
31, Assembly Street, Leith

Investigation Report

*Archaeological Evaluation and Standing Building
Recording*

August 2014



For:
Places for People
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Summary

A twofold programme of archaeological recording and assessment was carried out at 31 Assembly Street, Leith, in advance of redevelopment of the site for residential use. The work involved a standing building record of the 19th century warehouse, which was to be retained on the site, together with an archaeological evaluation of the portion of the site containing 20th century structures relating to its latest use as a stainless steel fabrication works.

Map regression analysis showed that the site had been laid out in the early 19th century and is largely unchanged since then, although some evidence of previous street and plot layouts suggests that the site lay outside the 17th century fortifications and that Assembly Street continued to curve south-westwards to link up to a possible gate in the east wall of the citadel. Given that it was likely to be close (c.50m) from the walls, it would have been unlikely that structures would have been allowed within the firing line of the defences.

A standing building record was made of the warehouse. This involved a photographic survey, together with annotated plans, elevations and new drawn records of features previously unrecorded. This record showed that the building has been modified since its erection; however, the structure remains largely intact, with relatively minor additions and modifications. The building floors were replaced by concrete, some openings, including the two arched entrances in the ground floor, were bricked up, and the addition of a lift shaft was made on the northern elevation.

The archaeological evaluation aimed to establish the location and preservation of earlier buildings on the site, including elements of the fortifications that surrounded Leith during the early post-Medieval period. The evaluation uncovered a large and relatively homogenous build-up of later demolition debris relating to 19th century development on the site, together with the remnants of building footings from the same period. These deposits overlay a possibly tilled subsoil, overlying naturally occurring sands. No evidence of structures was found within this layer.

The evidence gathered by the map regression suggests that the site lies slightly outside the 16th century fortifications of Leith. As such, and with the evidence of the evaluation, it is considered unlikely that remains of the fortifications or any contemporary extra-mural structures survive within the footprint of the development. It is however acknowledged that the potential for as-yet undiscovered archaeological features being present within the site remains, and that further limited archaeological investigations should be carried to record the presence or otherwise of any remains that can be identified within the lower deposits on the site.

Signed:



Damian Hind
Archaeological Consultant



Circumstances of project

This project was commissioned by The Burrell Company (Developments) Ltd in response to a planning condition set by Edinburgh City Council on the construction of new flats and conversion of the warehouse at 31, Assembly Street, Leith. The project was later taken over by Places for People, and so the final report is commissioned by them, as the inheritors of the project.

Previous research and survey carried out nearby the site had identified the potential for undisturbed remains within the development area. Map evidence suggested that the site lay close to the line of the town wall, and as such may contain evidence of its construction, extra and intra-mural settlement or other activity, potentially dating back to the late medieval period.

Information from the National Monuments Record of Scotland (NMR) and the Edinburgh Sites and Monuments Record (SMR) indicated that a standing building record was required to document the warehouse prior to redevelopment, and that an archaeological evaluation of the area most likely to be disturbed by demolition and development of the new housing units was required to identify former use on the site and to establish the likely location of the fortified town wall, which appears from map evidence to run through the site. The work conformed to an agreed Written Scheme of Investigation, approved by City of Edinburgh Archaeological Service (CECAS).

Acknowledgements

The author would like to thank Karen Hind of the Burrell Company, Diana Harries of Places for People, David McKenna and Colin Harris of Sutherland Hussey Architects, Ross Buchan of Thomson Bethune and Colin Ferguson and David Scougal of Harley Haddow for their assistance during the project. Guidance was received by John Lawson of City of Edinburgh Archaeology Service.

Outline nature of work

The intention of this project was to twofold: to undertake a photographic and annotated drawing survey of the historic elements of the standing buildings on the site, and to archaeologically evaluate the underlying deposits for archaeological potential, by exposing the area to be disturbed by machine, under archaeological supervision.

Site description

The site lies at 31, Assembly Street, Leith (NGR NT273763). The site occupies a 0.14ha block, and comprises a series of buildings with a central courtyard and side alley, with workshops and offices to one side, and a stone-built warehouse/ factory unit at the southern end of the plot, with three floors and an accessible attic level. Access to levels above the ground floor is via an outside stair inset into the wall of the adjoining property.

The site code used for this project is ED08.

Dates undertaken

The standing building recording was carried out over the period October 15th – 20th 2007.

The archaeological evaluation was carried out over the period February 21st – March 7th 2008.

Aims and Objectives

The primary aim of the preliminary investigation was to identify the extent and nature of surviving archaeological features within the affected area, thereafter recording them and conducting research into their significance, both in terms of their relationship to the house and policies, and within a wider context.

Within this, it was also necessary to identify and define the type of archaeological deposits encountered, thereby aiding any assessments made, and furthering understanding of the site.

Methodology

A standing building record was made of the existing buildings, comprising the following elements:

- Photographic survey of all buildings, both internal and external
- Amended and checked architects' drawings of plans and elevations; additional scale drawings as required of historic elements of complex.

The archaeological evaluation was undertaken using mini-diggers equipped with smooth-bladed ditching buckets, under continual archaeological supervision. The trenches were excavated to target known and suspected features, such as the town wall, and the remainder were spread evenly across the open areas of the site to ensure uniform coverage.

All trenches were hand cleaned, with archaeological features being investigated by hand, photographed and a 1:20 drawn record produced to augment written descriptions of each feature identified.

