

PLOT 10b FIRST STREET,
MEDLOCK STREET,
MANCHESTER,
M15 4GU

POST-EXCAVATION
ASSESSMENT REPORT

March 2024

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PRE-CONSTRUCT ARCHAEOLOGY

An Assessment of an Archaeological Excavation at Plot 10b, First Street, Medlock Street, Manchester, M15 4GU

Site Code: FSB23

Central NGR: SJ 83773 97277

Local Planning Authority: Manchester City Council

Planning Reference: N/A

Written/Researched by: Stephen Baker, Andy Abson & Scott Vance

Project Manager: Chris Mayo / Daniel Still

Post-Excavation Manager: Alex Beeby

Commissioning Client: House of Social 1 Ltd

Contractor:

Pre-Construct Archaeology Limited

Unit 54 Brockley Cross Business Centre

96 Endwell Road

Brockley

London SE4 2PD

Tel: 020 7732 3925

Fax: 020 7732 7896

E-mail: cmayo@pre-construct.com

Web: www.pre-construct.com

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1. ABSTRACT

- 1.1 An archaeological Strip, Map and Record (SMR) investigation was undertaken on Plot 10b, First Street, Manchester, M15 4GU (centred on National Grid Reference SJ 83773 97277), between 5th – 30st June 2023. The works were required on the assumption of a planning condition (Condition 37) for the erection of a fifteen-storey purpose-built student accommodation (PBSA) building together with a new public realm along Wilmott Street and a shared servicing route between Plots 10b and 10a. A Written Scheme of Investigation (WSI) was prepared by Pre-Construct Archaeology (PCA) in 2023 and approved by the Greater Manchester Archaeological Advisory Service (GMAAS) prior to works commencing.
- 1.2 Plot 10b was subject to a single excavation area positioned to investigate a water channel toward the north, and dispersed buildings toward the south, as shown on Banck's map of 1831, and later features of interest depicted on the Ordnance Survey (OS) maps of 1844-49 onwards.
- 1.3 The earliest cartographic evidence depicts Plot 10b still relatively undeveloped in the late 18th century, although it was by this time already crossed by an apparent road surface and a manmade channel that fed from the River Medlock. The site began to change rapidly by the 1820s, when the first substantial industrial buildings were constructed in the immediate vicinity. With the establishment of a portable gas works nearby, the site became covered by smallholdings and orchard plots which were replaced at various times over the early 19th century by other smallholdings and, eventually, dense rows of worker's housing. This housing remained on the site, with only minor changes, until the early 20th century when the properties were gradually cleared and replaced with a complex of yards and structures of an industrial nature. This complex underwent various changes and developments until at least 1965, shortly after which the entire area was cleared to become the car park which was still present on the site when the SMR investigation began.
- 1.4 Three main phases of activity were observed on the site that comprised the construction of the terraced houses in the mid- 19th century (Phase 2), significant alterations to these houses, their density and the addition of sanitary features around the beginning of the 20th century (Phase 2.1), and their subsequent demolition in the early 20th century with the expansion of the Mackintosh & Company, later the Dunlop Rubber Works, onto the site (Phase 3). Other events associated with Phase 3 represented the demolition of the rubber works and the latest modern made ground/surfaces.
- 1.5 Although there was evidence that the ground had been substantially built up prior to the construction of the terraced housing, superficial geological deposits were encountered in one area of the site.
- 1.6 In the mid- 19th century, industrial development along the River Medlock resulted in the construction of workers' housing across the site as well as in neighbouring areas. Streets with rows of terraced back-to-backs, of two to three storeys tall, were built along Poplar, Irving and Agnes Street. Demographic changes may have resulted in alterations in the function of these

properties with negative repercussions on living conditions for the occupants. Subsequent alterations to the layout and the density of properties, partly instigated as a response to social conscience and commentary, are well illustrated by the documentary, photographic and cartographic sources.

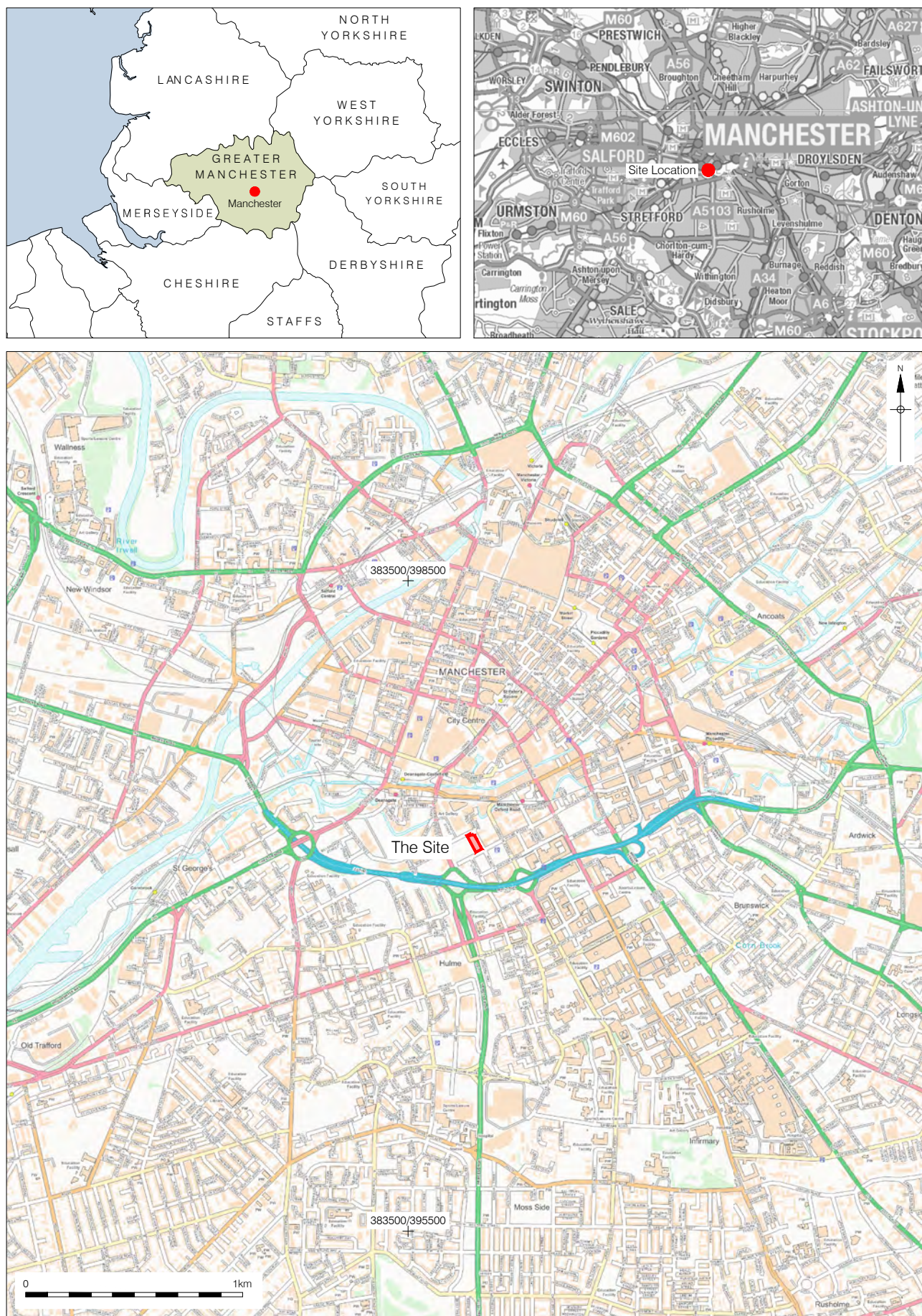
- 1.7 The remains of twelve houses (H1-H12) were exposed toward the south of the investigation area and the rear yard of another property (H13) was revealed to the north. H1 - 4 were located on the south side of Agnes Street with H5 -8 on the north side. Houses 9 - 12 were located on the southern side of Irving Street. The remains of the yard (H13) were located to the rear on properties fronting the north of Poplar Street.
- 1.8 The construction deposits of Poplar Street and Agnes Street, and associated drainage works beneath the latter, were also uncovered.
- 1.9 Remains of the Dunlop Rubber Works were uncovered comprising substantial concrete rafts, piles and floor surfaces. These had caused significant disturbance to the earlier archaeological remains.
- 1.10 This report outlines the results of the archaeological investigations on Plot 10b, assesses their importance and includes recommendations for further work. A copy will be issued to the Greater Manchester Historic Environment Record and the Greater Manchester Archaeological Advisory Service (GMAAS). The archive will be offered for deposition in due course with the Museum of Science and Industry (SIM), Manchester. The results of the work and unpublished grey literature report will be uploaded to OASIS V under reference number **preconst1-522003**.

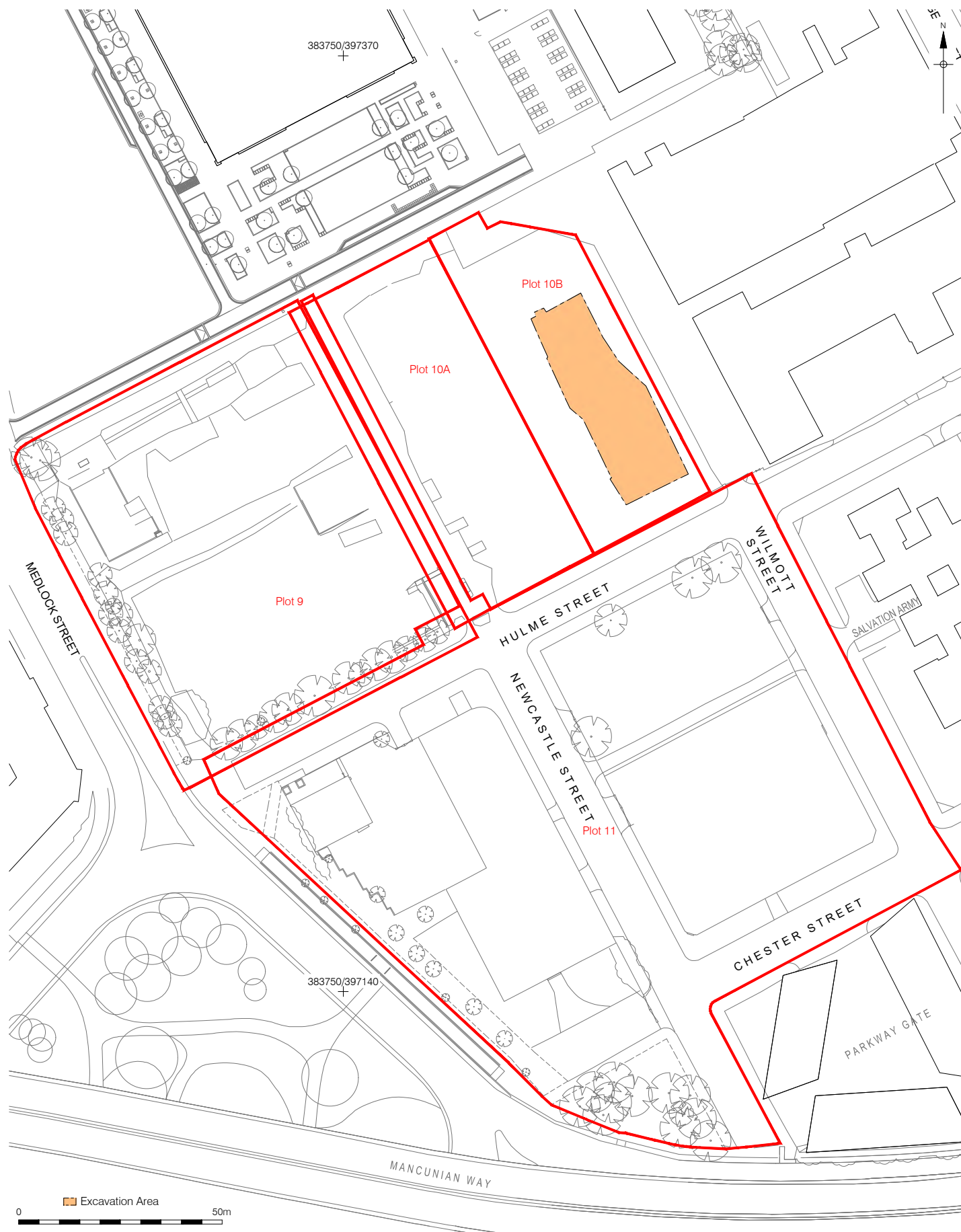
2 INTRODUCTION

- 2.1 Archaeological works comprising a Strip, Map and Record (SMR) investigation were undertaken between 5th and 30th June 2023 by Pre-Construct Archaeology Limited (PCA) on Plot 10b, First Street, Manchester, located approximately 1.3km to the southeast of Manchester city centre and 1.1km from the centre of Hulme (Figure 1). Plot 10b comprised a rectangular parcel of land toward the north east of the development area (comprised of Plots 9, 10a, 10b and 11), bordered by River Street to the north, Plot 10a, Plot 9 and Newcastle Street to the west, and by Hulme Street and Plot 11 to the south (Figure 2). It was centred at National Grid Reference SJ 83777 97277. Plot 10b was approximately 2400m², with roughly 900m² of this comprising the SMR mitigation area. Plots 10b measured c.550m northwest/southeast and up to c.20m northeast/southwest. The works were commissioned by House of Social 1 Limited.
- 2.2 The works were carried out in advance of the planned application to develop the site which will include the erection of a fifteen-storey purpose-built student accommodation (PBSA) building with public realm works along Wilmott Street, and a shared servicing route between the proposed new buildings at Plot 10b and the adjacent Plot 10a, running between River Street and Hulme Street.
- 2.3 The archaeological and historical background of the site was covered by an Environmental Statement which was produced by PCA in 2016. The relevant chapter covered Plot 8, but the information was pertinent to Plot 10b and established that the site probably remained as open agricultural land until the early 19th century when it was rapidly developed, along with wider intensive and extensive industrial development of the surrounding Hulme area. The site was completely developed by the middle of the 19th century and was fully occupied by buildings up until the early 20th century, after which large areas of Hulme were condemned and the entire site was eventually cleared prior to the construction of buildings belonging to the Dunlop Rubber Works.
- 2.4 In the summer of 2022 and spring of 2023, PCA completed a SMR investigation of an agreed area of Plot 9 and Plot 10a respectively. Where they had escaped later truncation by industrial development and 20th century activity, the works revealed an archaeological sequence comprising dwellings dating from the 1840s (Baker 2023). The archaeological sequence was unremarkable and in keeping with expectations based upon previous work by PCA including desk-based assessment (Buczac 2016) and evaluation (Banens 2020).
- 2.5 Following discussions of the development of Plot 10b with GMAAS, their case officer suggested that, based upon the results of work at Plot 9, further evaluation would be unwarranted. Instead, Mr. Ben Dyson (GMAAS) stated that an SMR investigation of targeted areas would constitute the most efficient means of mitigation for the expected archaeological remains. With this in mind, and on the assumption that planning consent for the development of Plot 10b would be granted and an archaeological condition identical to Plot 9 expected, a Written Scheme of

Investigation (WSI) for archaeological investigation and mitigation, to be submitted with the planning application, was produced (PCA 2023) and approved by GMAAS prior to works commencing.

- 2.6 The site comprised a single rectangular SMR area (Figure 2) positioned to investigate a central body of water from Banck's map that could not be investigated during the Plot 9 SMR stage and to assess the extent of the survival of back-to-back terraced housing along Agnes, Irving and Poplar Streets (Figure 11). This report details the result of the SMR programme of works conducted within Plot 10b.





3 PLANNING BACKGROUND

3.1 National Planning Policy Framework

- 3.1.1 In March 2012 (revised September 2023), the government published the National Planning Policy Framework (NPPF), which replaced existing national policy relating to heritage and archaeology (Planning Policy Statement 5: Planning for the Historic Environment (PPS5)). In summary, current national policy provides a framework which protects nationally important designated Heritage Assets and their settings, in appropriate circumstances seeks adequate information (from desk-based assessment and field evaluation where necessary) to enable informed decisions regarding the historic environment and provides for the investigation by intrusive or non-intrusive means of sites not significant enough to merit *in-situ* preservation. Relevant paragraphs within the NPPF (September 2023) include the following:

194. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

195. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

199. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. 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, notably scheduled monuments, protected wreck sites, battlefields, grade I and II listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

The Glossary contained within the NPPF includes the following definitions:

Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).

Archaeological interest: There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

Historic environment: All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.

Historic environment record: Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

3.2 Local Policy: Archaeology in Manchester

- 3.2.1 The local planning authority responsible for the study site is Manchester City Council, whose current planning policy is governed by its Core Strategy Development Plan Document adopted on the 11th of July 2012. This replaced the previous Unitary Development Plan, though some policies of the earlier plan are still extant, including that relating to archaeology:

20. ARCHAEOLOGY

DC20.1 The Council will give particular careful consideration to development proposals which affect scheduled Ancient Monuments and sites of archaeological interests, to ensure their preservation in place. In particular:

- a. Applications for consent to alter scheduled Ancient Monuments or sites of archaeological interest or their settings should be accompanied by an evaluation and assessment of the implications of the proposal.*
- b. The Council will have special regard to the desirability of securing the preservation of Ancient Monuments and other sites of archaeological interest and their setting in place. It will not permit development that, in its opinion, would adversely affect scheduled Ancient Monuments, or other sites of archaeological interests, and their settings. In exceptional cases where development is*

inevitable, the Council will look at the scope for combining preservation in place with limited investigation and recording.

c. Where the preservation of scheduled Ancient Monuments and sites of archaeological interest in place is not appropriate, the Council will seek to gain full and proper recording of the site through early consultation between the applicant and approved archaeological organisation.

Reasons:-

Ancient Monuments and sites of archaeological interest are valuable as part of Manchester's heritage and there is a presumption for their retention in place and against any damage occurring to them or to their setting. The policy gives effect to the obligation placed on the Council by statute to give particular attention to development proposals affecting Ancient Monuments and sites of archaeological interest and reflects the general policy objective set out policy E2.8 in this plan. The Council will rely on the coverage of Ancient Monuments and sites of archaeological interest contained in the Sites and Monuments Record for Manchester for evidence of known archaeological remains.

3.3 Site Specific Planning Constraints

- 3.3.1 In terms of designated heritage assets, as defined above, no Scheduled Ancient Monuments, Historic Wreck sites or Historic Battlefield designations lie within the vicinity of the study site; neither does the site lie within a conservation area or archaeological priority area.

3.4 Site Specific Planning History

- 3.4.1 A planning application for Plot 10b, is to be submitted into Manchester City Council. This proposal involves the:

Erection of a fifteen-storey PBSA building together with new public realm along Wilmott Street and a shared servicing route between Plot 10b and 10a. A planning condition (Condition 37), identical to that of Plot 9 and Plot 10a was expected.

- 3.4.2 Condition 37 within the Plot 9 document indicated the need for archaeological mitigation work followed by an off-site suite of post-excavation reporting as normal. The archaeological condition was worded as follows: -

37) A programme of archaeological works will be undertaken in accordance with the approved Written Scheme of Investigation prepared by Pre-Construct Archaeology in January 2023 (Plot 10b First Street, Medlock Street, Manchester. Written Scheme of Investigation for Archaeological Works) and submitted as part of the planning application. The WSI covers the following:

- 1. A phased programme and methodology of investigation and recording to include: i) archaeological Strip-Map-Record ii) informed by the above, targeted more detailed excavation of the most significant areas identified by the strip*
- 2. A programme for post-investigation assessment to include: - analysis of the site investigation records and finds - production of a final report on the investigation results.*
- 3. Deposition of the final report with the Greater Manchester Historic Environment Record.*
- 4. Dissemination of the results commensurate with their significance.*
- 5. Provision for archive deposition of the report and records of the site investigation.*
- 6. Nomination of a competent person or persons/organisation to undertake the works set out within the approved WSI.*

Reason: In accordance with NPPF policy 16, paragraph 205: To record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) and to make this evidence (and any archive generated) publicly accessible.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

- 4.1.1 According to the British Geological Survey, the eastern part of the site was underlain by drift deposits of Glacial till, comprised of 'clay and silty clay, pebbly, reddish-brown, stiff and sandy; the western part of the site was thought to be underlain by Glaciofluvial Sheet Deposits of 'sand and gravel' (Mayo 2023).
- 4.1.2 During archaeological investigation works on Plot 9, the natural sand and gravel was observed intermittently but consistently beneath walls and in section at a height Above Ordnance Datum (aOD) of 32.32m. It was recorded as loose, coarse, light orange-brown sand within sandy clay, with rounded stone inclusions. The natural substratum was recorded during evaluation work at a maximum height of 32.89m aOD towards the south of the Plot 10a site, sloping down to 32.58m aOD in the north. On Plot 11 to the south and southwest, its highest point was recorded at 34.09m aOD, with a likely northerly declivity demonstrated, commensurate with the height of the River Medlock. On Plot 10b a mid- grey/brown clay sand was recorded at the northern end of the investigated area at a height of 28.62m aOD, this lay below a lighter, firm grey sand at 29.02m aOD; these layers were interpreted as representing the geological substratum.

4.2 Topography

- 4.2.1 Although the ground surface on Plot 10b was broadly flat, the site appears to have been partially terraced at some point in time, with the southern part of the site at approximately 33.00m aOD, reducing to 30.80m aOD in the north.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Prehistoric

- 5.1.1 There is very little evidence for prehistoric activity in the vicinity of the site. However, though prehistoric evidence in Manchester is generally sporadic and typically derives from finds spots rather than *in-situ* archaeological contexts, it is believed that settlements and activity tended to be concentrated on sands and gravels, preferably by water courses and wetlands. Settlements have been identified along the valley of the River Irwell whilst small assemblages of prehistoric artefacts have been recovered from the Castlefield area, at the junction of the Rivers Irwell and Medlock to the northwest of the site. It is possible that any evidence of prehistoric activity on the site was lost due to later industrial development.

5.2 Roman

- 5.2.1 Substantial Roman settlement activity is well documented to the northwest of the site in the form of the 1st to 4th century Roman fort *Mamucium*, its civilian settlement and its associated roads. The distribution of finds suggested that the civilian settlement extended to the southeast as far as the present Deansgate Station, around 400m to the northwest of the site. A coin hoard numbering over 1600 examples was found during the excavations of the Knott Mill railway station in the 19th century, while several other Roman coins have been recovered from the channel of the River Medlock. Other findspots in the study area have yielded an assortment of pottery, glass, and tiles, amongst other items.
- 5.2.2 The Manchester to Buxton road is believed to pass through the study area, and deposits interpreted to be part of a road were observed to the south of Central Station. However, although evidence of a road was expected during excavations at Concert Hall, following a record of it from 1760, it was not observed and was thus thought to have been destroyed.

5.3 Early Medieval

- 5.3.1 The surrounding areas came under the control of a number of different kingdoms during the post-Roman period and a settlement may have been established at Manchester in the early 7th century AD, probably in the area around the cathedral.

5.4 Medieval

- 5.4.1 The study area historically straddled two townships, Manchester to the north and Chorlton-on-Medlock to the south, with the boundary between the two formed by the River Medlock. The medieval centre of Manchester was concentrated in the area around the cathedral, some 1.5km to the north of the study site. A lack of finds dated to the medieval period and later cartographic evidence suggests that the study site lay within open land and was possibly used for agricultural purposes.

5.5 Post-Medieval

- 5.5.1 By the early post-medieval period, Manchester had developed into a moderately sized town, and as the textile industries began to flourish in south Lancashire in the early 17th century, it emerged as a centre for textile finishing processes, expanding its role as a market centre for textiles produced in the region. By the end of the 18th century, Manchester had developed a thriving overseas trade and had begun to displace London as the centre for the export of cotton cloth.
- 5.5.2 Evidence suggests a substantial amount of activity occurred on the site during the post-medieval period, although the site is likely to have remained within open and agricultural land until the late 18th century when the Industrial Revolution saw Manchester enter a new and dramatic phase of development.
- 5.5.3 The earliest cartographic evidence depicts the site as still relatively undeveloped in the late 18th century. Green's plan of Manchester (not illustrated), surveyed in 1787-94, shows the intended layout and naming of the future cardinal streets with the site sitting within a rectangle of Newcastle Street, Worcester Street (to become River Street), Broad Street (to become Wilmott Street) and Charlotte Street (to become George and then Hulme Street). A raised embanked pathway/track is depicted running roughly east/west across in the vicinity of the site with a narrow man-made watercourse to the north. A second wider watercourse runs parallel to the north and terminates to the west of Newcastle Street (and crosses the north of the Plot 10b SMR area). This watercourse narrows within the area of Plot 10b before a fork diverts water to a large body and a small stream. These channels and possible holding ponds may have included sluices and formed part of a water management system that provided cleaner water for the dye works at Knot Mill and the Gratrix Printing Works. Capture of water from the River Medlock may have been heavily restricted as this flow controlled the water levels for the Duke of Bridgewater's canal, terminating at Castle Field wharf.
- 5.5.4 Both Roper & Coles Manchester & Salford map of 1807 and Johnson's Map from 1818-1819 (not illustrated) displays the wider area surrounding the site as largely open land, with the occasional isolated and dispersed structure.
- 5.5.5 The site had begun to change more rapidly by the 1820s when the first substantial industrial works were constructed in the immediate vicinity; with the establishment of the nearby portable gas works, the area in the vicinity of the site became covered by smallholdings and orchard plots which were replaced at various times during the early 19th century by other smallholdings.
- 5.5.6 Banck's and Co's Map of 1831 (not illustrated) illustrates that by this date the smallholdings, although still present, had been re-divided, possibly due to a decrease in dwellings and the establishment of a more gridded property layout. The waterway to the north is still present, traversing Plot 10b, although it had not featured on Swire's earlier map of 1824 (not illustrated).

- 5.5.7 The 1851 Ordnance Survey Map depicts dense rows of workers' housing on Plot 10b. The watercourse visible on Banck's map to the north of the site is no longer present, having presumably been culverted. General population figures show a dramatic rise across the whole Hulme area from approximately 9.5 thousand in 1831 to 26.9 thousand in 1841. The site is now seen to be bound by a grid of cardinal streets, with George Street to the south, Newcastle Street to the west, River Street to the north, and Wilmott Street to the east. The site targeted the rows of terraced workers housing, overlying part of Poplar Street, Irving Street and Agnes Street. The Agnes Street road and footway appeared considerably narrower than those of both Irving and Poplar Streets, at just 5.30m (17 feet) wide (Figure 11). This falls outside the decreed minimum street width of 7.32m (24 feet), instigated by the Police Commissioners in 1830 (a body that would become the *de facto* council for the expanding town (Nevell 2014); Irving and Poplar Street both fall into the required bracket, being 27 – 29 feet across, possibly suggesting that Agnes Street and the terrace fronting Agnes Street from the south, were constructed first.
- 5.5.8 Cartographic evidence indicates that possible light-wells and thus basements were present in several properties fronting more prominent roads, including Chester Street 130m to the south and Newcastle Street. Contemporary photographs taken prior to the demolition of the structures also indicate the presence of cellars and that the housing fronting both Agnes & Irving Street were three storeyed (Plate 20 –Plate 27). A Public House (Harp & Shamrock) was also present on at the southwest end of Agnes Street, on the area of Plot 10a. Although officially denoted as No. 20 George Street, it formed the southwest end of the terraces on the southern side of Agnes Street. The Harp & Shamrock is listed as a beer house (no spirits were sold on the premises) from 1858 to 1917. A possible commercial building, fronting onto Wilmott Street formed the northeast end of the terrace block and was within the area of the Plot 10b investigations.
- 5.5.9 Back-to-back houses, along with terraced and blind-back housing, were a characteristic feature within the area during this period. These houses are comparable to those seen in the Ancoats area of Manchester, to the northeast of the site. Typically, these houses were quickly and poorly constructed to accommodate the growing worker population. The back-to-back layout was intended to make the maximum use of the available land thereby saving on material construction costs. However, this type of construction led to unsanitary conditions, with dry privies located on the streets, which due to often inadequate provision (and thus overuse), had a tendency to leak into the nearby cellars. The Borough Police Act of 1844 and the Sanitation Improvement Act of 1845 effectively banned back-to-backs, and whilst this led to the development of through-houses, it did not effectively stop the use of back-to-back housing.
- 5.5.10 The domestic history of the workers' housing areas has become increasingly subject to archaeological focus, research, and interest within the past decade, with a number of archaeological investigations undertaken upon the housing in the Ancoats and Angel Meadows region, and more recently in relatively close proximity to the site at Little Ireland. The delapidated

condition of Little Ireland, which was located to the northwest of the site, was heavily criticised by Friedrich Engels in his survey of the working class in England in the mid- 19th century and has been the subject of historical studies. However, these archaeological investigations often only revealed features associated with the later industrial history, with less evidence of the earlier housing surviving *in-situ*.

