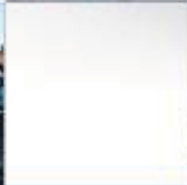
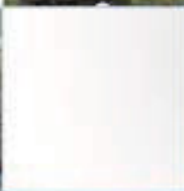


Lochrin Basin, Tollcross, Edinburgh Excavation: Data Structure Report

April 2009



Lochrin Basin, Tollcross, Edinburgh Excavation

Data Structure Report

On Behalf of: Mactaggart & Mickel
1 Atlantic Quay
1 Robertson Street
Glasgow
G2 8JB

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AOC Project No: 20144

Prepared by: Alan Hunter Blair

Illustration by: Alan Hunter Blair

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Author: Alan Hunter Blair

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Approved by: John Gooder

Date: 30th April 2009

Draft Report Stage:

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Enquiries to: AOC Archaeology Group
Edgefield Industrial Estate
Edgefield Road
Loanhead
EH20 9SY

Tel. 0131 440 3593
Fax. 0131 440 3422
e-mail. admin@aocarchaeology.com



www.aocarchaeology.com

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1. NON TECHNICAL SUMMARY

- 1.1 AOC Archaeology was commissioned by Mactaggart And Mickel Ltd to undertake an archaeological excavation following on from an evaluation (AOC 2005) carried out in October 2005 at the former site of the Lochrin Basin, Tollcross, Edinburgh (Figure 1). The excavation was carried out between 2nd and 27th March 2009 and encountered part of the southern extent of the canal basin's wall along with the remains of a building located immediately south of the canal basin.

2. INTRODUCTION

2.1 Project Background

- 2.1 AOC Archaeology was commissioned by Mactaggart And Mickel Ltd to undertake an archaeological excavation following on from an evaluation (AOC 2005) carried out in October 2005 at the former site of the Lochrin Basin, Tollcross, Edinburgh. The work involved an excavation undertaken within an affordable housing development located within a larger overall development area. The work was conducted in accordance with a *Written Scheme of Investigation* (WSI), designed fully to satisfy the requirements of the City of Edinburgh Council Archaeology Service (CECAS). This work was carried out in full accord with the policies inherent within SPP23 (SG 2008) and PAN42 (SOEnD 1994).

2.2 Location

- 2.2.1 The excavation was undertaken on an area to the south side of the former canal basin. The overall development is located at and occupies approximately 0.80 hectares although only the part of the site apportioned for affordable housing (centred NGR: NT 2466 7276) was investigated. This amounted to a total basal area of 1500 m² (Figure 2). The site is bounded on its north side by the larger development area; currently a gap site overlying much of the former canal basin. New development housing lies to the east and west with existing residential housing on Gilmore Place to the south. Tollcross Primary School is located to the north-east. The site was until recently owned by Arnold Clark and occupied by buildings associated with the car industry including showrooms, workshops and offices.
- 2.2.2 The ground at the proposed development site is comprised of boulder clay that overlies geology belonging to the Cementstone Group. The Cementstone Group consists of mudstones, sandstones, cementstone bands and dark carbonaceous shales with plants, ostracods and fish remains (Geological Survey of Great Britain (Scotland) 1965). At its base are Craiglockhart Volcanic Rocks. To the south, an east-west aligned intrusion of igneous rock hems in the proposed development area. This late Carboniferous quartz-dolerite dyke roughly follows the line of Gilmore Place (Soil Survey of Scotland 1982).

3. ARCHAEOLOGICAL BACKGROUND

3.1 General background of local area

- 3.1.1 The earliest historical records that mention the name Tollcross date to the 15th century, although its origins can be traced to the mid 12th century in the reign of David I, when the area probably comprised of outlying lands used as orchards or for cultivation. The agricultural legacy of this early phase in the area's development is apparent on early mapping, which shows fields at the respective location (eg Kincaid 1784). As the site lay at considerable distance from the medieval town of Edinburgh, it should be viewed as a rural site until the encroachment of Edinburgh upon it in the late 18th and early 19th centuries.
- 3.1.2 Since the early 18th century industrial activity has been recorded in the area of West Tollcross with, for example, Robert Gray's brewery, "built in 1731 on the banks of the Dalry Burn at Lochrin, then described as Newbigging" (Easton 1988, 48). The brewing industry in Scotland and Edinburgh really took off after the Act of Union 1707, when trade links with France were severed and tastes moved from wine, port and brandy to beer.
- 3.1.3 The plentiful natural water supply in the area of Tollcross and Fountainbridge was intrinsic to the establishment and consolidation of the brewing and distilling industries of the area. Large quantities of pure water could be accessed via wells by tapping into reserves trapped in a geological fault. This phenomenon gave rise to the 'charmed circle' (Easton 1988, 50) description for the wells and water supply that in the west of the city were located from the Grassmarket to Slateford.
- 3.1.4 Subsequently, Gray's brewery site was taken over by Haig's Whisky Distillery in 1798, the western part of which was occupied by Haig's private basin, which was to become the Lochrin Basin, connected to the Union Canal and located within the proposed development site. The distillery was to become the largest in Scotland, no doubt helped by its location next to the Edinburgh - Glasgow Union Canal. However, by 1853 the distillery was closed, having shut down sometime between 1833 and the Ordnance Survey's (OS) first edition mapping (1853; Figure 3), which notes the site as '*disused*'.
- 3.1.5 Of even greater importance to the area's economy was brewing. During the 18th century many breweries were located in the general locale including: Hay's at the corner of West Port and Bread Street, which by 1769 had relocated to High Riggs, on the site of the former Goldberg's department store; and Drumdryan Brewery established in 1760 in Leven Street, which with several changes of ownership survived until 1905 when it was demolished for the King's Theatre.
- 3.1.6 In 1856 the Fountain Brewery located at Fountainbridge was established by William McEwan. The brewery is the only one in the area that has survived to the present day, no doubt to its ingenuity and resourcefulness in difficult times such as the two World Wars. During the First World War the brewery merged with William Younger & Co of Holyrood, and during the Second World War, they developed a new market in bottled beer. By the 1950s their Export beer was the market leader and sold in cans. The company's

consolidation was sealed with a full merger in 1959 making Scottish Brewers Ltd, which afterwards became the Scottish and Newcastle Breweries Ltd of today.

- 3.1.7 The other main industry in the area was rubber making, which was established at the Castle Mill rubber factory in 1856 as the North British Rubber Company. The initial business was set up in the premises of an old Silk Mill but soon expanded into a 20 acre site on the south side of Fountainbridge, about 250 m west of the proposed development area. The company relocated to Newbridge in 1966.
- 3.1.8 Other industries also thrived in this area in their time. They included rope-making, a meat market and silk production amongst many others such as the Paper Hanging Manufactory noted on the OS's map of 1877, which subsequently became the site of a Tinplate Works (OS 1895, Figure 4).

3.2 Site Development History

- 3.2.1 Cartographic and documentary sources indicate that the proposed development area was part of a field system in rural Midlothian during the 18th century; a canal basin (Lochrin Basin) attached to the Union Canal in the early 19th century and an industrialised area during the 20th century. Lochrin Basin was part of a triumvirate of canal basins in Edinburgh; the other two being Port Hopetoun and Port Hamilton half a kilometre to the north-east. These were formerly connected to the Union contour canal that joined the Forth and Clyde canal at Falkirk to make the transportation of goods between Edinburgh and Glasgow faster and cheaper than had previously been possible. The basin was in-filled during the early part of the 20th century and was used as an ice pond and ice storage area until becoming a series of garages in the 20th century.
- 3.2.2 The evidence for former land use on the proposed development site and its changes through the last 250 years are shown in the succession of maps consulted for the town. A summary of these changes focused on Lochrin Basin and its immediate environs are described chronologically below:
 - i) The earliest plans to feature the locale by name is Cooper's *A plan of the city of Edinburgh with adjacent ground* (1759). This small scale plan names 'Fountain Bridge' and 'Lauriston', but does not show any features in the area of the proposed development site.
 - ii) The nature of the proposed development site is first revealed in Kincaid's *A Plan of the city and suburbs of Edinburgh* (1784, Figure 5), which depicts the area with fields (perhaps orchards) on both sides of Dalry Burn (marked as 'Common Sewer by Lochrin' on this plan). To the north-east of the proposed development site, and bounded by Fountain Bridge to the north, are some streets and buildings known today. They include a street called 'Lochrin' corresponding to the present Thornybank (northern section) and an unnamed parallel street to its

west that is today's Ponton Street. Both these streets have some buildings along them).

- iii) Ainslie's map (1780, Figure 6) shows the addition of some new features. They include a Distillery immediately north of Dalry Burn and the south of the distillery marked 'Mr. Haigs' with three buildings alongside the south of Dalry Burn; a Steam Engine marked to the west of Mr. Haig's three buildings; an unnamed east-west aligned street, today's Gilmore Place, is depicted with some buildings on both sides located on parcels of land noted as "Mr. Gilmour's"; as well as, *Lochrin House*, which is shown at the corner of Gilmore Place and Home Street (Figure 5).
- iv) Later mapping shows the development and expansion of the Lochrin Distillery to incorporate various new buildings and also three artificial 'lochans'. They are located immediately south of Dalry Burn and west of the buildings on both sides of it and were in existence prior to the erection of the Union Canal, as seen on Kirkwood's 1817 map (Figure 7).
- v) The largest and most westerly lochan was later connected to the Union Canal and this is shown on Wood's 1823 *Plan of the city of Edinburgh* (Figure 8). Shortly thereafter it became known as the Lochrin Basin. The flow of water between the Union Canal and the Lochrin Basin was crossed by a small unnamed bridge, which also appears on later OS mapping.
- vi) The early nineteenth century plans also show further development along 'Gilmour Place' to include a *Rope Works* on its north side; buildings west of Lochrin House; as well as, houses with gardens along the south side of the street. They also show the expansion and building of Lower Gilmore Place (albeit unnamed on the mapping at this time). Kay's *Plan of Edinburgh* (1836) is almost identical to Wood's except for a small circular structure depicted on the north side of Lochrin Basin.
- vii) By the middle of the 19th century, Lochrin Distillery is marked in the first edition OS map as disused, although it's many buildings are still shown (see Figure 3). The other two artificial lochans, east of Lochrin Basin, appear to be shown as sub-rectangular tree-lined features and correspond to an area immediately east of the proposed development area, which now corresponds to the south-west portion of Lochrin Place. Lochrin Basin is marked as rectangular in plan and features an octagonal structure on its north side that could relate to Kay's circular structure some seventeen years earlier. The area immediately to the south of the proposed development area is delineated by a small narrow passageway running parallel to, and north of Gilmore Place. This passage is located alongside the back gardens between Gilmore Place and the proposed development site. On earlier mapping, this passage corresponds to 'Rope Walk',

probably a rope twisting/manufacturing area associated with the former rope works first depicted on Kirkwood's 1817 plan (Figure 7).