Map Regression and Analysis



Adair, c.1682

The Adair Map of Midlothian (Manuscript 9) is the earliest map of Leith accessed online from the National Library of Scotland. It shows the town defences for the Port of Leith, and appears to show that outside the town walls there was little to no development, which was in keeping with the defensive requirements of the fortifications, with good sightlines across Leith Links being necessary for artillery.



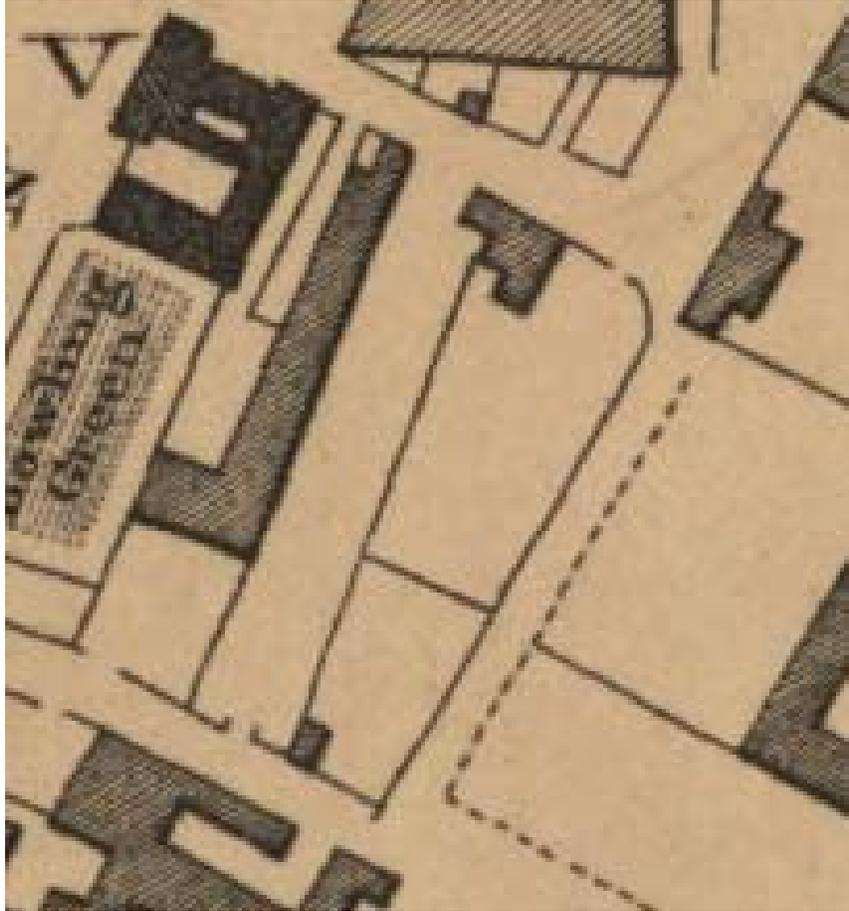
Adair (1735)

Little further is shown on the Adair map of 1735, some 50 years or so later. Development across Leith Links appears to be limited to a few grand houses, with the remaining ground of "Leith Moor" likely divided between the houses, but largely remaining as open space.



Laurie, 1766 – town walls not recorded

Laurie's 1766 map does not record the town wall, and shows development of the town to the east and south. Detail is filled in with regard to roads, as well as the main estate to the east of Leith (Hermitage) being situated within a planted landscape, accessed by roads radiating out from the town. It is likely that the defensive walls were removed preceding this map, giving a 30-year time period for their demolition. A sawmill is noted, and a glassworks; giving some indication of the increasing importance of manufacturing within an already busy port.



Ainslie (1804)

The Ainslie map of 1804 is the first map to show real detail of the town layout, and in particular Assembly Street. It shows the corner plot on which the site stands as having a single building on the northwest corner, and a further small structure on the southwest corner. It appears that a boundary – possibly a wall – surrounds the plot, and is incorporated into the two structures. The glassworks are clearly marked on the north side of Salamander Street.



A map of the environs of Edinburgh. Kirkwood, Robert 1817, 1

The above Kirkwood map of Edinburgh, shows very poor detail for the area, due to its scale. However, it shows one significant feature, in that Assembly Street appears to curve at its south end and connect to Constitution Street. It is not clear if this was taken from an earlier survey, but does possibly show an earlier streetplan, which is significant when compared to the 1850 Robertson mapping (see below).