- 5.5.11 The growth of the textile industry in Manchester in the mid- 19th century resulted in an expansion of development, including around the River Medlock and south towards Chorlton-upon-Medlock. Numerous local mills were established in this period including the Gaythorn Mill, Pictons Cotton Mill, Ewatts Cotton Mill, the Medlock Bridge Mill, Chorlton New Mill, and the cotton mills of the Little Ireland complex, as were other industrial works; these industrial developments were concentrated to the north of the site, towards the River Medlock, and to the east, centred on the Castle Field canal basin area.
- 5.5.12 The construction of the Manchester South Junction and Altrincham Railway c.500m north of the site in the late 1840s, opening in 1849, inevitably contributed to the growth of the area. To the south of the site, the church of St. Philip's, plus a rectory and school, was constructed in 1860, following the removal of two blocks of through-housing.
- 5.5.13 The Ordnance Survey Map of 1888-89 (revised 1894) (not illustrated) shows the site much the same as before. However, several rear back-to-back properties along Newcastle Street had been removed, presumably to improve ventilation to those that remained. Conversely, additional houses appear, apparently encroaching upon previously open space toward the north end of nearby Easton Street and the west frontages of Davies Street. A coal yard along River Street, which was depicted on the previous map, has also been developed. These properties appear to be through houses possibly compensating somewhat for the decrease in back-to-backs.
- 5.5.14 Noticeable changes can also be seen to the terraces fronting Agnes, Irving & Poplar Street on the OS 1891 Map (Figure 12). Spaces have been opened in the terraces, by the removal of at least one tenement within the terrace, which has been replaced by the construction of, what is most likely, more space for privies or ashpits. Census records also indicate that by the time of the 1871 general census the cellars on Agnes & Irving Streets were no longer occupied.

5.6 Modern

- 5.6.1 In the late 19th century, the Gaythorn Gas Works underwent considerable expansion into areas which had previously been occupied by earlier industrial buildings. When the Partington works opened in 1929, the Gaythorn works ceased to be used for gas making and instead became used solely for gas distribution. The gasholders were progressively removed, with only two remaining by the late 1960s.

- 5.6.2 The few changes visible to the site on the 1905 Ordnance Survey map appear to show the back-to-backs removed along Agnes Street, likely demolished before 1904. These were not demolished completely, as both cartographic and historic photographs of the site show the Harp & Shamrock public house (Plot 10a) still present, along with the possible commercial building at the northeast end of Agnes Street (Plot 10b). The Harp & Shamrock beerhouse would be refurbished in 1910, remaining open until 1917 when it was demolished under the Defence of the Realm (Acquisition of Land) Act 1916, to make way for the expansion of the Macintosh factory (acquired by the Dunlop Company in 1925) from the western side of Wilmott Street. In 1907 the terrace fronting Irving Street was also demolished and most likely around the same time that fronting Poplar Street. The expansion of the Macintosh factory had probably completely enveloped the former terrace footprints and removed all three of the side streets before the end of the Great War in 1918.
- 5.6.3 In the early 1920s, the wider area, bound by Welcome Street, Clarendon Street, Wilmott Street, and River Street, of which Plot 10b occupied the northeast corner, was condemned. With most of the houses deemed unfit for habitation, the buildings were to be subject to mass clearance. However, the authorities could only afford to demolish a small area initially, due to the prohibitive costs of this work. After demolition of the houses on Plot 10b, the areas to be cleared included those properties on Plot 9 bound by Medlock Street, George Street, Newcastle Street, and River Street, and the area bound by Duke Street, George Street, Clegg Street, and River Street.
- 5.6.4 The 1932 Ordnance Survey Map shows the result of this clearance with the Macintosh factory (now the Dunlop Rubber Works) being built across the Plot 10b. The housing and roads between Newcastle Street and Wilmott Street, were removed, with only Jones Street, Ebenezer Street, and the school and structure next to it remaining. The Plot 9 site was incorporated into the Dunlop Rubber Works, while the land to the west of Newcastle Street was cleared of buildings. The commercial/industrial buildings which replaced the housing are visible on aerial images from 1939. The 1940-41 Bomb Damage Map indicates the Dunlop works on Cambridge and Wilmott Street were hit by Luftwaffe incendiary bombs on 23rd December 1940.
- 5.6.5 Much of the remaining housing in the wider area was removed by the mid- 20th century, and the sites were partly redeveloped with other works and warehouse buildings. The remaining earlier buildings were mostly cleared away in the late 20th century, including the Gaythorn Mill, the Cambridge Street Mill, St. Philip's church, school, and rectory, and the Gaythorn Gas Works. Although the clearance plans for Hulme were interrupted by World War II, the demolition of housing resumed in the 1960s. By the time of the Ordnance Survey map of 1965, no evidence of housing was left on site, with the only remaining housing in the area located to the east, between Wilmott Street, Chester Street, Cambridge Street, and Hulme Street, c. 200m to the southeast. On the 1965 map George Street had not yet been renamed Hulme Street, and most of the land surrounding the site has been cleared, with few buildings replaced. The extension

to the Dunlop works occupying the site was still present on OS mapping up to at least 1972 and, once demolished, the area was cleared and used as a car park until the present re-development.

5.7 Archaeological investigation in the vicinity of the Site

Plot 11

5.7.1 At the Plot 11 site immediately to the south of Plot 10b, an archaeological evaluation and subsequent excavation was conducted in 2016 by PCA (Banens 2017). This revealed a series of cellars and other building remains which dated from the early to mid- 19th century, as well as a series of WWII air raid shelters with associated entrances. The 19th-century buildings were primarily residential in nature; commercial/industrial buildings replaced the terraced housing after slum clearance of the early 20th century.

5.7.2 The earliest buildings on Plot 11 consisted of a row of terraced houses fronting Mount Street, which were constructed in the early-mid 19th century. It is possible that these houses belong to a row of buildings shown on the Banck's map of 1831. These were likely altered throughout the course of the 19th century.

5.7.3 In the mid- 19th century, industrial development along the Medlock resulted in the construction of workers' housing across Plot 11 as well as in neighbouring areas. Streets with rows of terraced back-to-backs and terraced through-houses, two to three storeys tall, were built. In addition to the cellars fronting Mount Street, the fragmentary truncated remains of structures fronting onto Mouncey's Court, Cream Court, Parker Street, Jones Street, Galloway Street, and George Street were recorded. The houses fronting Mount Street and Parker Street had cellars, while there was no evidence for the houses on other streets having cellars. At some point, the walls of the cellars of the terrace fronting Mount Street were knocked down to form one large cellar and the staircases providing access to them were blocked up.

5.7.4 Between 1922 and 1937, all the housing on Plot 11 was demolished, and the school building was rebuilt for use as a 'works'. The land between Ebenezer Street and George Street was turned into a coal yard, in which a series of air raid shelters in two rows was built during the Second World War; eight brick entrances and eight shelters were recorded. Modern commercial/industrial buildings were constructed on the site during the 1930s, however, these were later demolished and the site was then primarily used as a carpark.

Plot 9

5.7.5 The recent work at Plot 9 to the west of the Plot 10b has shown the survival of dense terrace housing reflecting precisely the layout shown on the Ordnance Survey map of 1844-49. Natural sand was observed at the base of the sequence, with strip foundations to the terraces cut directly into the geological layer. Contemporary yard surfaces were seen comprising bricks and

flagstones laid upon bedding layers. Some discreet cellaring was seen but not of the scale seen at Plot 11 to the south.

- 5.7.6 The best survival of housing was seen to form the row of terraces fronting to Medlock Street at the southwest of the site, and to George Street to the south. Elsewhere survival was poorer, having suffered truncation not only from the construction of the Dunlop Rubber Works (by 1932) but also from discreet excavations for air-raid shelters, as were seen at Plot 11.
- 5.7.7 Efforts to investigate a former channel of the River Medlock, as seen on early 19th century maps, proved unsuccessful.

Plot 10a

- 5.7.8 Recent investigations on adjacent Plot 10a (Baker 2023), revealed further evidence for workers' houses and commercial properties along the same streets, as and commensurate with, that revealed on Plot 10b. These were subject to similar developments through the 19th century, including eventual demolition and replacement by the same wave of industrial expansion in the 20th century.

6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 The methodologies, aims and objectives to be employed during the archaeological excavation were set out in a Written Scheme of Investigation compiled in January 2023 (Mayo 2023) by Pre-Construct Archaeology and approved by GMAAS. The work comprised a Strip, Map and Record (SMR) investigation of a single area within the proposed development area (Figure 2).
- 6.2 A 360° mechanical excavator was used to carefully remove the modern ground surface and overburden to reveal buried stratigraphy. This was then cleaned by hand and recorded using digital and drawn methods. Targeted excavation by hand through soft strata was undertaken to retrieve finds and understand the deposition sequences.
- 6.3 Archaeological features were recorded principally by planning and drawing of sections deemed of interpretive value, in line with the pre-existing and updated research objectives, with individual descriptions of all archaeological features and strata excavated and exposed entered onto pro-forma recording sheets. All detailed plans and sections of archaeological deposits and features were recorded on polyester-based drawing film, the plans and sections being drawn at a scale of 1:10 and 1:20 as appropriate.
- 6.4 GPS survey equipment was used to establish the outline of all the structures revealed on the site, and to determine the aOD height of all principal strata.
- 6.5 Photographs in digital format were taken of the archaeological features and deposits where relevant.
- 6.6 The site was allocated the unique site code FSB23.

7 ARCHAEOLOGICAL SEQUENCE

7.1 Introduction

7.1.1 This section describes in detail, the structures, features and associated deposits found on the Plot 10b SMR (Figure 3). Ordnance Datum levels, physical dimensions and soil descriptions are referenced when relevant for an understanding of the archaeological sequence. A full index of all the contexts recorded is given in Appendix 1. The specialist assessments are referenced where appropriate within the archaeological sequence and the full specialist assessments are included as Appendices 5 – 12.

7.1.2 Group numbers (G) (Appendix 2) have been assigned to contexts based upon their interpretation as representing construction, use or disuse deposits and related to the remains of distinct properties or structures and the function of them. For this reason, later structures or alterations to structures may be assigned different Group numbers to the properties they relate to. Due to the truncated nature of the remains assigned to the 19th century housing construction, the terrace or tenement footprints present were incomplete, therefore an assessment on function and connectivity to other features has been made within the text.

7.1.3 House numbers (H) have been allocated based upon interpretation of the cartographic evidence (principally the OS map 1851) (Figure 11) and in an attempt to identify individual properties within the terrace remains.

7.2 Phase 1: Superficial geological deposits (G1)

G01 Layers (144), (143)

7.2.1 The earliest deposits recorded in the stratigraphic sequence comprised a mid- grey/brown clay sand (143) at a height of 28.62m aOD, below a lighter firm grey sand (144) at 29.02m aOD (Figure 10, s8). These layers were interpreted as representing the geological substratum at a horizon that was truncated by the construction events assigned to Phase 2.

7.3 Phase 2: Late-post- medieval (19th century AD)

Terrace construction materials

7.3.1 The construction deposits for 19th century properties across Plot 10b were represented by ground preparation layers, walls and floors, with internal features, including fireplaces and possible coal chutes, and external drainage. All the walls and internal features were built from handmade standard-sized (230 x 110 x 80mm) red brick, laid in header and stretcher combinations, usually in an English Garden wall pattern of regular courses. Unless described

otherwise, the bricks were typically bonded with a grey lime-based mortar with shell inclusions and the wall faces typically retained evidence for the application of whitewash and paint. Floors were constructed of the same red brick or of York flagstone.

G02 Agnes Street south terraced 'back-to-backs' (H1 -H4) frontage walkway construction – walls (37), (31) (Figure 8, s2), (13), (36); floors (35), (14), (32), (33), (34) (Figure 4).

- 7.3.2 Double-skinned brick Wall (13) represented the retaining Agnes Street south roadside wall and defined the enclosed lower-level walkway facilitating access to the cellars (Plate 1 & Plate 2). Northeast/southwest Wall (13) survived the later factory truncation intermittently for roughly 13.50m, spanning properties H1 – 4 along the south side of the Street and possibly included steps leading down to a 'blocked-up' cellar doorway. This doorway was integral to parallel double-skinned Wall (31) (Plate 2), c.0.90m southeast of Wall (13), which delineated the rear of the enclosed space and likely represented the frontage of the H1 – 4 terrace superstructure. The cellar entrance of H4 was represented by a doorjamb and threshold (820 x 250 x 70mm), presumably leading to a subterranean space outside the limit of excavation (LOE). Double-skinned cross wall (37) (Figure 8, s2) divided the cellar access space between H2 and H3.

Entrance / steps (35), (36)

- 7.3.3 Brick structure (36) (Figure 8, s2) was initially interpreted by the on-site excavation team as a riser for possible cellar access steps (35), composed from a single sandstone block roughly 800mm long and 70mm thick. This interpretation is uncertain though and the sandstone block may be redeposited, perhaps lying upon a possible demolition material containing fragments of displaced red brick.

Floors and levelling layers (14), (32), (33), (34)

- 7.3.4 The floor of the cellar access walkway was represented by red brick (34) and flagstones (33) laid upon partially exposed (< c.1m) levelling layers of compacted dark grey clay sand (14), c.0.40m thick, or brown sand clay (32) (Figure 8, s2) c.0.10m thick, respectively. Both contained fragmentary inclusions of building materials. The flagstone floor (33), composed from individual pieces c.70mm thick, formed the threshold immediately outside the entrance space in Wall (31). Floor (033) was laid at a height of 30.52m aOD and exposed by sample excavation across an area c.1.65 x 1.0m. Brick surface (34) formed the remainder of the walkway floor to the southwest at broadly the same level (30.47m aOD) and was exposed across an area c.1.65 x 0.80m.

G03 Road construction – layers (04) (05). (06). (07); kerbstone (187) (Figure 5 & Figure 8, s1).

- 7.3.5 Dark (05), mid- (06) and light (07) (Figure 8, s1) grey/brown silt clay layers with occasional charcoal and crushed brick fragments, were between 0.46m – 0.90m thick. Initially interpreted as representing construction backfill above the Agnes Street roadway, they may represent

layers derived from the later demolition of the buildings, levelled as part of the factory construction ground preparation. Brick and stone slab structure (04) represented the partially exposed original street drainage but was not fully excavated and was recorded in section only.

- 7.3.6 The remains of the kerb (187) of the former pavement (Figure 5) along Poplar Street was composed from shaped, roughly faced sandstone blocks, c.0.45 x 0.11 x 0.40m, laid end to end on an east/west alignment and extending for c.5.30m, returning to the north for c.1.50m before reverting to the former line. Traces of pitch and tar were noted between the *in-situ* pieces. Whilst (187) has been assigned an earlier construction phase and included here, they are conceivably part of the later development of the street.

G04 Agnes Street / Irving Street 'back-to-backs' (H6 – H12) construction - levelling (131), (132), (99); walls (54), (77), (76), (50), (78), (102), (101), (46), (47), (75), (55), (65), (56); slab (103); fireplace (49), (48), (58), (57); drain [106], (107), (110), (108), (109); gully [133], (134), (135); floors and levelling (104), (98), (51)/(52), (97), (96) (94)/(95), (59)/(60), (79)/(80), (71)/(72), (105) (Figure 4).

- 7.3.7 G04 was assigned to the evidence of internal and external walls, floors and internal features pertaining to the construction of up to eight cellared 'back-to-back' houses fronting Agnes Street north (H5 – 8) and Irving Street south (H9 – 11). The remains of the properties broadly correspond to the layout of those depicted on the 1851 OS map (Figure 11), although some discrepancies were observed.

Agnes Street H5 – H8 (Figure 4)

House 5 (H5)

- 7.3.8 The northwest corner of H5 was defined by the meeting of internal Walls (76) and (77) (Figure 8, s4 & Figure 9, s7) and the southeast by Wall (54) (Figure 9, s7, s6 & s5), the northwest face of which was exposed and recorded in section only. Wall (54) probably represented a continuation of Wall (47), surviving to the southwest where it delineated H8, and incorporating integral arches and drainage (see below) c.6.0m further northeast at H6. North/south double skinned and east/west single-skinned cross walls (78) (Figure 8, s4), the latter on the same alignment as Wall (50) (Figure 8, s3, s4 & s6), likely represented the rear party wall, c.10m long spanning the length of the terrace. The northwest/southeast element of Structure (78) is conceivably part of an alteration to the property, the line of it not depicted on the cartographic evidence (Figure 12). The northwest face of Wall (54) revealed patches of surviving plaster whitewash and its construction incorporated several integral structural arches, one of which appeared to correspond to the southwest corner of H5. The north/south orientated shallow and concave construction cut [133] (Figure 9, s7), c.0.20m deep and 0.28m across at its widest, contained a dark grey clay sand construction backfill (135) (Figure 9, s7). This lay above a small

brick gully structure (134) which appeared in section to extend beneath both the arch/wall (54) and presumably the floor of H5, although the latter did not survive.

House 6 (H6)

- 7.3.9 H6 (Plate 3 & Plate 4) shared partially surviving internal cellar Wall (76) with H5, upon which traces of plaster whitewash were noted, and party Wall (50) with H11 to the north. Evidence for whitewash and traces of darker paint were also noted on both faces of the latter in each of the cellar rooms it defined (H6 - H11). The west extent of H6 was defined by cellar and retaining Wall (56) (Figure 8, s4 & s6) and the Agnes Street frontage by Wall (54) (in section only), providing an area of at least c.13.60m² useable subterranean space in a square room approximately 3.4m x 4.4m in size.
- 7.3.10 A fireplace within H6, c.0.75m wide internally and 0.45m deep, was formed from two brick cheeks (57) and (58) (Figure 9, s6) (Plate 7) built up against Wall (56). Cheek (57) was 0.47 x 0.35m across and survived to a height of 0.66m and Cheek (58) measured 0.50 x 0.36m in plan and was recorded as 0.11m high. In the corner of the cellar near to the fireplace and integral to Wall (54) was an opening c.0.50 wide and c.0.70m high into a void space (Plate 8). The rear of this space was formed by Wall (55) (set back beneath the southeast LOE) and recorded in section. (Figure 9, s5 & s6). The roof of the void was supported by a slightly displaced sandstone slab (104) c.60mm thick and c.510 x 810mm across and the floor (65) of the space, c.0.65 x 0.51m across, composed of brick. It was interpreted by the on-site excavation team as the possible remains of a coal chute, partially backfilled with Phase 3 demolition material (64) (Figure 9, s5) and partially excavated.
- 7.3.11 The fireplace in H6 was surrounded by Floor (60) (Figure 9, s5 & s6) (Plate 5 & Plate 6), partly truncated but surviving across an area c.8m². Floor (60) was composed from worked flagstones a minimum 470 x 200mm and maximum 110 x 660mm in size. The flagstones were laid upon a dark grey silt clay bedding layer (59) (Figure 8, s4) with crushed brick inclusions. A north/south orientated, unbonded single-coursed brick drain structure (107), below floor level, was built within a V-shaped construction cut [106] dug into light yellow/brown sand floor levelling layers (105) (99). Cut [106] was backfilled with a mid- brown/grey silt clay (110), c.0.40m thick, with sand and fragmentary brick inclusions. The drain was partially exposed (0.7 x 0.35m) and sample excavated below the floor level in the north/east corner of the cellar. Evidence for the use/disuse of the drain was represented by a mid- brown sand clay layer (108) and lighter grey/brown clay sand (109) (Figure 8, s4), each c.0.10m thick, but devoid of finds.

House 7 (H7) (Plate 3 & Plate 4)

- 7.3.12 The conjectured line of Wall (54)/(47) to the southeast, single-skinned Wall (56) to the east and Walls (75) and (50) to the southwest and northwest respectively, represent the internal area of the cellar and the footprint of H7, delineating an area c.3.5 x 4.4m and roughly 15.50m². The

internal faces of Wall (75) and (50) (Figure 8, s4) both retained traces of whitewash. An area of worked flagstones (95), up to c.2.10m from north/south and c.1.20m from east/west represented the surviving floor of the cellar, bedded upon a levelling layer of dark grey silt sand (94)/(95) (Figure 8, s4). There was no evidence for internal features but an entranceway c.0.85m wide was revealed within Wall (50) in the northeast corner of the cellar space (H7), allowing access to and from the cellar below H10.

House 8 (H8)

7.3.13 The H8 cellar (Plate 3 & Plate 4) was delineated by party Wall (50) to the northwest, scantily surviving Wall (75), extending south of the former for just over c.1.0m, Wall (46) (Figure 8, s3 & s4) to the southwest and the continuation of arched Wall (54)/(47) (Plate 10). The investigation of Wall (54) indicated that it had been constructed above layers of mid/dark grey clay sands (132) (Figure 9, s7), thought to be a levelling or a general ground preparation event above a firm yellow/brown natural deposit (131), although the extent of this layer was not determined. Wall (46) also revealed evidence for whitewash and paint on the northeast internal face only, suggesting it may have represented the main edge wall for the four houses (Plate 9). The enclosed cellar space of H8 was c.3.4 x 4.30m across, the postulated useable space accounting for internal features a comparable c.15.0m². A fireplace represented by a rectangular solitary fire cheek (49) (Figure 8, s3), c.0.50 x 0.40m across and surviving to a truncated height of c.1.0m, was built up against the internal face of Wall (46). Flagstone floor (52), covering an area 2.3 x 1.16m, was set upon a mid- grey sand bedding layer (51)/(52) (Figure 8, s3 & s4) with brick rubble inclusions. Floor (52) surrounded fireplace cheek (49) and extended up to Wall (46) at its intersections with Walls (47) and (50).

7.3.14 A rectangular brick structure (103) (Figure 8, s3) forming a void space defined by Walls (47) (102) and (101), with context (103) assigned to the flagstone capping supported by them, was recorded immediately outside the southwest corner of H8, presumably below an area of former roadside pavement (Figure 12). It was c.0.60 x 0.56m, extending beyond the LOE and up to a height of 0.40m. The self-supporting nature of Wall (102), not tied-in to any other structure, suggested it was of later construction than the main building and the structure itself was evidently subject to some subsidence - the capping stone (103), a piece of York sandstone c.700 x 600mm in size, was displaced. Limited excavation meant its function was unclear but comparable with the coal chute feature alongside H6 to the northeast, was conceivably related to the delivery of fuel from the roadside to the cellar.

Irving Street H9 – H12 (Figure 4)

House 9 (H9)

7.3.15 The southern part of the cellar and footprint of H9 was relatively intact, defined by Wall (50) to the southeast and Walls (46) and (75) to the southwest and northeast respectively. There was

no evidence for the survival of a northwest wall, which was likely truncated. Based upon the conjectured position of Wall (75), the room was approximately 3.5m northeast/southwest by over 3.6m northwest/southeast, affording a minimum of 12.70m² of useful space. Both Walls (46) and (75) were truncated by Phase 3 construction deposits. Rectangular structure (48) (Figure 8, s3), comprised bricks laid in alternating header and stretcher courses, was c.0.24 x 0.50m across and a truncated height of c.0.54m. Built against Wall (46), it was interpreted as a surviving fireplace cheek, indicating a fireplace positioned toward the northwest corner of the room. Immediately east of cheek (48) a roughly 0.60m² patch of flagstone floor (72) was recorded at 29.57m aOD set upon a dark grey sand and gravel bedding layer (71)/(72) (Figure 8, s3) of undetermined thickness and crushed building material inclusions. Access between H9 and H8 was facilitated by a gap c.0.75m wide in Wall (50) toward the southeast corner of the room. The threshold in H9 was flanked by surviving patches of flagstone floor (97) (Figure 8, s4) laid on a mid- brown/grey clay silt (98) levelling layer. At a comparable height to floor (72) it essentially represented the same surface.

House 10 (H10)

- 7.3.16 The H10 cellar was defined by party Wall (50) to the southeast, through which access to H7 was facilitated toward the southeast, and the c.1.50m continuation of Wall (56) to the northeast, where it was truncated by Phase 3 factory foundations. Northwest/southeast Wall (75), also truncated, survived in two sections on the north side of Wall (50); the first extending for c.1.45m, the second 'L-shaped' with a return to the northeast c.1.15m north of the truncation. Whether this represented the northwest corner of the subterranean room is questionable in view of the cartographic evidence (Figure 12). There was no evidence for internal features, although fragments of floor (96) (Figure 8, s4) constructed from flagstone slabs typically 300 x 200 x 30mm in size and laid upon a dark grey silt sand (94) was at a comparable level (29.49m aOD) to the floor in H9. Floor (96) survived across a total area of < c.1.0m² in what was the southwest corner of the room. It was also traced either side of the entranceway to H7, where a layer of loose dark sandy coal waste (81) (Figure 8, s4), representative of disuse rather than use and conceivably of Phase 3, was deposited.

House 11 (H11)

- 7.3.17 Only the southeast extent of the layout of H11 survived the truncation from the later factory construction, this being defined to the southwest by the north part of Wall (56) and southeast by party Wall (50). A relatively short span of Wall (76) surviving north of Wall (50) and meeting Wall (77) defined the southeast corner of the room. There is no reason to doubt it was of a different size to that indicated in the other cellar rooms. There was no evidence for internal features, although Drain (107) is projected to traverse the east side of the cellar below floor level (29.01m aOD) and at the assumed entrance way between H11 and H6.

House 12 (H12)

7.3.18 The layout of H12 was poorly preserved, the intersection of just Walls (77) and (76) forming the southwest corner. It would appear unlikely that Wall (78) represented the east extent of the room, positioned, as it was, just c.1.20m east of this. It is conceivably that this brick structure represents an internal feature or undetermined alteration in what may have been a commercial property on the corner of Agnes Street, although without further evidence, this remains conjecture. Two separate patches of internal stone floor (80) comprised from comparably sized flagstones to those elsewhere on the site, did survive, built up to Wall (50) and above a levelling layer of mid- brown/grey silt sand (79) (Figure 8, s4).

G06 Poplar Street north terrace (H13 yard) construction – construction cut [153]; walls (154), (155), (157), (162), (156); drain (145), (146), (158), (164), (159), (160), (161) (Figure 5).

7.3.19 From cartographic evidence (Figure 11 & Figure 12) the remains revealed toward the north of the SMR area represent those of an enclosed yard at the rear of one of the 'through houses' fronting Poplar Street north. The remains include walls (154) (157) [153], surfaces (155) (161) and elements of a drainage service (114) (146) (158) (164) (159) (162) (160) (Figure 10, s8) (Plate 11).