- viii) *Rope Walk* is still present on the OS's 1895 map *Edinburgh and its Environs* (Figure 4). This map also shows the canal basin to have been at least partly filled in giving its middle a slightly pinched look. Based on OS mapping, the infilling must have occurred between 1877 and 1895, during which the site underwent considerable redevelopment with the addition of numerous buildings to the north and east of the remaining Lochrin Basin.
- ix) Additional redevelopment appears to have taken place by 1908 (Figure 9) comprising the total infilling of the former Lochrin Basin, creating a level open space at this time.
- x) This wave of redevelopment continues in the next few years with the demolition of some of the buildings located within the proposed development area to create Lochrin Ice Pond (OS 1914, Figure 10). Also, buildings immediately to the east and north-east, including the old Edinburgh Slaughter Houses (OS 1853 – 1908, Figures 3-4, 9).
- xi) By 1933 (Figure 11) the site and its structures begins to resemble its modern day layout with significant changes taking place between the OS's 1951 and 1974 plans (Figures 12-14). During this period, the main east/west aligned building of the former Paper Hanging Manufactory (OS 1877-1961, Figures 9-14) that abuts the west of the site, is demolished. This building features from OS 1951 plans and is noted as a 'Garage'. The proposed development site also operated as a garage at this time and housed the Edinburgh Ice & Cold Storage Depot (OS 1951, Figure 12).

4. Objectives

4.1 The objectives of the archaeological works were:

- i) determine the character, nature, extent and quality of any archaeologically significant remains within the affordable housing area of the development site;
- ii) record through drawn, written and photographic record the archaeological features present;
- iii) recover artefacts and samples that will enable the characterisation of the archaeological sediments present;
- iv) given significant findings develop a strategy for the analysis of the materials and information recovered to inform on the archaeological past of the development area.

5. METHOD

- 5.1 All ground breaking works undertaken during the excavation were carried out using a 360° tracked excavator with a 2 m wide flat ditching bucket. The excavated area was excavated by machine down to the first significant archaeological horizon or to natural subsoil. This was carried out under the direction of an experienced field archaeologist. All recording was carried out according to AOC Archaeology Group's standard practices.
- 5.2 Recording was by written (Appendix 1), photographic (Appendix 2) and drawn (Appendix 3) record. The position of all excavated features recorded during the excavation was located by instrument survey using a total station.

6. RESULTS

6.1 Introduction

- 6.1.1 An initial basal area of 1500 m² of the development area was examined, with an additional 40 m² added after an on-site consultation with CECAS. This amounted to a total of around 80% of the development area as parts of the site were inaccessible due to services. Towards the western end of the site the trench edges were stepped or battered due to deep demolition deposits. The excavation recorded part of the southern extent of the Lochrin Basin quay wall along with the fragmentary remains of concrete and mortar floors, cobbled surfaces and walls associated with a building located immediately to the south. These features were greatly diminished by truncation from services associated with recent buildings and their subsequent demolition. The following should be read in conjunction with Figures 1 - 10 and the context summaries presented in Appendix 1.

6.2 Lochrin Basin Wall (Figures 2, 15-18, Plates 1 & 3)

- 6.2.1 Part of the southern limit of the Lochrin Basin wall [002] was recorded in the north-eastern part of the excavated area. The exposed section measured 42 m long by 0.7 m wide and was excavated over a short distance on its northern side (internal to the basin) to a maximum depth of 1 m. The wall was constructed from large, roughly dressed sandstone blocks, brought to course, with squared edges bonded by a lime mortar forming the outer faces. Contained within the wall faces was a mortar bound rubble core. Three sections of the wall survived to the wall head and still retained the original coping stones. These comprised large sandstone blocks with squared edges. The upper and front facing planes of these stones featured a chiselled broached finish with the upper leading edge of the stones finished with a round bevel. Occasional degraded metal fixings were visible on the upper surfaces of the coping stones. A band of clay luting [019] preventing water ingress was recorded abutting the southern side of the wall (Figure 18). Sections of the wall were adversely affected by the partial removal of a series of concrete piles, [Piles 1 - 4] associated with more recent occupation of the site.

6.3 Building 1 (Figures 2, 15-20, Plates 1 - 8 & 10 & 11)

6.3.1 The truncated remains of a building were found immediately south of the Lochrin Basin Wall. These remains comprised a sandstone wall [003], a gravel (quayside) surface [021], numerous concrete floors [004a-004e], mortar floors [004f], [004g] and [018] and three different types of cobbled surfaces: [006] and [028] and [013]. Evidence of internal subdivisions within the building was represented by a very truncated sandstone wall [046] and poorly preserved narrow brick partition walls [031]-[033] all aligned at right-angles to wall [003]. A more substantial brick wall aligned north-south was found abutting the south side of wall [003]; this was built from red brick bound by a pale grey lime mortar and may represent another internal division within Building 1. An extant sandstone wall [056] with a blocked opening (Plate 11), probably a doorway, formed the southern boundary of the site. This wall was initially perceived as being the internal wall face of the southern extent of Building 1, however closer inspection revealed that the north-facing elevation had formed the external face of this wall and as such these walls must belong to different buildings.

6.4 Sandstone walls [003] and [046] (Figures 2, 3-7, Plates 1-8 and 10 & 11)

6.4.1 Sandstone wall [003] wall was found aligned parallel to the basin wall at a distance of 4.85 m. The wall was built from red sandstone random quarried stone, brought roughly to course, bound by a pale grey/brown lime mortar. The wall traversed the whole of the excavated area and was visible, extant, to the north-east of the site forming the site boundary between Condor Car Hire and the development area. The wall was abutted by a short sandstone buttress [026] on its north side adjacent to cobbled surface [013]. A section of the wall towards the western end of the site had been completely removed, probably during recent demolition and grubbing out works associated with the removal of the Arnold Clark garage the most recent occupant of the site.

6.5 Concrete floors [004a-004e] (Figures 2, 15-17 and 19) (Plates 2 and 6)

6.5.1 A series of truncated concrete floors [004a]-[004e] was visible within Building 1. These comprised granolithic concrete with sunken treads in regular and herring bone patterns. These appeared to have been sub-divided into rooms by a number of brick partition walls [030]-[033]. Both the walls and concrete floors were built off a layer of crushed sandstone fragments [059] which in turn overlay a series of fill/landscaping deposits [022]. These features had been greatly disturbed by recent demolition and grubbing out works.

6.6 Cobbled floors [006], [013], [028] and brick floor [014] (Figures 2, 15-16 and 20) (Plates 2, 5 and 7)

6.6.1 Two cobbled surfaces were found along the southern edge of the excavated area. These comprised of an area of regular whinstone cobbles set on edge [006] which incorporated a shallow gully drain [047] where it abutted concrete floors [004a]-[004e] to the north. The second cobbled surface [028] comprised a mixture of regular and irregular whinstone cobbles set on edge and large sandstone blocks set on bed; towards the western extent an area of red brick [063] was found making up the fabric of this surface. These two surfaces were divided by and both abutted a kerb of regular whinstone cobbles [027] laid lengthways

along the direction of the kerb a single cobble wide and set on edge. Cobbles [028] were found to be truncated by a modern brick wall built in front of sandstone wall [056] forming the southern site boundary rendering it impossible to establish a relationship between the wall and the cobbles. Part of cobbled surface [028] and kerb [027] had been concreted over [029], perhaps effecting a repair on a particularly worn part of this surface. Cobbled surface [013] was found abutting the south side of wall [003] and a surface composed of red brick [014] towards the western end of site. The cobbled surface here was made up of irregular whinstone fragments well butted together. Brick surface [014] was made from red brick set on edge. Together these surfaces formed part of a rough floor in Building 1. A possible continuation of cobbled surface [013] was recorded as [061] below mortar floors [004f] and [004g] situated 6.8 m to the east (Figure 20).

6.7 Mortar floors [004f], [004g] and [016] (Figures 16 and 20) (Plates 8 and 13)

- 6.7.1 Within a truncated sequence of two mortar floors, the first [004f] was found overlying a fill layer of cinders and ash [051] in turn overlying degraded mortar floor [004g]. These isolated surfaces abutted the south side of wall [003] and were located on an island of undisturbed ground between cobbles [013] to the west and concrete floor [004e] to the east. The lower of the two floors [004g] was found directly overlying a remnant of cobbled surface [061]. A further isolated, truncated remnant of a mortar floor was recorded towards the western end of the site. This again abutted the southern edge of wall [002]. An assortment of rusty buckets and shovels were found lying on the surface of this floor during excavation.

6.8 Concrete bases [041] and [042], Stone base [060] (Figure 16 and 19) (Plate 6 and 12)

- 6.8.1 Two concrete bases were recorded in close proximity to one another adjacent to part of the site disturbed by the insertion of a manhole and associated service pipe [037] and [010] respectively. Base [041] consisted of a rectangular structure with four metal bolts protruding vertically from its upper face. The second [042] consisted of a square structure but was devoid of any obvious fittings. Base [041] is likely to be associated with the site of plant within Building 1 but it remains unclear as to the function of base [042]. A mortar bonded sandstone founded structure [060] was visible in section beneath concrete floor [004d]. This appeared to pre-date Building 1. After recording and subsequent removal of the overlying concrete floor [004d] this feature was found to be diminutive, poorly constructed from small sandstone rubble and not to have any structural integrity. Its function remains unclear.

7 DISCUSSION

- 7.1 The excavation revealed a palimpsest of 19th century structural features. The earliest surviving feature recorded during the excavation appeared to be Wall [003]. This represents the original property boundary wall dividing the land owned by Mr. Haig, the notable distiller, to the north and Mr. Gilmour's to the south, as depicted on Ainslie's map of 1804 (Figure 6).
- 7.2 Lochrin Basin wall [002] appears first on Wood's map published in 1823 (Figure 8). Wall [003] by this time appears to be forming the property boundary between the Lochrin Basin

and the Rope Works to the south. The gravel (quayside) surface [021] is perhaps illustrated on the 1853 OS map (Figure 3) as a narrow path feature along the southern side of the canal basin, before expanding as a larger surfaced area occupying the northern and eastern sides of the basin.

- 7.3 The cobbled surfaces [006] and [028] (Figure 21) represent part of the lane named *Rope Walk* as depicted on the OS maps of 1853 and 1895. It probably originated during the latter part of the Rope Work's active life.
- 7.4 Wall [056] (Figure 21) appears on the OS map published in 1895 and forms the rear property boundary of the dwelling houses fronting on to Gilmour Place. Sandstone wall [046] appears as part of a building of uncertain function depicted on the OS map published in 1895 (Figure 4).
- 7.5 The mortar, concrete and cobbled floors unearthed elsewhere across the site would appear to date to perhaps sometime in the 20th century. The long narrow building from the centre to the eastern end of the excavation area depicted on the OS map from 1933 (Figure 11), when the site is developed as a garage, shows a building with narrow sub-divisions. It seems likely that these were recorded as concrete floors [004a-004d] sub-divided by brick partition walls [030-033] during the excavation.

8 CONCLUSION

- 8.1 The Lochrin Basin and the evolution of the contemporary industrial landscape around it represent an important aspect of 19th century mercantile expansion in Edinburgh. Of the many industrial activities that took place in the area, the remains of the site associated with rope-making is probably the only one whose remains once underlay part of the proposed development site, along its southern border with the back gardens of the terraced houses along Gilmour Place. The Rope Works first appear on Kirkwood's map in 1817 before the construction of the Union Canal and Lochrin Basin, the factory is still in production in 1823 by which time the canal and Lochrin Basin have been built. The OS map published in 1853 indicates the factory has been demolished and part of the former Rope Works site is occupied by housing. Some major elements associated with the Rope Works and Lochrin Basin were recorded by the excavation, but the majority of the features date to late 19th early or 20th century occupation of the site.

9 REFERENCES

9.1 Bibliographical references

AOC 2005 *Lochrin Basin Evaluation, Tollcross, Edinburgh: Evaluation Data Structure Report*, AOC Archaeology Group, Unpublished.

