation strategy.

Importance	Examples of Site Type	Mitigation
National	Scheduled Monuments (SMs), Grade I, II* and II Listed Buildings, Grade II Listed Buildings	To be avoided
Regional/County	Conservation Areas, Registered Parks and Gardens (Statutory Designated Sites) Sites and Monuments Record/Historic Environment Record	Avoidance recommended
Local/Borough	Sites with a local or borough archaeological value or interest Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Low Local	Sites with a low local archaeological value Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Negligible	Sites or features with no significant archaeological value or interest	Avoidance unnecessary

Table 2: Criteria used to determine Importance of Sites

- 2.2.4 The impact is assessed in terms of the sensitivity of the site to the magnitude of change or scale of impact during any future redevelopment scheme. The magnitude, or scale of an impact is often difficult to define, but will be termed as substantial, moderate, slight, or negligible, as shown in Table 13.

Scale of Impact	Description
Substantial	Significant change in environmental factors; Complete destruction of the site or feature; Change to the site or feature resulting in a fundamental change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Moderate	Significant change in environmental factors; Change to the site or feature resulting in an appreciable change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Slight	Change to the site or feature resulting in a small change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Negligible	Negligible change or no material changes to the site or feature. No real change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.

Table 3: Criteria used to determine Scale of Impact

- 2.2.5 The interaction of the scale of impact (Table 3) and the importance of the archaeological site (Table 2) produce the impact significance. This may be calculated by using the matrix shown in Table 4:

Resource Value (Importance)	Scale of Impact Upon Archaeological Site			
	Substantial	Moderate	Slight	Negligible
National	Major	Major	Intermediate/Minor	Neutral
Regional/County	Major	Major/Intermediate	Minor	Neutral
Local/Borough	Intermediate	Intermediate	Minor	Neutral
Local (low)	Intermediate / Minor	Minor	Minor/Neutral	Neutral
Negligible	Neutral	Neutral	Neutral	Neutral

Table 4: Impact Significance Matrix

- 2.2.6 The impact significance category for each identified archaeological site of interest will also be qualified, and recommended mitigation measures will be provided, where possible at this stage, to impacts that are of moderate significance or above; any measures to reduce any impact will be promoted in the report. It is also normal practice to state that impacts above moderate significance are regarded as significant impacts. It is important that the residual impact assessment takes into consideration the ability of the mitigation to reduce the impact, and its likely success.

- 2.2.7 It is also considered important to attribute a level of confidence by which the predicted impact has been assessed. For the purpose of this assessment, the criteria for these definitions are set out in the table below.

Confidence in Predictions	
Confidence Level	Description
High/Certain	The predicted impact is either certain, <i>ie</i> a direct impact, or believed to be very likely to occur, based on reliable information or previous experience, and may be estimated at 95% chance or higher.
Medium/Probable	The probability can be estimated to be above 50%, but below 95%.
Low/Unlikely	The predicted impact and its levels are best estimates, generally derived from the experience of the assessor. More information may be needed to improve the level of confidence, which can be estimated using the present information at above 5% but less than 50%.
Extremely Unlikely	The probability can be estimated at less than 5%.

Table 5: Impact Prediction Confidence

2.3 PLANNING BACKGROUND AND LEGISLATIVE FRAMEWORK

- 2.3.1 **National Policy Framework:** in considering any planning application for development, local planning authorities are bound by the policy framework set by government guidance. This guidance provides a material consideration that must be taken into account in development management decisions, where relevant. In accordance with central and local government policy, this assessment has been prepared in order to clarify the study site's archaeological potential and to assess the need for any further measures to mitigate the impact of the proposed development.
- 2.3.2 National planning policies on the conservation of the historic environment are set out in National Planning Policy Framework (NPPF), which was published by the Department of Communities and Local Government (DCLG) in March 2012. Sites of archaeological or cultural heritage significance that are valued components of the historic environment and merit consideration in planning decisions are grouped as 'heritage assets'; 'heritage assets are an irreplaceable resource', the conservation of which can bring 'wider social, cultural, economic and environmental benefits...' (DCLG 2012, *Section 12.126*). The policy framework states that the 'significance of any heritage assets affected, including any contribution made by their setting' should be understood in order to assess the potential impact (DCLG 2012, *Section 12.128*). In addition to standing remains, heritage assets of archaeological interest can comprise sub-surface remains and, therefore, assessments should be undertaken for a site that 'includes or has the potential to include heritage assets with archaeological interest' (DCLG 2012, *Section 12.128*).

- 2.3.3 NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance; ‘great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be...substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings and grade I and II* registered parks and gardens and World Heritage Sites, should be wholly exceptional’ (DCLG 2012, *Section 12.132*). Therefore, preservation *in-situ* is the preferred course in relation to such sites unless exception circumstances exist.
- 2.3.4 It is normally accepted that non-designated sites will be preserved by record, in accordance with their significance and the magnitude of the harm to or loss of the site as a result of the proposals, to ‘avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposals’ (DCLG 2012, *Section 12.129*). Non-designated heritage assets of archaeological interest will also be subject to the policies reserved for designated heritage assets if they are of equivalent significance to scheduled monuments (DCLG 2012; *Section 12.132*).

3. BACKGROUND

3.1 HISTORICAL BACKGROUND

- 3.1.1 The following section provides an historical context to the present study, and is considered by period as detailed in Table 6 below. Key sites are summarised in the Gazetteer of Sites (*Section 4*), and are mapped on Figure 11.

Period	Date Range
Mesolithic	10,000 – 3,500 BC
Neolithic	3,500 – 2,200 BC
Bronze Age	2300 BC – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c 1750
Industrial Period	c AD1750 – 1914
Modern	Post-1914

Table 6: Summary of British archaeological periods and date ranges

- 3.1.2 **Prehistoric Period:** the current understanding of any activity in Manchester during the prehistoric period is very poor, although it is reasonable to suggest that the Castlefield area, c 200m to east of the Site Area, may have been conducive for late prehistoric settlement on account of the natural topography and its riverside location. However, physical indications for any such settlement are, at best, fragmentary and arguably the best evidence was yielded from an archaeological excavation that was targeted on a plot of land adjacent to Liverpool Road in Castlefield (Gregory 2007, 181). During the course of this work, two Mesolithic flints, one Neolithic/Bronze Age waste flake, and a single fragment of late Bronze Age/Iron Age pottery were recovered, although none was found in securely stratified deposits (UMAU 2002). There is no known evidence for prehistoric activity within the boundary of the Site Area, although fragments of worked flint that has been dated to the Neolithic Period have been discovered within the wider area (HER Refs 119.1.0 and 413.1.0).
- 3.1.3 **Roman period:** the first military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as *Mamucium* (Brunton 1909). The site of this encampment is marked today by Camp Street in Castlefield, situated c 200m to the east of the present Site Area. During the second century, the fort was developed in association with a substantial extramural settlement, or *vicus*, which expanded in both a northerly direction, and along the line of Chester Road to the south (Grealey 1974, 11). Roads from the fort linked Manchester with Ribchester to the north, Castleshaw, and York to the north-east, Wigan to the north-west, Chester to the south, and Buxton to the south-east.

- 3.1.4 Based on recent archaeological excavation and the distribution of Roman finds, the limits of this settlement appear to have extended northwards from the fort to approximately Quay Street, westwards along Liverpool Road for c 100m from the north-west corner of the fort, eastwards across Deansgate to the area now occupied by the Beetham Tower, and south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street.
- 3.1.5 The Site Area lies beyond the western edge of the suspected limits of the settlement core, although it is also possible that Roman remains may exist along the eastern bank of the River Irwell. Six Roman coins, at least five of which dated to the second century, are reported to have been found ‘in 1876 while foundations were being dug for a bridge over the Irwell, near Quay Street’ (Conway *et al* 1909, 84-5). These finds may therefore suggest that the eastern bank of the Irwell witnessed more ephemeral Roman activity on the fringe of the Roman settlement.
- 3.1.6 **Medieval Period:** there is very little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest. The area around Manchester came under the control of several kingdoms during this period. In AD 620, Edwin conquered and occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1908).
- 3.1.7 In AD 919, the Anglo-Saxon king Edward the Elder established a fortified base, or burh, at Manchester, which was then part of Viking Northumbria. It has been suggested that the burh lay within the area around the cathedral, but recent research favours it being at the Roman fort in Castlefield. However, the area of the cathedral had become a new focus for settlement by the late eleventh century, and the site occupied presently by Chetham’s School is thought to have been the site of a castle founded by Manchester’s Norman barons.
- 3.1.8 Following the Norman Conquest of 1066, William I assigned most of the land between the Ribble and Mersey rivers to Roger of Poitou, who retained the manor of Salford demesne (Tupling 1962, 116), but divided his other newly-acquired land into several fiefdoms (Kidd 1996, 13). The largest of these was the landholding centred on Manchester, created by the grant of extensive lands in the hundreds of Salford, Leyland and West Derby to Albert Grelley (Tupling 1962, 116). By the thirteenth century, the Grelley family had established a manor house at the confluence of the rivers Irwell and Irk, located over 1km to the north of the study area, and the medieval town grew up around it (Hartwell *et al* 2004, 256). It was from this hall that they governed both the manor and the extensive barony.
- 3.1.9 In 1222 Manchester was granted an annual fair, and in 1301 Thomas Grelley was granted the Great Charter of Manchester by Edward I, and thus it became a free borough (*ibid*). The distance of the present study area from the medieval centre, however, means that is likely to have been agricultural land beyond the urban fringe during this period, and there are known remains of medieval date within the Site Area.