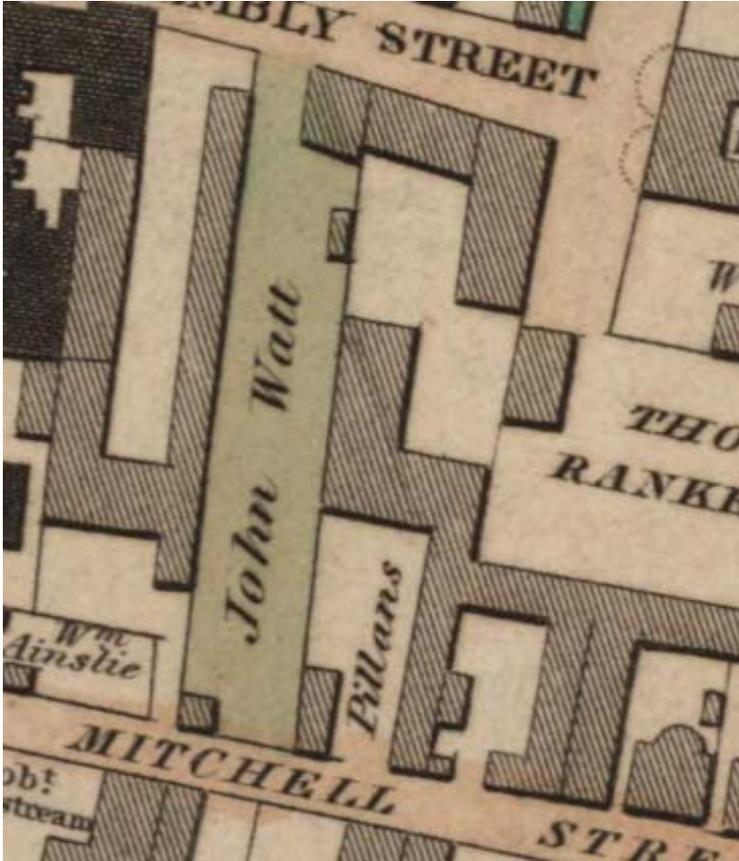
Kirkwood (1817, 2)

The more detailed 1817 Kirkwood map shows Assembly Street and the site considerably more developed than 12 years previously. Several buildings now occupy the plot, extending around the edges. In addition, ownership of the plots is also noted, although the legibility of the ownership of 31 Assembly Street is difficult to make out.



Lothian 1822

Further detail of the development of the buildings within the site is evident on the 1822 Lothian map. The frontage with Assembly Street is completely developed, and building units occupy much of the space within the plot, with only small clear areas providing access.



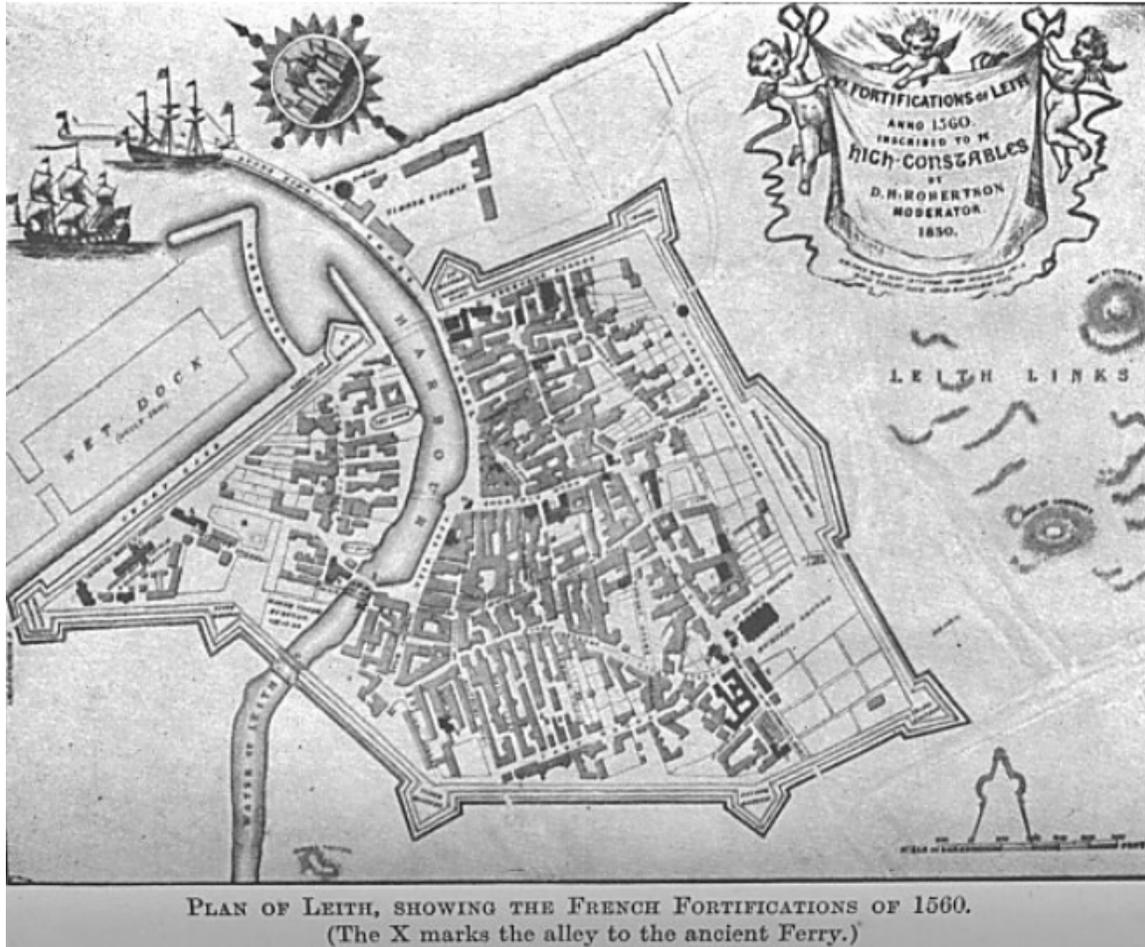
Thomson 1822

The Thomson map shows some detail of ownership, with Thomas Ranken being the likely owner of the site, with John Watt neighbouring to west. Three main buildings occupy the site, on the north, east and south/ southwest sides of the plot. The interior of the plot remains open.