Baldwin, JR 1985 *Exploring Scotland's heritage: Lothian and the Borders*, Exploring Scotland's Heritage Series, Edinburgh.

Barber, J, Thomson, L & Rankin, D 2002 *10-12 West Tollcross*, AOC Archaeology Group, Unpublished.

Brown, H 1997 *Exploring the Edinburgh to Glasgow canals*, Edinburgh.

Bown, CJ & Shipley, BM 1982 *South-East Scotland. Soil Survey of Scotland*. The Macauley Institute for Soil Research. Aberdeen.

Cant, M 1987 *Villages of Edinburgh – Volume 2*, Edinburgh, 144 – 149.

Cant, M 1995 *Edinburgh: Gorgie and Dalry*, Edinburgh.

Douglas, GJ 1999 *Union Canal: Edinburgh*, Discovery & Excavation in Scotland 1999, p.42, Edinburgh

Easton, D 1988 *By the Three Great Roads: A History of Tollcross, Fountainbridge and the West Port*, Aberdeen University Press.

Edinburgh Corporation City Engineers Department 1975 *History and Description of Edinburgh Street Names*, Edinburgh.

Glendinning, M, MacInnes, R & MacKecknie, A 1996 *A history of Scottish architecture from the Renaissance to the present day*, Edinburgh.

Grant, J 1882 *Cassell's old and new Edinburgh: its history, its people and its places*, vol III, 30, London.

Harris, S 1996 *The Place Names of Edinburgh – Their Origins and History*, Edinburgh.

Hay, G D & Stell, G P 1986 *Monuments of Industry*, Edinburgh.

Hutton, G. 2002 *Scotland's Millennium Canals: The Survival and Revival of the Forth & Clyde and Union Canals*, Catrine.

Hutton, G 1993 *The Union Canal: a capital asset*, Glasgow.

Mitchell, GH & Mykura, W et al, 1962 *The Geology of the Neighbourhood of Edinburgh*, HMSO.

Robertson, AS 1984 'Roman coins found in Scotland, 1971 – 1982', in *Proc Soc Antiq Scot*, 113 (1983), 414.

Scottish Executive 2002 *Scotland's Canals: An Asset for the Future*.

SG 2008 *Scottish Planning Policy 23: Planning & the Historic Environment*. The Scottish Government.

Simpson, AT, Stevenson, S & Holmes, N 1981 *Historic Edinburgh Canongate & Leith. The Archaeological Implications of Development*. Scottish Burgh Survey: Glasgow.

Sinclair, Sir J (ed) 1793 'City of Edinburgh', in the *Statistical Account of Scotland*, Vol VI, Edinburgh, 559-576.

SOEnD 1994 *Archaeology - the Planning Process and Scheduled Monument Procedures. Planning Advice Note PAN42*, The Scottish Office Environment Department.

Synod of Lothian and Tweeddale 1845 'City of Edinburgh', in the *New Statistical Account of Scotland*, Vol 1, Edinburgh and London, 614-759.

Tollcross Local History Project 1990 *Waters Under the Bridge*, Aberdeen University Press.

9.2 Cartographic references

Braun, G & Hogenberg, F c 1582 *Edenburgum, Scotiae metropolis*.

Gordon, J 1647 *Vivo amplissimo Edinodunensis*.

Unnamed c 1710 *The North Prospect of the City of Edinburgh*.

Edgar, W 1742 *City and Castle of Edinburgh*.

Cooper, R 1759? *A plan of the city of Edinburgh with adjacent grounds*.

Edgar, W 1765 *City and castle of Edinburgh*.

Ainslie, J 1780 *City of Edinburgh*.

Kincaid, A 1784 *A plan of the city and suburbs of Edinburgh*.

Ainslie, J 1804 *Old and New Town of Edinburgh and Leith with the proposed docks*.

Kirkwood, R 1817 with later additions *Plan of the City of Edinburgh and its environs*.

Wood, J 1823 *Plan of the city of Edinburgh*.

Crawford, D 1824 *Sketch of the City of Edinburgh and Leith*.

Kay, J 1836 *Kay's plan of Edinburgh*.

Lancefield, A 1851 *Johnston's plan of Edinburgh and Leith*.

OS 1853 *Edinburgh and its Environs*, Sheet 38, 1:1056.

OS 1881 *Edinburgh and its Environs*, Sheet 38, 1:1056.

OS 1895 *Edinburgh and its Environs [New Series]*, Sheet III.II.3, 1:500.

OS 1896 *Edinburghshire [New Series]*, Sheet III.II, 1:2500.

OS 1908 *Edinburghshire*, Sheet III.II, 1:2500.

OS 1914 *Edinburghshire*, Sheet III.II, 1:2500.

OS 1931 *Midlothian*, Sheet III.II, 1:2500.

OS 1948* *Plan 36/2472NE*, 1:1250 (* = surveyed)

OS 1951 *Plan NT2472NE*, 1:1250.

OS 1961 *Plan NT2472NE*, 1:1250.

Geological Survey of Great Britain (Scotland) 1965 (with amendments 1999) *Sheet NT27SW*, 1:10000.

OS 1974 *Plan NT2472NE*, 1:1250.

Soil Survey of Scotland, Sheet 7, 1982.

Lochrin Basin, Tollcross, Edinburgh Excavation: Data Structure Report

Section 2: Illustrations

Lochrin Basin, Tollcross, Edinburgh Excavation: Data Structure Report

Section 3: Appendices

Appendix 1: Context Register

Appendix 2: Photographic Register

Appendix 3: Drawing Register

APPENDIX 4: DISCOVERY AND EXCAVATION IN SCOTLAND ENTRY

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME:	Lochrin Basin, Edinburgh
PROJECT CODE:	AOC 20144
PARISH:	Tollcross
NAME OF CONTRIBUTOR:	Alan Hunter Blair
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological excavation
NMRS NO(S):	NS56NW 1 & 42
SITE/MONUMENT TYPE(S):	Lochrin Basin
SIGNIFICANT FINDS:	Part of canal basin's southern wall and walls of contemporary buildings.
NGR (2 letters, 6 figures)	NT 246 727
START DATE (this season)	2 nd March 2009
END DATE (this season)	27 th March 2009
PREVIOUS WORK (incl. DES ref.)	Wilson D. Lochrin Basin Evaluation DES 2005
MAIN(NARRATIVE) DESCRIPTION: (May include information from other fields)	An archaeological excavation was carried out on a proposed development site at Lochrin Place due to the proximity of the early 19 th century Lochrin Basin, formerly part of the Union Canal. The excavation recorded part of the southern extent of the canal basin quay wall along with the fragmentary remains of concrete and mortar floors, cobbled surfaces and walls associated with a building, probably the remains of ancillary structures possibly warehousing, associated with a rope making factory located immediately to the south of Lochrin Basin.
PROPOSED FUTURE WORK:	---
CAPTION(S) FOR ILLUSTRS:	---
SPONSOR OR FUNDING BODY:	Mactaggart & Mickel Ltd
ADDRESS OF MAIN CONTRIBUTOR:	C/o AOC Archaeology Group, Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS.

Contexts

Context Register

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
	Pile 1	Cut		Building 1		062					Measured 6 m long x 5 m wide x1.65 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site
	Pile 2			Building 1		062					Measured 6 m long x 4 m wide x1.2 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site
	Pile 2a	Cut		Building 1		062						Modern cut associated with removal of concrete piling associated with late occupancy of the site
	Pile 3			Building 1		062					Measured 8 m long x 4 m wide x1.2 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site
	Pile 3a	Cut		Building 1		062					Measured 4 m long x 4 m wide x 1.1 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site
	Pile 4		Building 1			062					Measured 8 m long x 4 m wide x1.2 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
	Pile 4a	Cut		Building 1							Measured 7 m long x 4 m wide x 0.65 m deep Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site
1		Deposit	062								Type 1 gravel forming present ground surface across the site Measured up to 0.32 m deep	Present ground surface
2		Structure	050			062	Piles 1-4, Services 038 +048				42 m long x 0.75 m wide x 1 m in height (continued below excavated depth) Sandstone wall aligned east to west constructed from large roughly dressed sandstone blocks, stone size 630 mm long x up to 700 mm wide x 170 mm in height, brought to course, with squared edges, bound by a lime mortar these formed the outer faces. Contained within the wall faces was a lime mortar bound rubble core. Three sections of the wall survived to the wall head and still retained the original coping stones. These comprised large sandstone blocks with squared edges, stone size 1006 mm long x 750 mm wide x 320 mm in height. The upper and front facing planes of these stones featured a chiselled broached finish with the upper leading edge of the stones finished with a round bevel. Occasional degraded metal fixings were visible on the upper surfaces of the coping stones.	Southern limit of Lochrin Basin wall

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
3		Structure	023, 025,			062, 020,					Measured 83.44 m long x 0.4 m wide x up to 1.3 m in height. Stone size 480 mm long x 280 mm wide x 160 mm deep. The wall aligned east to west was built from red sandstone random quarried stone, brought roughly to course, bound by a pale grey/brown lime mortar. The wall traversed the whole of the excavated area and was visible, extant, to the northeast of the site forming the site boundary between Condor car hire and the development area. The wall was abutted by a short sandstone buttress [026] on its north side adjacent to cobbled surface [013]. A section of the wall towards the western end of the site had been completely removed, probably during recent demolition and grubbing out works	North wall of Building 1
4 a		Structure	059			062					Measured 5m long x 4.5 m wide x 0.08 m deep. Granolithic concrete floor within building 1 abutts wall 003 to the north and cobble gully 047 to the south. Is sub-divided by brick partition 030 towards its eastern limit. Floor had sunken treads in regular and herring bone patterns. Truncated by pile 1a to the west	Concrete floor within Building 1

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
4	b		059			062					Measured 5m long x 4 m wide x 0.08 m deep Granolithic concrete floor within building 1 abutts wall 003 to the north. Is sub-divided by brick partition 031 towards its eastern limit. Floor had sunken treads in regular and herring bone patterns. Truncated by pile 1a to the west and 2a to the east	Concrete floor within Building 1
4	c	Structure	059			062	035				Measured 6 m long x 4 m wide x 0.08 m deep Granolithic concrete floor within building 1 abutts wall 003 to the north. Is sub-divided by brick partition 032. Floor had sunken treads in regular and herring bone patterns. Truncated by pile 2a to the east and 3a to the west	Concrete floor within Building 1
4	d	Structure	059			062	035				Measured 12 m long x 5 m wide x 0.08 m deep Granolithic concrete floor within building 1 abutts wall 003 to the north and cobble gull 047 to the south . Floor had sunken treads in regular and herring bone patterns with shallow drainage gullies. Truncated by pile 3a to the east, 4a to the south and service trench 038 to the west	Concrete floor within building 1
4	e	Structure	059			062	Modern demolition work				Measured 3 m long x3 m wide x 0.08 m deep. Concrete floor abutted wall 003 to the north truncated on west east and south sides by demolition work	Concrete floor within Building 1