7.3.20 The layout for the H13 yard was incomplete, defined by Wall (162) to the northwest and Wall (154) (Plate 18) to the southwest (Figure 10, s8). Evidence for a three-walled rectangular internal subterranean structure, at least c.1.30 x 1.0m in plan, was represented by inverted 'T-shaped' partition Wall (157), within a vertically sided, flat-based construction cut [153] (Figure 10, s8), filled with general backfill (146). The function of this structure was unclear, but it was paved with a red brick floor (155) at 28.51m aOD, stained with a dark possible coal waste deposit and accessed from the south. It was conceivably a coal chute. Wall (157) continued across the structure to the northeast extent, giving a width to the enclosed space of roughly 3.15m. An occasionally surviving coat of green/grey plaster was noted on the internal (northwest) face of Wall (154). A break in Wall (162) related to brick column (156) (Figure 10, s8) was tentatively interpreted as the position for steps descending to the cellar.

7.3.21 Occupying the northeast of H13 yard, the remains of roughly northeast/southwest aligned Drain (158) was revealed and sample excavated over a length of c.1.50m and width of c.0.50m. Founded upon mid- yellow/brown clay sand levelling layers (145) and the levelled general demolition backfill (146), stone slabs of between 250 x 180mm and 400 – 350mm in size, with stretcher laid bricks forming the main structure, were consolidated with a loose brown/grey sand silt construction backfill (159). The channel of Drain (158) was laid at approximately 29.42m aOD and filled by a loose dark brown/grey sand silt (164), c.0.20m thick and likely representing disuse (but discussed here). A yellow/brown sand silt layer (160) c.0.10m thick, prepared the ground above Drain (158) for Floor (161) (29.92m aOD), comprising flagstones sized between 150 x 200mm – 350 x 550mm.

7.4 Phase 2.1: Late 19th / early 20th century AD

G05 Building development - Irving Street / Poplar Street 'privy' structure construction – levelling layers (182), (176); construction cut: [183], walls (178), (175), (166), (174); consolidation deposits (184), 179; floor (185), (186) (179) (Figure 6) (Plate 12 & Plate 13).

- 7.4.1 The structural remains collated as G05 represent a building constructed in newly created open space after the demolition of two of the 'back-to-backs' fronting Agnes and Irving Street, as depicted on the 1891 and 1905 Ordnance Survey map (Figure 12 Figure 13). They were represented by northwest/southeast parallel walls probably running from street to street and cross walls enclosing brick and flagstone floors to the west. The total length of the surviving structure was c.8.40m, with an internal width of c.3.0m. Despite not being fully excavated and the evidence for use limited to some localised staining below the floor materials, the function of the G06 structure was thought to have a 'privy' related function and to have been part of the programme of improvements to sanitation provision for the retained properties. It may be that the structure facilitated access to the smaller individual building depicted on the OS 1891 Map (Figure 12).
- 7.4.2 A friable light-mid- yellow brown clay sand layer recorded toward the north extent and a comparable layer (182) (Figure 9, s9) to the south, each with fragmentary building materials including brick, roof tile, small-rounded stones and fractured sandstone, was interpreted as evidence for the levelling of demolition material from the earlier 'back-to-back'. Layer (182) appeared to have been mixed with a disturbed and redeposited natural material. A construction cut number [183] (not illustrated) was assigned for the multiple northwest/southeast orientated, vertically sided walls of G06 dug into this levelled demolition layer (182).
- 7.4.3 The double-skinned 'privy' structure walls were all constructed from hand-formed red brick, stretcher laid with header insets and bonded with the typical light grey lime mortar with shell inclusions. The cavity formed by the skins was filled with mortar, possibly as a form of waterproofing. Wall (174) (Figure 9, s9) almost extended the full northwest/southeast length of the space between Irving and Poplar Street and defined the east limit of the structure, although the southeast end remained elusive. The north end of the structure was truncated by the Phase 3 construction cut [127]. The west extent was defined by Wall (178), likely the gable end of the retained 'back-to-back', the number including the north/south stretch outside the LOE and the east return to meet Wall (166), delineating the space covered by Floor (179) (Plate 13). Wall (175) survived as an 'L-shaped remnant and ran for just over 3.0m parallel to Wall (178), where it returned to the east and abutted Wall (174). Somewhat mirroring this to the north, Wall (166) also extending from the west face of Wall (174) and returned after c.1.0m to run parallel to it for c.4.15m before returning again to re-meet Wall (174). Wall (166) defined the north extent of the G05 structure and created a recessed central space (Plate 13) roughly 1m² with Wall (174), open to the southwest, and a passageway on the west side, c.1.0m wide and c.7.0m long with Wall (178). The space between Walls (166) (175) and Wall (174) were consolidated by infilling

with a loose mid- grey sand (176) containing small stones and brick fragment. Deposit (176) may have been the same as the general backfill (184) of construction cut [183].

- 7.4.4 Floor (179) (Plate 12 & Plate 13), constructed upon dark clay sand (185) (Figure 9, s9) and mid- grey sand (186) levelling layers, was composed from handmade red bricks laid flat in the passageway, with a broad, although slightly irregular declivity of between 8° - 12° from both north (29.26m aOD) and south to an area of York flagstones (28.69m aOD) in the central space and threshold. An upright flagstone was set against the rear of the recessed space, possibly as waterproofing. A single step into the passage was noted at the north extent, at the truncation from aforementioned factory construction cut.

7.5 Phase 3: Modern (20th century onwards)

G07 Demolition of terraces - layers (15), (83), (84), (81), (82), (45)=(74)=(85) (177), (167), (142), (64), (61), (92) (Figure 8, s4 & s6).

- 7.5.1 A series of layers represented the more widespread disuse and subsequent demolition of 'through' and 'back-to-back' houses across the site. Some of these represented the deliberate backfill and consolidation of cellar spaces (Plate 14 & Plate 15), others evidence the levelling of demolition deposits in ground preparation for the Phase 3 construction. In view of the site research aims and to the scale of these deposits, they were largely subject to mechanical removal prior to the more detailed recording of the deposits they overlay. For this reason, some deposits were recorded in section only (83, 84, 81, 82, 45, 64) and others allocated context numbers and a stratigraphic position in the sequence, were noted but not drawn (15, 177, 167, 142, 92). The layers were typically composed from fragments of building rubble in a mid- dark grey clay sand or silt clay material matrix and included whole and part bricks, ash and charcoal waste, fragmentary mortar and plaster chunks, small-medium stones, larger cobbles and broken roofing slates and flagstone pieces. Pottery was recovered from these deposits (see below).
- 7.5.2 The demolition of the Agnes Street south frontage cellar walkway (G02) was backfilled with general demolition layers (15) (92), up to c.0.80m thick and that of the H13 yard (G05) to the north of the site by layers (167) (177) (not illustrated). The demolition of the G04 'back-to-backs' fronting Agnes and Irwing Street were evidenced by layers from c.0.10m (83) and up to c.0.70m thick (74)=(85), including deposits (84) (82) (45) (not illustrated) (Plate 14) (64) (Figure 9, s5) and (61). Layers (45) = (74) = (85) and (61) yielded significant quantities of finds materials possibly evidencing domestic occupation of the houses, including metal objects, fragments of teapots and assorted earthenware lids and bodies (61), jam and storage jars (45) and ceramic finds (74) = (85). It seems reasonable that Layer (81), a thin deposit of fired coal waste, c.0.80 x 0.50m across and noted in the internal cellar entranceway between H10 and H7, was deposited after disuse but pre-demolition, hence its inclusion here. The demolition of the Phase

2.1 'privy' structure (G06) was represented by a general mid/dark grey layer (142), removed before the recording of the remains.

G08 Factory construction deposits – levelling deposits: (10), (62), (39); construction cuts [28] (Figure 8, s2 & s4), [08], [147], concrete foundations and supports ((--)/(--)/(--) denotes (construction cut)/(structure)/(construction cut backfill)) (12) (Figure 8, s1), (30)/(29) (Figure 8, s2), [26]/(27), [19]/(20), [21]/(22)/(23), [16]/(17)/(18), [24]/(25), (130), [66]/(67)/(70), (68), (63) (Figure 9, s6), (88)) and (93) (Figure 8, s4), (91), (53) (Figure 8, s3 & s4), (100) (Figure 8, s3 & s4), [41]/(42)/(43), (171), (169), (170), (168), (115), [127]/(128)/(129), (165), (150), (152), (137) (Figure 10, s8), (139) (Figure 10, s8), (40) (Figure 9, s6), [124]/(125)/(126); brick walls and pillars (69), (89)/(90) (Figure 8, s4), (119), (114), (113), (118), (122), (120), (111), (121), (123), (151), (140)/(141) (Figure 10, s8), (148) [147] (Figure 10, s8), (172), (173); general consolidation backfill, (09), (11) (Figure 8, s1), (86) (Figure 8, s4), (138) (Figure 10, s8) [136] (Figure 10, s8), (149); floors (38), (112)/(117) (Figure 7).

7.5.3 The modern factory construction deposits were represented by levelling layers, construction cuts for consolidated concrete foundations and supports, and internal basements with floors defined by brick walls, pillars and concrete floors. Due to the excavation methodology, these substantial deposits, which were likely to have completely truncated earlier remains, were more often than not observed, recorded in section and left *in-situ* during the investigative works. Demolition deposits were subject to mechanical excavation.

7.5.4 The levelling layers (see above) such as Layer (10) (Figure 8, s1), were between c.0.15 – 0.25m thick and typically of mid- grey/brown silt clays or sands with inclusions of crushed brick. Concrete foundation, supports and bases were usually formed within a straight-edged sloped or vertical sided construction cut commensurate with the structure they facilitated. Partially exposed Construction cut [08], toward the south of the Plot 10b was c.0.45m wide and c.0.38m deep, with a backfill of mid- red/brown silt sand (09) containing fragments of brick (Figure 8, s1) Where bases were occasionally exposed, they were generally flat. The formed foundations were invariably composed from mid- grey concrete with crushed brick, typically of rectangular plan shape. Foundation (115) was circular. There was evidence for consolidation, including re-barbed concrete (91) (Figure 8, s3 & s6) and an integral steel beam within (170). Walls associated with the factory comprised machine formed engineering brick, bonded with a darker mortar than that of Phase 2 and laid in header and stretcher mix, usually in an English garden style. The walls functioned as retainers or partitions (118) (122) (121) (148) (Figure 10, s8) (140) (Plate 18), basement walls (111), (173) and (172), the latter incorporating a single surviving step (171) (Plate 17). Pillars of the same fabric and usually square were associated with the basement (113) (114) (123). Factory floors were of the same concrete and represented the floor of a basement area (112) (29.25m aOD) (Plate 16 & Plate 17) and a surface over the former Agnes Street (38) (30.98m aOD) (Figure 9, s5, s6 & s7), above levelling layer (39). The construction cuts were typically backfilled with mid/dark grey/brown clay silts with fragments of

brick, slate, mortar, ash waste and glass. Service pipes were noted, encased within foundation (169).

G09 Factory demolition deposits - layers (03)=(116)=(163) (Figure 10, s8) (Plate 19).

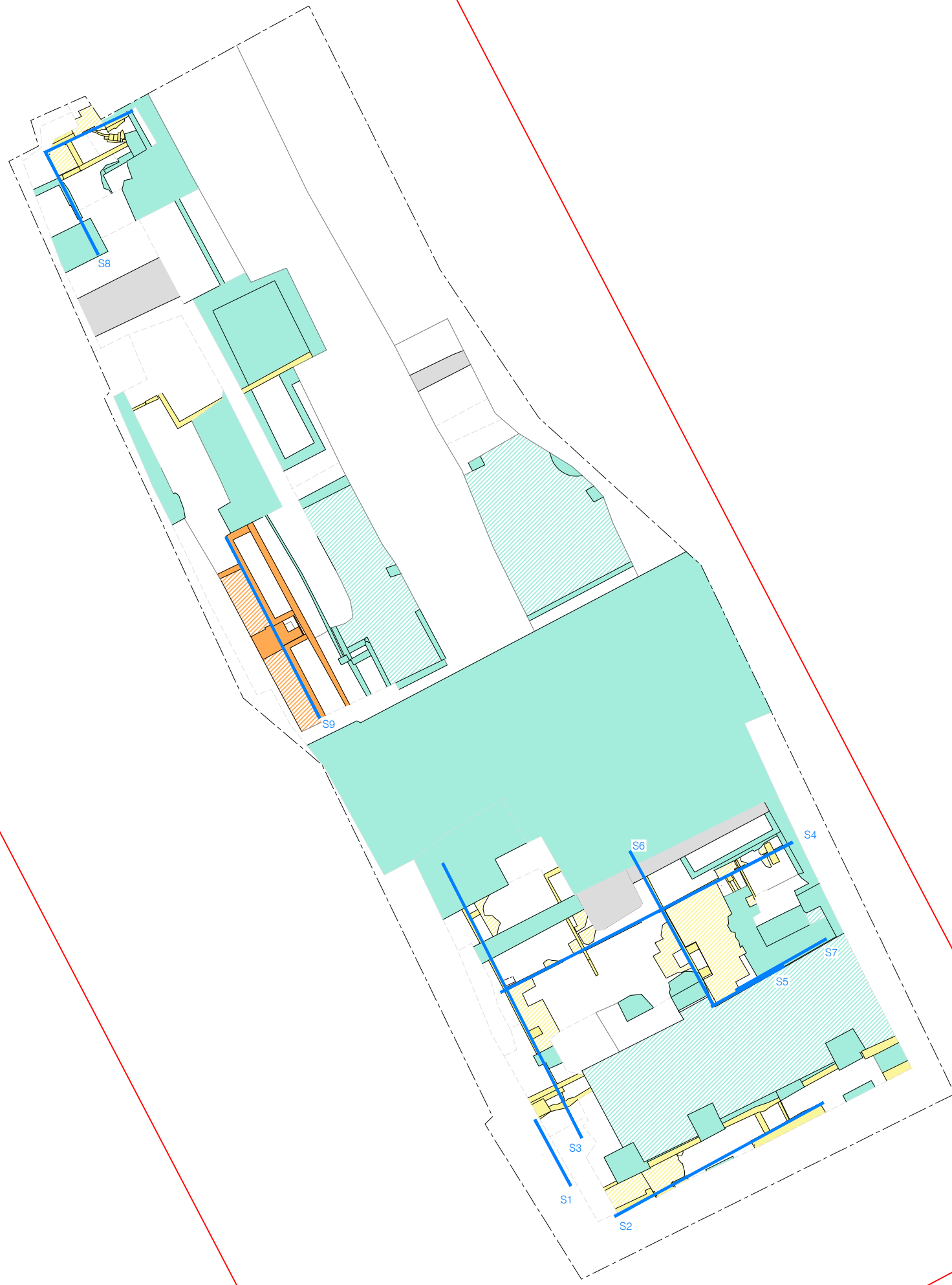
- 7.5.5 The factory demolition was represented by mid/dark grey/yellow sand silt layers (116) (163) and red/grey layer (03) (Figure 10, s8), collectively including fragments of concrete, brick, stone, and slate, remnants of plaster, metal detritus and industrial waste. The substantial deposits representing the factory demolition events were generally removed mechanically; they were of limited interpretive value and were not subject to detailed recording.

G10 Carpark construction deposit - layers (1), (2) (Figure 10, s8).

- 7.5.6 Latest in the stratigraphic sequence, an asphalt layer (01) laid upon a levelling layer of dark grey sand (02) represented the latest land use of the site as a carpark.

Finds

- 7.5.7 Most of the finds on the site were recovered from demolition layers above the remains of the terraces or levelling layers prepared prior to the construction of the factory. Largely dating to the 19th century, the pottery included kitchenware, tableware such as bowls and plates, tea wares including saucers, alongside food retail and storage items. The glass was broadly of the same date and represented general drink storage use (Appendix 10). Sanitary ware included a chamber pot, and a lid was thought to be from an item of dressing table ware. Most of the ceramics were produced in Manchester or Staffordshire, although some may have been produced in Liverpool or occasionally further afield across Britain. A single piece of imported continental porcelain was assessed (Appendix 5). The animal bone was recovered from a similar range of deposits and largely reflected non-specific domestic waste (Appendix 6). Metal and small finds reflected a working class population resident in the area in the 19th – 20th century and included household furniture, dress accessories and personal items, children's toys and playthings, items of religion or belief and trade and manufacturing items (Appendix 7). Building materials including common stamped tiles (Appendix 8) and a range of stamped clay pipe bowls and stems were also dated to the 19th century (Appendix 9). The presence of conch shells indicate importation of items from the Americas (Appendix 11).



- Phase 2 Wall / Structure
- Phase 2 Surface
- Phase 2.1
- Phase 3 Wall / Structure
- Phase 3 Surface
- Modern truncation

0 10m

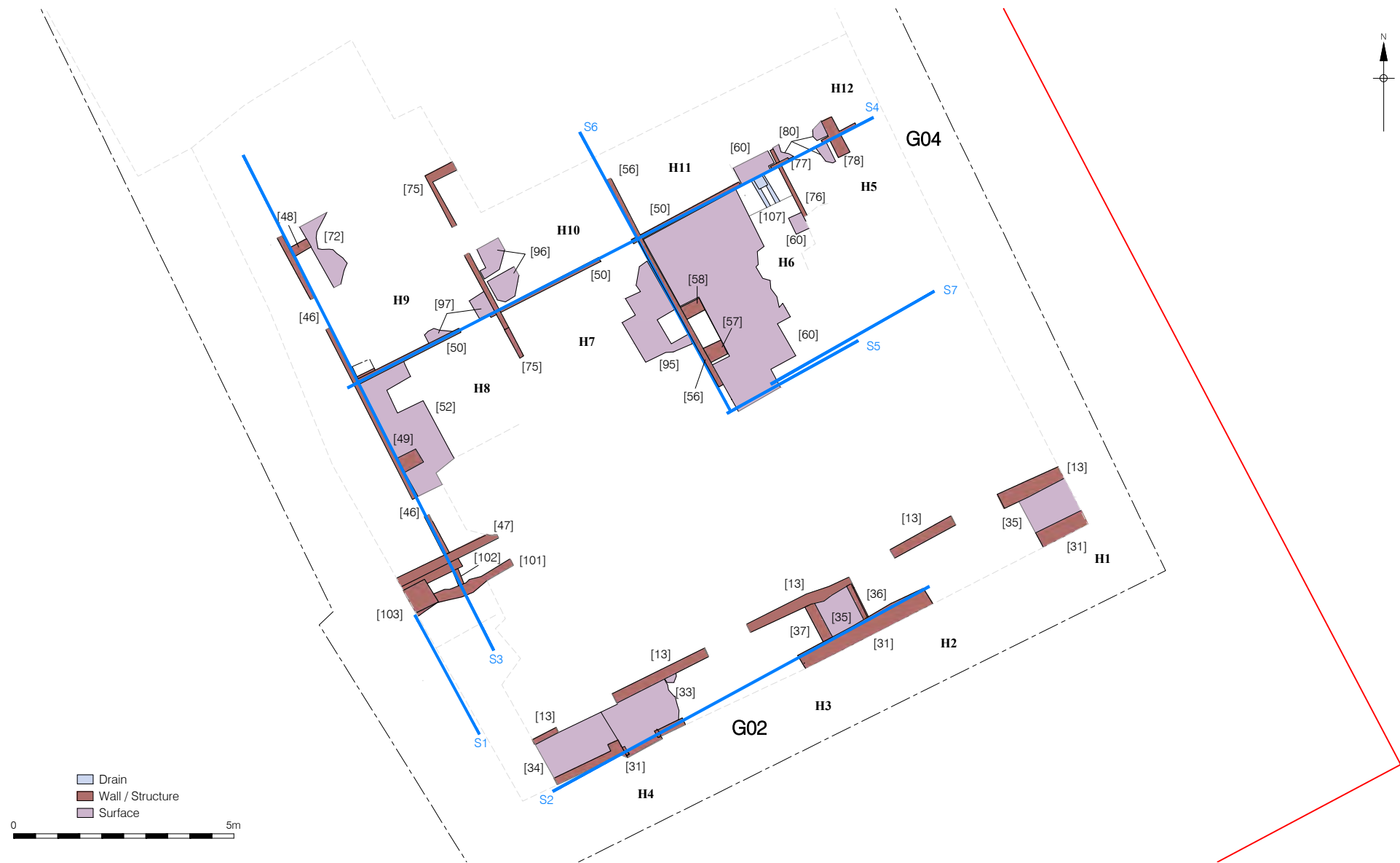
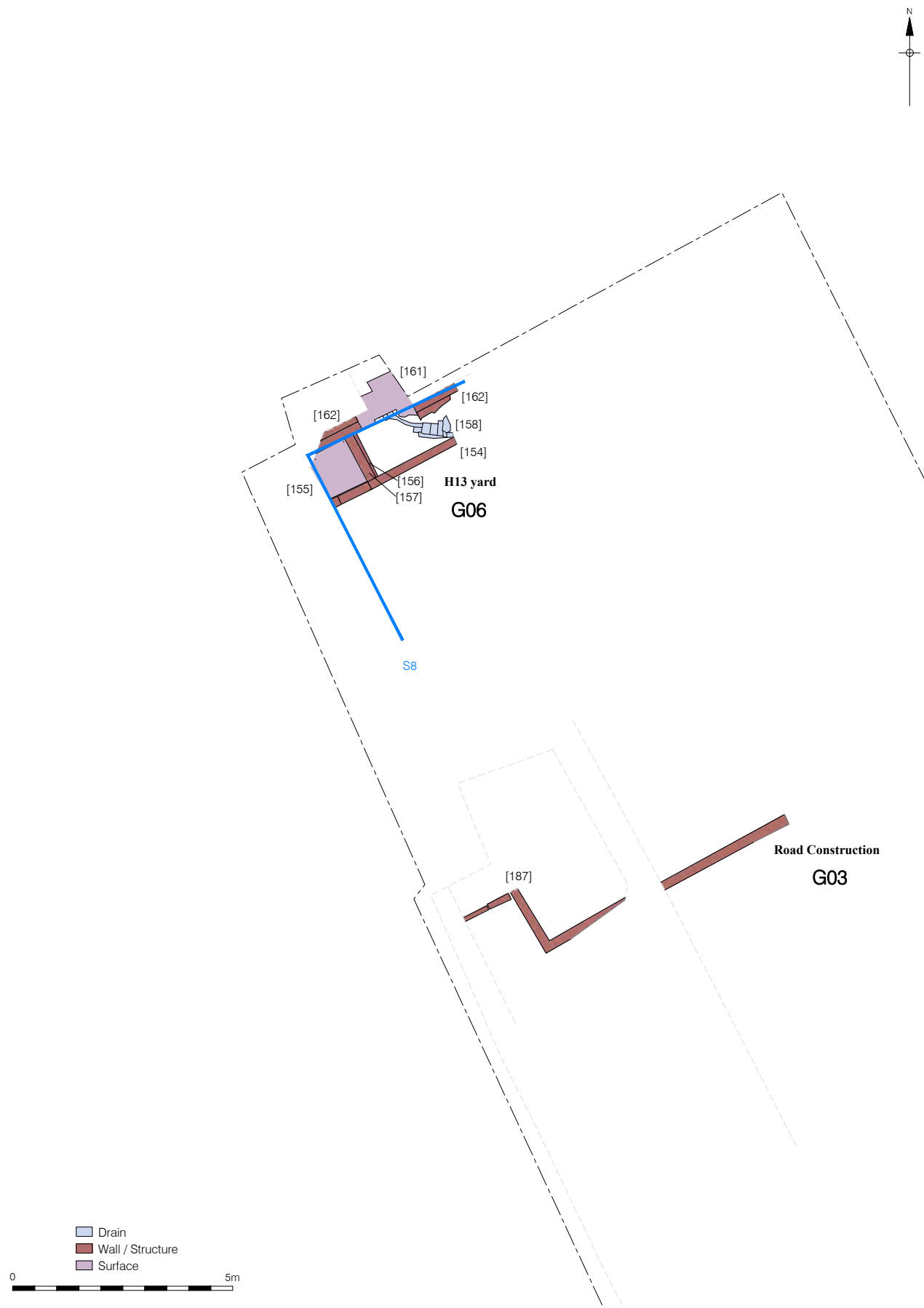
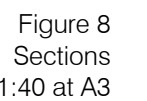


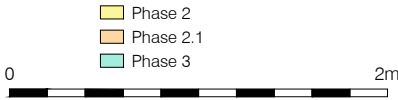
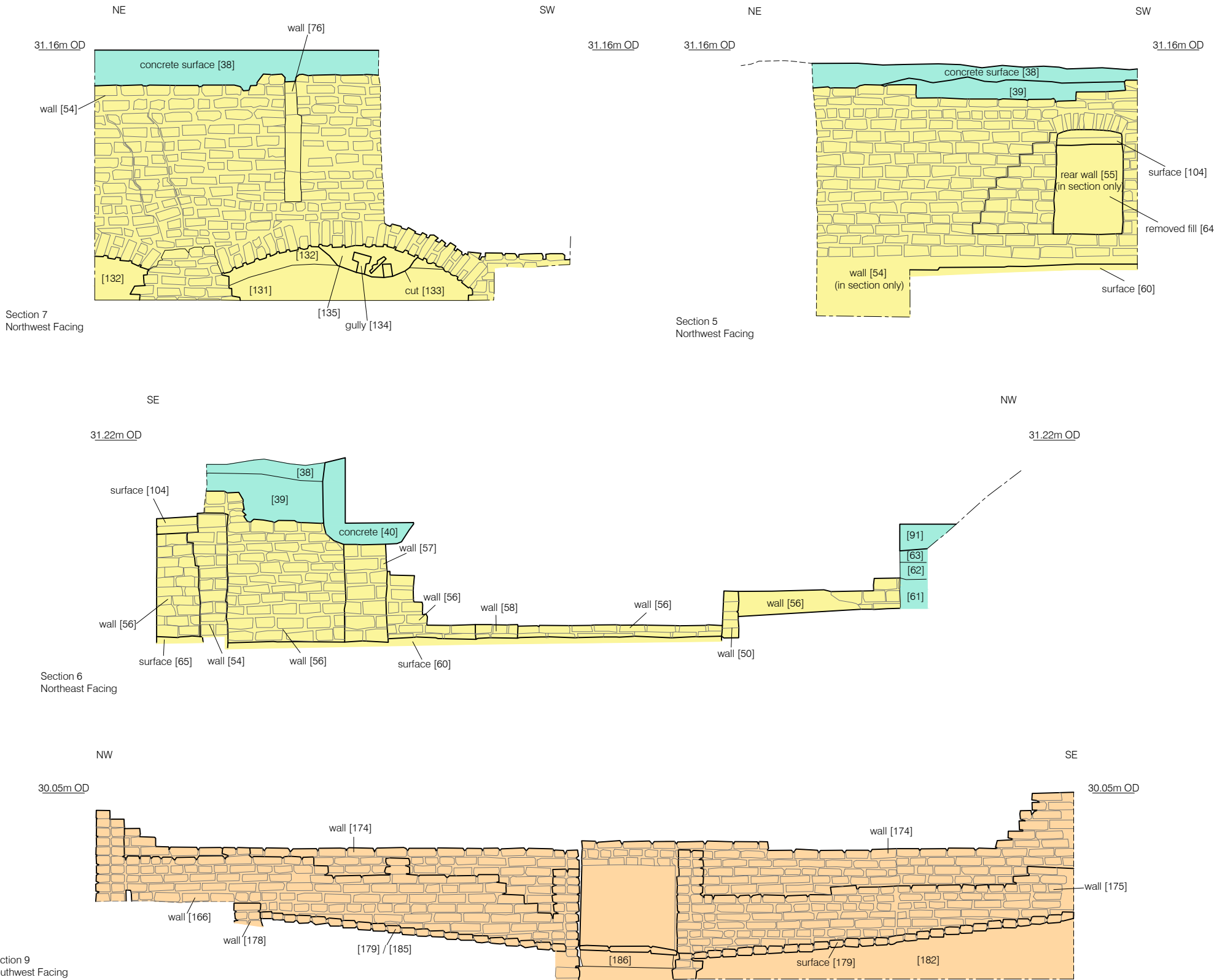
Figure 4
Phase 2 Terrace Construction
1:125 at A4