- 3.1.10 ***Post-medieval and Industrial Period:*** during the eighteenth century, south-east Lancashire as a whole was predominantly an agricultural area of isolated settlements and market towns, with the growing town of Manchester at its centre (Williams with Farnie 1992, 3). By the 1780s, the national demand for textiles, particularly cotton, began to rise, resulting in a dramatic increase in mill building that transformed Manchester into a centre of the factory-based cotton manufacturing industry of international repute (Baines 1835). This process of industrial development was facilitated greatly by the introduction of canals, which provided the first efficient means of transporting bulk loads of goods. The first significant advance in the local transportation network was focused on the River Irwell when, in 1721, an Act of Parliament allowed the Mersey and the Irwell to be made navigable between Warrington and Manchester (Hadfield and Biddle 1970, 16-18). This allowed waterborne trade to enter Manchester and Salford for the first time and provided an efficient link to the expanding port of Liverpool.
- 3.1.11 ***The Mersey & Irwell Navigation:*** this was probably completed in 1736 and, by 1740, wharfage facilities for boats of up to 50 tons were provided by a quay established on the Manchester side of the river by Edward Byrom, a wealthy fustian dealer and one of the proprietors of the Mersey & Irwell Navigation Company (*ibid*). The quay was built a short distance to the north-west of the present Site Area in 1735, at the bottom of what in that year became Quay Street, strategically located to carry much of the town's trade, with a river frontage of 136 yards (George and Brumhead 2002, 22). This street also linked to Water Street, which joined with Quay Street at a right angle and provided a more direct link between the quay and the town, and appears from the map evidence to have been laid out in about 1750 (Gregory and Bell 2008). The second half of the eighteenth and early nineteenth centuries were characterised by significant advances in waterborne infrastructure in Manchester, and particularly the expansion of the canal network, and the development of pre-existing areas of wharfage along Water Street (George and Brumhead 2002).
- 3.1.12 ***The Canal Network:*** the first true industrial canal in Britain was that built by the Duke of Bridgewater, which was completed from his mines at Worsley to Manchester in 1764, the terminus of which was at Castlefield (Hadfield and Biddle 1970). Of particular relevance to the present study area is the Manchester, Bolton, & Bury Canal, which was in use by 1795, and provided a means of transporting coal to Manchester and Salford from the collieries situated to the north in the Irwell valley (Gray 1989, 6). This canal was linked to the River Irwell via a series of six locks, although it had been proposed originally to construct an aqueduct over the River Irwell to link with the Rochdale Canal. This venture collapsed in 1801, but the proposal ultimately led to the construction of the Manchester & Salford Junction Canal, which eventually opened in October 1839, taking a route immediately to the north of the Site Area.

- 3.1.13 **The Railway Network:** the development of the present study area between the mid-nineteenth and twentieth century was dominated by the introduction of railways. The earliest railway in the area dates to 1830, and was constructed by the Liverpool and Manchester Railway (L&MR) Company. This railway linked Liverpool and Manchester, and Liverpool Road Station formed its Manchester terminus, representing the first railway passenger station in the world. This terminus lay either side of Water Street. The line was originally carried across the River Irwell and Water Street by a skewed masonry bridge, designed by George Stephenson (Fitzgerald 1980, 19), and a brick-built viaduct (HER 12145.1.0) and brick and cast-iron girder bridge, which were both constructed by Brockbank and Findlay (Thomas 1980, 50). The cast-iron and girder bridge was demolished and rebuilt in 1905, although the original masonry bridge and brick-built viaduct are still extant and form Grade I and II listed buildings respectively, whilst the later 1905 bridge is a Grade II listed building.
- 3.1.14 In addition to the bridges and viaduct, several other elements associated with the 1830s railway terminus lie close to (but beyond the boundary of) the Site Area. Situated to the west of Water Street is the Liverpool Road arrival station, which was designed by Haig and Franklin and was constructed in 1837 immediately north of the 1830 viaduct. Its platform was accessed via an inclined roadway and, at platform level, cast-iron columns supported its roof, whilst its western end functioned as a loading dock. Beneath, and supporting, the station were also vaults used for stabling and storage and it appears that these elements, along with the station's outer façade, facing Water Street, are partially extant and were incorporated into a later viaduct. This later structure is a Grade II Listed Building.
- 3.1.15 Situated to the east of Water Street, elements associated with the 1830s terminus include three warehouses and portions of the departure station and adjoining station master's house. The latter building pre-dates the station and was in existence in 1808, and is also known to have been occupied by 'John Rothwell, of the dye works partnership Rothwell Harrison' (Fitzgerald 1980, 53), whose dye works was located immediately to the north-east of the Site Area. The building was then occupied by Joseph Green, the L&MR's agent, from July 1830 (*ibid*). The attached departure station was constructed between 1830 and 1831, and together with the station master's house forms a Grade I Listed Building.
- 3.1.16 Further developments to the rail system occurred in the 1840s due to the opening of a railway line in 1844, running from Ordsall Lane to the newly opened station at Hunt's Bank (later Victoria). In addition, the Site Area is also traversed by a line constructed by the Manchester and South Junction and Altrincham Railway (MSJ&AR), which opened in 1849, and was designed as a link between London Road (later Piccadilly) Station and the L&MR line at Ordsall Lane (Holt 1986, 114). Adjacent to the Site Area, this line was carried on a brick-built viaduct (HER 3081.1.0), with a bridge across the Irwell, and a cast-iron bridge across Water Street, all of which are extant and form a Grade II Listed Building.

3.2 DEVELOPMENT OF THE SITE AREA

- 3.2.1 The earliest reliable plans of Manchester are provided by four successive plans of Manchester produced between 1741 and 1751 by the cartographers Russel Casson and John Berry. These show Quay Street and Water Street, which converged at the buildings of the Old Quay Company on the River Irwell. Under an Act of Parliament of 1721, the company had been empowered to make the River Mersey and River Irwell navigable between Warrington and Manchester (UMAU 2003). The navigation was probably completed in 1736, and by 1740 the company had built a quay and warehousing at the bottom of Quay Street (Hadfield and Biddle 1970, 16-8). The Site Area, however, lies beyond the edge of Casson and Berry's maps, suggesting that it lay beyond the urban fringe of Manchester in the mid-eighteenth century.
- 3.2.2 The next available map of the area, produced by Tinker in 1772, shows Quay Street and St John's Street, with some buildings lining the frontage of these streets. Again, however, the Site Area lies beyond the edge of Tinker's survey. The following years were characterised by rapid development, which is captured on Charles Laurent's map of 1793 (Plate 2), and William Green's detailed map that was published in 1794 (Fig 2). These accurate surveys show elements of three dye works to have been established in the Site Area. The Hanley Dye Works (HER 12364.1.0; Site **01**) lay partially in the south-western plot, and the Water Street Dye Works (HER 12367.1.0; Site **02**) occupies the centre of the north-eastern plot, on the eastern side of the modern Trinity Way, with a larger dye works (HER 12669.1.0) lying immediately to the north-east of the Site Area. Green's map depicts a series of parallel lines around the dye works, which probably represent tenter grounds, where dye cloth was hung out to dry.



Plate 2: Extract from Charles Laurent's map of 1793, marking the position of the Site Area

- 3.2.3 A trade directory for 1797 includes several entries for dyers on Water Street, including Mary Bradshaw and Hugh Hargreaves & Co, who are both listed as dyers at 45 Water Street, with John Rothwell occupying 44 Water Street (Scholes 1797). These two properties may have formed the large works beyond the north-eastern edge of the Site Area, as shown on the maps produced by Green and Laurent (Plate 2). Scholes' directory also contains entries for Matthew Higginson and Martha Duxbury, who are listed as dyers at 57 and 63 Water Street respectively (*op cit*, 33). It is possible that Higginson and Duxbury occupied the smaller dye works in the present Site Area (Sites **01** and **02**), whilst William Crompton, listed as a dyer at 68 Water Street, ran the works at the south-western end of the street (HER 12360.1.0), as shown on Green's map (Fig 2).
- 3.2.4 Several maps of the area were produced in the early 1800s, although most of these were produced at a small scale that precludes any meaningful analysis of individual buildings. However, maps such as that produced by Dean and Pigot in 1809 (Plate 3) provide an indication of the extent of development, and show the buildings comprising the three dye works within the study area. Whilst the detail is not particularly clear, the map appears to show that the Hanley Dye Works (Site **01**) had expanded slightly since Green's map of 1794, although the footprint of the Water Street Dye Works (Site **02**) and the larger works to the north (Site **03**) seems broadly unaltered. This is corroborated by the detail on William Johnson's map of the area, which was published in 1820 (Plate 4). Whilst this map was similarly produced at a small scale, the footprint of the buildings forming the dye works replicates that shown on the map of 1809. Dean and Pigot's map also shows a new bridge across the River Irwell to have been built, and annotated 'new road from Eccles' (Regent Road).