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
4 f		Structure	051			062	modern demolition work				Measured 2 m long x 2 m wide x 0.04 m deep Truncated remnant of a mortar floor abutts wall 003 to the north. Overlies an earlier mortar floor 004g. Built off a levelling layer 051 of coal dross and cinders.	Truncated floor remnant within Building 1
4 g			059 022			051	modern demolition				Measured 2 m long x 2 m wide x 0.04 m deep Truncated remnant of a mortar floor abutts wall 003 to the north and wall 046 to the east. Found below a levelling deposit 051 under mortar floor 004f.	Phase of flooring within Building 1
5		Deposit	022	006		062					Measured 4.5 m long x 0.31 m wide x 0.2 m in height Reinforced concrete beam aligned east to west, located at the east end of site and cut through cobbled surface 006	Concrete beam associated with recent occupancy of the site
6		Structure	022			062					Measured 40.45 m long x 3.75 m wide Cobble size 120 mm-350 mm long x 100 mm wide A cobbled surface of regular whinstone cobbles set on edge. Featured a shallow gull 047 at its northern extent which abutted concrete floors 004a-004d within Building 1 to the north. Abutted kerb 027 to the south	Cobbles surface
7 Pile 1a		Cut		Building 1		062					Measured 8 m long x 4 m wide unexcavated Irregular cut in plan associated with removal of concrete piling associated with late occupancy of the site	Modern cut associated with removal of concrete piling associated with late occupancy of the site

<i>Context</i>	<i>Sub</i>	<i>Type</i>	<i>Over</i>	<i>Cuts</i>	<i>Fill Of</i>	<i>Under</i>	<i>Cut By</i>	<i>Filled By</i>	<i>Same as</i>	<i>Within</i>	<i>Description</i>	<i>Interpretation</i>
8		Structure	035								Cast-iron pipe aligned east to west and north to south from manhole 036 Measured 23 m long E-W 7 m long N-S 6" pipe	Modern service pipe associated with late occupancy of the site
9											UNUSED	
10		Structure	038								Cast-iron pipe aligned north to south from manhole 037 Measured 10 m long 6" pipe	Modern service pipe associated with late occupancy of the site
11		Structure	023				062	pipe 012			Measured 2.12 m north to south x 0.72 m long east to west 0.23 m wide Truncated brick wall built from red frogged brick bound by cement mortar. Bricks laid across the wall 1 course wide and survived to a single course in height. Built off a basal course of re-used cobbles which overlay buried topsoil horizon 023	Ancillary structure function uncertain associated with Building 1
12		Structure	048	011			062				Measured 10.3 m long 5" pipe Ceramic pipe aligned north to south	Modern service pipe associated with late occupancy of the site
13		Structure	059				062	048 pipe trench			Measured 9 m long x 1.5 m wide Cobbled surface abutting the south side of wall 003 and brick floor surface 014 Made up from irregular whinston fragments tightly butted together. Truncated to the west east and south by demolition activity. Cut by service trench 048	In conjunction with brick surface 014 formed a remnant of floor surface within Building 1

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
14		Structure	059			062	Pipe trench 048				Measured 3 m long x 0.56 m wide Floor surface comprising red brick set on edge, traces of a lime mortar bond visible. Brick size 220 mm x 60 mm (visible) Abutted cobbled surface 013 to the south and wall 003 to the north. Truncated by service trench 048	In conjunction with cobbles 013 formed a remnant of floor surface within Building 1
15		Deposit				all excav					Orange brown sand with occasional bedrock out crops towards the north of site this deposit similar in colour became more clayey	Natural
16		Structure	059			062					Measured 3 m long x 1.4 m wide x 0.06 m deep Truncated remnant of a mortar floor abutting the south side of wall 003 An assortment of galvanised buckets and rusty shovels were found overlying this floor during excavation but not retained	A remnant of floor surface within Building 1
17		Structure		015		062					1.4 m long x 0.92 m wide x 0.23 m thick Truncated brick built structure protruding from below southern baulk at the west end of site. Built from red frogged brick laid in stretcher bond bound by a cement mortar. Found below 2 m of demolition debris.	Possibly the remnant of a manhole associated with late occupancy of the site, although no pipe work associated with this feature was visible during excavation which was heavily truncated
18											UNUSED	

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
19		Deposit	002			062					Measured 25.32 m long (visible) x 1.06 m wide x 0.46 m deep (excavated) A dry, firm, mottled orange/yellow/brown clay with moderate inclusions of small angular stones. Abutted the south side of wall 002	Clay luting preventing water ingress past Lochrin Basin wall
20		Deposit	015			062					A moist, firm series of layers of dumped material including: -Re-deposited natural sandy clay with fragments of yellow sandstone -Cinders, ash, coal dross and fragments of burnt stones -Dark brown sandy clay with frequent brick, sandstone and mortar fragments Measured up to 1.6 m deep	Fill/landscaping layer associated with the construction of Building 1 and the Lochrin Basin
21		Structure	020			062					Measured 3.6 m long x 1.6 m wide Truncated area of type II gravel Measured 0.28 m deep	Gravel surface originally fromed the surface between Lochrin Basin Wall 002 and the north wall of Building 1
22		Deposit	023			004 016 0					A series of deposits forming a fill/landscaping layer within and beneath the floors of Building 1 comprising: -Crushed sandstone fragments with occasional tile fragments -cinders coal dross, ash and burnt stone fragments Measured up to 1.6 m deep	Fill/landscaping layer associated with the construction of Building 1
23		Deposit	050			022 020					A moist, firm, dark brown silty sand with moderate inclusions of small angular stones and occasional coal fragments. Measured up to 0.38 m deep	Buried topsoil horizon, visible across parts of the site
24											UNUSED	

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
25		Structure	015			003					Sandstone rubble brought poorly to course and bound by a pale grey brown lime mortar. Stone size 350 mm x 200 mm x 150 mm. This was found underlying wall 003 and measured 0.95 m long x 0.45 m in height. Believed to be the same width as wall 003.	Underpinning for wall 003
26		Structure	023			062					Sandstone rubble brought poorly to course and bound by a pale grey brown lime mortar. Stone size 350 mm x 200 mm x 150 mm. This was found abutting the north side of wall 003 aligned to the north. Measured 0.6 m long x 0.6 m wide x 0.4 m in height.	Buttress abutting the north side of wall 003
27		Structure	022			062					A cobbled kerb aligned east to west abutted by cobbled surface 006 to the north and cobbled surface 028 to the north. Comprised a single row of cobbles laid lengthways on edge. Measured 40.45 m long x 0.12 m wide and curved to the south east at its eastern end.	Cobble kerb dividing cobble surfaces 006 and 028. Possibly formed part of Rope Lane
28		Structure	022			062	055 035 038				Cobbled surface: Comprised a mixture of regular and irregular whinstone cobbles set on edge and large sandstone blocks set on bed, towards the western extent an area of red brick [063] was found making up the fabric of this surface. These two surfaces were divided by and both abutted a kerb of regular whinstone cobbles 027. Measured 36.15 m long x 2.96 m wide. Stone size 360 mm x 250 mm <	Cobble surface associated with Rope lane

<i>Context</i>	<i>Sub</i>	<i>Type</i>	<i>Over</i>	<i>Cuts</i>	<i>Fill Of</i>	<i>Under</i>	<i>Cut By</i>	<i>Filled By</i>	<i>Same as</i>	<i>Within</i>	<i>Description</i>	<i>Interpretation</i>
29		Structure	028			062					An area of concrete with a dimpled upper surface was found overlying part of cobbled surface 028 and kerb 027. Measured 12 m long x 8.85 m wide	Repair or improvement to cobbled surface 028
30		Structure	022			062					Brick partition wall sub-dividing part of concrete floor 004a Built from red brick laid lengthways along the wall, aligned north-south and bound by a pale brown lime mortar. Measured 4.7 m long x 0.12 m wide Brick size 230 mm x 110 mm x 90 mm	Brick partition wall
30 a		Structure	022			062					Brick partition wall sub-dividing part of concrete floor 004a Built from red brick laid lengthways along the wall, aligned north-south and bound by a pale brown lime mortar. Measured 1 m long x 0.12 m wide Brick size 230 mm x 110 mm x 90 mm	Truncated remnant of brick partition wall
31		Structure	022			062					Brick partition wall sub-dividing part of concrete floor 004b Built from red brick laid lengthways along the wall, aligned north-south and bound by a pale brown lime mortar. Measured 2.67 m long x 0.12 m wide Brick size 230 mm x 110 mm x 90 mm	Brick partition wall

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
32		Structure	022			062					Brick partition wall sub-dividing part of concrete floor 004c Built from red brick laid lengthways along the wall, aligned north-south and bound by a pale brown lime mortar. Measured 4.45 m long x 0.12 m wide Brick size 230 mm x 110 mm x 90 mm	Brick partition wall
33		Structure	022			062					Brick partition wall sub-dividing part of concrete floor 004d Built from red brick laid lengthways along the wall, aligned north-south and bound by a pale brown lime mortar. Measured 0.58 m long x 0.12 m wide Brick size 230 mm x 110 mm x 90 mm	Brick partition wall
34		Structure	004a			062					A series of small circular depressions in the upper surface of concrete floor 004a represent the position of plant associated with the workings of Building 1 Measured 0.86 m long x 0.38 m wide depression diameter 0.04 m x 0.02 m deep	Plant base
35		Cut		015		012					Service trench cut aligned north to south and east to west associated with manhole 036 and pipe 008. Measured 23 m long E-W 7 m long N-S x 0.6 m wide x 1 m deep	Modern service trench
36		Structure	022			062					Brick built manhole built from red frogged brick, stretcher bond, bound by a cement mortar Measured 1.52 m long x 1.05 m wide walls 0.48 m thick x 0.75 m in height Brick size 225 mm x 110 mm 80 mm	Brick manhole associated with service pip 008

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
37		Structure		015		062					Brick built manhole built from red frogged brick, strecher bond, bound by a cement mortar Measured 1.55 m long x 1.06 m wide survived to 0.15 m in height, walls 0.48 m thick 0.75 m in height Brick size 225 mm x 110 mm 80 mm Built off a concrete base which measured 0.28 m deep and protruded 0.33 m beyond the base of the manhole.	Brick manhole associated with service pipe 012
38		Cut		015, 006, 0		062					Cut aligned north-south Measured 16.65 m long x 0.8 m wide 1.2 m deep	construction cut for service pipe 012
39											UNUSED	
40		Structure	050			062					Brick wall aligned north-south abutts the south side of wall 003. Built from orange/red brick bound by a pale grey lime mortar. Measured 4 m long x 0.36 m wide x 0.2 m in height	Possibly the remnant of a sub-dividing wall within Building 1
41		Structure	050			062					Concrete base located south of concrete floor 004e four metal pins were visible protruding vertically from the upper face of this structure which was rectangular in shape aligned roughly east to west and measured 2.3 m long x 0.55 m wide x 0.5 m deep	Possible machine base for heavy plant associated with the workings of Building 1
42		Structure	050			062					Square structure built with brick and sandstone rubble with slate pinning and bound by a pale brown/grey lime mortar. Measured 0.78 m long x 0.7 m wide (depth undetermined)	Possible base associated with the workings of Building 1