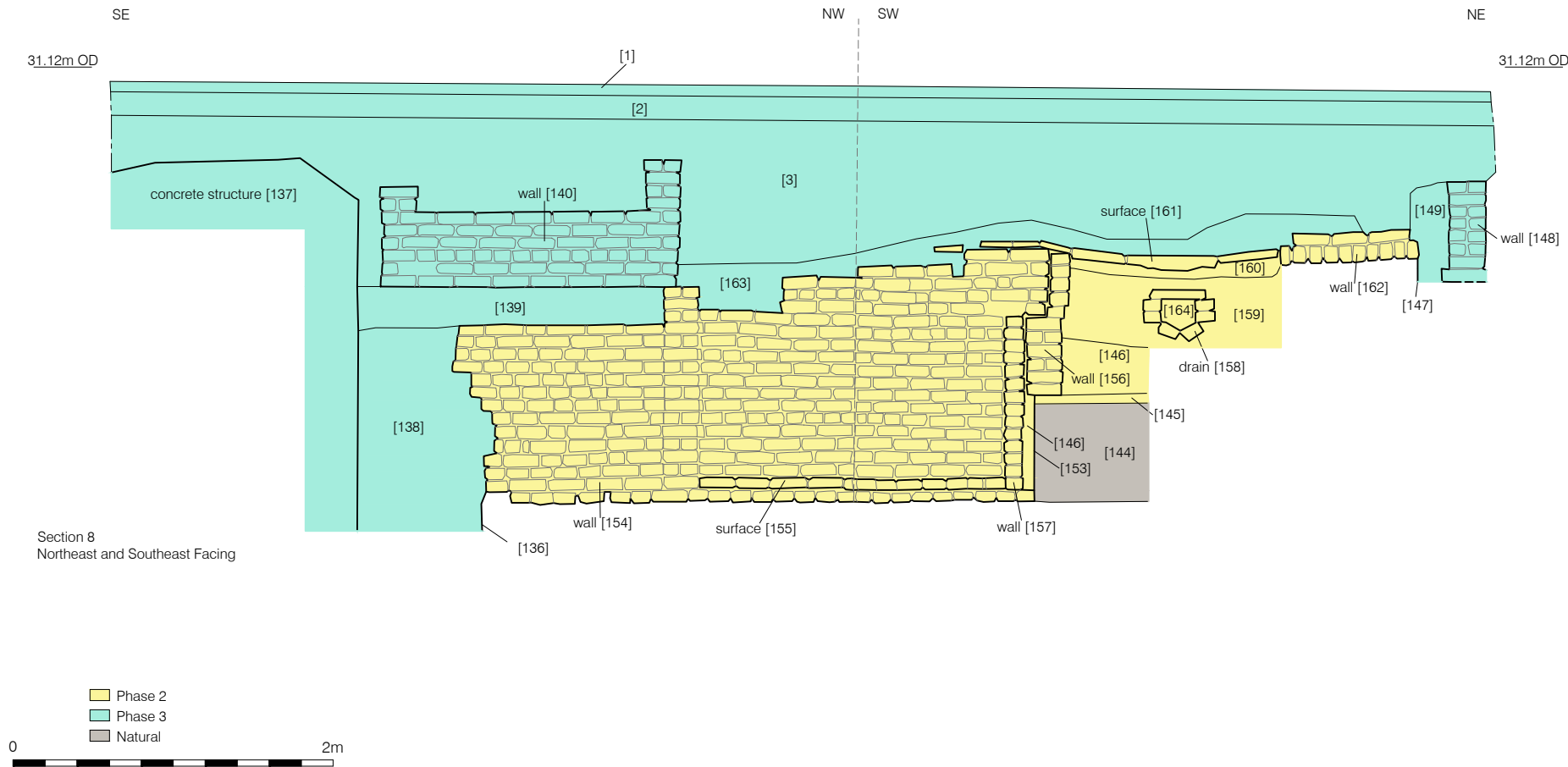


















8 PLATES



Plate 1: Cellar walkway H1-4 (Phase 2), Agnes Street south, looking south.



Plate 2: Entrance (31) along cellar walkway H4, looking southeast, 0.50m and 1m scale.



Plate 3: Phase 2 H6, H7 and H8, with Phase 3 concrete factory foundation structures, looking southwest, 2m scale.



Plate 4 Phase 2, H6, 7, and 8, looking northeast, 2m scale.



Plate 5: Floor (60) H6 construction, looking southwest, 2m scale.



Plate 6: Phase 2 H6 construction, showing Floor (60), looking northeast, 2m scale.



Plate 7: Fireplace (57) (58), H6, looking southeast, 1m scale.



Plate 8: Possible coal chute (55) (56), looking southeast, 0.50m and 1m scale.



Plate 9: H8 cellar with plaster remnant on Walls (46) (49), looking southwest.



Plate 10: Phase 2 arches integral to Walls (46)/(54), looking southeast, 2 x 0.50m scale.



Plate 11: H13 yard with Drain (158), looking northeast, 2x 1m scale.



Plate 12: Phase 2.1 Irving / Poplar Street G5 'privy' construction, Floor 179, looking west, 2m scale.



Plate 13: Recess in G5 'privy' between Walls (166) and (175), looking southeast, 0.50m scale.



Plate 14: Cellar disuse backfill G6 (45), looking southeast, 2m scale.



Plate 15: Modern concrete structure on H10 cellar disuse backfill, looking northwest, 2m scale.



Plate 16: Phase 3 construction, factory Floor east (112), looking northeast, 2m scale.



Plate 17: Factory Floor west (112) with steps (171) and Wall (172), looking south, 1m scale.



Plate 18: Phase 3 G8 construction Wall (140) above Phase 2 Wall (154) H13 yard, looking southwest, 1m and 2m scale.



Plate 19: Factory basement G9 demolition backfill, looking southwest, 2m scale.



Plate 20: Corner of Newcastle Street and Agnes Street, c.1907, looking northwest.



Plate 21: 3 -9 Agnes Street, c.1907, probably looking southwest.



Plate 22: 3 -9 Agnes Street, c.1907, probably looking southeast.



Plate 23: Agnes Street post- partial demolition, 1913, looking southeast.



Plate 24: Agnes Street post- partial demolition, 1913, looking southwest.



Plate 25: Irving Street, c.1907, looking southeast.



Plate 26: Newcastle Street demolition, 1908.

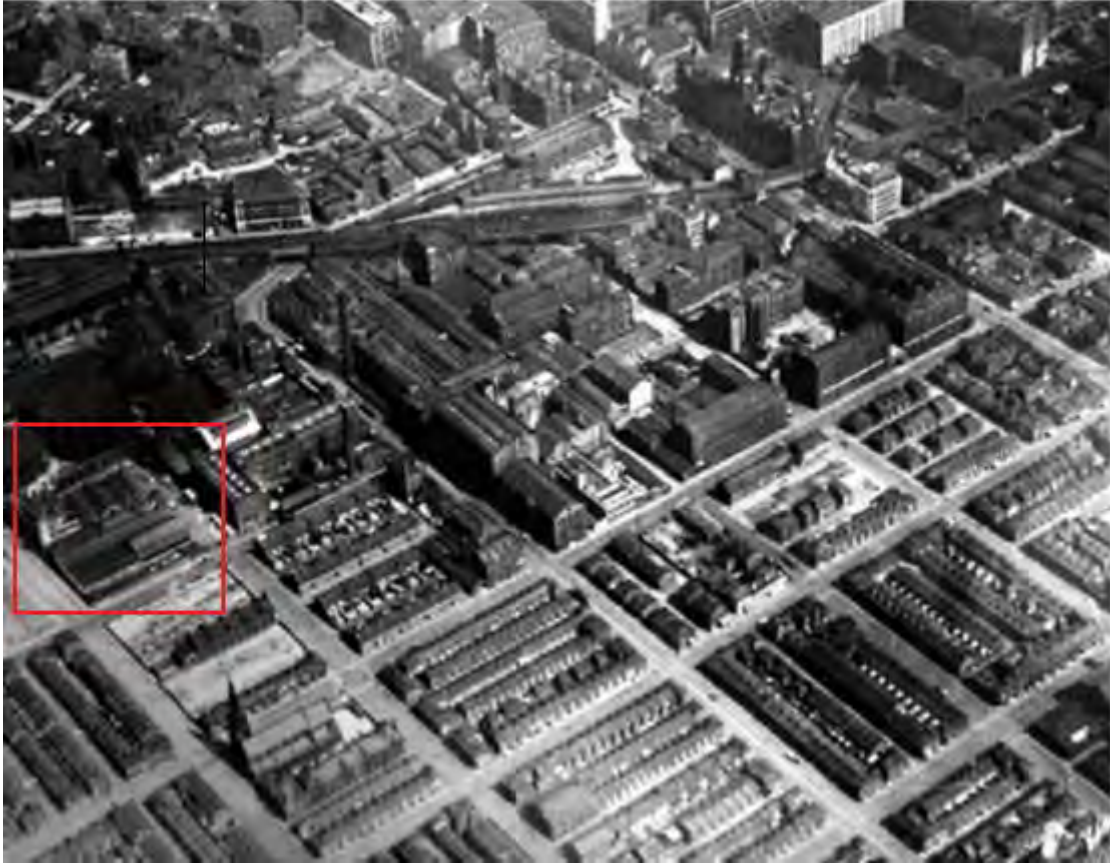


Plate 27: Hulme area, 1927, Plot 10b in red, looking northeast.

9 PHASED DISCUSSION

9.1 Introduction

- 9.1.1 The programme of SMR investigation has provided another valuable opportunity to investigate the physical remains of the urban development of part of this area of Manchester during the 19th century. In particular, the excavation has revealed further remains of workers' housing, a key characteristic of this new urban landscape, and evidence for the development of the buildings through aspects of associated infrastructure evident in cartographic sources, corroborated in documentary ones and largely summarised in the archaeological background of this report.
- 9.1.2 By the first half of the 19th century, industrial development led to an increase in demand for accommodation in the Hulme area due to an influx of migrant workers. The social impact upon living conditions soon began attracting increased social commentary and subsequent publicity. Planned reforms, spearheaded by legislature, led to gradual, albeit sporadic improvements to the condition of housing and the local environment. Reforms were principally aimed at alleviating the issues caused by a high density of occupation and managing the wastewater produced by the residents. Despite some improvements, general dilapidation and the changing demand for development land in the area contributed to the need for widespread redevelopment by the 1920/30's, a process partly initiated by, disrupted by and continuing after, World War 2. The archaeological evidence on Plot 10b corroborates some of these events, particularly when considered alongside the evidence from recent work on adjacent Plot 10a and nearby Plots 9 and 11.
- 9.1.3 The recent excavations on Plot 11 (Banens 2017) and Plot 9 (Baker 2023), were more extensive and the remains of the urban fabric and house footprints uncovered relatively better-preserved. These sites revealed privies, cellars with fireplaces, evidence of redesigned layouts and sanitary improvements with the advent of ceramic drainage including water closets and fresh water supply. The evidence from these sites more clearly chartered the chronological development of the site from the late post-medieval period (pre- 1831) and the information they produced is central to much of the thematic discussion and research aims in this report. The evidence from Plot 10b can be added to this body of knowledge. The archaeological works on Plot 10a, to the immediate west and along the same former streets, revealed remains of incomplete footprints of, and a range of features and structural elements within, working class houses; these findings were in-keeping with findings from other sites in the vicinity. It is when viewed collectively that the sites best inform the pertinent local, regional and national research questions.

9.2 Phase 1

Natural geological substratum

- 9.2.1 The earliest deposits in the stratigraphic sequence were interpreted as geological and were recorded in just one area of the site. Corresponding deposits were revealed during excavations on Plot 9 (32.32 m aOD) to the west, and Plot 11 (33.52m aOD) to the southeast. The discrepancy between the natural horizon is conceivably related to the declivity in the natural ground horizon nearer to the historic course of the river Medlock to the north but likely also impacted by differing degrees of truncation and vertical constraints and the location of the archaeological interventions.

9.3 Phase 2

Main terrace construction

- 9.3.1 As on the other nearby excavations, the properties on Plot 10b were all constructed from mortar bonded handmade red brick, the transition to which as the material of choice in Manchester was complete by this time, from the more widespread use of timber framing in the 17th century. The walls of the houses on Plot 10b were typically single-skinned internal partitions and party walls. It has been suggested (Engels, 1845) and discussed in the archaeological background that this was for reasons of economy, perhaps reflecting skimping by the developer, but an alternative viewpoint is it is a reflection of continued use of longer standing traditional building techniques.
- 9.3.2 The cartographic evidence suggests that the terraces on Plot 10b were built between 1831 and 1845 on previously semi-agricultural land, although there was no material evidence for deposits pre-dating the construction of the properties on Plot 10b or the channel of the watercourse in the centre of the SMR area, as depicted on Banck's 1831 map (not illustrated). The depth of the excavations in this area, however, were constrained by the extant concrete foundations. The ceramic finds evidence, derived almost exclusively from demolition deposits subsequently levelled in preparation for the later factory, is of limited interpretive value in this regard. The finds are, however, generally dated to the 19th century.

9.4 Phase 2.1

- 9.4.1 The archaeological remains confirm evidence for selective demolition on Irving and Poplar Street, as depicted on the OS 1905 map. As with Plot 10a, it seems reasonable that this was a result of the strategy to improve living and environmental conditions in the area (see below), coming, as the evidence suggests, prior to the sporadic wider slum clearance initiatives in the pre-war decade which gathered pace in the post-war years. Up until this point, the layouts of the retained terraces essentially remaining unchanged. The final clearance was part of or

facilitated the expansion of the industrial buildings from the east, with the construction of the latter undertaken a relatively short time after the demolition.

Internal alterations

- 9.4.2 That accommodation built could not keep pace with the increasing population density caused by the surge in labour required, is well-documented (Baker 2023). This is supported by the archaeological evidence on Plots 9 and 11 and inferred from the remains Plot 10a and possibly 10b. One consequence was maximising space and an increase in multi-occupancy of rooms. There is evidence for the change in function of the cellars on Plot 10b, with the entrance between those of H7 and H10 having been 'blocked'. The event is problematic to date from the material remains. Comparable evidence in rooms where fireplaces continued to be used was evident in a property on Plot 9, pointing to continued occupation of the room and a change in the access to it and may represent the conversion of cellars initially intended as kitchens serving residents of the upper floors, into separate smaller self-contained dwellings. Census evidence for the residents of houses on Plot 11 (Banens, 2017) indicated multi-occupancy was present by 1861; in 1851, a property along George Street had nine inhabitants. During excavations at Blakely and Angel Street, north of the city centre, full footprint cellars divided into two rooms with fireplaces had direct access from the street (OAN, 2009). It is not beyond reason to suggest that the cellars on Plot 10b were subject to similar.
- 9.4.3 Alternatively, in view of the continued use of the internal doorways of the cellars allowing access to and from adjacent properties on Plot 10b, the 'blocked' external cellar doorway may evidence the later abandonment, disuse and securing of the properties prior to demolition (see below), although evidence that the cellars were disused or at least uninhabited before the floors above them means the date for this is unclear. The remains of the properties on Plot 10b evidenced a range of altered features, including the possible blocking of basement doorways and windows.
- 9.4.4 As early as 1795 social commentators begin to cite the issues of cellars. As a response to contemporary attention and the stirring of social conscience, legislation was passed offering practical solutions aimed at improving living conditions. Demographic surveys were also undertaken in Manchester and highlighted the poor conditions suffered by an over-population, with poor sanitation and lack of light, against a backdrop of health issues, notably outbreaks of diseases such as typhoid and cholera in the middle of the 19th century (Baker 2023).
- 9.4.5 That the population of the area was of a less affluent worker class is not in doubt and supported from the material finds recovered, albeit from demolition deposits, across Plot 10b. The pottery is 'cheap and cheerful', the evidence of children's pastimes suggests these were simple and monetary transactions were evidently small scale and made with petty cash.

- 9.4.6 By the second half of the 19th century the conditions of workers dwellings nationally were on the political agenda, particularly the phenomenon of 'back-to-back' houses. Among several acts (see Baker 2023) of legislature, the *Sanitation Improvement Act 1845*, banned the construction of any new 'back-to-backs', although this did not concern extant houses. This would support the cartographic evidence for a construction date before this, although there are questions over the level of enforcement. In 1853, with mixed success, cellar dwelling was outlawed by the *Manchester New Streets Act* and the privately sponsored *Manchester Waterworks and Improvements* required landlords to renovate, recondition, or change the use of existing 'back-to-backs' - the alterations and closure of access to cellars noted on Plot 10b may be evidence this.
- 9.4.7 From the census records showing that by 1871 the Agnes and Irving Street cellars were unoccupied (see above), we may infer an alternative date for the blocking-up of features seen on Plot 10b, although this remains conjecture. It is equally conceivable that properties earmarked for demolition would be sealed up in the meantime to prevent arson or squatters. There is photographic evidence for this (Plate 20, Plate 21 & Plate 22). Exactly which of these events is evidenced by the alterations is problematic to determine confidently from the limited excavation of truncated remains.

Improvements in Conditions

- 9.4.8 The strategic remodelling of space around buildings is evident on the OS 1905 map (Figure 12) and discussed in the archaeological background (see above). The archaeological remains on Plot 10b provide significant evidence to 'ground proof' the changes. Certainly, between 1896 (OS) and 1905, alterations are made. Firstly, the houses between George Street and Agnes Street (including H2 - H4) are demolished c.1904 (Plate 23 & Plate 24)– the pub is retained (Plot 10a) along with H1 on Plot 10b, suggesting it had an as yet undetermined commercial function. It is likely that demolition deposits above G05 privy, in the centre of the site, are the result of this event. The houses between Agnes Street and Irving Street (H5 – H12) underwent the same fate c.1907 and certainly by 1913. The six 'back-to-backs' extending east from Newcastle Street, fronting Irving Street north and Poplar Street south are depicted as one, probably commercial, property on the 1905 OS map. The same map indicates a number of selected properties, including the former house on the site of the G05 privy, on the east half of the same street, may have been demolished, their former footprints developed as on Plot 10b, or left as open space facilitating lateral access between the two streets. The 1891 Ordnance Survey Map suggests the G05 Structure was related to rows of individual structures fronting both Irving Street and Agnes Street (Figure 12).
- 9.4.9 Comparable evidence from nearby Plot 9 indicated that between 1849 and 1899 backyards were created or expanded, 'back-to-backs' knocked through to form larger properties of likely non-residential function and others demolished and their footprints paved over. Targeted demolition, alteration and conversion is also evident from excavations at Ancoats and Angel

Meadows, Shudely (Miller & Wild, 2015). Evidence from a blocked fireplace in a cellar on Plot 9 indicated an end to its residential use, possibly linked to the ban on living in cellars (see above). Collectively, the changes can be viewed as a response to the concerns over conditions in the latter part of the 19th century – namely addressing the need for more space to allow more fresh air. They broadly correspond in date to the sanitary improvements clearly evidenced in the properties on Plot 9.

- 9.4.10 By 1905 the main phase of alterations had been completed, although the conditions they tackled, possibly alleviated for some, were by no means removed. Sources suggest that the problems persisted until the policy of extensive slum demolition from the second quarter of the 20th century largely eradicated the problems, at least locally. Documentary sources indicate that by then many of the houses were in a state of disrepair (Plate 25). Marr cites the situation whereby properties were generally deteriorating and, with the presumption of condemnation, there was a reluctance on the part of landlords to undertake repairs (Marr, 1904, 56). There are even reports of demolished houses causing the collapse of their now ‘unsupported’ neighbouring properties and in at least one case, purportedly resulting in the death of the inhabitant family (*The Manchester Guardian*, Feb 16, 1921). By the early 20th century, it is quite probable that properties on Plot 10b were in a comparable state of disrepair.

Sanitation and water management

- 9.4.11 The realisation of removing excreta from densely populated areas as soon as possible after deposition was likely behind the changes in the backyards of properties on Plot 9 and 11, possibly contemporaneous with the creation of space. There is however, less archaeological evidence for these improvements being undertaken to the properties on Plot 10b. There was an absence of evidence for features such as individual backyards, individual privies, or separate sculleries and the only wastewater provisions were the internal brick gully below cellar floor-level in H6 and external drain in rear yard (H13). They were likely, along with the central Agnes Street drainage revealed on Plot 10a, of contemporary construction with the properties. ‘Back-to-back’ houses likely lacked some and shared others of these facilities and the provision of privy G05 points to the former.
- 9.4.12 The street wide municipal led improvements on Plot 9 were thought to have taken place in the last years of the 19th, or early years of the 20th century. That the properties along Agnes Street south on Plot 10b may have been vacant and earmarked for demolition at the start of this period and almost certainly by the end, suggests that they were possibly omitted from or, as outlawed ‘back-to-backs’, unsuitable for the scheme.

9.5 Phase 3 Modern 1899 - present

Final clearance - industrial expansion

- 9.5.1 Demolition (Plate 23) on Plot 10b is supported by the archaeological evidence for abandonment and backfill, with Phase 3 demolition (G08) deposits sandwiched between the earlier terrace and later factory construction deposits. The deposits were subject to limited excavation and most, encountered whilst investigating the layouts of structures, were reused as consolidation layers for the construction of the subsequent factory. Nevertheless, their interpretation broadly supports the evidence from other sources for the more recent land use.
- 9.5.2 The properties on Plot 9 were evidently part of an early phase of slum clearance strategy, their location on the periphery of the industrial land use possibly a factor in their selection. The cartographic sources for Plot 10a and 10b show that the properties retained after the first wave of demolition, namely H1 on the latter, were finally demolished, c.1917, by order of the *Defence of the Realm Act* (1914), although the streets were initially retained. Earlier records indicate at least one new factory building was in production by 1915 but the encroachment across the parcel of land may have been gradual. The site was cleared of buildings by 1927.
- 9.5.3 By 1922 aerial photography confirms Agnes, Irving and Poplar Street were no longer visible, having been completely overlain by a conglomeration of the factory buildings which many of the concrete construction deposits assigned to Phase 3 represent (Plate 27). These deposits included levelling deposits, concrete rafts and foundations and surviving walls and concrete surfaces (G08). The 1932 OS map (not illustrated) shows a single vast Dunlop Factory building entirely occupying the site (Dunlop having taken over Mackintosh & Company in 1923). The same map depicts open land use (disuse), devoid of houses and most streets on adjacent south and west parcels of land. A school building survives on Plot 11. The extant rubber works expanded during the latter half of the 20th century and by the 1965 OS map (not illustrated) much of the residential property in the surrounding area was gone, to be replaced by dispersed industrial and commercial buildings identified as unclassified 'works', warehouses and depots, interspersed with the occasional public house, institute, school and church.
- 9.5.4 The demolition of the Dunlop Rubber factory in the early 1970's was represented by the levelled demolition deposits (G09), the subsequent and most recent construction deposits in the stratigraphic sequence for the carpark (G10).
- 9.6 **Conclusion**
- 9.6.1 The archaeological evidence from Plot 10b First Steet adds to the body of evidence from other sites in the locality and elsewhere in Manchester. It is supported by the existence of documentary and cartographic evidence which forms a background against which to assess the material remains in the light of specific research questions. Collectively the evidence helps illustrate the chronological development and nature of urban life in 19th and 20th century Manchester and evidences the widespread municipal and specific piecemeal alterations seen within the surviving archaeological fabric of the buildings. Used collaboratively in a multidisciplinary manner, the archaeological evidence informs the chronology for important

social issues relating to the foundation and development of the modern city and the conditions affecting the lives of its past inhabitants. Further work in the area and on the existing resources can only enhance this.

10 RESEARCH QUESTIONS

10.1 Original Research Objectives

10.1.1 The research objectives were contained within the WSI for the archaeological mitigation (Mayo 2023) and are as follows:

10.1.2 **To further determine the natural topography of the site within the SMR area.**

10.1.3 Superficial geological deposits were recorded in interventions toward the north extent of the site. However, the horizon recorded was likely subject to significant horizontal and vertical truncation across the site.

10.1.4 **To confirm an absence of prehistoric, Roman, early medieval and medieval activity.**

No evidence of prehistoric, Roman, early medieval or medieval activity was recorded on the site.

10.1.5 **To establish the presence or absence of post-medieval deposits / activity. Desk-based research suggests an absence of development at the site until the 18th century, can this be confirmed?**

No artefacts or deposits dating to a period prior to the 18th century were revealed on the site. Most of the pottery from the site came from secondary deposition demolition layers and was dated to the 19th – 20th century. Pottery with production dates extending back into the 18th century and in the case of Blackware, from the 17th century, were produced over a long time and into the 19th century. None of the pottery from the site could be confidently dated to the 18th century or earlier.

10.1.6 **To investigate whether early 19th century properties, suggested by Banck's in the southern area of the SMR trench, survive in the archaeological record. Are they domestic properties?**

No construction, demolition or finds evidence for the two buildings toward the south of the SMR area, as depicted on Banck's map, were revealed or recovered in the excavations on the site. All the walls identified were mis-aligned to them and related to subterranean levels of the later terrace or factory construction.

10.1.7 **To ascertain the presence of workers terraces as shown on the OS Map of 1844-49. Have these survived later developments? Did they incorporate the earlier structures illustrated by Banck's, or replace them entirely?**

Remains of the subterranean rooms of workers terraces survived intermittently between and below the truncation from the demolition of the terrace superstructures and the construction of

the later 20th century factory. Those along the north of Agnes Street may have completely replaced the earlier structures depicted on Banck's 1831 map, although there was no direct archaeological evidence for this. The remains showed the terrace (H1 – H4) along Agnes Street was misaligned with the properties depicted on the cartographic evidence.

10.1.8 To ascertain the state of preservation of 19th and early 20th century domestic dwellings and associated structures which are known to have stood at the Site.

The 19th century domestic dwellings were represented largely by their cellars, entrance structures to them and drainage set beneath ground floor levels. Superstructures did not survive, having been impacted by several stages of systematic demolition and land clearance. The cellars, however, preserved beneath demolition material deposited within them. The cellars were subsequently truncated significantly by groundworks for the foundations of the 20th century factory.

10.1.9 Is it possible to chart the development of these 19th century structures into the 20th century? If so, how have they been altered, for example with the addition / insertion of drainage and water systems?

There was no material evidence for the addition of improved ceramic drainage, as revealed on the opposite side of Newcastle Street (Plot 9), although the construction of the privy (G05) in newly vacated created space may be related to the general improvement initiative. The drainage recorded on site, appeared, from the evidence of the stratigraphic sequence and construction fabric, to be contemporary with the foundation of the terrace dwellings. There was some evidence that entranceways to the cellar along Agnes Street had been blocked but it is unclear whether this was to do with refunctioning of the cellar space (and the nature of this), disuse, or condemnation prior to demolition; it was not possible, given the scope of the excavations, to determine this.

10.1.10 To establish the extent of past impacts on archaeological survival.

The widespread demolition of the terraced dwelling significantly impacted the survival of any superstructures on Plot 10b and the footprints of the houses themselves are largely evidenced from surviving subterranean rooms and features. Construction of the Mackintosh & Company (later the Dunlop works) factory and successive buildings related to it, caused significant disturbance to the remains of the cellars. Comparable excavations elsewhere in the vicinity can go some way to answering the questions raised and informing wider research aims but it is without doubt that the later activity limits the interpretation of the earlier buildings and their chronological development on Plot 10b.