Plate 3: Extract from Dean and Pigot's map of 1809, with arrow marking the position of the Site Area



Plate 4: Extract from William Johnson's map of 1820, with arrow marking the position of the Site Area

- 3.2.5 The next detailed map of Manchester is provided by Swire's survey of 1824, which shows new buildings to have been added to the Site Area (Fig 3). Some of these comprised the New Quay, which provided additional wharfage facilities associated with the Irwell Navigation. A large rectangular building placed at a right angle to the river (Site **03**) was probably a warehouse, whilst a U-shaped range of buildings (Site **04**) provided stabling facilities for the New Quay Company; only elements of these two buildings cross the boundary of the Site Area, with much of their footprint lying beneath the route of the modern Trinity Way. Interestingly, Swire's survey shows the buildings forming two of the original dye works (Sites **01** and **02**) to have contracted, suggesting that they may no longer have been used for dyeing. A trade directory for 1821-2 contains entries for Mary Bradshaw and Rothwell, who are both described as dyers at 45 and 44 Water Street respectively, but there are no other dyers listed for Water Street (Pigot and Dean 1821, 246). This absence of dyers that can be linked firmly to the buildings in the Site Area adds weight to the suggestion that Sites **01** and **02** may have ceased operating by the early 1820s.
- 3.2.6 Swire's map shows most of the western part of the Site Area as undeveloped, although some formal gardens appear to have been laid out in the southern corner of the site, and the junction of Water Street and Regent Road.

- 3.2.7 The next detailed survey of the area is provided by Bancks & Co's *Map of Manchester and Salford*, which was published in 1831 (Plate 5). This shows the dye works beyond the north-eastern boundary of the Site Area to have been remodelled slightly and expanded, and the smaller dye works to the south (Site **02**) reconfigured and occupying the New Quay Yard. The third dye works (Site **01**) also appears to have been rebuilt, presumably as part of the New Quay Company wharf. Bancks & Co also show formal gardens across the south-western part of the Site Area, with a bowling green to the east.

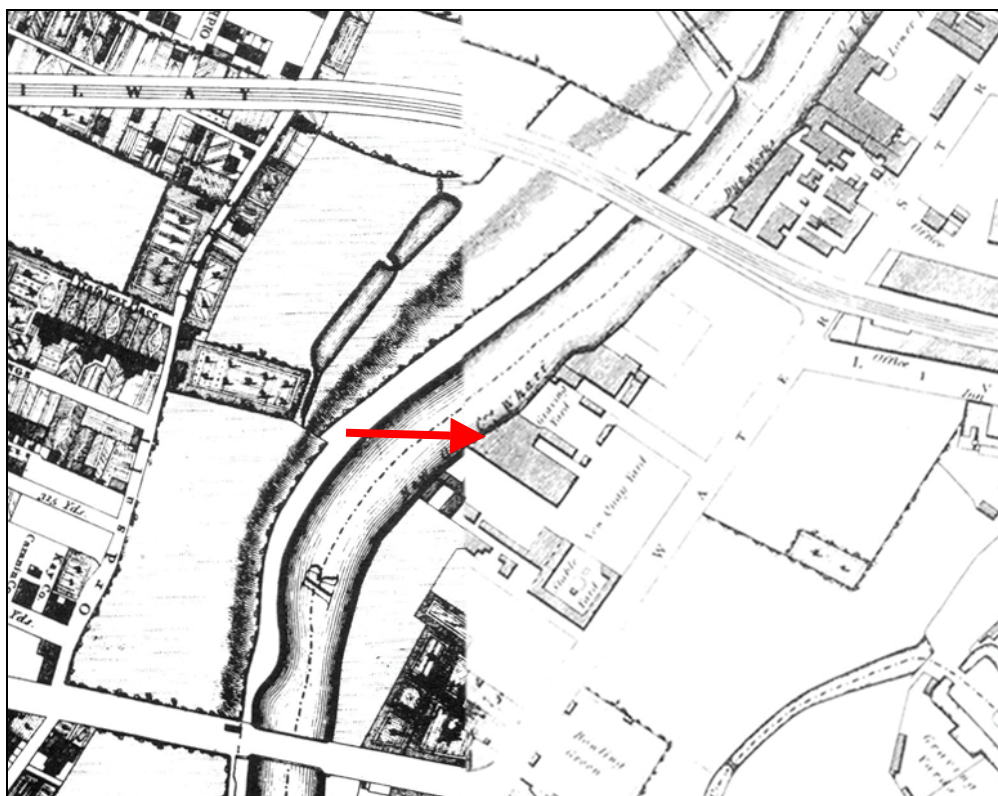


Plate 5: Extract from Bancks & Co's map of 1831, with arrow marking the New Quay Company warehouse (Site **03**)

- 3.2.8 A significant new feature to the developing industrial townscape that is captured on Bancks & Co's map is the railway viaduct. This was built in 1830 by Brockbank and Findlay, and linked the masonry bridge over the River Irwell with a now-demolished brick and cast-iron bridge over Water Street. Some 15 years later, the Manchester and South Junction and Altrincham Railway (MSJ&AR) was authorised by an Act of Parliament. In 1849, it opened to provide a link between London Road (now Piccadilly) Station with the Manchester to Liverpool line at Ordsall Lane. This line passes immediately to the north-east of the Site Area on a viaduct.
- 3.2.9 The viaduct is shown on Adshead's map of 1850 (Fig 4) and the Ordnance Survey 5": 1 mile map of 1851 (Fig 5). These detailed maps show that a small chemical works, marked as Hanley & Co (Site **05**), had been built immediately adjacent to the New Quay, and within the Site Area, and may have supplied materials required by the area's thriving textile-finishing industry. A boathouse with its associated slipway (Site **06**) had also been built by the mid-nineteenth century, occupying south-western corner of the Site Area.

- 3.2.10 Adshead's map of 1850 annotates the large rectangular building placed at a right angle to the river (Site **03**) as a bonded warehouse. The map also shows some buildings between the two railway viaducts beyond the north-eastern edge of the site, which probably represent elements of the Rothwell's dye works. The map also annotates the buildings that had formed the core of the Water Street Dye Works (Site **02**) as a tallow and oil works, although the same building is marked as a fustian dye works on the Ordnance Survey map of 1851.
- 3.2.11 The next available plans of the Site Area are provided next edition of Ordnance Survey mapping, which was published in 1891 at a scale of 1:500 and at 25": 1 mile in 1896 (Fig 7). These plans show that the Site Area had been subject to some development during the second half of the nineteenth century. The south-eastern part of the Site Area had been redeveloped as a corporation yard, and housed several large 'refuse destructors', presumably designed to process domestic waste before shipping it out along the River Irwell. These new buildings subsumed the sites of the Hanley Dye Works (Site **01**), the later chemical works (Site **05**), and the boat house (Site **06**). The buildings forming part of the New Quay Company premises, including the bonded warehouse (Site **03**) and the stables and stores (Site **04**) have also been demolished. The fustian dye works marked on the previous edition of Ordnance Survey mapping (Site **02**) is shown on the 1896 edition as a steam-powered saw mill. A row of new buildings fronting onto Water Street (Site **07**) is also shown to have been erected, and a pig station (Site **08**) established at the northern end of the Site Area.
- 3.2.12 Subsequent editions of Ordnance Survey mapping, published in 1908, 1922 and 1932, show only minor changes to the Site Area (Figs 7-9). The Ordnance Survey map of 1956-65 (Fig 10) similarly shows little change, although the steam-powered saw mill occupying the site of the former dye works (Site **02**) had been demolished. All buildings in the Site Area were cleared subsequently, and the site converted for car-parking use.

4. GAZETTEER OF SITES

The following gazetteer entries summarise the site of archaeological interest that lie within the boundary of the Site Area (Fig 11). All known heritage assets within a 250m radius of the Site Area are shown on Figure 12.

Site Number	01
Site Name	Hanley Dye Works (site of)
HER Number	12364.1.0
Designation	Conservation Area
Site Type	Dye Works (site of)
Period	Eighteenth century
NGR	382717 397800
Source	Green 1794; Swire 1824
Description	A small dye works shown on Green's map of 1794 to comprise three detached blocks, with a tender ground immediately to the south-west. Same layout depicted on Swire's map of 1824, but the buildings appear to have been remodelled, probably associated with their disuse as a dye works, by 1831. Site occupied subsequently by the New Quay Company and, by the end of the nineteenth century, 'refuse destructors'.
Assessment	The footprint of the dye works lies partially within the Site Area, with the remainder extending beneath the modern route of Trinity Way. It is likely that the foundations of the dye works were destroyed during the nineteenth-century redevelopment of the site, and especially the construction of the 'refuse destructors'.

Site Number	02
Site Name	Water Street Dye Works (site of)
HER Number	12367.1.0
Designation	Conservation Area
Site Type	Dye Works (site of)
Period	Eighteenth century
NGR	382799 397864
Source	Green 1794; Swire 1824; OS 1851
Description	A dye works shown on William Green's map of 1794, comprising several buildings in the central part of the Site Area. Annotated as a fustian dye works in the mid-nineteenth century, with small reservoir/large cisterns immediately to the north-east. Converted for use as a steam-powered saw mill by the end of the nineteenth century, but had been largely demolished by the mid-twentieth century.
Assessment	The footprint of the dye works lies within the Site Area. There is some potential for buried remains of the industrial buildings to survive <i>in-situ</i> , and these may be damaged or destroyed during the proposed development.