<i>Context</i>	<i>Sub</i>	<i>Type</i>	<i>Over</i>	<i>Cuts</i>	<i>Fill Of</i>	<i>Under</i>	<i>Cut By</i>	<i>Filled By</i>	<i>Same as</i>	<i>Within</i>	<i>Description</i>	<i>Interpretation</i>
43		Structure	023	006		062					Truncated brick wall aligned north to south, built from pink frogged bricks bound by a cement mortar. Built off a concrete base 0.42 m wide by 0.25 m deep which truncates cobbled surface 006 Measured 0.98 m long x 0.34 m wide x 0.17 m deep Brick size 225 mm x 105 mm x 70 mm	Wall associated with late activity on the site.
44		Structure	022			045					Remnant of a concrete surface partially exposed lying below tarmac surface 045 Measured 1.28 m long x 0.7 m wide x 0.07 m deep	late activity on the site
45		Structure	044			062					An area of tarmac directly overlying concrete 044 Measured 2 m long x 1.3 m wide x 0.03 m deep	late activity on the site
46		Structure	022			062					Truncated remnant of sandstone wall, aligned north to south, built from sandstone rubble bound by a pale brown lime mortar. Abutted to the west by floor surfaces 061, 004f and 004g	Remnant of sub-dividing wall within building 1
47		Structure	022			062					Cobbled gully situated at the northern limit of cobbled surface 006, abutts concrete floors to the north. Cobbles laid at right angles to the main surface 006 Measured 28 m long x 0.4 m wide Cobble size 120 mm-350 mm long x 100 mm wide	Gully drain at the northern limit of cobbled surface 006
48		Cut		015		012					Construction cut for service pipe 012 Measured 10 m long x 0.55 m wide x 1.1 m deep	Serve trench associated with late activity on the site

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
49		Structure		015		062					Ceramic pipe aligned SW-NE visible cutting the natural sand 015 at the west end of site Measured 6 m long (truncated) 8" pipe	
50		Deposit	015			023 022					A moist, firm, mid-brown sandy clay with occasional inclusions of small angular stones 40 mm < Measured 0.35 m deep	Subsoil
51		Deposit	004g			004f					A layer of cinders with ash and small fragments of coal found between floor surfaces 004f and 004g Measured 0.08 m deep	Levelling layer for floor 004f
52		Structure	022			062					A small stone plate with a raised circular centre set into cobbled surface 006 Measured 0.26 m x 0.26 m circular centre 0.1 m diameter	Stone setting function uncertain
53		Structure	006			062					Vertically set metal pins visible towards the western end of cobbled surface 006 Measured 0.015 m in diameter 0.35 m in height	Function uncertain
54		Structure				062				006	Small metal stopcock valve built into cobbled surface 006	Stopcock associated with services in Building 1
55				028 029		062					Modern brick wall running parallel to the sandstone wall 056 forming the southern site boundary at a distance of 0.24 m to the north. Built from pink frogged brick bound by a cement mortar. Cuts cobble surface 028 Measured 36 m long x 0.36 m wide	Modern wall associated with Arnold Clarks garage

Context	Sub	Type	Over	Cuts	Fill Of	Under	Cut By	Filled By	Same as	Within	Description	Interpretation
56		Structure									Extant sandstone wall built from sandstone rubble bound by a pale brown lime mortar. Contains a blocked opening 057	Partially demolished sandstone wall forming the southern site boundary
57										056	A blocked opening within wall 056 with dressed surround with horizontal broached tooling. Sandstone blocking Measured survived to 1.5 m in height (upper part demolished) x 0.80 m wide	Relict doorway in wall 056
58		Cut		028 029		062					Modern service trench aligned east to west cuts cobbled surface 028 concrete 029	Modern service trench
59		Deposit	022								Crushed sandstone fragments in a sandy matrix formed the uppermost fill layer within Building 1 and appeared to have been laid as the final levelling deposit over which the floors within Building 1 were laid	Fill/levelling layer
60		Structure	050			022					Rectangular sandstone structure aligned NE-SW built from random rubble bound by a grey/brown lime mortar. Measured 1.5 m long x 0.7 m wide x 0.4 m in height	Structure probably pre-dating Building 1 function unclear
61		Structure	022				004g				An area of cobbles visible in section beneath floor 004g Comprised angular whinstone cobbles poorly butted together. Measured 1 m long x 22 m in depth	Possibly the original floor surface within Building 1 superceded by mortar floors 004f and 004g
62		Deposit	most exca				001				Demolition debris up to 2 m in depth sealing building 1 and Lochrin Basin wall 002	Demolition debris

<i>Context</i>	<i>Sub</i>	<i>Type</i>	<i>Over</i>	<i>Cuts</i>	<i>Fill Of</i>	<i>Under</i>	<i>Cut By</i>	<i>Filled By</i>	<i>Same as</i>	<i>Within</i>	<i>Description</i>	<i>Interpretation</i>
63		Structure	022			062					An area of brick forming part of the fabric of floor 028. Made with red unfrogged brick laid on bed Measured 5.7 m long x 1.32 m wide Brick size 245 mm x 120 mm x 75 mm	An area of brick forming part of the fabric of floor 028

Film No	Photo No	Area	F. No	Subject	From
1	1-2	1		Registration	
1	3-4	1		General view of site pre excavation	W
1	5-6	1		General view of site pre-excavation	E
1	7-8	1	003	General view of site during machine excavation	W
1	9	1	003	General view of site during machine excavation	SW
1	10-11	1		General view of site during machine excavation	W
1	12-13	1	2,3,4a	Walls 002 and 003 and concrete floor 004a	N
1	14-15	1	2,3,4a	Walls 002 and 003 and concrete floor 004a	NW
1	16-17	1	2,3	Walls 002 and 003	E
1	18-19	1	2,3	Walls 002 and 003 and concrete pile 4	NE
1	20-21	1	3, pile 3	Wall 003 showing truncation by pile 3	N
1	22-23	1	2,19	Wall 002 and clay luting 019 plan view	E
1	23a-23b	1	2,19	Wall 002 and clay luting 019	W
1	24-25	1	3, 23, 25 and 25	Underpinning 025 below wall 003, buried topsoil 023 and natural 024	N
1	26-27	1	3	General view of wall 003 and floor surfaces within Building 1	NW
1	28-29	1	2,3 pile 4	Walls 002 and 003 and concrete piling 4	NW
1	30-31	1	3, 26	Buttress 026 abutting the north side of wall 003	NE
1	32-33	1	14, 15	General view of area of deep truncation at the western end of site. Also visible ceramic service pipe 014 cutting natural sand 015	E
2	1			Registration	
2	2-3	1	4a-4e, 6, 28	General view of concrete floors 004a-004e and cobbled surfaces 006 and 028 at the east end of Building 1. Concrete beam 005 cutting cobbled surface 006	E
2	4-5	1	3, 4a	Wall 003 and concrete floor 004a within Building 1	N
2	6-7	1	3, 21, 20	General view of wall 003 and west facing section through Type II gravel surface 021 and fill/landscaping layers 020	NW
2	8-9	1	4a, 30	Concrete floor 004a and brick partition wall 030	W
2	10-11	1	8, 4b 31	Brick manhole 008, concrete floor 004b and brick partition 031	S
2	12-13	1	4c, 33	Concrete floor 004c and brick partition 033	S
2	14-15	1	6, 27, 28	Cobbled surfaces 006, 028 and cobbled kerb 027	W
2	16	1	4b, 8, 3	Concrete floor 004b, brick manhole 008 and wall 003	W
2	17-18	1	4d, 8, 35	Concrete floor 004d, cut 035 for cast-iron service pipe 008	S

2	19-20	1	6, 52, 53	Stone setting 052 and iron bars 053 within cobbles 006	S
2	21-22	1	2, 3, 10, 37, 38	Manhole 037, cast-iron service pipe 010 and walls 002 and 003 being cut by service trench cut 038	S
2	23-24	1	4d, 22, 23, 50, 35, 8, 60	West facing section showing deposits and structures below concrete floor 004d	W
2	25-26	1	4e, 40, 41, 42	Brick wall/footing 040, concrete bases 041 and 042 and concrete floor 004e	S
2	27-28	1		General view of site	E
2	29-30	1	4e	West facing section through deposits below concrete floor 004e	W
2	31-32	1	3, 16	Wall 003 and mortar floor 016	SE
2	33-34	1	3, 13, 14	Wall 003, cobbled floor 013, and brick floor 014	S
2	35-36	1	56, 57	Blocked opening 057 within wall 056	W
3	1			Registration	
3	2-3	1	4f, 4g, 22, 23, 50, 51, 59, 46, 61	North facing section showing mortar floors 004f, 004g, cobbles 061, sandstone wall 046 overlying levelling deposits 022, 051 and 059 and buried topsoil 023	S
3	4-5	1	3	North facing elevation of wall 003 at its eastern end	N
3	6-7	1	21	Type II gravel surface 021 forming the surface between walls 002 and 003	W
3	8-9	1	2	North facing elevation of wall 002	N
3	10-11	1	43, 44, 45	Brick wall 043, tarmac 045 and concrete 044	W
3	12-13	1	41, 42	Concrete bases 041 and 042	W
3	14-15	1	4f, 4g, 46	Sandstone wall 046 and mortar floors 004f and 004g	SE
3	16-17	1	2	Detail of coping stones along the top of wall 002	E
3	18-19	1	3	Extant section of wall 003 continuing to the east of site	SE
3	20-21	1	2	Detail showing chiseled broached finish on coping stones on top of wall 002	E
3	22-23	1	6, 54	Stopcock 054 within cobbled surface 006	E
3	24-25	1	52, 6	Stone setting 052 within cobbled surface 006	E
3	26-31	1		General views of site post-excavation	
3	32	1	28, 55, 56, 58	Cobbled surface 028 showing truncation by service duct 058, brick wall 055 and sandstone wall 056	N
3	33	1	28, 55, 56, 58, 29	Concrete surface 029 overlying cobbles 028, brick wall 055 and sandstone wall 056, service trench 058 cutting concrete 029 and cobbles 028	N
3	34	1	63	Brick element 063 of cobbled surface 028	SE

Drawings

Drawing Register

Drawing No.	Area	F.No.	Details	Scale	Drawn By	Date
1	1		Plan of coping stones along the top of Lochrin Basin Wall	1:20	LD	24/03/2009
2	1		West facing section through gravel 021, fill/landscaping layers 020 between Basin wall and wall 002	1:10	LD	24/03/2009
3	1		West facing section through fill/landscaping layer 022, below concrete floor 004d, buried topsoil 023, subsoil 050 and structure 060	1:10	LD	25/03/2009
4	1		West facing section showing clay luting 019 abutting the south side of Lochrin Basin wall 002	1:10	LD	25/03/2009
5	1		South facing section through floors 004f, 004g, cobbles 061 and wall 046	1:10	LD	25/03/2009



Figure 2: Plan showing location of principal features



Figure 3: Plan showing location of Lochrin Basin wall and excavated features within Building 1