10.1.11 An additional Original Research Aim not included in the WSI was:

10.1.12 To Investigate the possible presence of a channel from the Medlock which is suggested to cross the site on Banck's map.

There was no archaeological evidence for the remains of the above channel.

10.2 Additional Research Questions and Aims

10.2.1 The excavations have raised several additional research questions. These are:

- *How does the 19th century workers housing uncovered across site, in addition to the cultural material recovered, alter our understanding of the social history and archaeology of the Hulme Area?*

Discussion -

The archaeological remains and finds they produced across Plot 10b have provided further evidence toward our wider understanding of urbanisation in the Hulme area, the construction and quality of workers houses, the health and sanitation conditions the residents experienced, fluctuations to them and initiatives to alleviate them, and to a limited extent, the histories of the individuals experiencing them. The findings along with those from elsewhere in Manchester, allow useful comparison with contemporary documentary social history sources and legislation, sometimes challenging traditional narratives of the former and the application and effectiveness of the latter. The eventual alteration and clearance of most of the workers houses, albeit sometimes associated with the expansion of 20th century industry in Hulme, may attest to the ultimate failure to improve conditions to acceptable standards and perhaps reflect wider social concerns.

- Although many of the finds from Plots 9, 10a, 10b and 11 derive from demolition deposits and cannot be related to any a particular structure, they do offer limited information on working class households, an area of society somewhat overlooked in the archaeological record. The pottery assemblage from Plot 10b, comparable with the other plots, is largely sourced to Staffordshire and Manchester and reflects a residency from lower socio-economic groups, using 'cheap and cheerful' items.

Other finds from Plot 10b enhance rather than alter our understanding of the material culture of the people living and working in the Hulme area, including how they dressed, their activities and their choice of religion. Of particular note are items associated with children including the toys they played with and indicating specific games they played, and even items evidencing the education they may have received.

- *How does the workers housing in Plot 10b constructed during this period compare with the ones identified on Plot 9, 10a and Plot 11? Are there any other parallels for the low-quality*

housing? How does the construction of this housing compare across Manchester in the 19th century, and does the use of internal space differ?

Discussion -

The remains of properties across the plots collectively represent a range of workers housing similar in layout, size and quality of build, including back to backs and through houses. The houses were largely constructed along streets laid across semi-rural land in the first half of the 19th century, at a time of increasing population led by an influx of migrant industrial workers. Although the remains on Plot 10b revealed relatively incomplete internal layouts there was evidence for features such as fireplaces, coal chutes and external privies. The material evidence from each site is thus best viewed collectively and comparatively, to better demonstrate the chronological development of the Hulme area from the late post-medieval period, particularly in conjunction with contemporary cartographic, documentary and legislative sources.

The documented exponential rise in demand for accommodation is evidenced across the sites by internal alterations likely to reflect multi-occupancy; without doubt this impacted upon the living conditions and health of the population. The collective archaeological evidence for refunctoning of internal space, changes to sanitation provision, the conversion and strategic demolition of some houses and eventual widespread clearance, is testament to the response to these issues, and to the chronology and possible inconsistencies of it. That improvements were not standard across house types in the properties across Plots 9, 10a, 10b and 11 and other areas of the city may reflect the pattern of individual land ownership. Those on Plot 9 included sanitation provision but not, apparently on Plot 10b. Perhaps the latter were earmarked for demolition before the improvements were introduced or demolition was more due to the expansion of industrial buildings from the east in the pre-World War II years.

The remains can be compared with low quality housing investigated in other areas of the city. Some of the earliest back to backs were built around 1800 at Piccadilly Place in Central Manchester and included purpose-built cellar dwellings with internal partitions a full brick-length thick, flagstone floors and individual access steps to the street. In contrast, extensions to these properties, likely reflecting the same social conditions, were built with partition walls only one brick width thick and shared access stairs. It is with later alterations to better made houses, probably reflecting the increase in occupation evident on Plot 9, that shortcuts also appear sometimes with partition walls laid directly upon the earlier floors. The relative quality is variable; whilst many houses at Ancoats, to the northeast of the city centre were built upon substantial brick foundations, with running water and yards with toilets, others such as those along Loom Street in the same area were never upgraded with running water. Back to backs excavated at George Leigh Street, Ancoats, on the other hand, indicate improvements in sanitation provision (Wild 2008). The city-wide application of legislation suggests widespread and similar issues of overcrowding, disease and poor sanitation (Nevell 2014) but investigations show legislation

was acted upon at selectively and at different rates. At 74-88 Great Ancoats Street (PCA 2017), houses were remodelled and converted into larger commercial properties and others subject to selective demolition. In both Hulme and Ancoats, the apparent increase in occupancy is not always seen to go hand in hand with an increase of privies and sanitation. The evidence may suggest that older housing and the, eventually prohibited, back to backs were generally less likely to be improved (Nevell 2017).

The internal layouts of workers' houses across Manchester tended to be relatively consistent with typically one or two small rooms incorporating features such as fireplaces, coal chutes, external access to backyards and sometimes evidence for staircases to upper stories. Cellars often contained fireplaces whose function may have changed with occupancy of the property. Internal layouts also changed with remodelling; at 89-91 Great Ancoats Street, original features of a three-storey house were removed during conversion to a single commercial property (OAN 2007).

Houses including back to backs, court and blind back houses, of possible poorer quality than those at Plot 10b and Ancoats, have been excavated in Salford (Newell 2017), centred northwest of the city centre. One example had brick foundations laid directly upon the clay subsoil with the only internal floors evidently constructed of crude clay levels. With no sign of staircases between the two stories, a wooden ladder may have facilitated access between floors, and there was no sign of running water or external privies (Newell 2017).

The body of knowledge for workers houses and case studies for comparative study is growing. Between 2001 – 2017, over 30 workers houses were excavated across Manchester developing the research aims outlined above and allowing comparison with known documentary records and cartographic sources, sometimes highlighting some discrepancies between the sources as well as discrepancies between different areas within Manchester. Overall, the archaeological evidence for workers houses from across Britain is rarer; 60 tenement blocks were excavated on the south bank of the River Clyde, Glasgow in 2007-8, allowing a glimpse of a wider area of urban development and informing more thematic research aims (Nevell 2017). The 19th century slums in York, studied by Seebolm Rowntree in 1901, and the focus of archaeological excavations since 2000, has revealed discrepancies with the written account regarding the severity of conditions, echoing the more recent debates on the same in the Little Ireland area of Manchester, just northeast of Plot 10b. Footprints of back to backs have also been subject to recent rescue excavations in Birmingham (Fletcher 2021).

11 CONTENTS OF THE ARCHIVE

11.1 Paper Records

• Contexts Records	183 sheets
• Context lists	5 sheets
• Photograph register	12 sheets
• Sketch Plans	1 sheets
• Sections	9 sheets
• Section register	1 sheet
• Small Finds register	2 sheets

11.2 Finds

• Pottery and metal finds	1 box
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11.3 Photographic Record

• Digital	425 unedited / 210 edited images
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11.4 The Museum of Science and Industry, Manchester has been approached as the potential repository for the deposition of the physical and digital archive, and any discard policy for the material finds will be agreed prior to deposition. A digital copy of this report will be uploaded to Archaeology Data Services (ADS) via the OASIS V website.

12 IMPORTANCE OF THE RESULTS, FURTHER WORK AND PUBLICATION OUTLINE

12.1 Importance of the Results

12.1.1 The archaeological investigations have provided evidence for the development on the site from the middle period of the 19th century through to the 20th century and the more recent past. The site would appear to have been occupied residentially, with the construction of 'back-to-back' housing terraces fronting Agnes, Irving and Poplar Streets, and through-houses on the north of the latter from the middle of the 19th century to the early 20th century. Following clearance, in the early 20th century, the site was used commercially with an extension to the Mackintosh & Company, later the Dunlop Rubber works, occupying the former housing footprints and streets until the last quarter of the 20th century. While the archaeological and social history of workers' housing in the Ancoats area of Manchester, northeast of the city centre, has been subject to much research, aside from 'Little Ireland', c.200m away north of the River Medlock, little investigative work has been conducted in the Hulme area. Consequently, past, current or further archaeological investigations undertaken in the area have the potential to provide crucial information as to the foundation, development and social history of Hulme and its wards.

12.2 Further Work

Documentary

12.2.1 Additional documentary research could be undertaken into the social history and living conditions of the site and specific properties on it, using historic newspaper and photographs; this information could be consolidated with the census and directory information to form a detailed picture of the development and social history of the site. The same research could be used to identify and inform on any specific buildings on the site, businesses within them or the function of them.

Pottery

12.2.2 The pottery has little significance at a local level as much of the assemblage appears to have been derived from demolition and levelling layers and the finds may have been derived from offsite sources. The pottery has the potential to date the deposits it was recovered from. There are no recommendations for further work on the pottery assemblage, which can be discarded at the archive stage of the project.

Animal Bone

- 12.2.3 The significance and potential of the animal bone is limited by the moderate size of the assemblage and the high frequency of fragmentation. No further work is recommended on the current assemblage.

Clay tobacco pipe

- 12.2.4 The clay tobacco pipes have no significance at a local level, as the finds were derived from mostly demolition deposits and probably came from an offsite source. The clay tobacco pipes do have the potential to date the contexts they were recovered from. There are no recommendations for further work on the assemblage and the bowls and marked stems should be retained for the archive.

Glass

- 12.2.5 The glass has no significance at a local level as the finds are largely fragmentary, occur in either makeup or demolition layers and may have come from an offsite source and therefore do not necessarily relate to onsite activities. The glass has the potential to date the contexts in which it was found. There are no recommendations for further work on the glass assemblage as no formal publication work is proposed. The glass finds can be discarded.

Ceramic Building materials

- 12.2.6 The group of floor tiles recovered were very common in the Victorian era and no further work is required on them. The entire assemblage can be discarded as there are no items of specific artistic, intrinsic or geological interest.

Metal, leather and small finds

- 12.2.7 While no further work is required for the metal and small finds they are underrepresented in archaeological reporting and it is recommended they are included in any further publication of the site or outreach work. For this purpose, it would be beneficial to have the Catholic medal cleaned by a conservator to enable a full identification; for the same reason it would also be good to x-ray the small circular copper-alloy brooch (SF 36). Undiagnostic and fragmented metal finds may be discarded ahead of archiving, along with the two decayed leather shoes.

Marine shell

- 12.2.8 The small size of this assemblage limits its scope for further analysis and the material assessed may be discarded.

12.3 Publication Outline

- 12.3.1 Following consultation and advice from the curator for Greater Manchester, it has been agreed that further work will involve the creation of a summary article, of around 300 words, for *Post-Medieval Archaeology*'s annual summary round up section. This article will combine the results from First Street Plots 9, 10a and 10b. There should also be the production of an on-site information display board summarising the information as well as including photographs and plans.

13 ACKNOWLEDGEMENTS

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APPENDIX 1: CONTEXT INDEX

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
1			surface	17	16	0.1	black - short bitumen asphalt	old car park surface	10	3
2			layer	17	16	0.2	dark grey, firm	levelling layer for carpark (01)	10	3
3			layer				loose red/grey with crushed red brick fragments	industrial waste - demolition	9	3
4			structure				Agnes Street drainage	brick and stone slab structure – not fully excavated	3	2
5			layer	2	1.48	0.46	soft grey/brown silt clay with moderate charcoal, occasional small stones	backfill layer	3	2
6			layer	2	1.2	0.9	soft mid- grey/brown silt clay with moderate charcoal and fragments of crushed brick	backfill layer	3	2
7			layer	2	2.44	0.78	light grey/brown silt clay with brick fragments	backfill layer	3	2
8		9	cut	0.45	2	0.38	square, gently sloping NW side	construction cut	8	3
9	8		fill	0.45	2	0.38	compact mid- red/brown silt sand with brick fragments	fill of [08]	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
10			layer	2	2.2	0.25	loose brick	levelling surface - construction	8	3
11			layer	3	2	0.48	mid- grey/brown with brick fragments and stone	backfill layer	8	3
12			structure	3	2	0.15	mid- grey concrete	levelling/foundation - construction for factory	8	3
13			wall	0.24	13.4 exposed	1m exposed	N/S brick wall, English Garden pattern, light grey mortar bonding	roadside retaining wall, south side Agnes St, heavily truncated by later factory. Evidence for remnants of single step to 'blocked' doorway (cellar entrance)	2	2
14			layer	13.40 (postulated)	0.7	0.40 exposed	loose dark grey clay sand with brick and stone	levelling layer for cellar entry flagstone surface - construction	2	2
15			layer	13.40 (postulated)	0.7	0.70 exposed	loose mid- dark/grey clay sand with mortar and brick rubble	demolition layer within cellar entry way - connected to terrace demolition	7	3
16		17	cut	1.4	2.7	4 exposed	prob rectangular, vertical sides, unknown base	cut of factory concrete support 17 - construction	8	3
17	16		structure	0.4	1.4 exposed	1.40 exposed	concrete with red brick crush	factory support base - construction	8	3
18			layer	1.4	1.4	1.4 exposed	friable - loose, mid-grey/brown clay sand with brick and stone crushed	backfill layer associated with concrete structure cut 19 - construction	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
19		20	cut	1.3	1.3	1m exposed	probably rectangular, vertical sides, possibly flat base not exposed	cut for concrete support structure 20	8	3
20	19		structure	1.3	1.3	1m exposed	concrete with red brick crush	concrete support base	8	3
21		22	cut	1.6 exposed		0.70 exposed	probably rectangular, vertical sides, base not exposed	cut for support base for concrete 22 - construction	8	3
22	21		structure	1m exposed		1m exposed	concrete with red brick crush	concrete support base	8	3
23			layer	1.60 exposed E/W		0.70 exposed	loose, mid/dark grey/brown clay sand with ash waste, brick fragments, stones	backfill material associated with concrete structure 21	8	3
24		25	cut	1.2	1.2	0.4 exposed	probably rectangular, vertical sides, possibly flat base not exposed	cut for concrete support structure 25 - construction		3
25	24		structure	1.2	1.2	0.4 exposed	concrete	concrete support structure	8	3
26		27	cut	1.2 exposed	1.3 exposed	0.60 exposed	probably rectangular, vertical sides	cut for concrete support structure 27 - construction	8	3
27	26		structure	1.3	1.3	0.6	concrete	concrete support structure	8	3
28		29	cut	2.9		0.6	probably rectangular, vertical sides	cut for concrete support structure 29 - construction	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
29	28		structure	2.9		0.6	concrete	concrete support structure	8	3
30			layer	0.6	0.9	0.65	loose mid/dark grey/brown clay silt, with small-rounded stone and red brick fragments	backfill of concrete support base 29 and cut 28	8	3
31			wall	10	1		red brick, English garden pattern, lime mortar bonding	north facing wall with door. External cellar wall with door jamb and threshold	2	2
32			layer	0.9		0.1 exposed	compact mid- dark brown sand clay with small stones and brick fragments	levelling layer - construction for flagstone floor	2	2
33			surface	1.65	1m	0.07	sandstone flagstones - various dimensions	flagstone floor of cellar	2	2
34			surface	1.65	0.8		standard red brick	brick surface/floor of cellar	2	2
35			surface	0.8		0.07	sandstone fragments 800 x 70mm	possible step, cellar entrance, stairway on sand levelling bedding	2	2
36			layer	0.8		0.16	red brick, rough faced	possible riser for cellar step 36	2	2
37			wall	0.9			standard red brick, regular courses	E facing cellar stopper end wall	2	2
38			surface	13 E/W	4.4 N/S	c.0.2	concrete	concrete surface over former Agnes Street	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
39			layer	13 E/W	4.4 N/S	c.0.15 - 0.20	loose mid- grey/brown clay sand with ash waste and brick fragment	levelling for concrete surface 40	8	3
40			structure	1.1 N/S	1.5 E/W	0.88	concrete	support structure	8	3
41		42	cut	1.1 N/S	1.5 E/W	0.88	rectangular, vertical sides	cut for concrete support structure 42	8	3
42	41		structure	1.2	0.8	1.75	concrete	concrete support structure	8	3
43			layer	0.9	0.9	1.6	loose mid/dark grey/brown clay sand with brick fragments	backfill of concrete support structure 41	8	3
44			Finds				Unstratified finds			
45			layer	2.9		0.2 - 0.5	loose mid/dark grey/brown clay sand with pottery waste, slate and brick fragments	demolition backfill of Irving Street terraces 1907	7	3
46			wall	8	0.12		standard red brick, header and stretcher mix, east facing, yellow/grey sand mortar with occasional plaster covering and trace of brown/red and dark blue paint	main edge wall with plaster. Fireplace cheek on east face with soot staining on wall and discolouration to brick surfaces 48/49	4	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
47			wall	2.25	1.10 exposed	0.25	standard red brick with brown/grey mortar bonding	external wall with archway and drain with cover	4	2
48			wall	0.24 N/S		0.54	standard red brick with hand frame finish, 2 stretchers and a header per course	fireplace cheek, although lacks sooty deposit of 49 feature. Different materials and sizes/shapes to 52	4	2
49			wall	0.5 E/W	0.4 N/S	1.03	standard red brick, mix of stretchers and headers	fireplace cheek, truncated by 53 (demolition or machine disturbance?). Abutted by flagstones 52	4	2
50			wall	10.08 ENE/WSW	0.12 SE/NW		red brick standard with stretcher/header, irregular joins, facing NW and SE	internal cellar wall, multiple cellars, plaster/paint on both faces, with multiple (x3) doorways	4	2
51			layer				mid- grey with yellow sand patches, loose, soft sand with CBM rubble, with soft grey mortar bonding	levelling for flagstone surface (52) - construction	4	2
52			surface	2.4	1.16		sandstone pieces 550 x 660 x 40mm, unbonded	flagstone floor on levelling layer	4	2
53			structure	0.8 E/W	0.8 N/S		concrete	concrete factory structure	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
54			wall	2.78			red brick (230 x 110 x 80mm), NW/SE facing	internal wall with plaster on NW face, integral archways (0.58 x 0.90m) leading to bricked area 65, possible coal chute	4	2
55			wall	3.58		0.89	standard red brick (230 x 110 x 80mm), regular coursed, Common English Garden wall style, NW/SE facing, with lime mortar	internal wall	4	2
56			wall				red brick with lime mortar, standard six, stretcher in regular courses, NW/SW facing	internal wall at rear of possible hearth possible coal chute	4	2
57			wall	0.47	0.35	0.66	red brick standard in headers. Features dimensions - 0.47 (W), 0.35 (d), 0.66 (h).	SE cheek of possible hearth	4	2
58			wall	0.5	0.36	0.11	red brick standard, header laid. Dimensions 0.50 (w), 0.36 (l), 0.11 (d)	fireplace cheek, adjoined to 56 on west edge	4	2
59			layer				moderately compact black/grey silt clay with brick fragments (not fully ex)	levelling for flagstone floor - associated with walls 54 and 56	4	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
60			surface				stone pieces (1100 x 660 - 470 x 200mm), various materials on levelling/bedding layer 59	flagstone floor up to fireplace and walls 54, 56, 50	4	2
61			layer			0.7 max'	moderately compacted, mid/light grey/brown clay silt with fragments of brick pebbles and plaster flecks with pottery – not fully excavated	demolition of houses with abundant finds	7	3
62			layer	2.1		0.25	moderately compact, mid-dark black/grey clay silt with fragments of brick and occasional small stones - not fully excavated	levelling layer for possible factory construction. Contemporary with 63	8	3
63			structure			0.14	concrete	factory foundation	8	3
64			layer	3.58	0.51	0.48	dark grey/black clay silt with plaster flecks, pottery, not fully excavated	fill of a void, possibly demolition	7	3
65			surface	0.65	0.51		red brick, header laid surface, possible mortar bond	floor of space/void	4	2
66		67	cut	3.9 E/W	2.90 N/S	1.4	rectangular, vertical sided	cut for concrete support structure	8	3
67	66		structure	0.90 N/S	0.50 E/W	1.5	concrete	concrete support structure	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
68			structure	1m N/S	1m E/W	0.6	concrete 'L-shaped'	concrete support structure	8	3
69			wall	0.60 N/S	0.50 E/W	0.8	brick (engineering), English Garden style, N/S faces, dark mortar	internal factory support wall	8	3
70	66		fill	3 N/S	2.6 E/W	1.5	loose, mid/dark grey/brown clay sand with small stones and red brick/slate fragments	backfill of factory structure cut	8	3
71			layer	4.2 E/W	2.5 N/S		loose, dark grey sand and gravels with occasional rubble and chalk	levelling layer under flagstone floor72 - relationship with wall 46 unclear	4	2
72			surface	1.5 N/S	1.04 E/W		sandstone pieces (260 x 100 - 540 x 920mm), no bonding	flagstone floor associated with walls 46, 48	4	2
74			wall	1.7m NNW/SSE			dark grey sand gravel demolition layer	demolition layer of terrace under 100	7	2
75			wall				red brick in stretcher with yellow/grey bonding mortar, occasional white plaster and remnants of blue and brown/red paint visible	internal cellar wall	4	2
76			wall				red brick standard, stretcher laid, NW/SE faces	internal cellar wall	4	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
77			wall	0.4 ENE/WSW			red brick standard, stretcher laid, NW/SE faces	internal cellar wall	4	2
78			wall	1m	1.05 NW/SE		red brick standard, stretcher laid, NW/SE faces, with yellow/grey sand lime mortar	internal cellar wall	4	2
79			layer	1.9	1.5		loose mid- brown/grey silt sand with charcoal, cola fragments and small pebbles	levelling for flagstone floor 80 - construction	4	2
80			surface				flagstones (500 x 250 x 30 - 250 x 250 x 30mm)	flagstone floor on levelling layer 79	4	2
81			layer	0.8	0.5		dark black fired coal	deliberate deposit of fired coal	7	3
82			layer	2.3		0.3?	dark grey silt sand with fragments of brick, charcoal, plaster, slate	demolition layer of houses	7	3
83			layer	3.5	1.1	0.1	dark grey/black silt sand with coal, charcoal, pebbles, brick	backfill/demolition material	7	3
84			layer	2.8	1.1	0.5	light grey/brown silt sand with brick fragments, slates	demolition layer	7	3
86			layer	4.5	1	0.3	loose, dark grey/brown sand silt with glass, coal, charcoal, brick fragments and slates	concrete backfill	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
88			structure	3.7	0.3	0.13 - 0.30	concrete	factory wall foundation	8	3
89			wall	3.7	1		brick, double header course and foundation with stretchers, mortar bonding	internal factory wall - double skin	8	3
90			layer	3.3	0.7		dark grey/black ash waste with brick fragments and small stones	dump within wall 89	8	3
91			structure	17	12		re-barbed concrete	factory construction over area of Irving Street	8	3
92			layer	2	1.9	0.8	loose, mid/dark grey clay sand with brick fragments, slates, ash waste	demolition layer within cellar walkway - Irving Street demolition 1907	8	3
93			structure	3.3	0.5	0.6	concrete	factory wall foundation - respects remains of house wall 78	8	3
94			layer	3.5	2.6		loose grey/black silt sand with charcoal. And brick fragments	levelling deposit for flagstone floor 95	4	2
95			surface				flagstone pieces - 610 x 470 x 30	flagstone cellar floor	4	2
96			surface				flagstone pieces - 300 x 200 x 30	flagstone cellar floor	4	2
97			surface				flagstone pieces 470 x 360 x 30	flagstone cellar floor associated with wall 50	4	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
98			layer	3.5	1.1		mid- brown /grey clay silt with small pebbles, brick and charcoal fragments	levelling for floor 97 - construction	4	2
99			layer				firm mid/dark grey/brown sand clay with coal waste and clinker, small brick fragments	ground raising/consolidation or levelling layer	4	2
100			structure	4.6	1	0.3	concrete	concrete slab over multiple layers and demolition layer - construction of factory	8	3
101			wall	2.72	2.5	0.4	brick, stretchers and half-bricks, N/S facing, with yellow/grey sand lime mortar	subsiding wall supporting concrete slab? 106 to the south of 47	4	2
102			wall	2.4	0.52	0.4	red brick with yellow/grey mortar	internal party wall - crude construction and not tied into any other wall	4	2
103			structure	2.9	0.6		York sandstone slab (600 x 700mm), roughly dressed	slab sealing void between wall 47 and 101.	4	2
104			surface	3.58	0.51	0.12	stone slabs (60 x 510 x 810mm)	surface/floor and ceiling of void	4	2
105			layer	0.7	0.16		loose, yellow/brown sand clay with brick fragments and small stones	levelling layer for flagstone floor 104?	4	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
106		110	cut	0.75	0.45		V-shaped', sharp break of slope, unknown base, N/S	construction cut for brick lined drain	4	2
107	106		structure	0.7	0.35	0.25	brick without bonding, single course, rough face	brick-lined drain, bonded with backfill	4	2
108			layer	0.1		0.1	loose mid- brown sand clay	deposit at base of drain 107	4	2
109			layer	0.1		0.04	mid/light clay sand with small stones and ash	silting of drain 107	4	2
110	106		layer	0.7	0.4		compact, mid-brown/grey sand clay with sand, stones, and brick fragments	backfill deposit from construction cut 106	4	2
111			wall	4.54		1.28	engineering brick, machine pressed, Common English Garden wall style, 3 stretchers, N/S	cellar wall of later factory structure	8	3
112			surface				concrete	factory basement floor structure	8	3
113			wall	0.57	0.57	1.2	engineering brick, machine pressed, clay and mortar bonding	corner supports for factory basement	8	3
114			structure	0.47	0.47	1.07	engineering brick, machine pressed, clay and mortar bonding	square retaining pillar for factory cellar	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
115			structure	1.5		0.25	concrete	circular concrete platform/pedestal within factory cellar	8	3
116			layer				loose mid/dark grey with concrete fragments, industrial waste, brick, metal	demolition layer for factory	9	3
117			structure				concrete	concrete support for factory basement floor	8	3
118			wall	1.95		0.98	engineering brick, machine cut, Common English Garden, N/S faces	retaining/structural partition wall in factory	8	3
119			wall	2.26		1.3	engineering brick, machine cut, Common English Garden, E/W faces	internal partition in factory	8	3
120			wall	2.3		0.7	engineering brick, machine cut, E/W, dark grey mortar	internal partition in factory	8	3
121			wall	1.42		0.88	engineering brick, machine cut, E/W, dark grey mortar	support or partition wall factory	8	3
122			wall	1.62		1.24	engineering brick, machine cut, E/W, dark grey mortar	support or partition wall factory	8	3
123			structure	0.48	0.48	0.88	engineering brick, machine cut, E/W, dark grey mortar	pillar support of factory structure	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
124		125, 126	cut	2.35	1.6	1.5	rectangular, vertical sides, unknown base	cut for factory concrete support structure	8	3
125	124		structure	1.2	0.8	1.6	concrete	factory concrete support structure	8	3
126	124		layer	1.2		1.6	friable, mid- grey/brown clay sand with brick fragments, slates, crushed mortar	backfill of concrete support 125 cut 124	8	3
127		128, 129	cut	4.3		1.5	rectangular, vertical sides, unknown base, N/S	cut for factory support structure. Truncated another undetermined wall	8	3
128	127		structure	1.3		1.3	concrete	concrete support structure for factory	8	3
129	127		layer	4.3		1.5	friable, mid- grey/brown clay sand with brick fragments, slates, crushed mortar	backfill of concrete support cut 127	8	3
130			structure	3		0.8	concrete	concrete foundation raft for structure	8	3
131			layer	2		0.4	firm mid/light yellow/brown	natural deposit, possibly re-deposited/disturbed beneath wall 54	4	2
132			layer	0.4		0.15 - 0.35	mid/dark grey clay sand	natural silting above 131	4	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
133		134	cut	0.8		0.2	linear? Undefined sides and possibly concave/irregular base, orientated N/S	construction cut for small gully of red brick below west area of wall 54	4	2
134	133		structure	0.28		0.15 - 0.20	red brick, E/W orientation	small brick gully construction	4	2
135			layer	0.8		0.25	loose, dark grey clay sand, frequent small stones, clinker flecks	backfill of disused gully 134	4	2
136		137, 138	cut	0.8		1m	rectangular, vertical sides, unknown base	cut for concrete factory support structure	8	3
137	136		structure	1.5	1.5	0.9	concrete	concrete support structure	8	3
138	136		layer	0.8		1m	mid/dark grey clay sand with brick fragments and mortar flecks, clinker, and ash waste	backfill of construction cut 136	8	3
139			layer	1.8		0.30 - 0.40	concrete	concrete foundation for wall 140	8	3
140			wall	1.9	1.4	0.5	engineering brick, machine cut, E/W and N/S, dark grey mortar	internal factory wall, double skinned	8	3
141			layer	1.8	1.4	0.9	loose, dark grey/brown with clinker and ash waste and brick fragments	backfill within factory wall 140 and concrete structure 139	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
142			layer	3.2	3.2		loose, dark grey/brown with clinker and ash waste and brick fragments with fragments of York sandstone	demolition backfill from terrace removal/disuse	7	3
143			layer				firm light grey sand	natural deposit	1	1
144			layer				mid- grey/brown clay sand, frequent small stone	natural deposit	1	1
145			layer			0.1	firm mid- grey clay sand	levelling deposit/layer	6	2
146			layer			0.4	firm mid- yellow/brown clay sand, with small stones and brick fragments	levelling and backfill of construction cut 153	6	2
147		149	cut	0.6	0.2	0.6	linear, vertical sides, unknown base	construction cut for factory wall	8	3
148			wall	1.6	0.24	0.57	engineering brick, machine cut, E/W, dark grey mortar	internal double-skinned factory partition wall	8	3
149	147		fill	0.6	0.2	0.6	loose dark grey/black clay sand and clinker waste	backfill of cut 147	8	3
150			structure	2.6	1.4	not fully excavated	concrete	internal wall of factory - foundation	8	3
151			wall	2.6	1.4	0.34	brick, machine cut engineering	factory wall	8	3
152			structure	2.6	2	0.5	concrete	factory structure within Wall 151 return	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
153		157	cut	1		0.5	rectangular, vertical sides, flat base	cut for concrete Wall 157	6	2
154			wall	2.7	1.2		red brick handmade, header and stretcher, sand lime mortar bond, occasional plaster patches	internal wall forming building corner	6	2
155			surface	1.3	0.85		brick laid in stretcher on bedding layer	internal floor (cellar/privy?)	6	2
156			structure	0.25	0.25		red handmade brick, laid header and stretcher, grey sand lime mortar bond	possible external stairway support column to cellar	6	2
157			wall	2.1	1.3	0.25	red handmade brick, stretcher laid, SW face, grey sand lime mortar bond, occasional plaster patches	internal cellar wall	6	2
158			structure	1.5	0.5	0.35	stone slab (350 x 40mm - 250 x 180mm) and red brick, stretcher laid, NW/SE	possible drain structure	6	2
159			layer	2.15	0.5	0.35	loose brown/grey sand silt with small pebbles, frequent	construction backfill	6	2
160			layer	2.15	0.5	0.1	loose yellow/grey sand silt with charcoal and brick fragments	levelling layer associated with 161 and 162	6	2