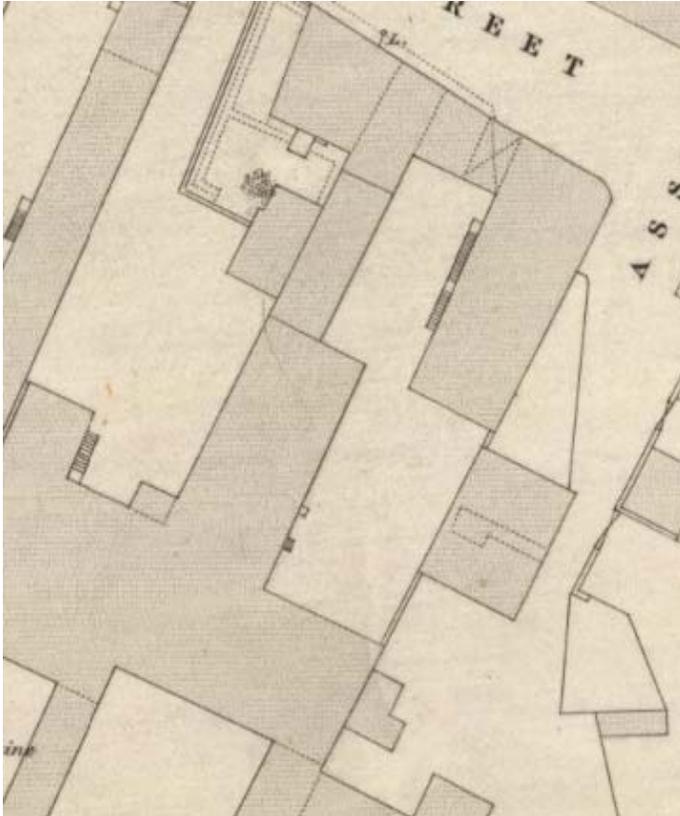
Crawford 1824

The Crawford map of 1824 is poor in definition, but shows the site as being a free-standing set of buildings with the plot to west containing no buildings. The lack of definition makes it problematic, and it is not considered to be a wholly reliable source of accurate information.



Plan of the Leith Fortifications of 1560, D.H. Robertson (1850)

A map made of the Leith fortifications by DH Robertson for the High Constables (<http://www.fortified-places.com/leith/image1.jpg>) is the most well-defined map identified of the fortifications. Although nearly 300 years later than the date given for the town layout, it is probably the most accurate, as it shows the existing street layout, with the eastern line of the fortifications tracing a line along Constitution Street, with bastions at the north and south ends and in the centre of the eastern wall. Baltic Street, although unnamed, is visible in outline to the north of the north east bastion. A curving road is also recorded slightly to the east, joining Baltic Street to a small access point in the wall. It is in the correct position to be the predecessor to Assembly Street. As such, it is possible that the fortifications for the north east bastion lie slightly further west than the current development site.



OS Town Plan: Edinburgh, Sheet 13 (1852)

The Ordnance Survey town plan series (1852) gives very accurate detail of the site, with several new items clearly marked. Notably, the presence of a glass lean-to structure within the northern half of the courtyard. Slightly to the north, and opening onto Assembly Street is a structure that appears to be a covered entrance. Walls surround the site, and the building to the south appears to be a continuous structure extending over the adjacent plot westwards.



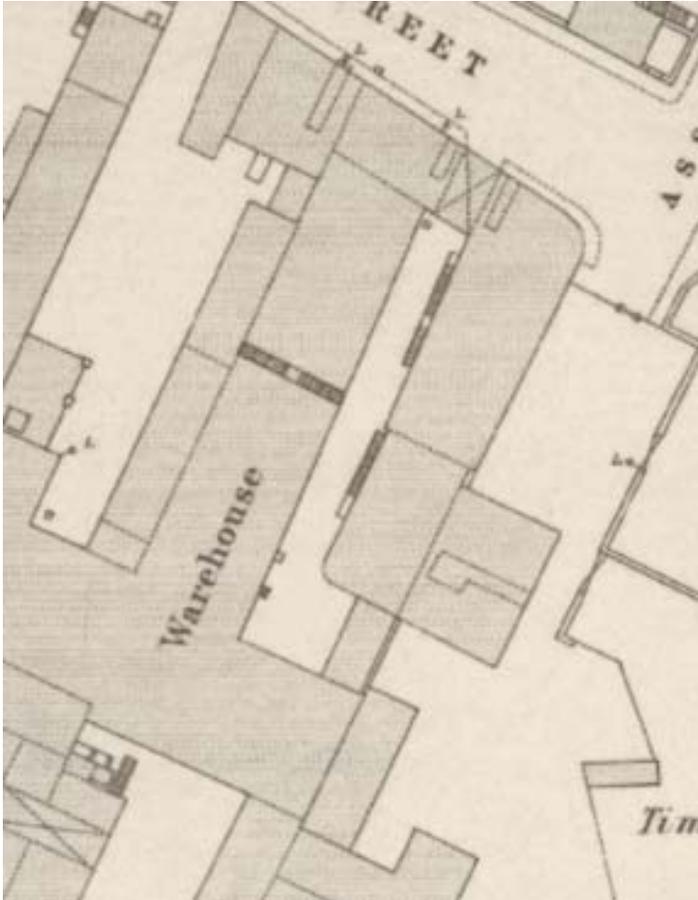
Lancefield 1851

The Lancefield map shows no further development within the site from the previous OS mapping.