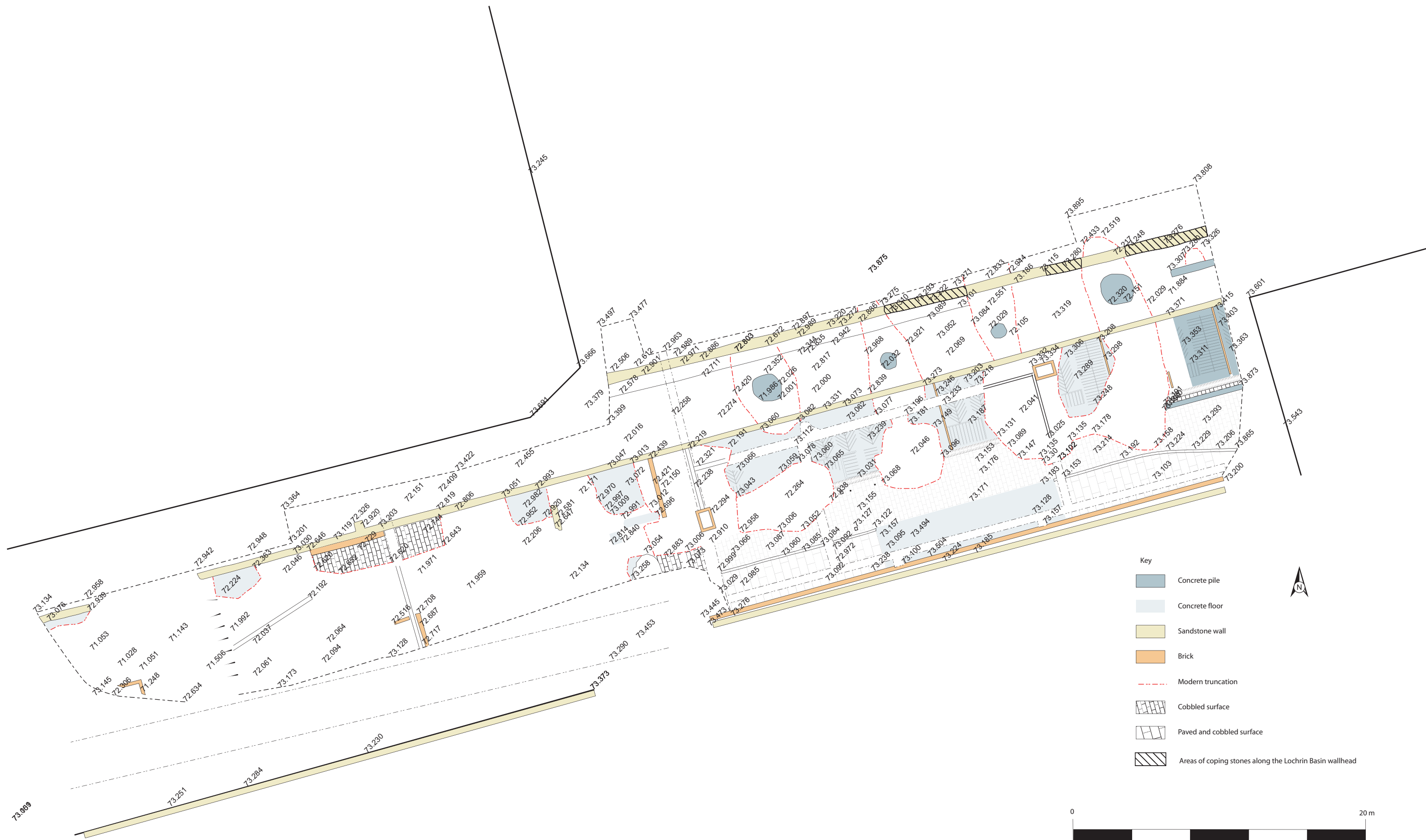


Figure 4: Plan showing ordnance datum

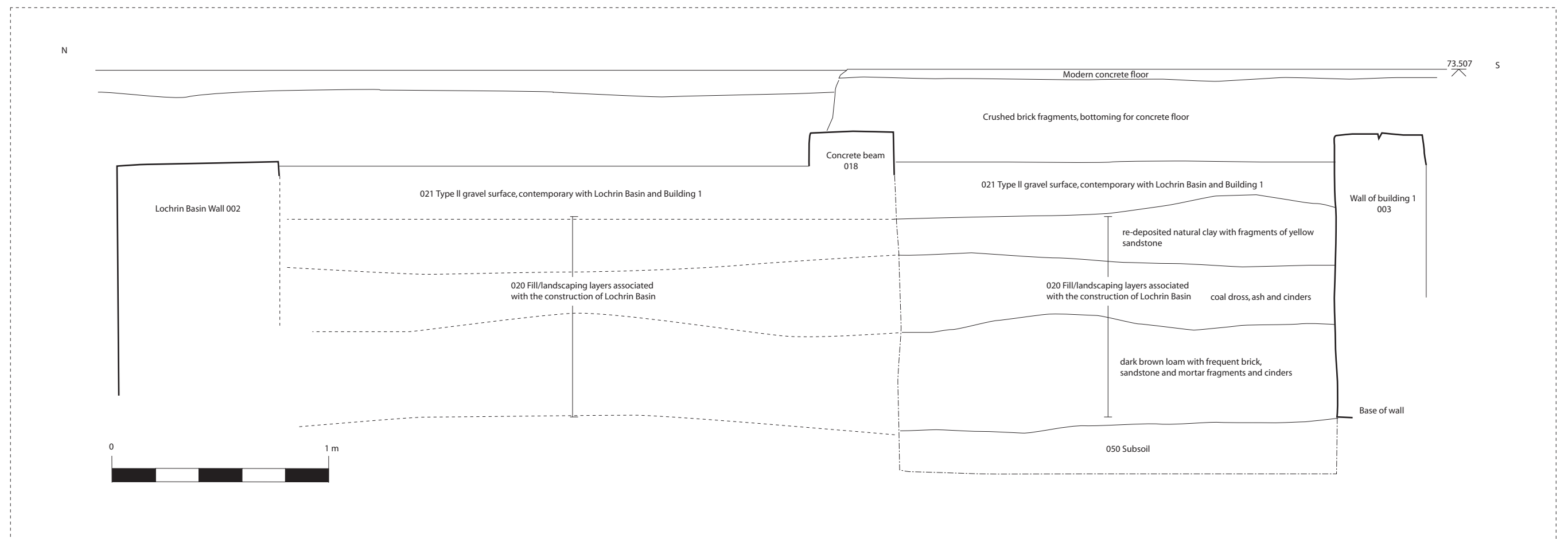


Figure 5: West facing section showing fill/landscaping deposits between walls 002 and 003

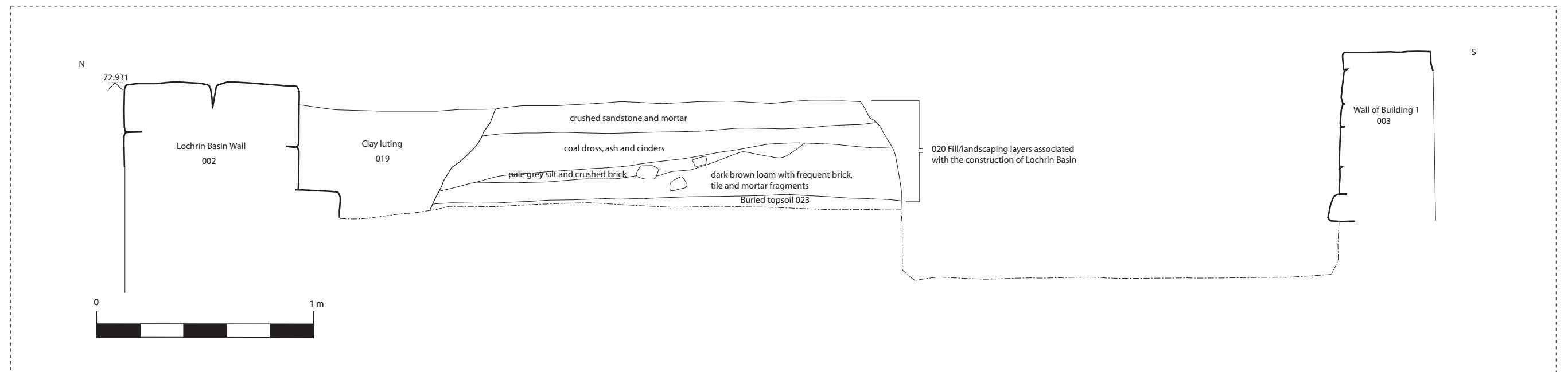


Figure 6: West facing section showing fill/landscaping deposits and clay luting south of wall 002

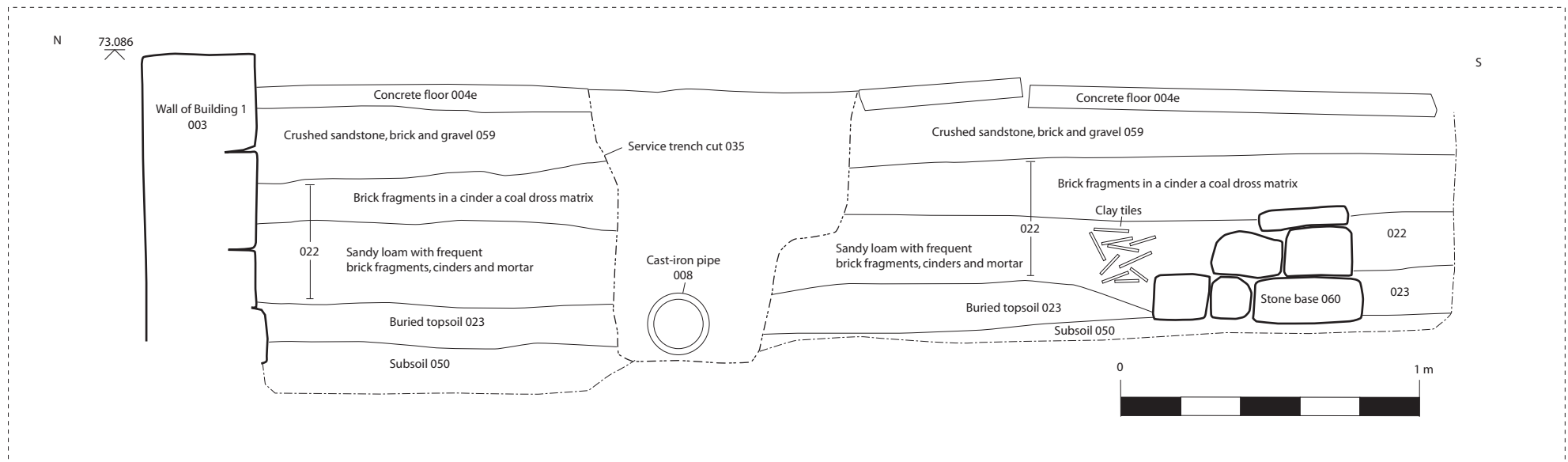


Figure 7: West facing section showing fill/landscaping deposits beneath concrete floor 004e, within Building 1 and stone base 060 south of wall 003

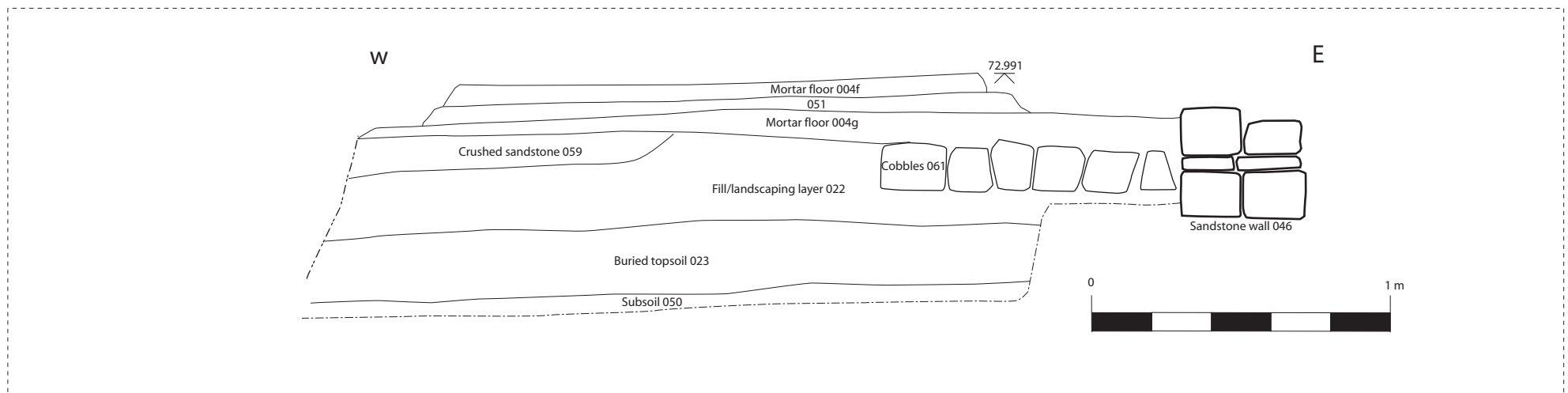


Figure 8: South facing section showing sequence of mortar floors 004f and 004g, cobbles 061 and wall 046 within Building 1