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
161			surface				stone slabs (350 x 550mm - 150 - 200mm, 60mm thick), on bedding layer or orange/green sand silt	floor of building	6	2
162			wall	0.9	0.25	0.2	red handmade brick, header and stretcher mix, SE face, dark brown/grey sand lime mortar bond	internal wall of building	6	2
163			layer	3.15	1.1	0.3	loose grey/brown sand silt with fragments of plaster, stone, brick	demolition layer	9	3
164			layer	1.5	0.2	0.18	loose dark brown/grey sand silt	deposit within drain 158	6	2
165			structure				concrete	concrete foundation remains?	8	3
166			wall	4.1	1	0.5	handmade red brick, stretcher and irregular header laid, grey lime mortar	same construction event as 175, large flagstone also sits on foundation course	5	2.1
167			layer	7	1	1.3	loose dark grey/brown clay sand with small stones, brick fragments and tile pieces, clinker, and ash waste	backfill deposit between walls 178, 175 and 166, above brick and flagstone surface 179	7	3
168			structure	3.6	2	0.6 - 0.8	concrete	factory structure	8	3

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
169			structure	3.7	3.1	1.7	concrete	factory structure with remains of pipe service	8	3
170			structure	3.1	1.5		concrete	rectangular base within structure 169, including steel beam orientated E/W	8	3
171			structure	1.22	0.27	0.2	concrete	three rectangular concrete blocks within wall 173, associated with factory cellar?	8	3
172			wall	7	0.24	1.1	red machine cut brick, stretcher laid, with dark grey heavy cement bonding mortar	circular? basement wall, double-skinned, factory cellar west wall, includes integral step 171	5	3
173			wall	7	0.4	1.2	red machine cut brick, stretcher laid, with dark grey heavy cement bonding mortar	probably reused brick, associated with wall 172 to the east. Similar mortar. Subject to alterations including insertion of pipe. Also tile element of five courses, Contemporary with Wall 172	5	3
174			wall	7.86	0.23	0.30 - 0.40	red handmade bricks, stretcher and irregular header laid, light grey lime mortar, double skinned, W/E with short length N/S	possibly element of privy construction with possible evidence for waterproofing	5	2.1

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
175			wall	3.3	1	0.23	red handmade bricks, stretcher and irregular header laid, light grey lime mortar, double skinned, N/S with short E/W return	L-shaped' double-skinned wall of possible. Wall returns to the east at the start of the flagstone surface 178. Associated with Wall 174. Flagstone set at the end of E 178, lower face sits on foundation course of 175 and 166	5	2.1
176			layer	3.4	0.78	0.25 - 0.50	loose mid/light yellow/brown clay sand with red brick fragments, roof tile, sandstone pieces	backfill material below walls 174 and 175, 166. Backfill below privy structure with possible later 'regulation' alterations (1870's)	5	2.1
177			layer	7.8	0.54	0.4	loose dark grey/brown clay sand with red brick fragments, stone, and fractured tile pieces	backfill material between walls 173 and 174 - contains basic toilet 'U-bend' pedestal	7	3
178			wall				red handmade brick, generally Common English Garden pattern, 5 stretcher courses with irregular header, E/W faces, double-skinned	possible East gable wall of terrace to west of privy/midden - includes north return eastwards	5	2.1

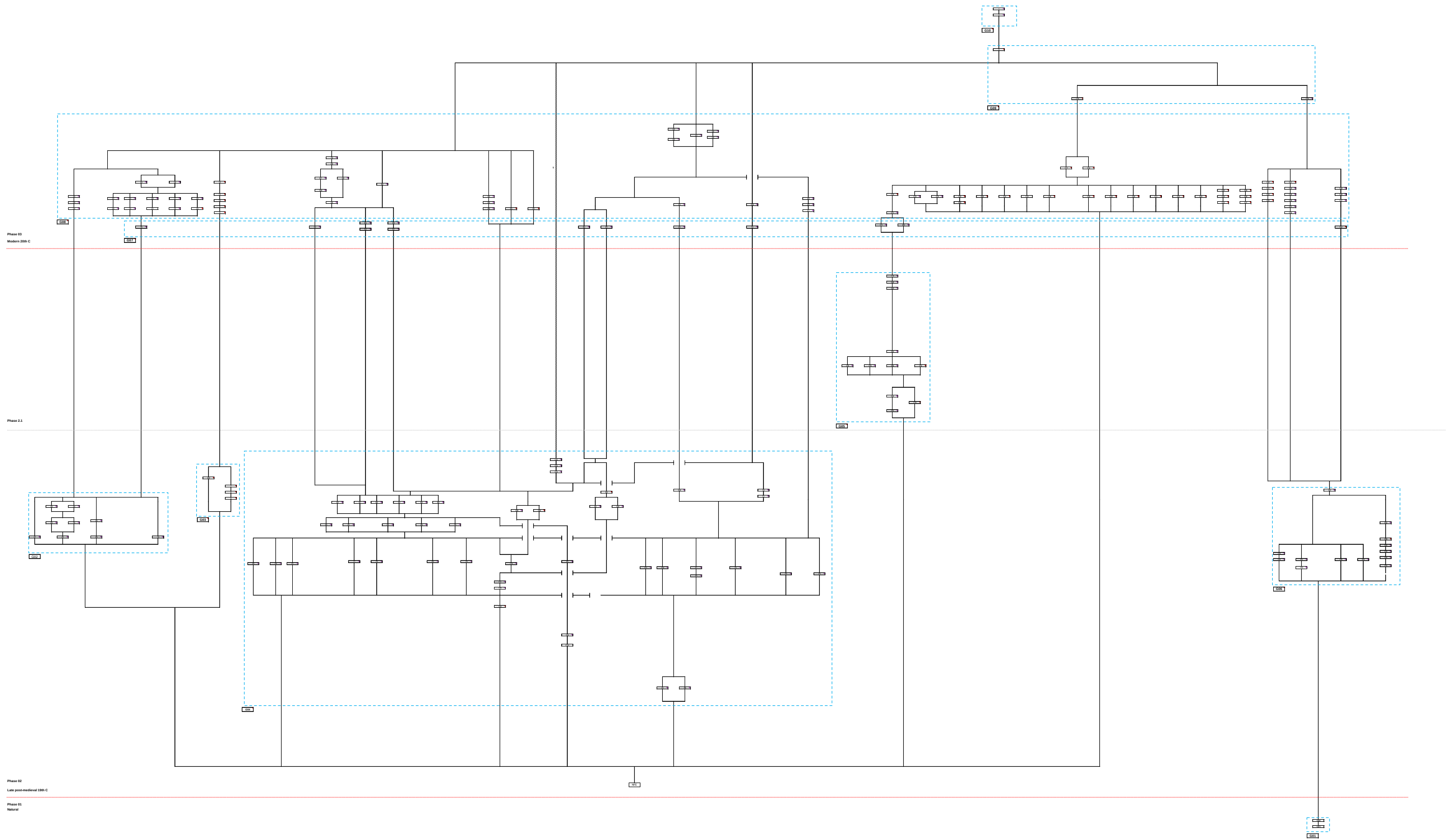
Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
179			surface				red handmade brick and York flagstone	surface/floor to walkway, remains of single step at the northern extent and the line of cut 127. The wall to the west 178 may represent the gable to terrace, surface may be connected to the privy/midden.	5	2.1
180			Finds				unstratified finds			
181			Finds				unstratified finds			
182			layer				firm mid/light grey clay silt with stone, sandstone fragments and crushed mortar	ground consolidation, raising or levelling layer for privy structure	5	2.1
183		184	cut				linear with assumably vertical sides, probably flat base, orientated N/S and E/W, not fully excavated	construction cut of multiple walls within possible privy construction	5	2.1
184	183		fill				loose mid grey sand with small stones and brick fragments	construction cut fill	5	2.1

Context No	Fill of	Filled By	Type	Max' Length (m)	Max' Width/ Diameter (m)	Depth/ Thickness (m)	Description	Interpretation	Group	Phase
185			layer				loose black clay sand with small stones and fragments of sandstone	levelling deposit	5	2.1
186			layer				loose mid- grey sand with small stones and clinker	levelling deposit below brick floor 179 - privy	5	2.1
187			structure	0.45	0.11	0.4	York sandstone, rough facing, pin kerbs,	footpath along Poplar Street	3	2

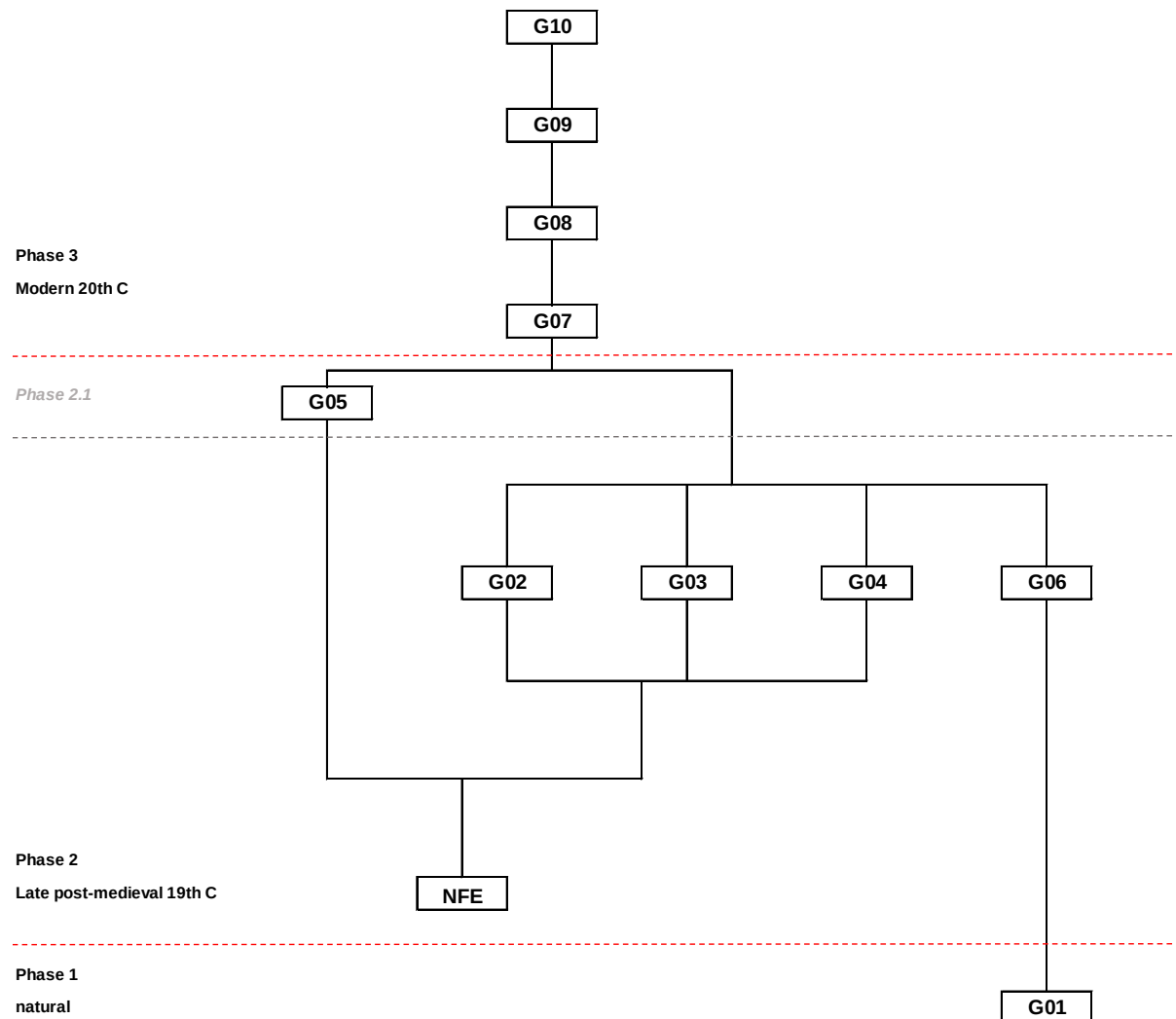
APPENDIX 2: GROUP INDEX

Group No.	Contexts	Phase	Description
1	143, 144	1	natural
2	37, 31, 35, 13, 36, 14, 32, 33, 34	2	Agnes St. south - terrace construction
3	5, 6, 7, 187	2	Agnes St / Poplar St. - road construction
4	131, 132, 54, 104, 77, 76, 50, 78, 106, 107, 110, 98, 51, 94, 59, 79, 52, 97, 96, 95, 60, 80, 108, 109, 81, 133, 134, 135, 102, 101, 46, 47, 49, 75, 48, 51, 99, 103, 71, 72, 55, 56, 58, 57, 65, 105	2	Agnes St. / Irving Street back to backs construction
5	182, 183, 178, 175, 176, 166, 174, 184, 186, 179, 185	2.1	Irving St / Poplar St. - privy alterations construction (between 1896 - 1905 OS)
6	154, 155, 153, 157, 156, 145, 146, 158, 164, 159, 162, 160, 161	2	Poplar St. north construction
7	15, 83, 84, 81, 82, 45, 74, 177, 167, 142, 64, 61, 92	3	terrace demolition / disuse
8	28, 29, 30, 26, 27, 19, 20, 21, 22, 16, 17, 25, 23, 18, 8, 9, 10, 11, 12, 66, 130, 67, 68, 69, 70, 86, 62, 63, 88, 89, 90, 93, 91, 53, 39, 38, 100, 41, 42, 43, 171, 119, 169, 170, 168, 114, 113, 118, 115, 117, 112, 122, 120, 111, 121, 123, 124, 125, 126, 127, 128, 129, 165, 150, 151, 152, 136, 137, 138, 139, 140, 141, 147, 148, 149, 38, 39, 40, 24, 172, 173	3	factory construction
9	3, 116, 163	3	factory disuse / demolition
10	1, 2	3	carpark construction

APPENDIX 3: CONTEXT MATRIX



APPENDIX 4: GROUP MATRIX



APPENDIX 5: THE POTTERY

Chris Jarrett

Introduction

A small sized assemblage of pottery was recovered from the site (one box). The pottery dates mostly to the 19th-20th century. None of the pottery is abraded or laminated or considered to be residual or intrusive, indicating that the majority of the pottery was deposited fairly rapidly after breakage and mostly under secondary circumstances. The pottery, however, was recovered mostly from demolition layers and therefore tertiary deposition is more likely. The state of fragmentation of the assemblage can be defined as mostly sherd material, although 18 vessels are present with complete profiles and two vessels are intact. The pottery was quantified by sherd count (SC), estimated number of vessels (ENVs), besides weight. Pottery was recovered from seven contexts and the sizes of the groups of the pottery are all small (fewer than 30 sherds).

In total the assemblage consists of 112 sherds, 82 ENV, 7.514kg (of which none was unstratified, although 23 sherds, 17 ENV, 1.355kg of pottery came from two unstratified contexts). The assemblage was examined macroscopically and microscopically using a binocular microscope (x20), and recorded in a database format file by fabric, form and decoration. The pottery is discussed by its distribution and types. The pottery types have been classified according to the coding system used by the Museum of London (2014) or suitable alphabetical codes were cross referenced to this.

The assemblage

The range of pottery types and their quantification, additionally showing the forms present in the different ware types, is displayed in Table 1.

English stonewares and twice-fired factory made refined earthenwares occur in similar proportions: 40 and 39 ENV respectively.

Table 1: Post-medieval pottery types (and their forms) quantified by sherd count (SC), estimated number of vessels (ENV) and weight

Pottery type	Code	Date range	Sc	ENV	Wt (g)	Forms
Blackware	BLACK	1600-1900	1	1	504	Bowl: deep flared
Bone china with lustre decoration	BONE LUST	1794-1900	2	2	119	Teacup, breakfast size, unidentified
Continental porcelain	CONP	1710-1900	1	1	75	Vase
Derbyshire stoneware	DERBS	1700-1900	1	1	56	Jug: rounded,

Pottery type	Code	Date range	Sc	ENV	Wt (g)	Forms
English brown salt-glazed stoneware	ENGS	1700-1900	6	6	1342	Blacking pot, bottle: cylindrical, ginger beer, ink bottle: dwarf, lid: flat
English stoneware with Bristol glaze	ENGS BRST	1830-1900	50	33	3305	Bottle or jar, bottle: cylindrical, Jar: medium and squat cylindrical, Lid: flat, unidentified
Jasper ware	JASP	1775-1900	1	1	13	Jug: octagonal,
Majolica	MAJO	1850-1900	4	1	229	Jug: pear-shaped
Miscellaneous unsourced medieval/post-medieval pottery	MISC	900-1500	1	1	12	Flowerpot
Pearlware with under-glaze polychrome-painted decoration in 'earth' colours	PEAR ERTH	1790-1820	1	1	19	Teacup
Refined white earthenware with under-glaze polychrome-painted decoration in 'chrome' colours	REFW CHROM	1830-1900	2	2	6	Teacup, unidentified
Refined whiteware with under-glaze painted decoration	REFW PNTD	1805-1900	1	1	32	Jug: octagonal
Refined white earthenware with slip decoration	REFW SLIP	1805-1900	6	6	185	Bowl: medium carinated, jug, saucer, unidentified
Refined white earthenware with cut-out sponged decoration	REFW SPON1	1830-1900	3	3	213	Bowl: medium rounded, coffee cup, plate: dinner size, saucer,
Refined whiteware with under-glaze transfer-printed decoration	TPW	1780-1900	24	14	1075	Bowl: : medium and deep rounded, chamber pot, dish: deep, jug, including barrel-shaped, plate: dinner, saucer, teacup: London-shape, unidentified
Refined whiteware with under-glaze transfer-printed 'flow blue' decoration	TPW FLOW	1830-1900	1	1	6	Bowl or dish

Pottery type	Code	Date range	Sc	ENV	Wt (g)	Forms
Refined whiteware with under-glaze brown or black transfer-printed decoration	TPW3	1810-1900	3	3	107	Jar: medium cylindrical, teacup, breakfast size
Refined whiteware with under-glaze colour transfer-printed decoration (green, mulberry, grey etc)	TPW4	1825-1900	2	2	193	Lid, Teacup, breakfast size,
Refined whiteware with under-glaze transfer-printed and over-glaze painted decoration	TPW6	1810-1900	1	1	19	Saucer,
Yellow ware with slip decoration	YELL SLIP	1820-1900	1	1	4	Unidentified

English stonewares account for 50.9% sherds, 48.8% ENV, 62.6% weight of the pottery assemblage. Salt-glazed English stoneware (ENGs) is represented mostly by 19th-century bottles. Two ginger beer bottles with blob rims were recorded in context (167), one of which is intact and the other nearly so, except for damage to the rim, and the latter has, near the base of the vessel, a dated oval stamp that reads 'J. BOURNE & SON/PATENTEES/DENBY POTTERY/NEAR DENBY/1869'. The base of another cylindrical bottle with a J. Bourne, Denby Pottery, dated from 1812, with a finger dent across the stamp, was noted in context (62). A late 19th-century squat intact blacking paste pot with a rim diameter of 38mm and a height of 48mm was unstratified (180), while a squat dwarf ink bottle was only missing its rim and was found in context (167). A flat rim that was almost intact, except for chips to the surface, has a bevelled edge and a squat cylindrical knob and came from context (62).

English stoneware with Bristol glaze (ENGs BRST), dated from 1830, was the most frequent pottery type recorded in the assemblage (see Table 1). Flat lids (25 ENV) were the most frequently recorded form in both this pottery type and the assemblage. These covers, with diameters of 100–130mm can have either a flat top or bevelled top with a concave depression and all of the lids have 'button'-type clubbed knobs with diameters of 26–36mm. The glaze colours range from olive-green to brownish yellow. The undersides of the lids are often concave, roughly finished and unglazed and are therefore not a uniform product. A single vessel was noted in deposit (74), two examples came from context (62), while 18 items were noted in layer (82). There are no other vessels in the assemblage to indicate what the lids were covers for. Similar lids are known to have covered, lime and tripe, besides tobacco jars in the 1873 stoneware catalogue of James Stiff. Lambeth (Green 1999).

Additional ENGs BRST vessels consist of two cylindrical bottles, possibly beer or ginger beer bottles, with black-printed marks that date to after c.1890. Two vessels from context (62) consist of a basal sherd with a black-printed circular mark of 'G. ...S . MANCHESTER.' around central scrolls and '...23/MILL STREET/BRADFORD, while a second vessel is represented by a sherd with just the scrolls and '[BRADFO]RD' surviving. The second bottle was found in deposit (74) and has an oval printed mark of '...OWD', above '...TERERD' above a heart containing '?B'. and 'MARK' over '...RK ST.../...W RO'.

Fragments of three large bottles or jars were noted in context (82). Six moulded cylindrical jars for the retailing of processed foods were recorded, these have an external groove below the rim and the walls are decorated with narrow panels containing fine fluting. Four medium cylindrical jars were noted in deposit (82) and a squat and medium sized example was noted in deposit (62).

Pottery made in several locations across Britain accounted for 46.4% sherds, 47.6% ENV, 29.5% weight of the assemblage, however the pottery was most likely to have come from Staffordshire and The Potteries besides possibly Liverpool, as these were the closest sources for these wares to Manchester. None of vessels, however, have makers marks to indicate where the pottery came from. The larger proportion of this group of pottery consists of industrial fine wares, such as the bone china, and particularly refined whiteware, either plain (REFW) or decorated (REFW CHROM/PNTD/SLIP/SPON1 or TPW/FLOW/3/4 and 6). The refined whiteware bodied vessels totalled 39.5% sherds, 41.7% ENV, 25.5% weight. One or two vessels occur in other factory made refined whiterwares: bone china with lustre decoration (BONE LUST), Jasper ware (JASP), pearl ware with earth colour painted decoration (PEAR EARTH), dating to the late or end of the 18th-19th century (see Table 1), while English majolica (MAJO), dated from 1850, was the latest pottery type recorded in the assemblage. A small sherd of yellow ware with slip decoration (YELL SLIP), dated from 1820, was also recorded.

The forms in the industrial finewares include kitchen, table (bowls and plates) and tea wares (tea cups and saucers, besides the odd sanitary ware (a chamber pot) and food retail forms (cylindrical jars). Many of the refined whiterwares (REFW CHROM/PNTD/SLIP and SPON1) are associated with lower socio-economic groups and include 'cheap and cheerful' patterns, while the transfer-printed wares include poorly applied patterns and probably represent seconds. The table wares include a REFW SLIP medium rounded bowl rim with a pair of two sage slip lines banding two mid blue bands, noted in context [180] and a REFW SPON1 robust medium rounded bowl has an external blue vertical oval sponging pattern, context (167). A REFW SPON1 dinner plate is decorated internally with a band of blue sponged flowers consisting of three concentric circles of petals. While the centre of the vessel is plain and was unstratified (181). The tea wares etc, consist of a REFW CHROM tea cup with a maroon line below the external rim and are dated from c.1870 and came from context (74), while a REFW SPON1 deep, narrow coffee cup has a pedestal base and the exterior has green decoration consisting of a crudely painted sinuous line above a border of a large diamond containing crosses alternating with two smaller diamonds. That item was recovered from context (167) and was found with a REFW SPON 1 saucer decorated internally with a dark green band on the rim, while the wall has black curving lines for the stems that end in purple simple flower buds, while mid stem there is a dark green star type motif. Two jugs are represented that consist of a REFW PNTD octagonal jug splayed base decorated with marron lines below green and maroon leaves, noted in context (180) (unstratified), while a possible barrel-shaped jug made in REFW SLIP has blue slip decoration consisting of three lines above a broad blue band and was noted in context (167).