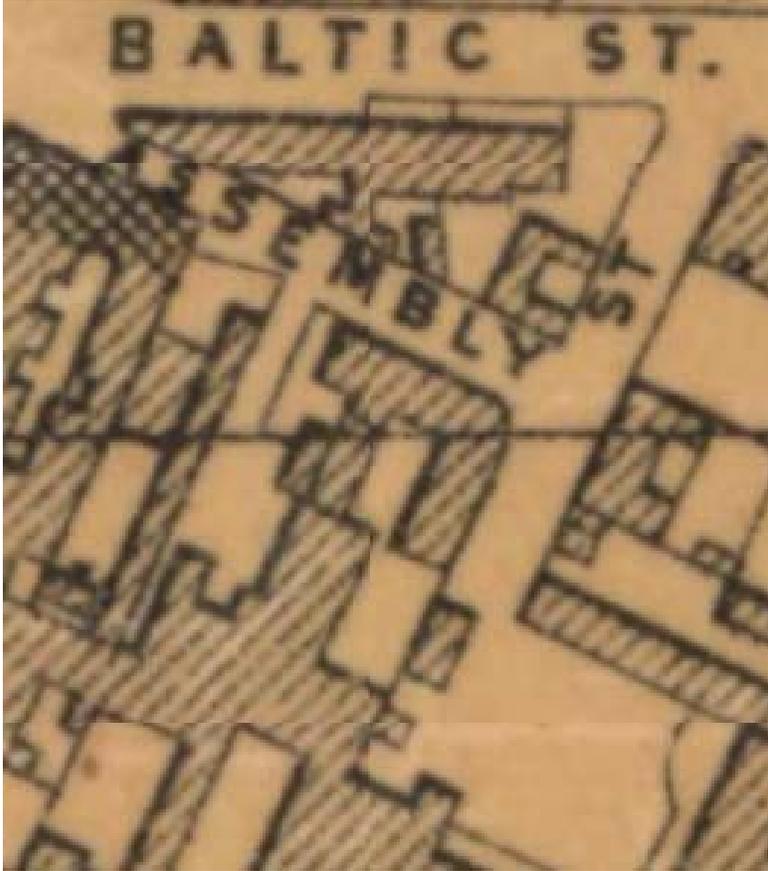
Johnson & Johnson 1856

Johnson and Johnson's 1856 map is of low definition and provides no further detail of the site.



Ordnance Survey (1876-77)

The OS 2nd edition (1876-77) shows that the site was further developed into a fully enclosed courtyard with buildings filling in the remaining spaces.



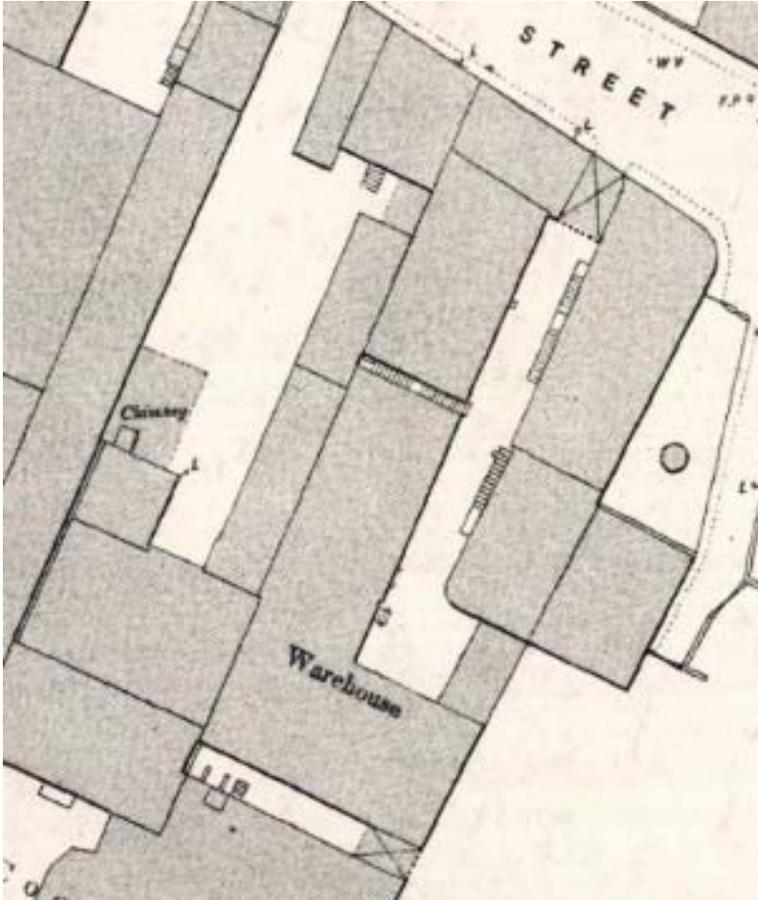
Johnson & Johnson 1888

Johnson and Johnson's 1888 mapping appears to be a copy of earlier layouts, as it does not show the buildings recorded on the OS 2nd Edition.



Bartolomew 1893

The Bartolomew map (1893) shows similar detail to the OS mapping of 20 years earlier, and adds the detail of the neighbouring property (to west) as a warehouse.



Ordnance Survey 1893-4

The OS mapping (3rd Edition, 1893-4) also shows the warehouse building, as well as a cooperage to south of the site. The warehouse recorded as being the building at the southern end of the site, rather than the adjacent, adjoining structure to west.