Site Number	03
Site Name	New Quay
HER Number	-
Designation	Conservation Area
Site Type	Store (site of)
Period	1820s
NGR	382758 397822
Source	Swire 1824; Bancks & Co 1831; Adshead 1850; OS 1851
Description	A building marked as 'stores' on mid-nineteenth-century mapping, and probably associated with the New Quay. Demolished by the end of the nineteenth century, and the site redeveloped as a corporation yard.
Assessment	The footprint of part of the building lies within the Site Area, with the remainder lying beneath the modern route of Trinity Way. Buried remains of the building are likely to have been damaged or destroyed during redevelopment of the site in the late nineteenth and twentieth centuries.

Site Number	04
Site Name	New Quay
HER Number	-
Designation	Conservation Area
Site Type	Stable Block and Stores
Period	1820s
NGR	382773 397767
Source	Swire 1824; Bancks & Co 1831; Adshead 1850; OS 1851
Description	A stable block and stores established by the New Quay Company.
Assessment	The footprint of the buildings lie largely outside the Site Area, although small elements cross the boundary. However, buried remains of the building are likely to have been damaged or destroyed during redevelopment of the site in the late nineteenth and twentieth centuries.

Site Number	05
Site Name	Water Street
HER Number	-
Designation	Conservation Area
Site Type	Chemical Works
Period	Mid-nineteenth century
NGR	382714 397798
Source	Adshead 1850; OS 1851
Description	A small chemical works depicted on nineteenth-century mapping.
Assessment	The footprint of the building lies mainly within the Site Area, although buried remains are likely to have been damaged or destroyed during redevelopment of the site in the late nineteenth and twentieth centuries.

Site Number	06
Site Name	Water Street
HER Number	-
Designation	Conservation Area
Site Type	Boat House (site of)
Period	Mid-nineteenth century
NGR	3822660 397702
Source	Goads Insurance Plan, 1889; OS 1891; OS 1896
Description	A boat house and slipway shown on the Ordnance Survey map of 1851, but redeveloped in the late nineteenth century.
Assessment	The footprint of the building lies within the boundary of the Site Area. However, it is likely that any buried remains will have been largely destroyed during twentieth-century redevelopment of the site.

Site Number	07
Site Name	Water Street
HER Number	-
Designation	Conservation Area
Site Type	Buildings
Period	Nineteenth century
NGR	382734 397703
Source	Adshead 1850; OS 1851; OS 1891; OS 1896
Description	A row of houses along the north-western side of Water Street.
Assessment	A small element of the building lies within the Site Area, and buried remains may be damaged by development.

Site Number	08
Site Name	Water Street
HER Number	12677.1.0 and 12671.1.0
Designation	Conservation Area
Site Type	Pig Market (site of)
Period	Mid-nineteenth century
NGR	382734 397703
Source	Adshead 1850; OS 1851
Description	The 1888-9 OS 1:2500 shows a pig market had been established immediately south of the extended 1830 railway viaduct (Site 06). This market was covered by a glass roof enlargement, which extended between the reconfigured 1830 viaduct and the MSJ&AR viaduct (Site 07), and also further to the south. The pig market was also associated with an inclined animal ramp running down from the 1830 viaduct, which enabled livestock to be herded down from the railway line to the market below. The ramp survives extant, measures <i>c</i> 3 m wide and runs from the south-eastern corner of the viaduct extension, parallel with Water Street, for a distance of <i>c</i> 25 m. The covered pig market was extant in 1965, but the glass roof was removed and the buildings adjacent to the River Irwell were demolished in the latter part of the twentieth century.
Assessment	The footprint of the pig market lies partially within the Site Area.

5. SIGNIFICANCE OF THE REMAINS

5.1 INTRODUCTION

- 5.1.1 The assessment has identified a total of 66 heritage assets within a 250m radius of the Site Area (Fig 12). Of this total number of heritage assets, 18 are listed buildings, all of which lie beyond the boundary of the Site Area. The development proposals will thus not impact directly on the listed buildings, although a detailed assessment of the impact of development on the setting of these buildings has not been considered as part of this assessment, which has focused exclusively on the potential for below-ground archaeological remains. There were no other designated sites (*eg* Scheduled Monuments or Historic Parks and Gardens) within the Site Area, although the Site Area does lie within the Castlefield Conservation Area. Of the total number of heritage assets identified, only eight sites of archaeological interest have been identified within the Site Area (Sites **01-08**).

5.2 CRITERIA

- 5.2.1 Where sites do not possess a statutory designation their value as a heritage asset has been determined with reference to the Secretary of State's criteria for assessing the national importance of monuments, as contained in Annexe 1 of the policy statement on scheduled monuments produced by the Department of Culture, Media, and Sport (2010). These criteria relate to period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, and potential. The heritage assets within the Site Area (Sites **01-08**) have been considered using the criteria, with the results below.
- 5.2.2 **Period:** until the eighteenth century, the study area probably comprised agricultural land on the fringe of Manchester, with the earliest development comprising two dye works that lined the south-eastern bank of the River Irwell (Sites **01-02**). This were two of a larger and important group of dye works that lined the banks of the River Irwell in Manchester and Salford during the late eighteenth century. The Site Area was redeveloped during the course of the nineteenth century, providing facilities for waterborne (Sites **03-04**) and railway goods (Site **11**), although much of the southern part of the site was given over in the later nineteenth century for use as a corporation yard.
- 5.2.3 **Rarity:** physical remains of eighteenth-century dye works would be of local/borough rarity. This value would perhaps be enhanced in the case of the Water Street Dye Works (Site **02**), pending the extent to which it was remodelled during its conversion to a steam-powered saw mill, as the site does not appear to have been redeveloped since demolition. The other non-designated heritage assets, including a small chemical works (Site **05**), a boat house (Site **06**), and a pig station (Site **08**) do not have a high rarity value.

- 5.2.4 **Documentation:** the historical development of the study area from the late eighteenth century can be traced reasonably well from cartographic sources and entries in contemporary trade directories. Further documentary research may furnish additional evidence, including more precise dating of the construction of the relevant buildings, although this is unlikely to alter the outline presented in this assessment.
- 5.2.5 **Group Value:** the heritage assets in the Site Area represent elements of the urban industrial townscape, which played a central role in the development of the city from the late eighteenth century onwards. As such, these heritage assets have some group value.
- 5.2.6 **Survival/Condition:** it is probable that any buried remains of the Hanley Dye Works (Site **01**), together with the New Quay stores and stables (Sites **04** and **05**), the mid-nineteenth-century chemical works (Site **05**) and the boat house (Site **06**) will have been damaged or destroyed during redevelopment of the site in the late nineteenth and twentieth centuries. Conversely, there is some potential for buried remains of the Water Street Dye Works (Site **02**) to survive *in-situ*. Buried remains of the late nineteenth-century buildings on Water Street (Site **07**) and the pig station (Site **08**) may also survive *in-situ*.
- 5.2.7 **Fragility/Vulnerability:** any buried archaeological remains, should they be present and survive *in-situ*, are vulnerable to damage or destruction during any earth-moving works across the site.
- 5.2.8 **Diversity:** the remains relate to the late eighteenth- and nineteenth-century development of the area as an early centre for the factory-based dyeing industry and latterly as a hub of the local and regional historic transportation network. None of the sites within the Site Area are considered to be significant due to diversity.
- 5.2.9 **Potential:** there are no prehistoric sites within the study area and the potential for prehistoric remains is considered to be low. Notwithstanding the location of the Site Area on the north-western fringe of the Roman settlement, the potential for Roman remains to survive *in-situ* within the Site Area is considered to be low, reflecting the intensive development of the site from the nineteenth century onwards. There are no known remains from the post-Roman period through to the late eighteenth century and the potential for remains from these periods is considered to be low.
- 5.2.10 The greatest potential lies in the late eighteenth- and nineteenth-century remains, and particularly those associated with one of the dye works (Site **02**), although any remains of the former pig station (Site **08**) may also be of some interest.

5.3 SIGNIFICANCE

- 5.3.1 Using the above criteria, and particularly rarity and survival/condition, the Site Area is likely to contain non-statutory below-ground heritage assets of local/borough significance (Site **02**). Some of the sites that have been identified have been subject to redevelopment that will have damaged or destroyed any buried remains, thereby reducing their significance to negligible (Sites **01**, **03**, **04**, **05** and **06**). The site of the former buildings along Water Street (Site **07**) and the pig station (Site **08**) are of local interest.

6. LIKELY IMPACT OF DEVELOPMENT

6.1 INTRODUCTION

- 6.1.1 Current planning policy guidance for the historic environment, embodied in NPPF (DCLG 2012), advises that archaeological remains are an irreplaceable resource. It has been the intention of this study to identify the archaeological significance and potential of the Site Area, and assess the impact of proposed development, thus allowing the policy stated in NPPF (DCLG 2012) to be enacted upon.
- 6.1.2 The development proposals will necessitate considerable ground-breaking works, which could potentially impact on buried archaeological remains. The results of the archaeological assessment, and the impact of the development proposals on buried remains, are summarised in Table 7.

6.2 IMPACT

- 6.2.1 ***Below-ground remains:*** groundworks for any future development within the Site Area, including the reduction or other disturbance of ground levels, the digging of foundations and service trenches, have the potential for having a direct impact by damaging or destroying below-ground archaeological remains.
- 6.2.2 The extent of any previous disturbance to buried archaeological levels is an important factor in assessing the potential impact. Development of the site as a corporation yard in the later nineteenth century will have caused considerable damage or complete destruction of any earlier remains across the south-western part of the Site Area. It is thus unlikely that any significant buried remains of Sites **01**, **03**, **04**, **05** and **06** will survive *in-situ*. Conversely, some buried remains of one of the early dye works (Site **02**), together with former houses on Water Street (Site **07**) and the pig station (Site **08**) may survive intact. Any such remains would merit archaeological recording in advance of or during development.