Concerning the transfer-printed whiteware, the Willow pattern is quite poorly represented and was noted on dinner plates found from unstratified finds context (181) and a deep dish from deposit (62), while the

similar Chinoiserie Broseley pattern, dated to the mid-19th century, was noted on a London-shape tea cup found in context (167) and three saucers, one of which was found with the tea cup and two examples were noted in deposit (180). A single dinner plate has the c.1830–1910 dated Asiatic Pheasants design, found in context (181). The complete profile of a barrel-shaped jug is decorated with a chinoiserie design consisting of an internal scroll border and an external pattern of scrolls with occasional cherry blossom and lotus flowers. The vessel has an internal reddish purple deposit and the item was the sole find from deposit (15). Mid-19th century European floral patterns were noted on a deep rounded bowl, possibly a small wash basin and a jug, found in deposit (167), while a long oval lid fragment, probably derived from a dressing table vessel, has a green (TPW4) poorly placed wild rose pattern and is probably of a late 19th-century date and came from context (74). Two vessels have geometrical patterns. The first vessel consists of a deep porringer shaped, breakfast-size tea cup with dark green art nouveau scrolls and trefoil leaf terminals that form a linear border on the external wall or as a circular motif applied the centre of the interior base and was found in context (167). A saucer has a TPW6 late 19th-century design consisting of a brown-printed rope border on the rim above a blue painted narrow band over a brown printed rope border from which hang semi-circle loops of rope. The find came from unstratified finds context (181). Mid- 19th-century European designs were noted as a medium rounded bowl with an internal border featuring cartouches and a roundel containing an urn, which was unstratified (180) and a chamber pot base with an internal landscape. A breakfast shape teacup has a brown-printed design (TPW3) featuring three different urns sat on an angular pedestal, while the background landscape features classical columns. The interior of the teacup has a Greek key border and the find was unstratified (181). Found with the latter was a black-transfer-printed medium cylindrical jar made for Keiller's marmalade and the legend has part of a commendation awarded in 1862 and dates from then until 1872 when another award was won by the company.

The other factory-made fine wares consist of BONE LUST noted as a non-diagnostic sherd with a fluted body and external pink lustre foliage decoration; this came from context (74), while the base of a deep porringer-shaped breakfast-sized teacup with an internal central gilded flower motif, was recorded in context (62). One of the earliest dated items in the assemblage was the base of a teacup made in pearlware with earth colour painted decoration found in deposit (62). A low quality moulded jug made in jasper ware (JASP), with a porcelaneous body, has on the surviving rim a square panel with a human head – this was unstratified (181). A moulded pear-shaped jug made in English majolica survives as the base with a moulded design consisting of a basket weave (yellow-glazed) and the upper body has green-glazed moulded leaves and prunus flowers (painted pink and white) on a brown glaze background. The interior of the vessel has a turquoise glaze.

Red earthenwares occur as two vessels. A deep flared blackware (BLACK) bowl, dated 1600–1900, has an everted squared rim 500mm in diameter although this was unstratified (180). A body sherd of a flowerpot occurs in a miscellaneous (MISC) silty, soapy, inclusion free pale red fabric and was noted in context (82).

The only imported pottery recorded in the assemblage was Continental porcelain (CONP), which survived as the moulded oval base of a vase in the form of a possible cornucopia-shaped receptacle with a convolvulus-type flower, painted dark blue with gilded highlights, on the left side. The concave underside of the base has a moulded mark of “178/2”, beside two blue painted dots and a brown painted 63 number. The item was found in context (167).

Distribution

The distribution of the pottery is displayed in Table 2 shows the contexts containing pottery, the area, the phase, the number of sherds, ENV and weight, the earliest and latest date of the most recent pottery type (Context ED/LD), the pottery types and forms present and a considered (spot) date for the group. Pottery was recovered only from Area A and from Phases 2 -3 dated deposits. Pottery was recovered only from layers. The pottery is discussed by phase.

Table 2: Distribution of the pottery showing for each context containing pottery, a description of the context, the phase it occurs in, the size of the deposit, its quantification by sherd count (SC), estimated number of vessels (ENV), weight and estimated vessel equivalents (EVEs) as well as the date range of the latest pottery type (Context ED/LD), the pottery types and forms present and a suggested spot date for the deposition of the deposit.

Context	Trench	Phase	SC	ENV	Wt (g)	Context ED	Context LD	Pottery types (forms)	Spot date
15	A	3	7	1	434	1780	1900	TPW (jug: barrel)	19th century
62	A	3	16	13	1052	1830	1900	ENGs (bottle: cylindrical, lid: flat) , ENGs BRST (bottle: cylindrical, jar: squat and medium cylindrical lid: flat, unidentified), PEAR EARTH (tea cup), , TPW (chamber pot, dish: deep), TPW FLOW (bowl or dish), YELL SLIP (unidentified)	C.1890–1930
74	A	2	7	6	258	1830	1900	BONE LUST (unidentified), ENGs BRST (bottle: cylindrical, lid flat), REFW CHROM (cup tea), TPW3 (tea cup), TPW4 (lid)	C.1890–1930
82	A	3	45	31	2502	1830	1900	ENGs BRST (bottle or jar, jar: medium cylindrical, lid: flat), MISC (flowerpot), REFW CHROM (unidentified), REFW SLIP (unidentified), TPW (unidentified)	Late 19th–early 20th
167	A	3	16	16	2024	1830	1900	BONE LUST (teacup: breakfast size), CONP (vase), ENGs (bottle: ginger beer, ink bottle:	C.1869–1900

Context	Trench	Phase	SC	ENV	Wt (g)	Context ED	Context LD	Pottery types (forms)	Spot date
								dwarf), REFW SLIP (jug, saucer), REFW SPON1 (bowl: medium rounded, coffee cup, saucer) , TPW (bowl: deep rounded, teacup: London shape, jug, saucer), TPW4 (teacup: breakfast size)	
180	U/S		14	8	1011	1850	1900	BLACK (bowl: deep flared), ENGS (blackening paste pot), MAJO (jug: pear-shaped), REFW PNTD (jug: octagonal), REFW SLIP (bowl medium carinated) , TPW (bowl: medium rounded, saucer),	1850–1900
181	U/S		9	9	344	1830	1900	DERBS (jug: rounded), JASP (jug: octagonal), REFW SPON1 (plate: dinner), TPW (plate, dinner), TPW3 (jar: medium cylindrical), TPW6 (saucer)	C.1862–1900

Phase 2, 19th century

The demolition layer (74) of the houses produced of note an ENGS BRST flat lid, a TPW4 oval lid for a possible dressing table item, while the most datable item was an ENGS BRST cylindrical bottle with a black-printed mark that dated the deposit to c.1890–1930.

Phase 3, Modern

The demolition layer (15) within the cellar entry way produced solely a TPW barrel-shaped jug with a Chinoiserie scroll and floral design that was broadly dated to the 19th-century.

The levelling layer (62) for the possible factory construction was dated c.1890–1930 by the occurrence of an ENGS BRST cylindrical bottle with a black printed label.

The backfill deposit (167) between walls (178), (175) and (166), was dated c.1869–1900 by the occurrence of the ENGS ginger beer bottle with the Bourne of Denby Pottery with an 1869 dated stamp.

The demolition layer of houses (82) was notable for the cache of some 18 ENGS and ENGS BRST flat lids, whilst the latest datable form were the ENGS BRST cylindrical jars that date mores to the late 19th and early 20th century.

Significance, potential and recommendations for further work

The pottery has little significance at a local level as much of the assemblage appears to have been derived from demolition and levelling layers and the finds may have been derived from offsite sources. The pottery assemblage contains 'cheap and cheerful' vessels that indicate the presence of a lower socio-economic group living or working on the study area. The assemblage is comparable with other pottery assemblages in the Greater Manchester area and includes that from previous PCA excavations on First Street (Jarrett 2017a; 2023), besides that of Greengate Towers, Salford (Hughes 2007; Bradley 2014), the Greengate Railway station (Jarrett 2015a), 16 Chapel Street, Salford (Jarrett 2015b) and Great Ancoats Street (Jarrett 2017b).

The pottery has the potential to date the deposits it was recovered from. There are no recommendations for further work on the pottery assemblage, which can be discarded at the archive stage of the project.

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APPENDIX 6: ANIMAL BONE

Karen Deighton

Introduction

A small amount of animal bone was hand collected from four contexts during an excavation.

Method

Material was analysed using standard zooarchaeological methods (see references) and the results were recorded onto an access database.

Condition of bone

Fragmentation was fairly low with 45.4% on bone 75% or more complete. Bone surface erosion was at a low level. No evidence for canid gnawing was observed. Chop marks were noted on two bones and saw marks on one bone. The presence of saw marks can be indicative of a late date post medieval date as the use of the saw in butchery did not become prevalent until the late eighteenth/early nineteenth century.

The taxa present.

Table 1: Phase 2 Taxa by context (minimum anatomical unit)

Context/cut	Cattle	pig	Total
74	1	1	2
Total	1	3	2

Table 2: Phase 3 Taxa by context (minimum anatomical unit)

Context/cut	CSZ	SSZ	pig	SMA	CHIK	GS	Total
15				2			2
62			1			1	2

Context/cut	CSZ	SSZ	pig	SMA	CHIK	GS	Total
82	1	2	1		1		5
Total	1	2	2	2	1	1	9

Key: CSZ=Cattle size, SSZ=sheep/goat size, SMA=small mammal, Chik=chicken, GS=goose

Unfortunately, 45% of the assemblage could be categorised by size only. The remainder of the assemblage comprises common food domesticates. The range of taxa and presence of butchery evidence tentatively suggests the origin of the assemblage to have been as domestic waste.

Potential, significance and recommendations.

Significance and potential are limited by the moderate size of the assemblage and the high frequency of fragmentation. No further work is recommended on the current assemblage.

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APPENDIX 7: METAL AND SMALL FINDS

Märit Gaimster

Introduction

In total, seventy-two individual metal and small finds were recovered from the excavations along with the remains of two leather shoes; they are catalogued in the table below. Thirty of these objects came were unstratified. However, given that the phased finds are all from demolition or levelling layers it is probably sensible at any rate to treat the whole assemblage as a single group, reflecting the working class population in the area during the 19th and early 20th centuries. The finds will therefore be discussed here in terms of the different finds categories represented in the assemblage.

Buildings and household furnishings

A dozen objects can be related to buildings and household furnishings. While there are few structural or internal fittings among the finds, the group is dominated by five copper-alloy spoons and teaspoons, often heavily broken up and corroded. In one case, from unstratified context (180), two stamps on the back of the characteristic fiddle handle indicate this was a silver-plated item. Another item relating to food and beverage is the glass stopper from a Cod soda bottle (SF 55) from Phase 3 demolition layer (15). Also perhaps best related to household activities, are two copper-alloy sewing pins from Phase 3 demolition layer (82) and unstratified context (44). A particularly nice object, potentially relating to sewing and household textile work, is the remains of a bone container with internal threading at both ends (SF 1). The container is lathe turned but is also decorated with carved leaves around the wider end. Recovered from Phase 2 flagstone floor [81], this is likely a container for sewing implements or perhaps for holding a bobbin of thread, as indicated by a small transverse perforation near the narrow end.

Dress accessories and personal items

Twelve objects fall into this category, dominated by five copper-alloy shoe or clog fasteners. These characteristic items, usually tongue-shaped and curved to fit the upper part of the shoe, had an anchor-shaped finial at the rounded end that was bent and fitted into the leather. One of the plates would have had a hook at the front, that would slot into one of the rectangular openings in the corresponding plate (cf. Bailey 1992, 13–17). At Plot 10b, they were recovered from Phase 3 levelling layers (15) and (62) and unstratified context (44). The remains of a child's leather lace-up boot were also recovered from levelling layer (15), while a decayed man-size boot came from the backfill (177).

Two small shell buttons came from Phase 2 demolition layer (74) while another small button of copper alloy (SF 20) embossed with wavy lines on a lined background was retrieved from unstratified context (44); the remains of a chignon-style plastic comb also came from this context. Unstratified context (1800) produced a further copper-alloy globular button or pendant (SF 37) along with further dress accessories

in the form of a small copper-alloy disc brooch (SF 36), a D-shaped copper-alloy buckle (SF 45) and the remains of a globular bead of turquoise glass (SF 33).

Children and playthings

The presence of children is reflected in the largest individual finds category recorded on site in the form of seventeen toy marbles and five gaming pieces, along with a slightly larger ceramic alley (SF 56). The toy marbles, mostly of white marble with at least one decorated with painted circumferential lines, but also of other stone as well as ceramic, are frequent finds of the period, reflecting the play of children in the streets. They include one (SF 2) from Phase 2 flagstone floor [81] and another from demolition layer (74) with the majority from Phase 3 contexts. The gaming pieces, in the form of cubes with ribbed sides, reflect a popular game played by Victorian and Edwardian children; called 'fivestones' or 'Jacks', this was based on the much older game called knucklebones. At Plot 10b, four of the pieces are white-glazed (SF 27 and 35) with the fifth glazed dark green (SF 26). The latter came from Phase 3 demolition layer (15) with most of the white pieces from unstratified context (180). Another aspect of childhood is likely reflected in slate pencils with one (SF 54) retrieved from Phase 3 levelling layer (62) and two (SF 42) from unstratified context (180).

Religion and beliefs

A particularly interesting find is an oval copper-alloy medal featuring Mary with the inscription 'O HOLY MARY EVER VIRGIN AND CONCEIVED WITHOUT SIN//PRAY FOR US WHO...' (SF 34). This is likely a so-called Miraculous Medal, a highly successful 19th-century Catholic devotional item that originated from the French nun Catherine Labouré's visions of the Virgin in 1830 (Ajmar and Sheffield 1994). The medal is perhaps best understood in the context of the many Irish immigrants who settled in Manchester during the second half of the 19th century, with the area known as Little Ireland situated just to the north-west of the First Street South site. It came from unstratified context (180).

Trade and manufacture

This category is dominated by copper-alloy coins, reflecting petty cash transactions in a working class community. The twelve coins recovered from site are dominated by Victorian issues, or likely such, and mostly from the period 1860–95. The earliest coins are represented by two halfpennies of George III, with one (SF 55), from Phase 2 levelling layer (59), indicating a mint date of 1799. The date or issue of the second coin (SF 16), from unstratified context (44), is unclear. Both coins may have been kept and curated, although theoretically would have been legal tender for a long time. The latest coin recovered from site is an Edward VII farthing (SF 9) which would have been minted between 1901–10; it came from Phase 2 levelling layer (51). In addition to the coins there was little obvious evidence of trade or manufacture among the metal and small finds. The origin of a small lead plumb or bag seal stamped '552' (SF 12), from unstratified context (44), is unknown. It is also unclear whether the saw medallion (SF 11) from Phase 3 backfill/demolition layer (83) reflects commercial woodworking or simply a household tool.

Significance and recommendations for further work

As with previous work at First Street South, the metal and small finds from Plot 10b provide an insight into working class households and daily life in this part of Greater Manchester during the 19th and early 20th centuries, periods that are still frequently neglected in archaeological publications (although see Crewe 2012; License 2015). In this phase of work, the assemblage of metal and small finds in particular includes dress accessories, with shoe/clog fasteners an important component, as well as numerous playthings reflecting the presence of children. Individual finds of particular interest include a Catholic devotional medal (SF 34) and a saw medallion (SF 11). These finds and other relevant objects should be included in any further publication or outreach work related to the site. For this purpose, it would be beneficial to have the Catholic medal cleaned by a conservator to enable a full identification; for the same reason it would also be good to x-ray the small circular copper-alloy brooch (SF 36). Undiagnostic and fragmented metal finds may be discarded ahead of archiving, along with the two decayed leather shoes; these are annotated in the table below.

Table 1: Metal and Small Finds Catalogue

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
PH 2	4	51	Levelling layer	10	coin	Copper-alloy coin; complete but heavily corroded; Victoria 'bun head' penny	1860–95	1
PH 2	4	51	Levelling layer	9	coin	Copper-alloy coin; complete but heavily corroded; Edward VII farthing	1901–10	1
PH 2	4	59	Levelling layer	55	coin	Copper-alloy coin; complete but heavily corroded; George III halfpenny; 'draped bust', Soho mint 1799	1799	1
PH 2	4	79	Levelling layer	6	coin	Copper-alloy coin; complete but very heavily corroded; illegible but likely a pre-1860 farthing; diam. 23mm	pre-1860	1
PH 2	4	81	Flagstone floor	1	sewing?	Bone container; incomplete tapering with interior threading at both ends; lathe-tuned with mouldings across body and carved leaves at wider end; small transverse perforation near narrow end; near-complete domed and threaded lid for wider end survives; diam. 20–25mm; L 86mm		1

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
PH 2	4	81	Flagstone floor	2	plaything	Ceramic marble with yellow and brown marbled glaze; diam. 20mm		1
PH 2	7	74	Wall, demolition layer	7	coin	Copper-alloy coin; complete but very heavily corroded; illegible but likely Victoria 'bun head' halfpenny; diam. 25mm	1860–95	1
PH 2	7	74	Wall, demolition layer		dress	Shell buttons; two small complete; one with dished face and four eyes, the other with oval recess for two eyes; diam. 10mm		2
PH 2	7	74	Wall, demolition layer		plaything	Toy marble of grey stone; complete; diam. 15mm		1
PH 3	7	15	Demolition layer	22	coin	Copper-alloy coin; complete but heavily corroded; likely Victoria 'bun head' issue halfpenny	1860–95	1
PH 3	7	15	Demolition layer	26	plaything	Ceramic gaming piece; dark green glazed irregular c 15 x 15mm cube with flat top and bottom and ribbed sides; height 18–20mm		1
PH 3	7	15	Demolition layer	55	plaything	Toy marble of white marble; complete white with vivid green concentric circles at both poles and single red circumferential line at centre; diam. 16mm		1
PH 3	7	15	Demolition layer	55	household	Glass marble; complete of clear green glass; ?toy marble or from Cod soda bottle?; diam. 18mm		1
PH 3	7	15	Demolition layer		dress	Copper-alloy shoe/clog fastener; one near-complete tongue-shaped plate with rectangular openings; W 17mm; L 22mm		1
PH 3	7	15	Demolition layer		buildings	Copper-alloy bracket; cast with single hole for fastening at end of one arm; W 9mm; ht. 35mm; reach 35mm		1

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
PH 3	7	15	Demolition layer		u/k	Copper-alloy fitting; cast complete with tongue-shaped opening at each end; larger opening set with serrated plates at back, forming a V-shaped internal opening; W 15–20mm; L 32mm		1
PH 3	7	15	Demolition layer		buildings	Copper-alloy strap mount; complete but corroded with rounded finials; in-situ iron nail at each end; W 16mm; L 60mm		1
PH 3	7	15	Demolition layer		buildings	Copper-alloy strap; corroded and squashed in antiquity; W 10mm; L 85mm		1
PH 3	7	15	Demolition layer		plaything	Toy marbles; two ceramic, one complete buff coloured, diam. 14mm; one half pink coloured, diam. 16mm		2
PH 3	7	15	Demolition layer		plaything	Toy marbles; three complete of white marble; diam. 11, 16 and 20mm		3
PH 3	7	15	Demolition layer		dress	Leather shoe; heavily decayed and fragmented remains of child's lace-up boot with square toe; toe part W 60mm, L 100mm		1
PH 3	7	82	Demolition layer		sewing	Copper-alloy pin; complete but corroded; flat stamped head; gauge 0.97mm; L 30mm		1
PH 3	7	83	Backfill/demolition	11	tool	Copper-alloy saw medallion; circular sunken face stamped with St George and the Dragon with 'WARRANTED' above and 'SUPERIOR' below; short solid shank; diam. 25mm; shank L 9mm+		1
PH 3	7	177	backfill between walls 173 and 174		dress	Leather shoe; heavily decayed remains of man's lace-up boot with square toe; L 260mm		1
PH 3	8	62	Levelling layer	27	plaything	Ceramic gaming piece; white-glazed c 15 x 15mm cube with flat top and bottom and ribbed sides; height 18mm		1

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
PH 3	8	62	Levelling layer	53	coin	Copper-alloy coin; complete but very heavily corroded; ?George IV or William IV penny	?early 19th century	1
PH 3	8	62	Levelling layer	54	literacy	Slate pencil; complete with freshly recut nib; gauge 5mm; L 54mm		1
PH 3	8	62	Levelling layer	56	plaything	Ceramic alley; complete white-glazed; diam. 22mm		1
PH 3	8	62	Levelling layer		household	Copper-alloy teaspoon; incomplete and heavily corroded with broken and twisted bowl; bowl L c 45mm		1
PH 3	8	62	Levelling layer		dress	Copper-alloy shoe/clog fastener; complete tongue-shaped plate with rectangular openings and anchor-shaped finial; W 15mm; L 25mm		1
PH 3	8	62	Levelling layer		buildings	Copper-alloy staple; complete but twisted in antiquity; rectangular with short arms; W 35mm; arm L 10mm		1
PH 3	8	62	Levelling layer		plaything	Toy marbles; seven complete of white marble; one with faint remains of circumferential blue lines; diam. 12, 13, 15 (x 2), 18, 19 and 20mm		7
PH 3	8	62	Levelling layer		plaything	Toy marble of chalk; complete but degraded; diam. 11mm		1
PH 3	8	92	Demolition layer		household	Cockle shell; incomplete with small man-made circular perforation near joint		1
U/S	U/S	44	U/S	12	trade	Lead bag seal/plomb; near-complete, with narrow opening for strap; stamped 552; diam. 15mm		1
U/S	U/S	44	U/S	16	coin	Copper-alloy coin; complete but heavily corroded; George III halfpenny although date/issue unclear	1760–1820	1
U/S	U/S	44	U/S	18	dress	Plastic comb; incomplete moulded chignon-style;		1

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
						curved; W 50mm+; L 20mm+		
U/S	U/S	44	U/S	19	coin	Copper-alloy coin; near-complete but heavily corroded; Victoria penny 1861	1861	1
U/S	U/S	44	U/S	20	dress	Copper-alloy button; complete minute with buckle self-shank; embossed with parallel wavy lines on lined background; diam. 9mm		1
U/S	U/S	44	U/S	21	coin	Copper-alloy coin; complete and well-preserved Victoria halfpenny 1864	1864	1
U/S	U/S	44	U/S		dress	Copper-alloy shoe/clog fastener; two complete tongue-shaped plates with rectangular openings; both retain the anchor-shaped finials to fix them to the leather; W 17 and 18mm; L 27 and 23mm		2
U/S	U/S	44	U/S		dress	Copper-alloy shoe/clog fastener; complete oval plate with two rectangular openings and anchor-shaped finial; embossed with raised double star on ?basket weave background ; W 13mm; L 18mm		1
U/S	U/S	44	U/S		sewing	Copper-alloy pin; complete but in three pieces; Caple Type C; gauge 1mm; L 35mm		1
U/S	U/S	44	U/S		u/k	Copper-alloy sheet/casing; irregular piece, seemingly unravelled in antiquity; W 12mm; L 30mm		1
U/S	U/S	44	U/S		u/k	Copper-alloy pin/handle; heavily corroded 42-mm length only; gauge 5–7mm		1

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
U/S	U/S	180	U/S		household	Copper-alloy teaspoon; complete with fiddle handle but heavily corroded and in two pieces; two stamps at the back of the handle suggest it was silver plated; L 137mm		1
U/S	U/S	180	U/S	33	dress	Glass bead; near-complete but shattered in antiquity; turquoise globular; diam. 12mm; ht. 10mm		1
U/S	U/S	180	U/S	34	religion	Copper-alloy Catholic medal; complete oval uniface but heavily worn; 'O HOLY MARY EVER VIRGIN AND CONCEIVED WITHOUT SIN//PRAY FOR US WHO...; W 29mm; ht. 35mm		1
U/S	U/S	180	U/S	35	plaything	Ceramic gaming pieces; three white-glazed c 18 x 18mm cubes with flat top and bottom and ribbed sides; height 18–20mm		3
U/S	U/S	180	U/S	36	dress	Copper-alloy brooch; complete but very heavily corroded; circular with remains of pin and pin-catch on back; diam. 27mm		1
U/S	U/S	180	U/S	37	dress	Copper-alloy button or pendant; complete small hollow globular with looped wire shank; cast with design/motif on one hemisphere; diam. 9mm		1
U/S	U/S	180	U/S	38	coin	Copper-alloy coin; complete but very heavily corroded and worn; illegible but likely a pre-1860 farthing; diam. 22mm	pre-1860	1
U/S	U/S	180	U/S	39	coin	Copper-alloy coin; complete but very heavily corroded; illegible but likely Victoria 'bun head' halfpenny; diam. 25mm	1860–95	1
U/S	U/S	180	U/S	42	literacy	Slate pencils; two incomplete; gauge 4–5mm; L 30 and 47mm		2

PHASE	GRP	CONTEXT	FEATURE	SF	CAT.	DESCRIPTION	DATE	No. OBJ
U/S	U/S	180	U/S	45	dress	Copper-alloy buckle; complete but corroded; D-shaped with set-back strap bar and widened front frame; remains of iron buckle pin; W 22mm; L 30mm		1
U/S	U/S	180	U/S		household	Copper-alloy spoon; heavily corroded fragment of bowl only; bowl L 45mm+		1
U/S	U/S	180	U/S		household	Copper-alloy spoon; incomplete and heavily corroded bowl only; bowl L 50mm+		1
U/S	U/S	180	U/S		buildings	Copper-alloy mount; incomplete and corroded; D-shaped with three holes for fixing; W 41mm; L 35mm+		1
U/S	U/S	180	U/S		plaything	Toy marble of white stone; complete but somewhat degraded; diam. 16mm		1
U/S	U/S	181	U/S		household	Copper-alloy teaspoon; complete with fiddle handle but heavily corroded and fragile; L 130mm		1

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APPENDIX 8: CERAMIC BUILDING MATERIAL ASSESSMENT

Amparo Valcarcel

Introduction

Conforming with the Museum of London system of classification, the material was examined under magnification (x20) and quantified by context, fabric, form, number, weight and measurement. Samples of the fabrics can be found at the reference collection located at PCA's Brockley office.

A small assemblage of ceramic building material (5 examples, 195g) were recovered, these were unstratified (180). The group is comprised of encaustic unglazed floor tiles in yellow, purple, green and red. The shape of the tiles is varied between triangle, rectangular and square.

Various fragments had stamps on the reverse of the tile. The only manufacturer identified was Minton, Hollins & Co. They were the most famed and prolific manufacturer of tiles during the Victorian era and their tiles were used in many prestigious buildings. The rest of the fragments preserved three stars, a stamp from 'HAWKES & CO', and another one with the remains of 'SNI I....'

Encaustic tiles, renowned for their intricate designs and enduring quality, were very popular during the Victorian era. Unlike ceramic tiles, which feature surface-applied designs, encaustic tiles are crafted by embedding individual pigment pieces into the tile's structure, resulting in geometrical patterns. Durability is another compelling factor driving the popularity of encaustic tiles. Unlike hand-painted ceramic tiles, where patterns may wear off over time, the designs in encaustic tiles are integral to their structure, ensuring long-lasting beauty. The plain glazed tiles conform geometric patterns using different colours. Encaustic tiles were relatively expensive and were often combined with quarries (plain square tiles) and geometric tiles in order to cover large areas at less cost.

This group of floor tiles were probably part of one of the late 19th century terraced houses on the site. These tiles were very common in the Victorian era. In this case all the examples are plain so no further work is required on these materials.

Distribution

Table 1: Distribution of Ceramic Building Materials

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date
180	3261	Encaustic floor tiles	5	1870	1930	1870	1930	1870-1930

References

ACBMG. 2002: Ceramic building material, minimum standards for recovery, curation, analysis and publication,

http://www.archaeologicalceramics.com/uploads/1/1/9/3/11935072/ceramic_building_material_guidelines.pdf

APPENDIX 9: CLAY TOBACCO PIPE

Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes and two mouth parts made in either Bakelite or bone and metal was recovered from the site. Most fragments are in a fragmentary, although mostly good condition, indicating that the majority of the material was deposited soon after breakage. As many of the clay tobacco pipes were found in made ground or demolition deposits, therefore, it is probable that tertiary deposition is represented more so. Clay tobacco pipes were found in 12 contexts, as only small sized (under 30 fragments) groups.