Figure 9: Plan showing location of principle walls found during excavation superimposed onto Ordnance Survey map, published 1895

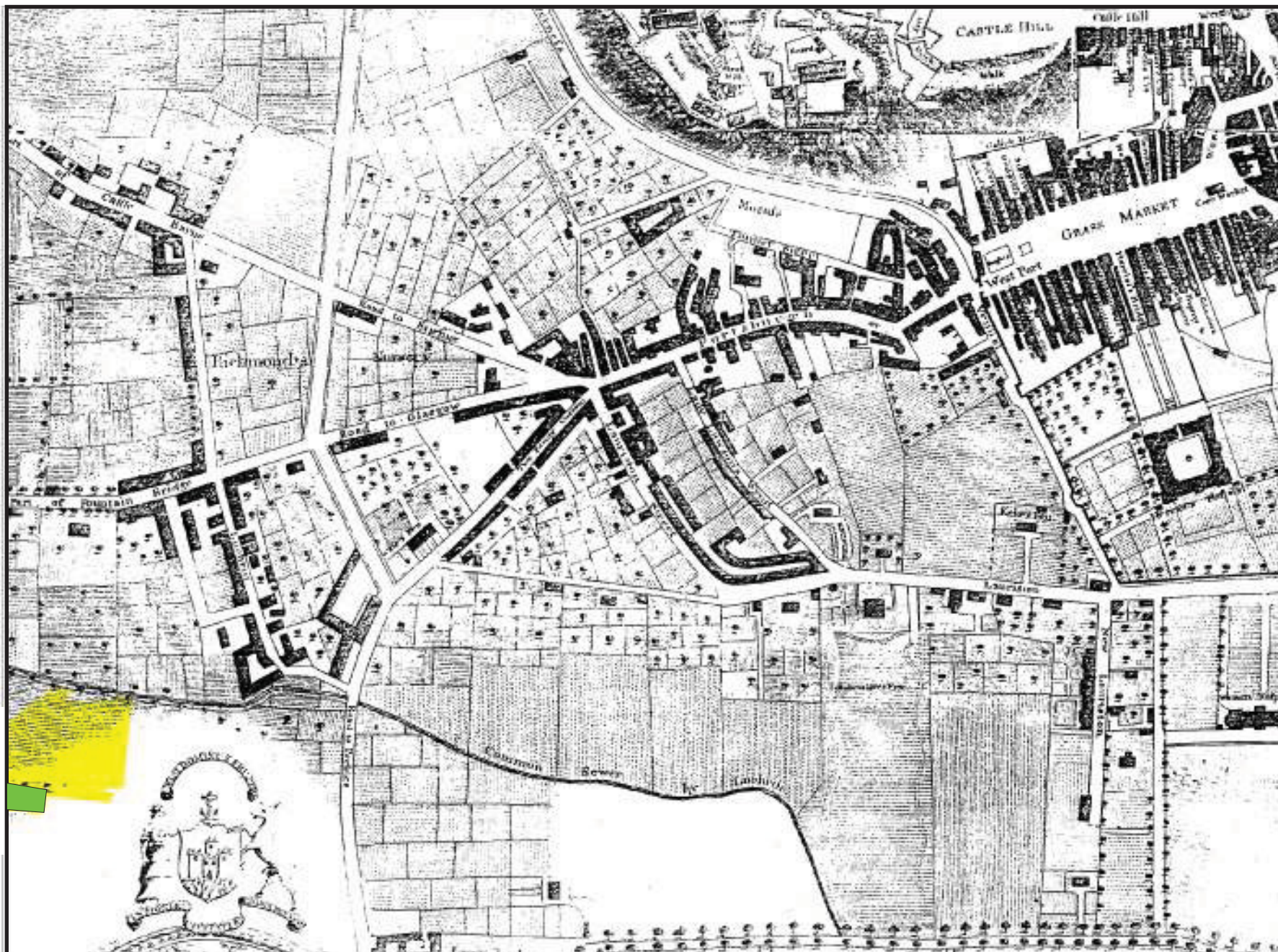


Figure 10: Extract from map by Kincaid, 1784, with the development area highlighted

 excavation area

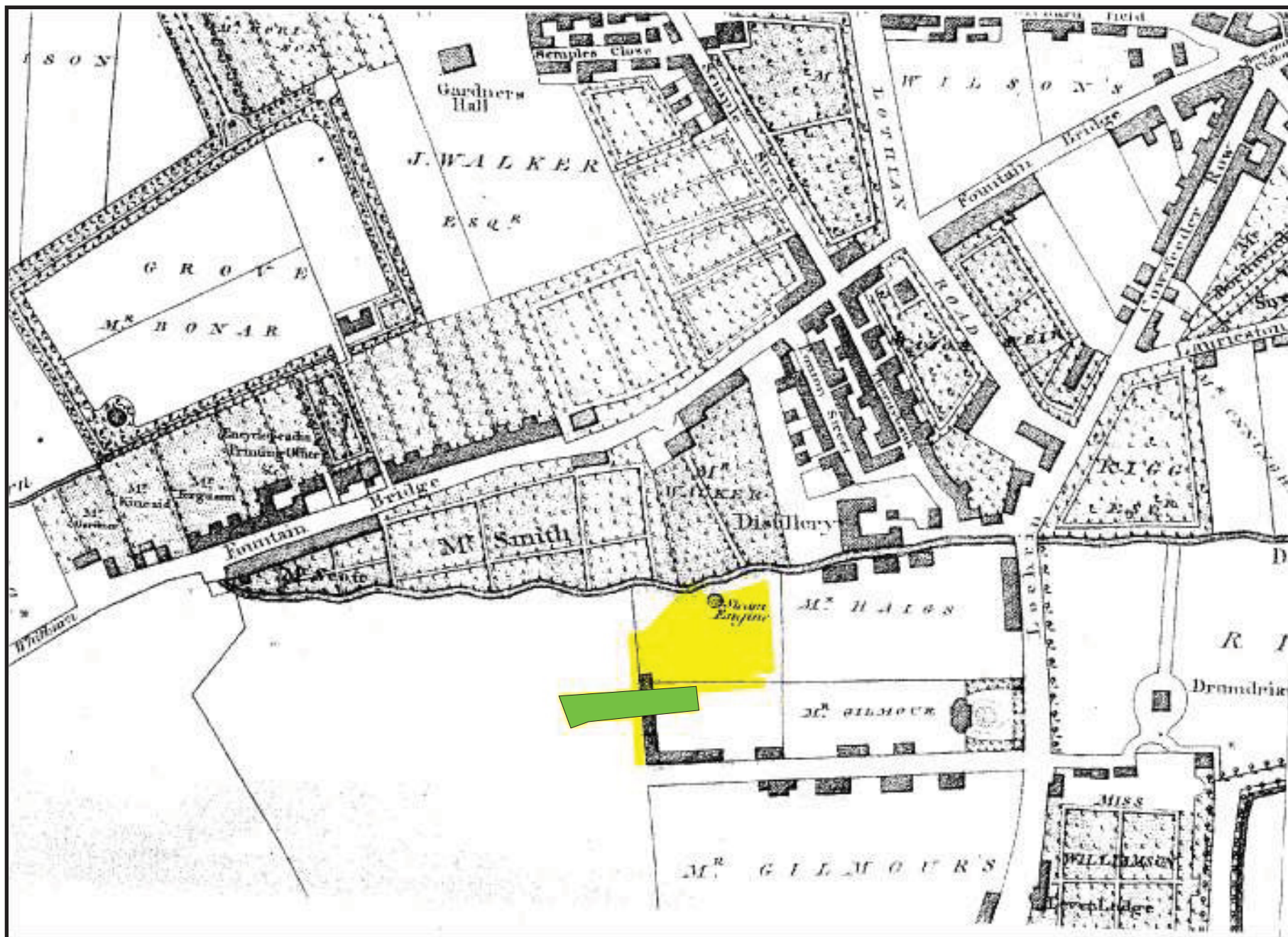


Figure 11: Extract from map by Ainslie, 1804, with the development area highlighted



excavation area

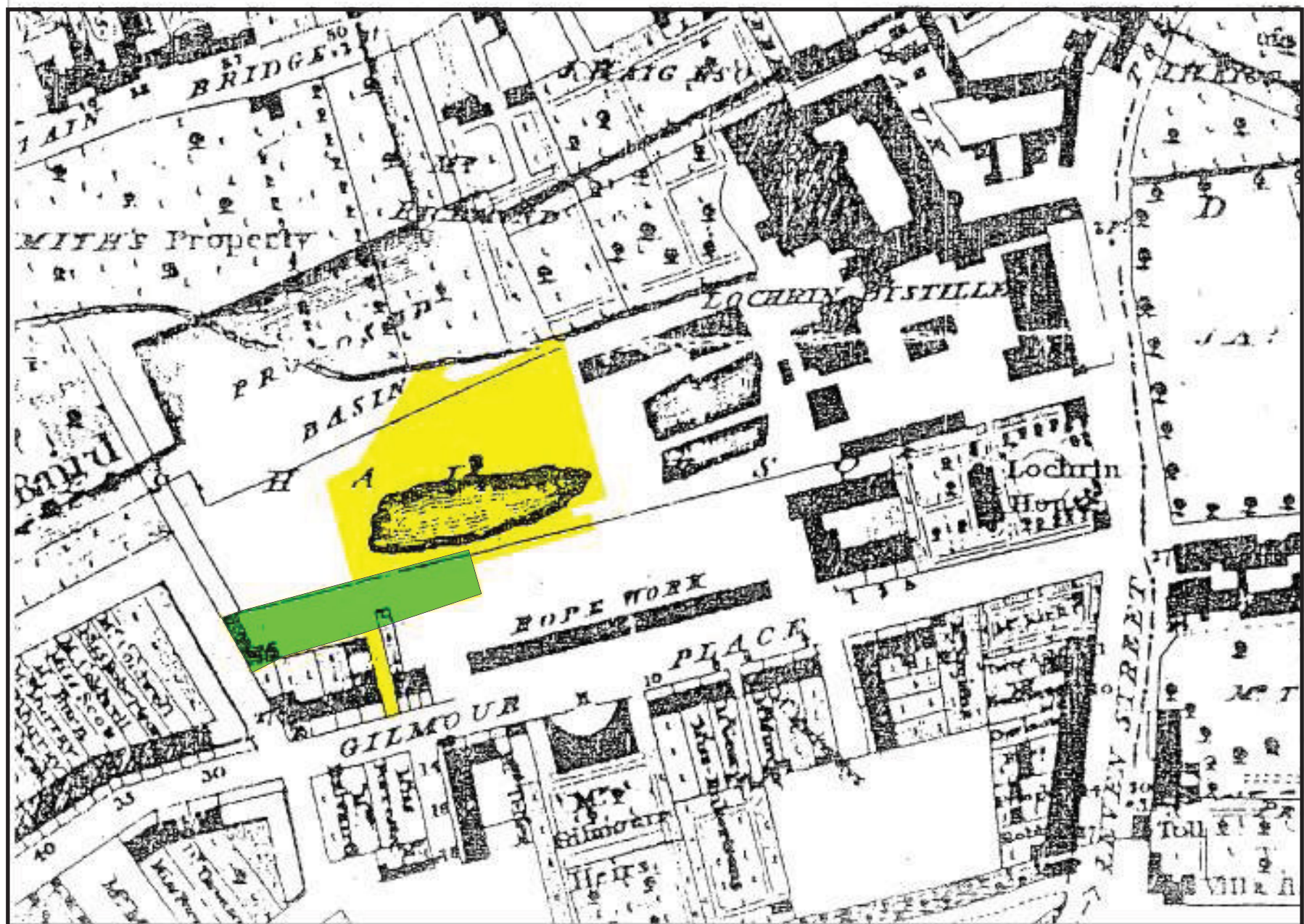


Figure 12: Extract from map by Kirkwood, 1817, with the development area highlighted