6.3 IMPACT ASSESSMENT

- 6.3.1 The significance of the impact on the below-ground archaeological resource is summarised in Table 7.

Site Number	Site Name	Importance	Impact	Significance of Impact
01	Hanley Dye Works	Negligible/Low Local	Negligible	Neutral
02	Water Street Dye Works	Local/Borough	Substantial	Intermediate
03	New Quay Stores	Negligible/Low Local	Negligible	Neutral
04	New Quay Stables and Stores	Negligible/Low Local	Negligible	Neutral
05	Chemical Works	Negligible/Low Local	Negligible	Neutral
06	Boat House	Negligible/Low Local	Negligible	Neutral
07	Water Street Buildings	Low Local	Slight	Minor
08	Pig Station	Low Local	Slight	Minor

Table 7: Assessment of the impact significance on each site within the Site Area during development

7. RECOMMENDATIONS

7.1 INTRODUCTION

- 7.1.1 The *National Planning Policy Framework* instructs that in the case of heritage assets that either have designated status or are non-designated but are of a significance demonstrably comparable with a Scheduled Monument, *ie* of national importance, the general assumption should be in favour of conservation. Where the loss of the whole or a part of a heritage asset's significance is justified by a development, the developer should be required first to record that asset and advance understanding of its significance, in a manner proportionate to their importance and the impact (NPPF, p 32 para 141). Development also has the potential for enhancing heritage assets, and NPPF encourages developments which change the setting of a heritage asset so as to better reveal its significance.
- 7.1.2 None of the sites of below-ground archaeological interest identified within the Site Area are afforded statutory designation, and are thus not considered to necessarily merit preservation *in-situ*. Most of these non-designated heritage assets have been determined to be of low/negligible significance, reflecting the probable disturbance to buried remains wrought by late nineteenth- and twentieth-century development. However, one site is potentially of local/borough significance (Site **02**). Should well-preserved remains of this heritage asset survive as buried remains, then they may merit preservation by record, where they will be directly affected by development. In addition, any surviving remains of the former pig station (Site **08**) may also merit preservation by record.

7.2 RECOMMENDATIONS

- 7.2.1 The requirement for any further archaeological recording of buried remains within the Site Area will be decided by the Greater Manchester Archaeological Advisory Service, in their capacity as archaeological advisor to Manchester City Council. However, it may be anticipated that the remains of the late eighteenth-century dye works (Site **02**), and possibly the former pig station (Site **08**), may necessitate intrusive archaeological investigation.
- 7.2.2 In the first instance, an appropriate scheme of archaeological investigation is likely to involve the excavation of a series of trial trenches to establish the presence or absence of buried remains. Should significant remains be found which will be damaged or destroyed by the proposed development, a sample of different housing types may require further excavation work in advance of development to ensure an appropriate record is compiled prior to the ultimate loss of the remains.

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APPENDIX 1: HERITAGE ASSETS WITHIN A 250M RADIUS OF THE SITE AREA

HER ref.	Description	NGR
Listed Buildings		
99.1.0	Remains of Railway Station Terminus	SJ 8296 9785
99.1.1	Old Main Goods Warehouse (1830 Warehouse)	SJ 8299 9788
12145.1.0	Railway Bridge Over River Irwell to Former Liverpool Road Station	SJ 8285 9793
15708.1.0	Railway Viaduct Linking Bridge over Irwell to Liverpool Road Station	SJ 8283 9794
2087.1.0	Giant's Basin Weir	SJ 8297 9767
3081.1.0	Railway Viaduct Over River Irwell	SJ 8281 9793
8385.1.0	Castlefield Railway Viaduct	SJ 8287 9755
8646.1.0	Victoria Warehouse, Albert Warehouse and Quay	SJ 8306 9810
8647.1.0	Railway Viaduct linking bridge over River Irwell to Liverpool Road Station	SJ 8289 9790
11681.1.0	Manchester South Junction and Altrincham Railway Viaduct	SJ 8382 9770
11750.1.0	Hulme Junction Locks	SJ 8277 9746
12146.1.0	Railway Viaduct over River Irwell to Lower Byrom Street Warehouse	SJ 8293 9792
12068.1.0	123 Liverpool Road	SJ 8299 9783
12069.1.0	Commercial Hotel, Liverpool Road	SJ 8298 9783
12070.1.0	Colonnaded railway viaduct	SJ 8298 9788
12078.1.0	Pair of culvert arches over River Medlock and associated overflow channel	SJ 8294 9771
15483.1.0	Bridgewater Canal Basin at Potato Wharf	SJ 8290 9762
15709.1.0	Girder Bridge to Lower Byrom Street Warehouse	SJ 82838 97957
Building		
278.1.0	Water Street Warehouses	SJ 8305 9812
12373.1.0	Cottage and Warehouse	SJ 8288 9760
13950.1.0	Grape Street Bonded Warehouse	SJ 83067 97910
Monument		
40.2.0	Hulme Bridge (site of)	SJ 8274 9751
49.1.0	Wodens Ford (site of)	SJ 8260 9760
99.1.3	Remains of Terminus, Liverpool Road Railway Station & Stationmaster's House	SJ 8295 9786
1610.1.0	Manchester, Bolton & Bury Canal Terminus	SJ 8286 9800
2021.1.0	Manchester and Salford Junction Canal	SJ 8305 9802
2024.1.0	ATS Garage Site (Area of Roman Manchester)	SJ 8312 9778
2236.1.0	Visions Centre	SJ 8299 9766

HER ref.	Description	NGR
9882.1.0	Woollam Place excavations	8294 9783
12358.1.0	Dacca Mills/Warehouse (site of)	SJ 8265 9750
12360.1.0	Goudsby's Dye Works/Hide Skin & Fat Market (site of), Regent Road	SJ 8267 9765
12364.1.0	Hanley Dye Works (site of), Water Street	SJ 8273 9782
12366.1.0	Hulme Locks	SJ 8271 9745
12367.1.0	Dye Works (site of), Water Street	SJ 8281 9788
12368.1.0	Stanley Street Wharf (site of)	SJ 8284 9805
12369.1.0	Abattoir & Meat Market (site of)	SJ 8285 9773
12370.1.0	Iron Works Warehouse (site of), Hampson Street	SJ 8285 9802
12371.1.0	Princes Bridge	SJ 8287 9798
12372.1.0	Potato Wharf, Castlefield	SJ 8291 9759
12375.1.0	Dye Works (site of), Water Street/Hampson Street	SJ 8294 9798
12376.1.0	New Botany Warehouse (site of),	SJ 8294 9798
12377.1.0	Bridge, Potato Wharf	SJ 8296 9772
12378.1.0	Asphalt Works (site of)	SJ 8296 9815
12381.1.0	Staffordshire Warehouse (site of)	SJ 8306 9774
12383.1.0	Cotton Works (site of), Liverpool Road	SJ 8308 9780
12669.1.0	Dye Works, Water Street (site of)	SJ 82892 97950
12669.1.1	Dye Works, Water Street (site of)	SJ 82897 97948
12669.1.2	Dye Works, Water Street (site of)	SJ 82894 97942
12669.1.3	Dye Works, Water Street (site of)	SJ 82882 97927
12669.1.4	Dye Works, Water Street (site of)	SJ 82877 97919
12669.1.5	Dye Works, Water Street (site of)	SJ 82921 97944
12669.1.6	Dye Works, Water Street (site of)	SJ 82904 97922
12670.1.0	L&MR Brick & Cast Iron Bridge, Water Street	SJ 82915 97897
12671.1.0	Brick Ramp, Water Street (site of)	SJ 82891 97895
12672.1.0	Water Tower/Cistern House, Water Street (site of)	SJ 82870 97914
12673.1.0	Building, Water Street (site of)	SJ 82868 97909
12674.1.0	Arrival Station (former), Water Street	SJ 82918 97919
12675.1.0	Building, Water Street (site of)	SJ 82880 97901
12676.1.0	Building, Water Street (site of)	SJ 82931 97931
12677.1.0	Pig Market, Water Street (site of)	SJ 82878 97891
12678.1.0	Building, Water Street (site of)	SJ 82855 97919
12679.1.0	Building, Water Street (site of)	SJ 82864 97913
12680.1.0	Building (former), Water Street	SJ 82855 97919
15481.1.0	Manchester, Bolton & Bury Canal Lock	SJ 82701 98104

List of known heritage assets within a 250m radius of the Site Area, recorded in the Greater Manchester Historic Environment Record

ILLUSTRATIONS

FIGURES

- Figure 1: Site location map
- Figure 2: Site Area superimposed on William Green's map of 1794
- Figure 3: Site Area superimposed on Swires' *Map of Manchester and its Environs* of 1824
- Figure 4: Site Area superimposed on Adshead's map of 1850
- Figure 5: Site Area superimposed on the Ordnance Survey 5': 1 mile map of 1851
- Figure 6: Site Area superimposed on the Ordnance Survey 25'': 1 mile map of 1896
- Figure 7: Site Area superimposed on the Ordnance Survey 25'': 1 mile map of 1908
- Figure 8: Site Area superimposed on the Ordnance Survey 25'': 1 mile map of 1922
- Figure 9: Site Area superimposed on the Ordnance Survey 25'': 1 mile map of 1932
- Figure 10: Site Area superimposed on the Ordnance Survey 1: 1,2500 map of 1956-65
- Figure 11: Plan of gazetteer sites and areas of archaeological potential
- Figure 12: Location of heritage assets