Bartolomew Survey Atlas 1912

The scale of the Bartolomew (1912) map is insufficient to show any detail of the site, showing it as completely built up. It is assumed that this is related to the scale of the mapping, rather than the level of development within the site.



Bartolomew 1919 showing conjectural outline of old town walls

The Bartolomew 1919 appears to be a direct copy of the 1912 map, however that it overlays a conjectural plan of the town walls onto a poorly detailed map of Leith. In it, the town wall cuts through the site running almost parallel with the eastern boundary, before crossing the site westwards at about the halfway point through the plot. It is not clear from the drawing what sources are used for the information, however it does supply the only alternative layout of the town walls to Robertson's 1850 map.

Conclusions

The modern layout of Leith appears to have occurred during the period 1735-66, with the removal of the town walls and the subsequent, gradual development of the lands to the east and encroachment into the larger estate properties that bordered this side of the town.

The site itself appears to have been laid out as a plot alongside Assembly Street earlier than 1804, and was gradually developed from around 1816 onwards, with the northeast and south of the plot developed first, and the addition of more buildings over the next 75 or so years.

There are some highly detailed maps of the site, even giving ownership information and the site's relation to the town walls. However, with regard to earlier defences, both Robertson's 1850 map and the later Bartolomew (1919) mapping, it is unclear exactly where the information came from for the town walls, or indeed how accurate it is. In the case of the Robertson mapping the relationships with roads outside the citadel do give some corroborative detail over the later Bartolomew map, which, given the poor quality and scale, is likely to be more conjectural.

Standing Building Record

Introduction

A standing building record of the main building was undertaken, in accordance with the WSI. It consisted of a photographic record with augmented architects' drawings. In addition, a written description of the buildings and their elements follows. Descriptions follow the conventions laid out in the survey drawings produced by Sutherland Hussey Architects (October 2007), and do not contain dimensions, as it is assumed that these are sufficiently accurate to be read off plan if required.

External North Elevation

The external north elevation, comprising the office building, was constructed in red squared sandstone rubble to approximately 1.5-2m in height, with red squared sandstone rubble above to eaves height under a slate roof. The NE corner was curved, and the N elevation contained four identical sash and case windows each with a central mullion. To W was the door into the building, with a slightly offset sash and case window above at first floor level.

External East Elevation

The red sandstone construction noted on the N elevation continued onto the E elevation at 2m in height, with the eaves height of the workshop portion of the buildings reducing to one storey in height. The building was modified, in that the two storey portion of the offices were truncated and a brick-built gable end built on, whilst the adjoining

workshops were raised in height by the addition of 1.2m of large squared rubble blocks, built to course. A substation adjoined the building, obscuring approximately 8m of the structure.

To S of the substation the workshop structure continued for 7.8m. Three separate main building phases were noted in this section of the workshops, 0-1.8m comprising pink and red sandstone, 1.8-2.4m mixed red and yellow rubble built to course, 2.4-3.3m large squared rubble blocks, some with tooling on individual blocks, built to course. Concrete capping sealed the top of the wall, and the roof was constructed of asbestos and glass on a steel frame. A low brick-in filled opening was visible 1m from the S end of the structure, and was provisionally interpreted as a hearth or access hatch. This structure continued S, but was obscured by adjoining structures.

Adjoining the stone portion of the workshops was a brick built structure on the same alignment and which internally formed a continuation of the workshops. This formed the centre of the E elevation, and was 18.5m in length and 3.5m in height to eaves, under a similar asbestos and steel roof structure.

The S end of the E elevation comprised of a 20m long brick-built single storey workshop with an asbestos roof. At 2.5m intervals a vertical concrete buttress was visible within the fabric of the wall, with what appeared to be cut off concrete footings.

External South Elevation

The southern gable end of the single storey building noted in the above paragraph was visible at the south east corner of the complex: it was also brick built, and the structural concrete pillars/ buttresses on the gable appeared to be bolted to the lead roofing material on the roof corners.

The south elevation of the main building – likely the earliest part of the complex – was recorded. The main building was three storeys in height, with five openings on each level. The building was constructed in squared sandstone blocks to the lintels of the ground floor, and the first and second storey were constructed in whinstone rubble, built to course, below a slate roof with smooth, sandstone copes. Several tie-bars were noted on the elevation, slightly above the lintel heights of the ground and first floor openings. The ground floor windows all had tooled, quoined sandstone margins with relieving arches above, with the tooled, quoined sandstone openings also being carried through to the upper two stories. The western edge of the elevation was obscured with ivy, which covered the westernmost windows of the first and second stories.



EX-16

The ground floor had a bricked-up, centrally placed arched opening, flanked by two sash-and-case windows. From east to west, the openings consisted of the following features: a 12-pane window, made to resemble sash and case, with a sandstone lintel and brick infill edging, implying modification of the original opening: possibly for widening. On the indoor side, bars were visible. The second window was also framed by tooled sandstone blocks; the lintel having relieving stonework above. The window was shuttered with a top light. The arched opening was 2.8m wide and 2.25m to apex, with sandstone blocks showing irregular quoining, radially set and tooled around the opening. The brickwork consisted of five stretcher courses to one bonding course, bonded with lime mortar. To west a sash-and-case window with external security bars was noted, and the westernmost opening contained a modern wooden door, possibly as blocking, as opposed to a functioning doorway.