The assemblage of clay tobacco pipes consists of 57 fragments, besides two mouth parts, one of which is made in Bakelite and the other is composite and made in bone and metal. None of the finds are unstratified, although 15 fragments were derived from three unstratified contexts.

Methodology

The bowl type recorded was classified using Oswald's (1975) general typology and prefixed OS, although where common place shapes are missing from that typology then the classification of Atkinson and Oswald (1969) and that of Higgins (2004) have been used. The clay tobacco pipes have been catalogued according to the guidelines of Higgins (2017). The pipes are further coded by decoration and quantified by fragment count. The clay tobacco pipe fragments have been discussed by their types and distribution. The assemblage was entered into a database format file.

The Assemblage

The clay tobacco pipes

The clay tobacco pipe assemblage from the site comprises 13 bowl, two mouthparts and 44 stems. The pipe bowls date from the late 18th/early 19th-century to c.1910/20.

The bowls

C.1780–1840

BR8b (Broseley Type). One tall, short spurred narrow bowl with a an angled straight back and rounded front. The bowl type is dated in Broseley to the period c.1800-1840, however the shape was being made in Salford at Adelphi Street by William Griffith/Griffiths during the period c.1797–1815 (David Higgins pers. comm). The bowls is absent of maker's marks and has poorly trimmed seams and was found in context (64).

1810–1850

OS24: one tall spurred bowl with a straight back and rounded front. The find has moulded wheat ear borders on the front and back of the bowl and raised ring and dot moulded marks on the sides of the heel. Context (167).

1840–1880

OS15: one large bowl with a rounded profile and an angled rim and noted as a moulded variant acorn design with a large oak leaf on the front of the bowl (facing away from the smoker), while the heel is in the form of a small acorn. Context (15)

OS24S: two short spurred/heel bowls with a straight back and rounded front that equates to a London shape redated by Higgins (2004) to c.1840–1880. The first bowl, (SF30), has wheatear borders on the front and back of the bowl, a three masted ship (a barque) with a prominent band of waves on the left side of the bowl and a fouled anchor on the right side of the bowl. The design may possibly relate to a public house called The Ship and Anchor. The sides of the spur have a double set of initials consisting of BB and B? (possibly another B overlain by the other initial). The initials cannot be equated to a Manchester pipe maker. The shape of the bowl additionally has the characteristics of the Irish-type bowl, dated from c.1840 (see below), albeit of a smaller size. The find was found in context (181). The second bowl has a short heel and the moulded decoration consists of fine vertical curving fluting although the fluting is not always even and the bowl was found in context (15).

1840–1910/20

OS28: three bowls without a heel or spur. Two of the bowls were found in context (167). The first example is a short bowl with moulded milling on the rim in the style of Irish-type pipes. The second example has wheatear borders on the front and back of the bowl and two very small angled feet. The third bowl was unstratified (180) and has most of the bowl missing but survives with a large rib on the back of the bowl while the sides of the base of the bowl has leaves with a 'fletched' texturizing.

Irish type bowls (Atkinson and Oswald 1969 type 33 bowl): two heeled tall bowls with moulded milling on the rim and both finds were unstratified (181). One example (SF29) has poor moulded milling on the rim while the back of the bowl (facing the smoker) has a linear incuse 'DUBLIN' stamp. The second example has a variant waisted profile above the heel giving a tulip shape profile and the item appears to have a varnish.

Unidentified bowls

Three bowls with 19th-century characteristics were too damaged to be assigned to a type. The first plain example, found in context (3), is missing the heel or spur and was probably an OS24 type. The second bowl survives mostly as a spur with moulded circles, of which the one on the right side is distorted and the find was found in context (164). The third bowl (SF 31) was probably derived from an OS28 type and survives as the base of the bowl with an uncertain design., while the sides of the stem have lozenges in relief that contain on the left side 'T. HOLLAN[D]', and the right side the design number 'NO

203' and the item was unstratified (181). Little is known of the pipe maker Thomas Holland, who was working in Manchester during the period 1843–85 and made a range of elaborately moulded clay tobacco pipes with design numbers (Hammond 1988, 31).

The mouthparts

All of the mouthparts have fine bores and probably date to the 19th century. Two mouthparts were found in context (15) and both have cut ends, although one has a clear (yellow glaze) and the other has a green glaze. The other mouth part has a poorly moulded nipple, diamond shaped in plan, and dates from c.1840, while the stem shows possible evidence for an incuse stamp and was found in context (164).

The stems

The majority of the stems are thin, sometimes with an oval section and have fine bores and date from c.1730 but probably date more so to the 19th century. One stem, with a medium thickness and fine bore, found in context (62) is of note for having modified rounded ends and may represent a stem transformed into a hair curler. A second stem (SF 44) has lozenges with bead borders that contain 'LEWIS...' on the left side and '...IS.S' right side and was noted in context (180). A possible Liverpool pipe maker who was contemporaneous with this fragment of stem was A. Lewis and recorded in an 1868 trade directory (Oswald 1975, 178). A few other stems are of note and mostly date to the late 19th century. A thick stem with a fine bore from a spurred or heeled bowl has the moulded numbers of '5 ?3' on the left side of the stem (SF 47) and probably represent a specific moulded design and was noted in context (62). From the same context a thin stem with a fine bore has an incuse stamp of 'M. E./PaRIS' in serif lettering on the top and reading across the stem (SF 48). The find represents a French import although further research is required to identify the pipe factory that made this item. From context (49) was recovered a thin stem with a fine bore and has an incuse stamp of '147' in serif lettering on the left side of the stem (SF 49) and represents the design number of the bowl the find was derived from. Part of the name of a pipe makers name occurs as an incuse stamp with sans serif lettering of '...PE' on the right side of the stem and 'IW...' on the left side (SF 50) and was found in deposit (80). Two stems were unstratified (180) and both have moulded lozenges on the sides of the stem with incuse stamps in-sans serif lettering (post-dating c.1845), although the style of stamp dates to the c.1870's. The first stem (SF 43) from (180) (unstratified) has 'T HOLLAND' on the left side and the design number 'No 232' on the right side.

Bakelite mouth piece

The brown Bakelite mouthpiece was found in context (163). The item is missing the mouthpart and survives with a length of 70mm, a maximum width of 16mm and a thickness of 16mm tapering to 9mm (oval in section) and towards the missing mouthpart. The other end of the piece is narrower and pointed to allow insertion into the missing bowl, which could have been made in pipe clay, wood or another material. Bakelite was introduced in the early 20th century (c.1907).

Bone and metal mouth piece

The item (SF 50) was found in context (82) and dates to the late 19th-20th century. The mouthpiece is made of turned bone and has a length of 33mm and a tapering diameter 4.5–7mm and the ‘nipple’ has a diameter of 6mm. At the other end of the nipple is an external thread to which is attached a damaged copper alloy band 8mm in diameter and with a surviving thickness of 3mm. The latter represents the attachment for the bowl made in pipe clay or another material to the bone mouthpiece.

Distribution

The distribution of the clay tobacco pipes is shown in the table below. The finds were recovered from Phases 2 and 3 and were recovered only from layers located in Area A. Unstratified finds (U/S) are listed below but not further discussed.

Table 1: Distribution of the clay tobacco pipes. FC: fragment count

Context	Trench	Phase	No. of fragments	Context ED	Context LD	Part (makers)	Spot date
3	A	3	2	1580	1920	X1 bowl (unidentified), x1 stem	Mid-19th century
15	A	3	19	1840	1880	X2 bowls (x1 OS15, x1 OS24S), x2 mouthparts, x15 stems	1840–1880
44	U/S		7	1580	1920	Stems	?19th century
62	A	3	3	1580	1920	Stems (SF 47 and SF48)	Late 19th century
64	A	3	1	1580	1920	X1 bowl (BR8b)	c.1780–1810
82	A	3	7	1580	1920	X1 mouthpart (bone and copper alloy), x6 stems (SF 50)	Late 19th century
92	A	3	2	1580	1920	Stems (SF 49)	late 19th century
160	A	2	1	1580	1920	Stem	18th-19th century
163	A	3	1			Bakelite mouthpart	c.1907+
164	A	2	8	1580	1920	X1 bowl (unidentified), x1 mouthpart, x6 stems	c.1840–1920
167	A	3	3	1840	1920	X3 bowls (x1 OS24S, x2 OS28)	1840–1920
180	U/S		4	1580	1920	X1 bowl, (AO33), x3 stems (SF 43 and SF 44)	c.1870's
181	U/S		4	1840	1880	X4 bowls (x2 AO33, SF 29), x1 OS24S (SF 30)	1840–1880

Phase 2 (19th century)

The levelling layer (160) associated with floor (161) and wall (162) solely produced a stem of an 18th–19th century date.

Deposit (164) within masonry drain (158) produced six stems of a probable 19th-century date, part of a mid-19th-century bowl surviving as a spur with circles on the heel and a mouthpart with a moulded nipple post-dating 1840.

Phase 3 (modern)

The industrial waste and demolition layer (3) produced a stem and a plain bowl missing its spur and dates to the mid-19th century.

The demolition layer (15) within a cellar entry way produced two bowls in the form of a spurred OS24S bowl with fluted decoration and an OS15 bowl with a moulded acorn design and both bowls are dated c.1840–80.

The levelling layer (62), for possibly the factory construction, produced only clay tobacco pipe stems, one of which was modified possibly as a hair curler, while another item has an incuse serif stamp of 'M.E/PA RIS' across the top of the stem and represents an imported French item, while another stem has moulded on the sides the numbers '5?3' and is probably of a late 19th-century date.

Fill (64) of a void, possibly representing demolition, produced solely the plain Broseley-type BR8b bowl dated c.1780–1810.

Layer (82) was dated to the late 19th century by a stem with an incuse stamp in sans-serif lettering of '...PE' on right side and 'IW...' on the left side, besides a composite bone and copper alloy mouthpart with a nipple that post-dates c.1840.

Two stems were found in demolition layer (92) within the cellar walkway and part of the Irving Street 1907 demolition. The most datable item dates to the late 19th century and has an incuse numbered stamp of '147' in serif lettering on the left side of the stem.

Another demolition layer (107) produced the damaged Bakelite mouth part post-dating c.1907.

The backfill deposit (167) between walls (166), (175) and (178) and above the brick and flagstone surface (179) produced three bowls in the form of an OS24S type with a moulded ship and anchor design and the two OS28 bowls (without heels or spurs) and together the bowl types indicate a deposition date of c.1840–1880.

Significance, potential and recommendations for further work

The clay tobacco pipes have no significance at a local level, as the finds were derived from mostly demolition deposits and probably came from an offsite source. The clay tobacco pipes do have the potential to date the contexts they were recovered from. There are no recommendations for further work on the assemblage and the bowls and marked stems should be retained for the archive.

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APPENDIX 10: GLASS FINDS

Chris Jarrett

Introduction

A small quantity of glass was recovered from the excavation (one box) and dates mostly to the 19th and 20th century. The material consists of mainly fragmentary material, although the majority of the assemblage could be assigned to a vessel shape. Additionally, one vessel has a complete profile and two items are intact. The material is in a good condition and was most likely to have been deposited soon after breakage or discard. The assemblage was quantified by fragment count, minimum number of vessels (MNV) and weight and consists of 30 fragments/27 ENV/1.754kg, of which none was unstratified. The material was recovered from 11 contexts and only as small sized groups (fewer than 30 fragments).

Methodology

The terminology used to describe the glass is according to that used by the Society of Historical Archaeology Historic Glass Bottle Identification & Information Website (Lindsey 2017). The information was recorded in a database format and it is discussed by form and distribution.

The Assemblage

All the glass forms date to the 19th-early 20th century unless otherwise stated.

The range of forms is shown in Table 1.

Bottles are the main form recorded in the assemblage (19 MNV/70.4%) most of which were moulded in Rickett's type moulds. A number of use categories were assigned to the bottles.

Table 1: Range of vessel forms quantified by fragment count, minimum number of vessels (MNV) and weight measured in grams.

Form	No. of frags	MNV	Wt (g)
Bottle	4	3	79
Bottle, cylindrical	4	4	374
Bottle, flat octagonal section	1	1	159
Bottle, Hamilton	1	1	58
Bottle, novelty	1	1	24
Bottle, sectioned	1	1	12
Bottle, shouldered	1	1	169

Form	No. of frags	MNV	Wt (g)
Bottle, soda	1	1	294
English wine bottle	3	3	24
English wine bottle, cylindrical, late	1	1	187
English wine bottle, onion-type	1	1	44
Ink bottle	1	1	80
Ink bottle, bell-shaped	1	1	72
Unidentified	1	1	41
Vessel glass	3	3	65
Window glass	1	1	5
Wine glass	1	1	9
Wine glass, fluted	3	1	58

There are 6 MNV (22.2%) of the bottles that have a general drink storage use. Four vessels were classified as generic cylindrical-section moulded bottles. A base sherd made in blue-green-tinted glass has embossed on the lower wall 'J.H. CUFF LTD/MANCHESTER', while the concave base underside is embossed 'L K B LD'. The item was found in context (92). Two other cylindrical bottles were found in context (182) and survive as wall sherds: a blue-green tinted fragment is embossed vertically on the wall '....STER/...AL', while a green-tinted fragment is embossed within an oval '...GK/..ER...N'.

A Hamilton-type bottle fragment dated from c.1810 was unstratified (180), this was made in green-tinted glass and has embossed on the wall 'TOWNSEND/...ARD'. A probable soda bottle survives as a base made in dark olive-green glass and the lower wall has embossed within an octagonal panel 'AE', which is overwritten with 'Arthur Edge', which is above 'TRADE MARK', which in turn is over 'LONGSIGHT' in an arc. The concave underside of the base has a central small boss around which is embossed '8984 CS & CO LD' around 'A.E'. A fragmentary possible novelty bottle made in blue-green tinted glass is a fragment of a flat vessel, made in a two-part mould that has been termed a novelty bottle. The item has surviving dimensions of 61mm+ x 32mm x 26mm thick and takes the form of a narrow cylindrical neck attached to an abstract symmetrical face with eyes on protuberances and a long, wide nose with three ridges running along the length. The underside of the vessel has an embossed net pattern. The item was found in context (163).

There are four vessels with an alcohol storage use. The earliest vessel recorded in the assemblage is a free-blown possible onion-type wine bottle made in dark olive-green/black glass and survives as a rim with a string finish dated c.1680 and was found in context (62). Fragments of 19th-century cylindrical

wine bottles made in dark olive-green glass were noted in deposits (74) and (160), while a base with a bell-shaped kick came from context (15).

Another four 19th-20th century dated moulded bottles were given a general liquid storage use. Two vessels made in green-tinted glass have either an applied packer rim finish, found in context (62), or a large mineral/double oil finish attached to a short conical neck and was found in context (74). A green-tinted glass bottle with either a rectangular or flat octagonal body section has a patent-type rim finish attached to a short cylindrical neck and there is evidence that the body has flat arcaded panels and the item was found in context (3). A clear glass flat, octagonal-section bottle was intact and has a packer-type rim, a deep conical neck and two arcaded wide wall panels and was recovered from context (62).

Two 19th-century vessels were used for ink storage: ink bottles. One item was made in green-tinted glass and has the rim missing, while the shoulder has wide flutes and a pen rest. The short cylindrical wall is plain while the recessed base has an embossed illegible diamond registration mark of a type dated c.1842–67. The vessel was found in context (15). An intact bell-shaped ink bottle made in clear glass was recovered from context (167) and has a fire rounded rim, while the underside of the base has embossed a large 'H'.

Other bottles were recorded with singular uses. A pharmaceutical bottle made in cobalt blue glass has a patent-type rim with a bevelled top, a short cylindrical neck and a rounded shoulder and came from context (160). A food storage shouldered bottle with a wide mouth, made in green-tinted glass, has a collared rim, a short cylindrical neck, a rounded shoulder, while the cylindrical wall is embossed vertically with 'SAMPLE OF/MELLINS FOOD'. the concave underside of the base has a small central boss with embossed around it '8244'. Mellins Food dates from 1896. The bottle was intact prior to excavation and was found in context (177).

Two vessels have an alcohol consumption use and survive as fragmentary wine glasses. Made in clear glass is recorded the base of a trumpet bowl with immediately below it a rounded knop and part of the cylindrical stem. The item is probably of a 19th-century date and was found in context (182). Made in green-glass was the foot of a wine glass with a probable flute-type bowl and dates to the late 19th-20th century and the item was found in context (74).

Four items are recorded as vessel glass and consist of moulded decorative items. Two items occur in clear glass. Two vessels were made in clear glass and are probably of a late 19th-20th century date. The first vessel consists of a rim sherd surviving as two round ended flutes separated by a pointed end flute and the fragment has a small circular piercing near the rim. The item may represent a hanging lampshade and the item was found in context (62). The second vessel is very ornamental and survives as a star-shaped foot comprised of irregular shaped extended points and the underside of the base is fluted. A ribbed 'melon-type' knob joins the foot to the missing stem. The third vessel glass item is made in 19th-century (or later) cranberry glass and survives as a narrow cylindrical neck fragment with an applied trail that has been frilled and the item came from context (182). The fourth find consists of a

probable clear glass lid knob that is an irregular dumbbell shape and was unstratified (180). Additionally, a lump of melted clear glass was found in context (160).

Modern window glass was also noted but was unstratified (180). This consists of a clear glass item 1.5mm thick surviving with fresh breaks.

Distribution

The distribution of the glass is shown in Table 1, which demonstrates for each context producing glass, the trench, the phase that it occurs in, the number of fragments, minimum number of vessels (MNV), weight, the forms present and a spot date. The glass was recovered from Phases 2, 2.1 and 3 and was solely found in layers. The distribution of the glass is discussed by phase. Unstratified material is listed in the table below but not further discussed.

Table 2: Distribution of the glass showing, the phase that it occurs in, the size of the group, the number of fragments, minimum number of vessels (MNV), weight, the vessel shapes present and a spot date.

Context	Trench	Phase	No. of frags	MNV	Wt (g)	Forms	Spot date
3	A	3	1	1	12	Bottle, sectioned	1821–1900
15	A	3	2	2	267	English wine bottle, cylindrical, late, ink bottle	1842–67
62	A	3	4	4	235	bottle, bottle, flat octagonal section, English wine bottle, onion-type, vessel glass	Late 19th-early 20th century
74	A	2	5	3	117	Bottle, English wine bottle, wine glass, fluted	Late 19th-early 20th century
92	A	3	2	2	318	Bottle, cylindrical	Late 19th-early 20th c century
160	A	2	4	3	29	Bottle, English wine bottle	Late 19th-early 20th c century
163	A	3	2	2	318	Bottle, novelty, bottle, soda	Late 19th-early 20th century
167	A	3	1	1	72	Ink bottle, bell-shaped	Late 19th-early 20th century
177	A	3	1	1	169	Bottle, shouldered	1896+
180	U/S		3	3	104	Bottle, Hamilton-type, unidentified, window glass	1810–1900
182	A	2.1	5	5	113	Bottle, cylindrical, Vessel glass, Wine glass	Late 19th-early 20th century

Phase 2 (19th century)

The demolition layer (74) produced fragments of 19th-century bottles and wine bottles, while a green wine glass flute is probably of a late 19th-early 20th century date.

The levelling layer (160) produced fragments of wine bottles and moulded bottles of a late 19th-early 20th century date.

Phase 2.1, 19th century

The ground consolidation layer (182) produced fragments of a wine glass, vessel glass while fragments of two moulded cylindrical bottle are probably of a late 19th-early 20th century date.

Phase 3, Modern

The demolition layer (3) solely produced a moulded cylindrical section bottle broadly dated c.1821–1900.

The demolition layer (15) within a cellar entry way and connected to terrace demolition, produced as the most closely datable item the moulded ink bottle with the illegible registration kite mark on the underside of the base dated c.1842–67.

The levelling layer (62) for the possible construction of the 20th-century factory produced bottle fragments with rim finishes that are most likely to date to the late 19th-early 20th century.

Two moulded cylindrical glass bottles of a late 19th-early 20th-century date were the only finds recovered from the demolition layer (92) within the cellar walkway. The deposit is dated to the 1907 demolition of Irving Street.

The demolition layer (163) produced a soda bottle of a late 19th-early 20th-century date besides the fragment of a novelty bottle moulded in the form of an abstract human face.

The backfill deposit (167) between walls (166), (175) and (178) and above the brick and flagstone surface (179), solely produced the bell-shaped ink bottle dated to the late 19th-early 20th century.

The shouldered jar made for Mellin's food dated from 1896 was the sole find from the backfill (177) between walls (173) and (174).

Significance, potential and recommendations for further work

The glass has no significance at a local level as the finds are largely fragmentary, occur in either makeup or demolition layers and may have come from an offsite source and therefore do not necessarily relate to onsite activities. Glass assemblages from other excavations in Manchester and Salford are comparable to that from this excavation, e.g. The Exchange, Greengate Embankment, Salford (Jarrett 2015b), 16 Chapel Street, Salford (Jarrett 2015a) and 74-88 Great Ancoats (Jarrett 2016). Comparable glass assemblages come from previous archaeological work on First Street (Jarrett 2017; 2023).

The glass has the potential to date the contexts in which it was found. There are no recommendations for further work on the glass assemblage as no formal publication work is proposed. The glass finds can be discarded.

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APPENDIX 11: MARINE SHELL

Mitchel Dean

Introduction

A small collection of marine shell was retrieved from a single context (15) at First St, Manchester (Plot 10b). Each shell was collected by hand and cleaned with cold water and a soft brush to remove any excess sediment. They were then counted, weighed, and checked for any signs of parasitic infestation and human modification. For the bivalve taxa present (oyster and cockle), the MNI values took into consideration the prospect of multiple shells deriving from the same individual; as such, the total number of cockle valves was divided by two and rounded up, and the oyster valves were separated into left and right and the highest number was taken as the MNI.

Results

This small assemblage featured two conch shells, one of which appears to belong to the family of true conches Strombidae and is most probably a queen conch (*Aliger gigas*) – the other is too small a fragment to determine its species. Though each of these specimens weighed over 250g, they were too fragmentary to give accurate measurements of their true size.

Table 1: Quantity of each taxon in the assemblage

Taxon	NISP	MNI	Weight (g)
Conch	2	2	579
Oyster (<i>Ostrea edulis</i>)	3	2	88
Common cockle (<i>Cerastoderma edule</i>)	5	3	6

The only shell in the assemblage to bear any marks left by parasites or humans was a left oyster valve which had burrow marks made by the marine polychaete worm *Polydora ciliata* on its outer surface and a V-shaped notch cut into its ventral margin indicative of human exploitation (Winder, 2011).

All shells were in fairly good condition with some fragmentation.

Discussion

The presence of conch shells indicates importation from the Americas – most likely the Caribbean or Florida given that one of the shells appears to be a queen conch. Though queen conches are edible, they were historically imported to Europe as curios and ornaments (Fritsch and Misiorowski, 1987: 209; Appeldoorn and Baker, 2013).

Only one oyster valve featured traces of parasitic and human modification, so little can be said about patterns of marine mollusc exploitation at the site or the environment the oyster and cockle shells were retrieved from.

The small size of this assemblage limits its scope for further analysis and the material assessed may be discarded.

References

- Appeldoorn, R.S. and Baker, N. (2013). *A literature review of the queen conch, Strombus gigas*. Department of Marine Sciences, University of Puerto Rico, Mayaguez.
- Fritsch, E. and Misiowski, E.B. (1987). The history and gemology of queen conch "Pearls". *Gemological Institute of America*.
- Winder, J.M. (2011). *Oyster shells from archaeological sites: a brief illustrated guide to basic processing*. Online manual.

APPENDIX 12: OASIS SUMMARY

OASIS ID (UID)	preconst1-522003
Project Name	Excavation at First Street, Medlock Street, Manchester
Sitename	First Street, Medlock Street, Manchester
Sitecode	FSB23
Project Identifier(s)	FSB23
Activity type	Excavation
Planning Id	
Reason For Investigation	Planning: Pre application
Organisation Responsible for work	Pre-Construct Archaeology Ltd
Project Dates	05-Jun-2023 - 30-Jun-2023
Location	First Street, Medlock Street, Manchester NGR: SJ 83773 97277 LL: 53.47197265942853, -2.245930736051609 12 Fig: 383773,397277
Administrative Areas	Country: England County/Local Authority: Manchester Local Authority District: Manchester Parish: Manchester, unparished area
Project Methodology	An open area excavation next to recent excavations on Plot 10a produced comparable remains of workers terrace houses likely constructed in the 19th century. The remains included evidence for brick walls, flagstone and brick surfaces, drainage, internal features such as coal chutes and fireplaces. The properties witnessed an increase in the migrant population in the area and improvements to the buildings, a result of deteriorating living conditions this resulted in. The evidence is supported by cartographic and photographic evidence. Following widespread clearance, the area was occupied by industrial buildings, the walls, foundations and floors of which survived. The material finds from the terrace houses were largely derived from demolition deposits on the site.
Project Results	The remains further informed the foundation, the evolution and clearance of the Hulme area of Manchester during the 19th century. It adds to our knowledge, specifically of low-quality workers' houses, and evidences the poor living and sanitary conditions the occupants of the area faced. The evidence is supported with documentary sources, cartographic and photographic evidence, and comparative studies of archaeological investigations across the city, in

	the immediate vicinity and further afield.
Keywords	Wall - POST MEDIEVAL - FISH Thesaurus of Monument Types Floor - POST MEDIEVAL - FISH Thesaurus of Monument Types Wall - 20TH CENTURY - FISH Thesaurus of Monument Types Floor - 20TH CENTURY - FISH Thesaurus of Monument Types Building - POST MEDIEVAL - FISH Thesaurus of Monument Types Building - 20TH CENTURY - FISH Thesaurus of Monument Types Privy House - POST MEDIEVAL - FISH Thesaurus of Monument Types Demolition Layer - POST MEDIEVAL - FISH Thesaurus of Monument Types Demolition Layer - 20TH CENTURY - FISH Thesaurus of Monument Types
Funder	Private individual
HER	Greater Manchester HER - noRev - LITE
Person Responsible for work	Daniel Still
HER Identifiers	
Archives	Physical Archive - to be deposited with Museum of Science and Industry;



PCA CAMBRIDGE

THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN

t: 01223 845 522

e: cambridge@pre-construct.com

PCA DURHAM

THE ROPE WORKS, BROADWOOD VIEW
CHESTER-LE-STREET
DURHAM DH3 3AF

t: 0191 377 1111

e: durham@pre-construct.com

PCA LONDON

UNIT 54, BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD, BROCKLEY
LONDON SE4 2PD

t: 020 7732 3925

e: london@pre-construct.com

PCA NEWARK

16 LONDON ROAD,
NEWARK,
NOTTINGHAMSHIRE NG24 1TW

t: 01636 370410

e: newark@pre-construct.com

PCA NORWICH

QUARRY WORKS, DEREHAM ROAD
HONINGHAM
NORWICH NR9 5AP

T: 01223 845522

e: cambridge@pre-construct.com

PCA WARWICK

2 PLESTOWES BARN
HAREWAY LANE, BARFORD
WARWICKSHIRE CV35 8DD

t: 01926 485490

e: warwick@pre-construct.com

PCA WINCHESTER

5 RED DEER COURT, ELM ROAD
WINCHESTER
HAMPSHIRE SO22 5LX

t: 01962 849 549

e: winchester@pre-construct.com