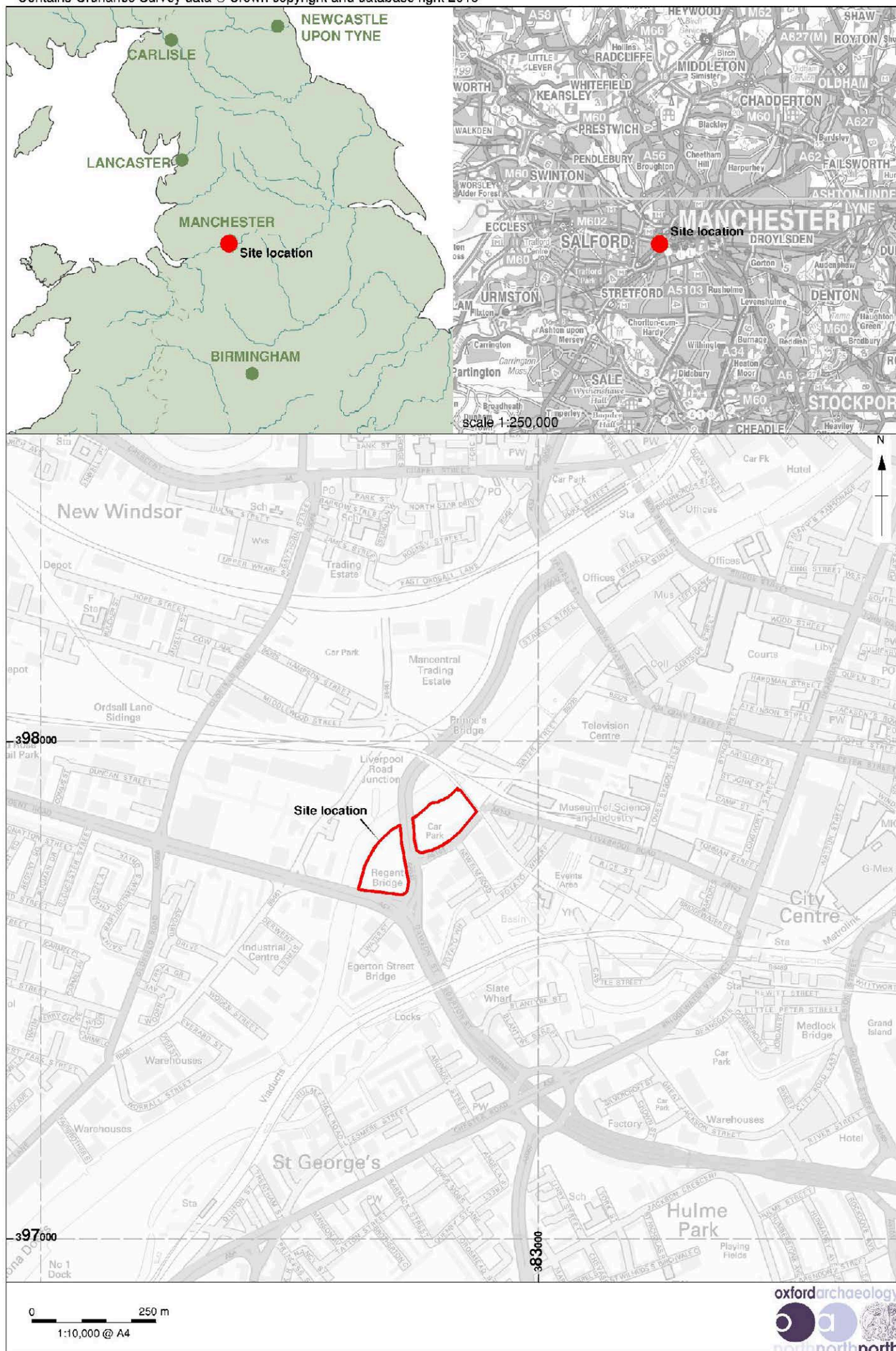


Figure 1: Site location

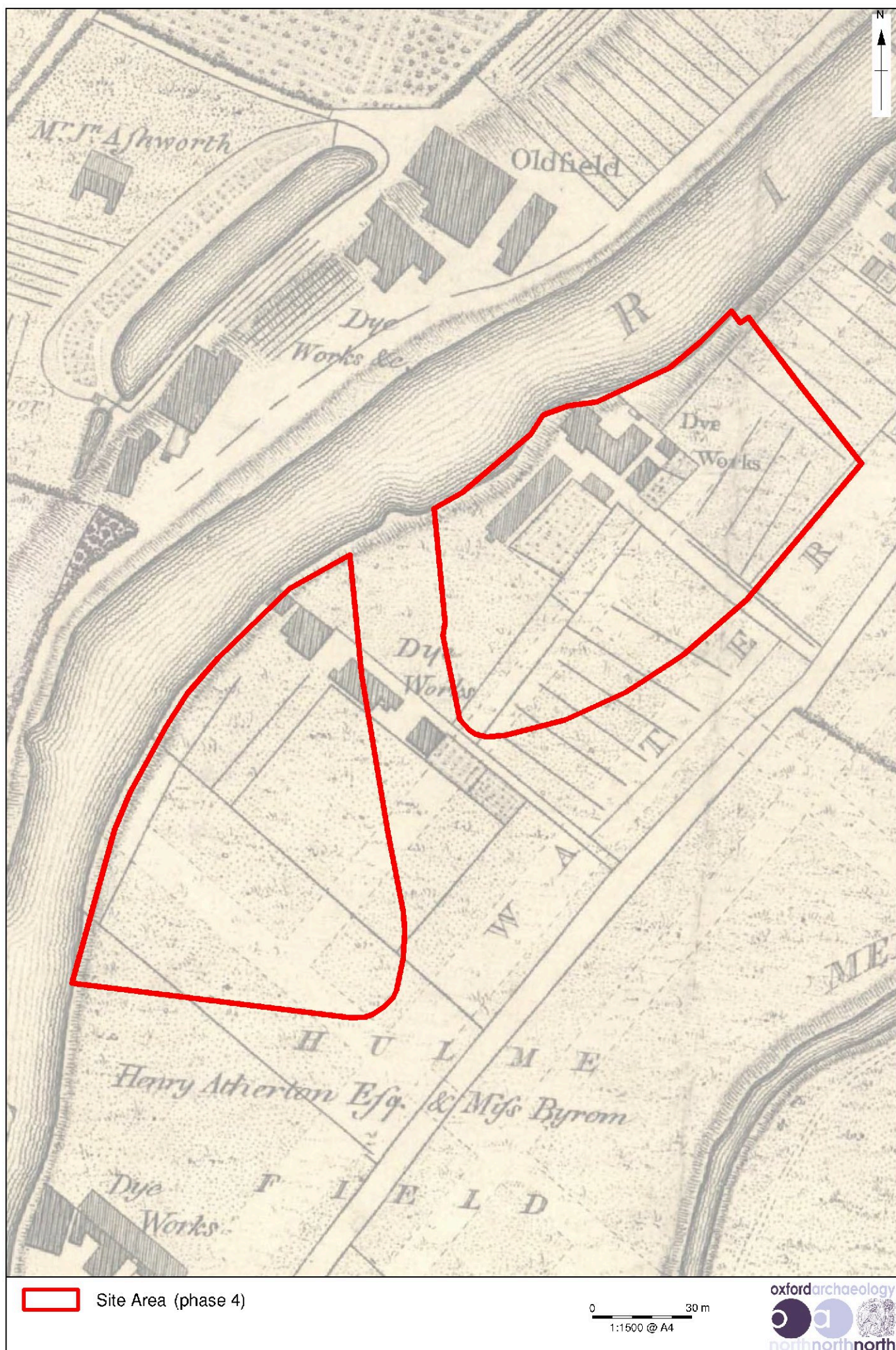


Figure 2: Site area superimposed on William Green's map of 1794



Figure 3: Site area superimposed on Swire's map of Manchester and its Environs, 1824