The first storey (east to west) contained five windows, the western being obscured by ivy, all with tooled sandstone block margins. The eastern opening was characterised by simple, whitewashed shutters. The second was an eight-pane window and the central (third) and fourth windows appeared to have an eight pane, centrally opening window with triple-pane toplight layout. The western window was obscured by ivy.

The second storey had smaller window openings containing six-pane windows, framed by tooled sandstone ashlar quoins and lintels. Additionally, the windows were all externally barred. The western window was obscured by ivy, however all the other

windows showed a similar layout of panes, with the exception of the west-centre window, which was shuttered.

Western Elevation

The western elevation adjoined the neighbouring building, and was not visible to record.

Courtyard

The north elevation of the warehouse was visible from the courtyard area. This showed a raised loading bay, for access to a warehouse lift system that had been built onto the exterior of the building, to E of an arched entrance which mirrored the blocked entrance in the south elevation, and which was covered by a small suspended awning topped with corrugated iron. This entrance had been modified with brickwork around the arch, but retained the stonework of the original opening. The words "(T)homas S and Co LTD were faintly noticeable on the stonework of the arch. Above the arch at 1st and 2nd floor levels, modifications to the original windows had been carried out, with sandstone block infilling below concrete sills. To W of the entrance, a flight of stone steps afforded access to the 1st floor. This was recessed into the adjacent building and covered with an arch.



CY-06

To E of the lift shaft, blocked windows were noted on the ground and 1st floor levels. The 1st floor window was partially obscured by an awning which covered the raised loading

area and access to the adjacent workshops within the complex. The 2nd floor window did not appear to have been altered.

Interior

Ground floor

As per the WSI, a photographic and basic descriptive record was made of the internal elevations of the building. In order to assist this, scale drawings of those walls that contained significant alterations (such as infilled doorways) were made. All walls were bare whitewashed stonework, with infilling of some of the original features. The most substantial alteration noted was the replacement of all the original floors/ ceilings with a concrete floor/ ceiling, which appeared to have been formed in-situ, possibly concurrently with the concrete pillars and joist that ran centrally (E-W) across this level of the building. No internal divisions were present, with the building consisting of one room per floor.

Five openings were noted in the north internal elevation, in a similar arrangement to that noted in the south external elevation. Two windows were situated to W of a central, arched opening. The windows were blocked with a single thickness of brick and had a sill set at 0.9m high with an infill of small undressed stone below. The central arched doorway had been modified with brick blocking to infill the arch and to create a smaller, rectangular opening, 2.2m wide and 2.2m high. To E, a large service lift had been installed, presumably removing a window similar to the others on this elevation (photo L1-01). A third infilled window was noted to the east of the lift shaft. A small opening was also noted between the central doorway and the western central window. This was 0.8m wide, and 1.2m high, and was infilled with stone.



L1-01

The W elevation contained no openings or alterations.

The S elevation showed no further information beyond that described for the exterior.

The E elevation showed a roughly centrally positioned opening, approximately 1.5m wide, below a wooden lintel. It consisted of a doorway (blocked with squared rubble) with a barred adjoining window (photo L1-03) to S, with a further window to N. Both windows were of similar dimensions (1.0m by 0.8m), were barred vertically and horizontally, and contained frosted glass.



L1-03

First floor

All walls were whitewashed, similar to the ground floor. The floor and ceiling were both constructed of concrete, suggesting replacement of the original surfaces. Plastering was noted on the lower 50cm of wall surfaces.

Hanging from the ceiling were several belt drive shafts and associated bracketry for operation of machinery from a central power source. This was a favoured method of running multiple machines from a single power source; typically steam, although in this case most likely a diesel engine, given that the shafts were secured into concrete. Access to the second floor was via a vertical ladder on the S elevation.

The S elevation retained windows, as noted on the exterior, situated on the exterior face of splayed openings with blocking below, as noted on the ground floor.

The W elevation contained one possible blocked-in opening, covered by whitewash and splayed at the base (photo L2-07).



L2-07

The N elevation contained two bricked-up windows to the western side, with an added brick-constructed doorway 8m from the E end of the elevation. This doorway formed the main entrance to this floor, and was accessed by an external stairway from the courtyard. To E of the doorway, a 1.2m wide window opening had been inserted or expanded, replacing the location of the original central window. The service lift opening had been inserted in place of the E central window. The service lift opening was constructed of brick with a concrete lintel. The E window was blocked with brick.

The E elevation contained a blocked opening similar in nature to the blocked opening in the W elevation.

Second Floor

The second floor had noticeably lower ceilings, with whitewashed walls similar to the lower floors and a concrete floor and ceiling. Access to the attic was via a centrally-located vertical ladder.

A similar layout to the first floor was noted on the N elevation, with bricked-in windows replaced by later, wider windows and a lift shaft opening, framed in brick. A bricked-in window of similar dimensions to those found on the lower levels (particularly the S elevation) on the E end of the N elevation.

Historic graffiti had been drawn on a central concrete spine beam, running E-W across the centre of the room (photo L3-03), which consisted of initials and names, such as J. Lamb.



L3-03

Two centrally positioned blocked openings were noted on the E and W elevations respectively, blocked in brick.

The S elevation contained 5 windows, as noted on the exterior, with the far W window obscured by foliage, but in place.

Attic

The attic was lit by windows in the gable ends (E and W) and by rooflights. The lift rose to this level, and was accessed via a ramp constructed into the concrete floor. To incorporate the lift shaft, the roof structure had been modified (photo L4-10) to allow access.