excavation area

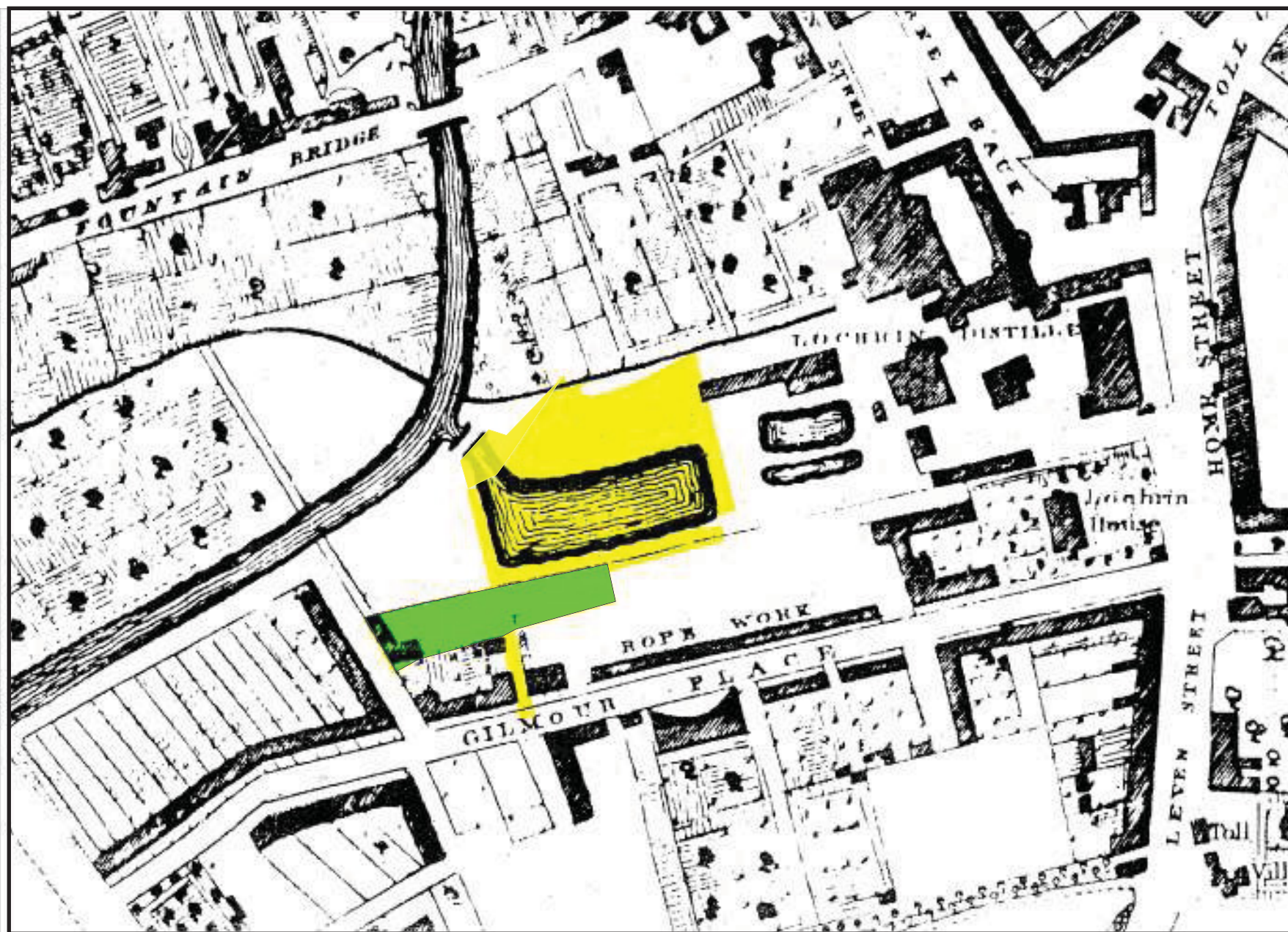


Figure 13: Extract from map by Wood, 1823, with the development area highlighted

 excavation area

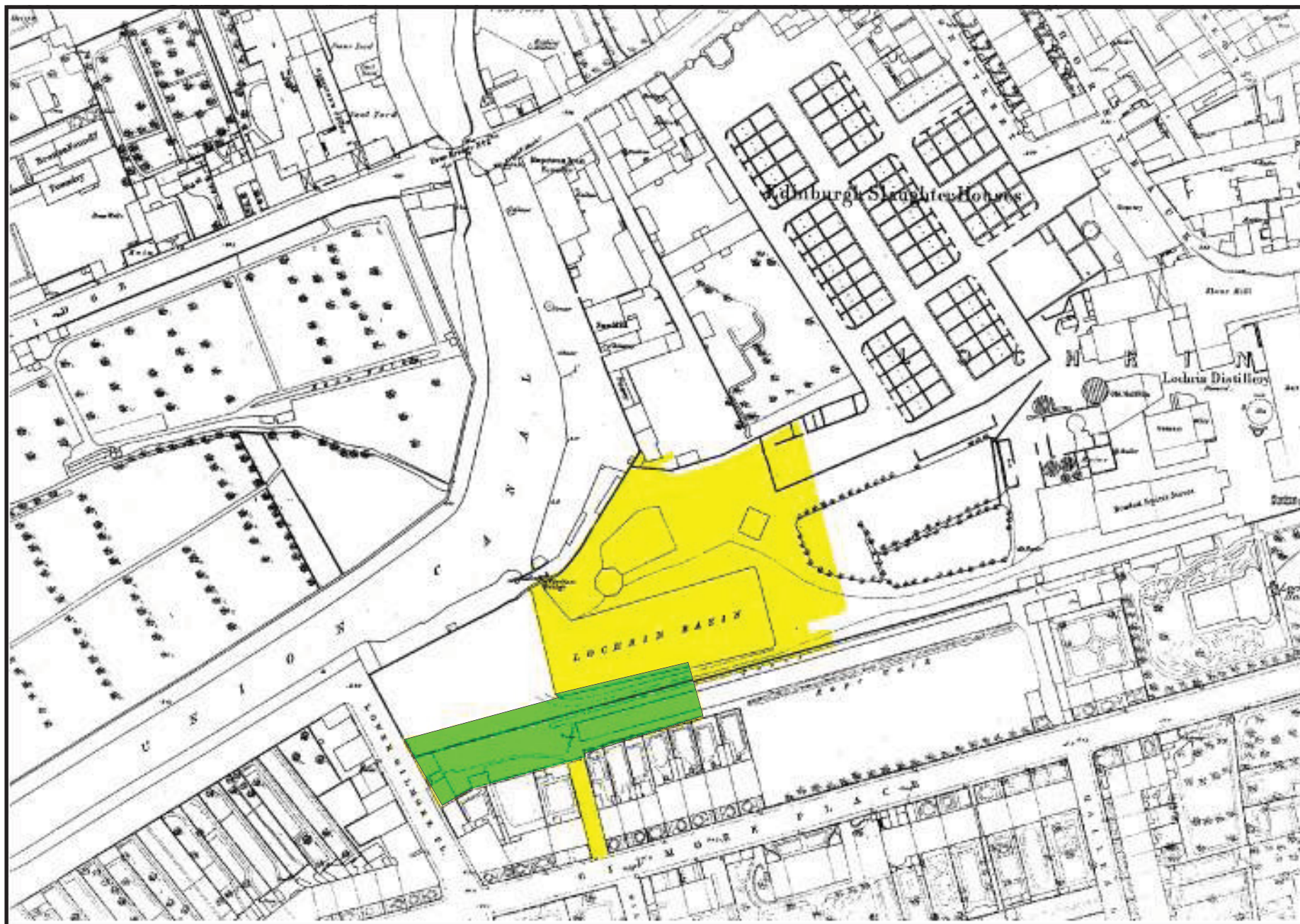


Figure 14: Extract from map by Ordnance Survey, 1853, with the development area highlighted





Figure 15: Extract from map by Ordnance Survey, 1895, with the development area highlighted excavation area



Figure 16: Extract from map by Ordnance Survey, 1933, with the development area highlighted

 excavation area



Plate 1: General view of Lochrin Basin wall 002 and north wall of Building 1 003, from the north east



Plate 2: General view of floor surfaces within Building 1, showing truncation by modern piling and services associated with later occupancy of the site from the east



Plate 3: View of Lochrin basin wall 002, gravel surface 021 and the eastern end of Building 1, from the north



Plate 4: West facing section showing fill/landscaping layer 020 beneath type II gravel 021 which formed the original surface between Lochrin basin and Building 1



Plate 5: View of Cobbled surfaces 006, 028 and kerb 027, from the west



Plate 6: Manhole 037 and associated service duct 038 cutting
cobles 006, walls 002 and 003, from the south



Plate 7: View of Cobbled surface 013 and brick surface 014 abutting the south side of wall 003 in Building 1



Plate 8: View of mortar floor 016 towards the west end of Building 1 abutting the south side of wall 003. An assortment of rusty shovels and buckets were found on top of the floor



Plate 9: Detail of coping stone along the top of Lochrin Basin Wall 002 showing chiseled broach marks and rounded bevel along the leading upper edge.



Plate 10: Buttress 026 abutting the north side of wall 003 from the north-east



Plate 11: Detail of blocked opening 057 in external elevation wall 056



Plate 12: West facing section showing deposits below concrete floor 004d, stone founded base 060 and general truncation of site by services and grubbing out



Plate 13: South facing section showing mortar floor 004f overlying mortar floor 004g overlying a possible continuation 061 of cobble surface 013 to the west.



Plate 14: Concrete base 041 to rear and concrete base 042 in the foreground



Plate 15: Concrete floor 004a showing plant base 034 and brick partition wall 030 visible towards the rear of frame



Plate 16: Brick element 063 of cobbled surface 028 from the north



Plate 17: Extant section of wall 003 to east of the excavation area, the lower courses of red sandstone possibly forming an early 19th century property boundary. The wall above shows signs of additions in both brick and stone.



AOC Archaeology Group, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY
tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: admin@aocarchaeology.com

www.aocarchaeology.com