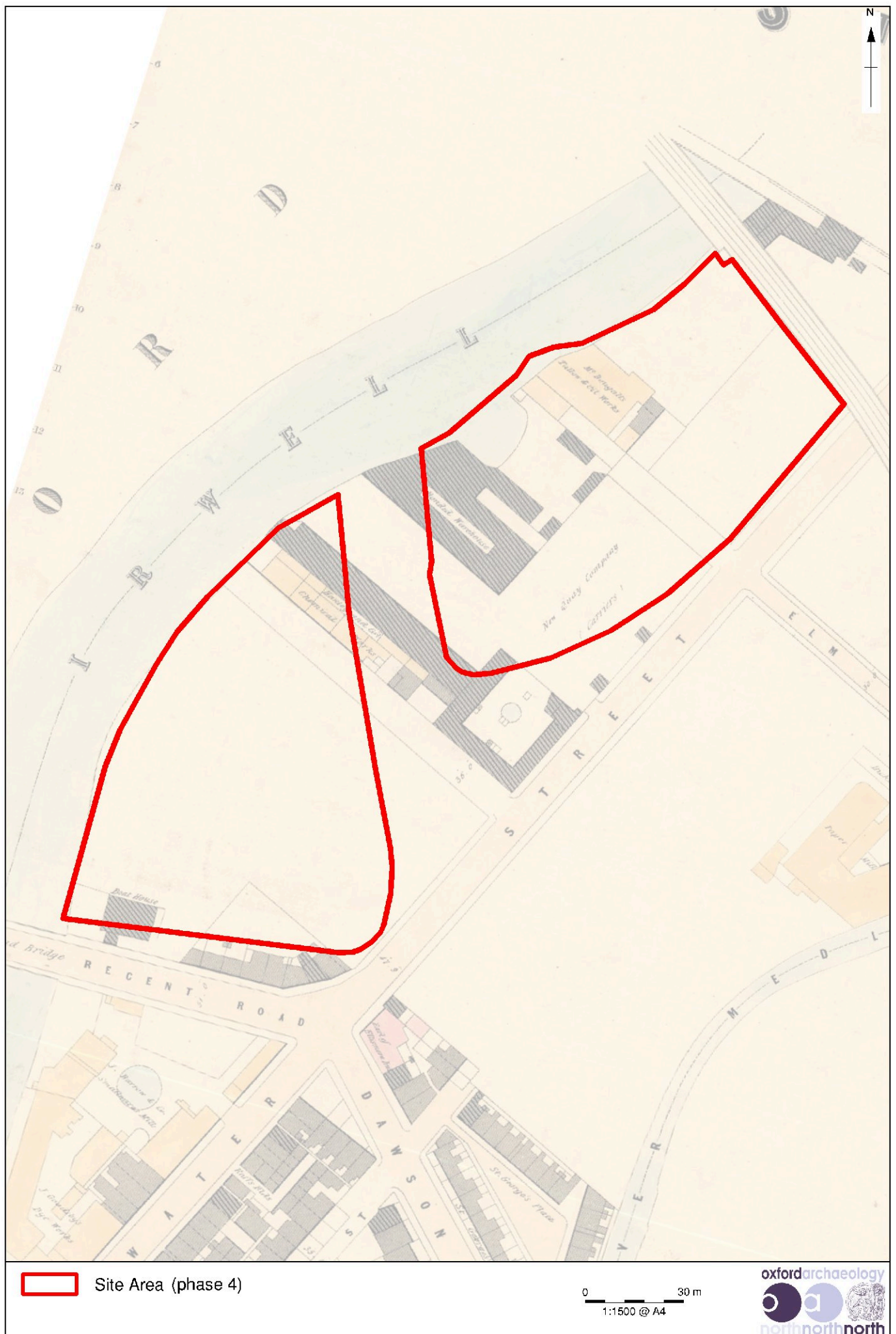


Figure 4: Site area superimposed on Adshead's map of 1850



Figure 5: Site area superimposed on the Ordnance Survey 5:1 mile map of 1851

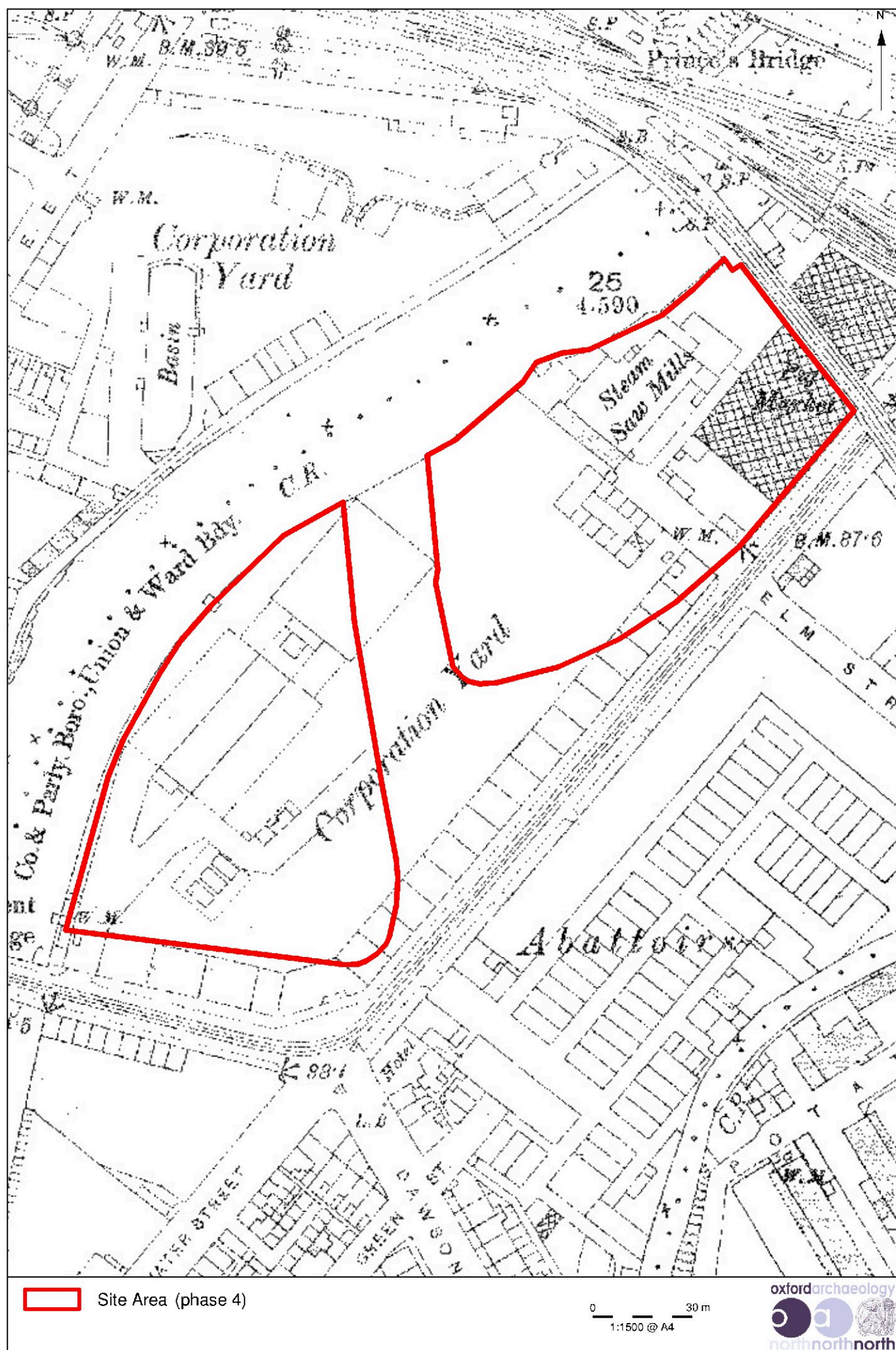


Figure 6: Site area superimposed on the Ordnance Survey 25":1 mile map of 1896



Figure 7: Site area superimposed on the Ordnance Survey 25":1 mile map of 1908

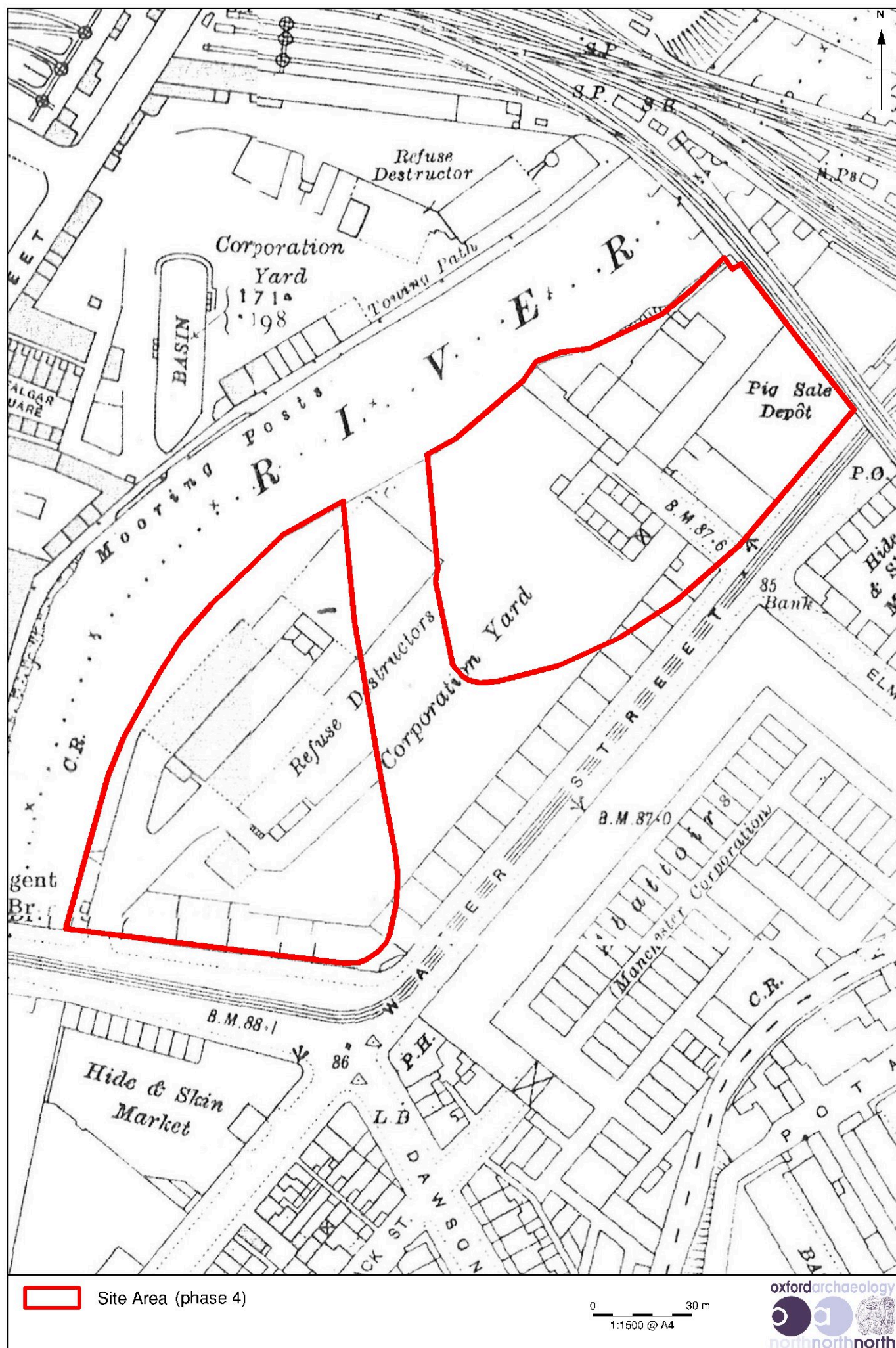


Figure 8: Site area superimposed on the Ordnance Survey 25":1 mile map of 1922



Figure 9: Site area superimposed on the Ordnance Survey 25":1 mile map of 1932

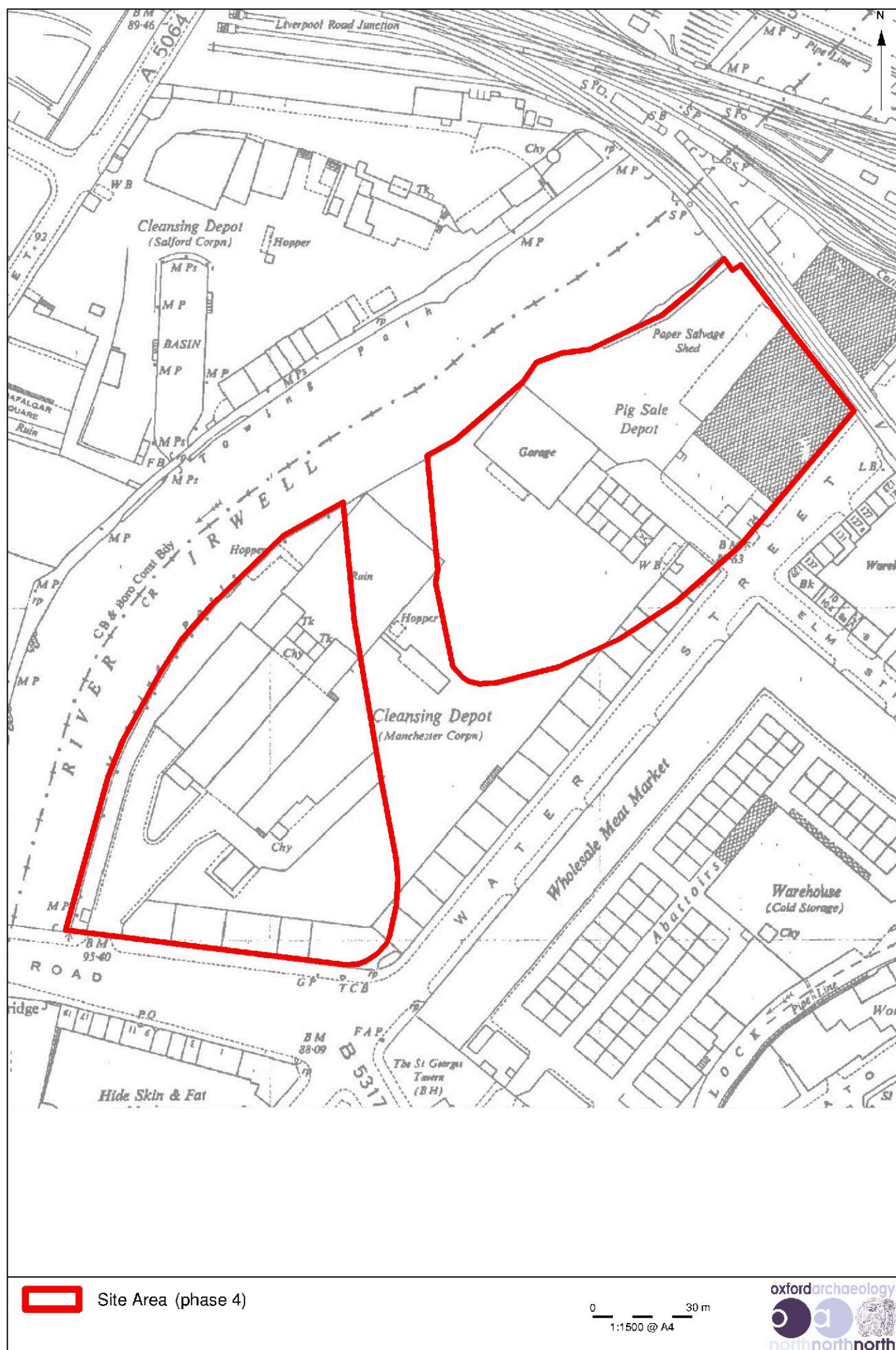


Figure 10: Site area superimposed on the Ordnance Survey 1:1250 map of 1956-65

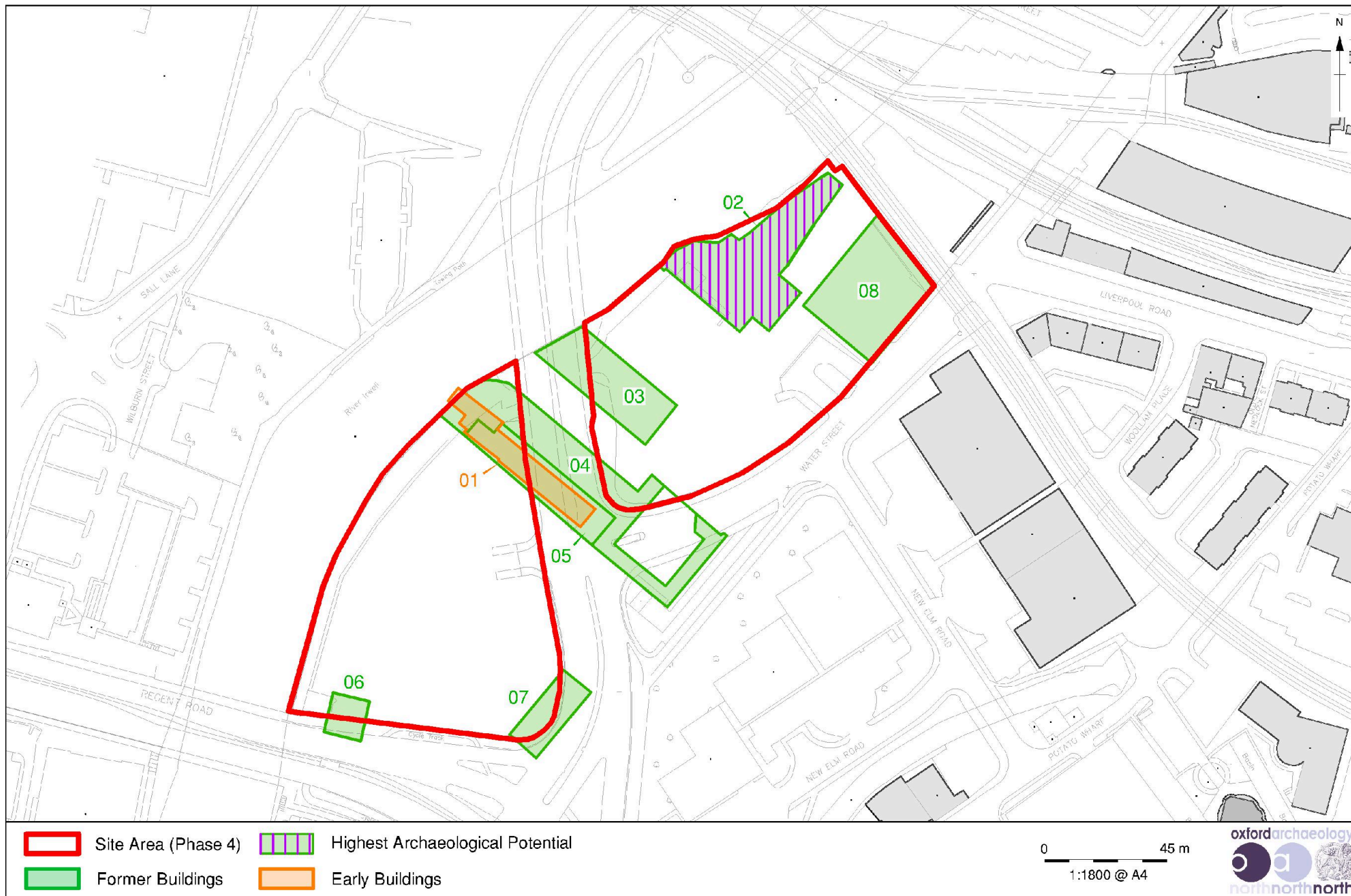


Figure 11: Plan of Gazetteer Sites and Areas of Archaeological Potential