L4-10

The roof structure was simply constructed of a trussed roof with collar ties and supporting queen and king posts, with the trusses at approximately 60cm spacing (photo L4-10). The eaves were at a level with the attic floor, rising to a central, E-W running apex.



L4-03

Interpretation

The building appears to have been relatively little altered, with two major additions: the lift shaft and the replacement of the floors with concrete.

Further alterations were noted in the blocking of some windows, and the inclusion of access on the first floor level. Some windows on the first and second floor had been expanded to give better light, presumably to compensate for the addition of the lift shaft and requirement for additional light.

Blocking of the gable windows had been carried out, probably to allow for alterations in the processes being undertaken within the building, and perhaps to give additional wall space for machinery or storage.

The drive shafts on the first floor provided some suggestion of function on this level of the building, given that it was the only floor to clearly show that manufacturing was carried out on this level.

Conclusions

The original building to the south of the site has been little changed over time, with the largest change being the replacement of the flooring with concrete. This is most likely to have taken place in the mid-20th century, although a date is impossible to determine.

Blocking of doorways, windows and the introduction of an industrial lift also took place, and the lift may have been inserted around the same time as the concrete flooring, and may suggest a change of the overall function of the building to warehousing, given that other low-level buildings on the site would have been more suited to manufacturing and are of more recent date. Consequently, the main focus of the complex shifted from access on the south side to access via the north, through the courtyard.

The building is likely to have been the initial focus of any manufacturing, given that it retains the drives for a central engine, although the lack of equipment on the upper storeys suggests that the upper floors were either for storage or other activities not requiring the same level of heavy equipment.

The offices appear to be relatively little changed since construction, at least structurally; although the more modern structures along the E side of the site are likely to have truncated its original form.

The site has been clearly industrial in its use from its inception, probably for light manufacture, with the defunct engineering works being the final phase of this business, or group of businesses.

Archaeological Evaluation

Introduction

Six trenches were excavated in all, with four within the standing structure of the workshops, and a further two in the courtyard/ alley situated between the workshop and the neighbouring property. The uppermost fills were excavated by mini-digger under archaeological supervision, with bulk fill material being removed down to the first horizon of clearly non-modern stratigraphy. Trenches were then cleaned by hand and recorded using photographs, plans, sections and individual contexts. Overall, approximately 61m² of area within the complex was evaluated, which equates to approximately slightly under the 5% trenching specified in the WSI (67.5m²), however this percentage figure did not take into consideration areas where trenching would not be possible.

Results

Trench 1

Description

Trench 1 was excavated at the northern end of the workshop, and was 5m in length, running E-W, and 1.7m wide.

A substantial layer of bottoming material (102) lay below the latest concrete flooring (101), which was laid directly onto an earlier concrete floor surface (103). This had been placed on a layer of brick (104), possibly laid, rather than dumped, which was approximately 300mm deep. Below this, several layers of mixed sandy, clinker and mortar rubble material (108-115) lay to either side of a longitudinal cut (107), 52cm wide, 45+cm deep, running N-S, which contained a thin timber running within the cut, which appeared to have been encased in an ashy material (106). It is possible that the timber was partially painted, however preservation was poor and it was poorly defined. Cut 107 was observed on the northern side of the trench, although it was not apparent in the southern section.



T1-1

The trench was excavated on its western half to 1.2m, as space for machining was limited. At 1200mm below ground surface, a large stone pad (116) was partially exposed. This appeared to be rectangular in shape, although only two sides were visible within the trench. It was set into context 111, and was possibly a post pad.

Interpretation

The majority of the layers identified were levelling episodes, with 101-104 appearing to be floor levels or the bottoming for floor levels, laid on truncated earlier deposits. Fill 105 appears to have been set within a construction cut (107), and possibly contained a wooden beam. This may represent the remains of a drainage feature or construction cut. Surrounding the cut were buildup layers of sand, clinker and mortar, suggesting that the site had been levelled up, possibly to raise the ground surface above the humic sand (111) that was possibly a formerly cultivated soil. The stone slab that was set into 111 appears to be the earliest feature on the site, and may well have been a post pad, indicating the presence of a structure on the site that predated the industrially derived buildup material.

Trench 2

Description

This trench was 9m long and 1.7m wide, running N-S in the main hall of the workshop area. It was machine-dug to a depth of 1200mm. The deposition patterns were split along the length of the trench, with the northern 5m being different to the southern 4m. The northern portion of the trench followed a relatively uninterrupted pattern of deposits that showed no discernible disturbance, with upper deposits being a succession of demolition and buildup layers (202-206), overlying a mixed sand layer (207) that was considered to be the first archaeological horizon. This contained a single sherd of white gritty ware (subsequently lost).

The sequence of successive layers of deposition was broken by a wall cut (208) 4.55m from the north end of the trench, which cut 204 and earlier deposits, and contained a rubble sandstone wall (209). This was observed in the machining not to extend across the full width of the trench. To S of the wall cut, a further concrete floor (213) overlay a thick bedding layer of broken sandstone blocks (214), which in turn overlay a truncated wall (217) and further demolition deposits (215, 206, 219). Both walls 209 and 217 appeared to be bedded onto 207, although in the case of 217, this was partial.



T2-7

Interpretation

Trench 2 contains both internal and external spaces associated with earlier buildings on the site, evidenced in the demolished walls and subsequent rebuilding phases. The demolition debris appeared to be recent, and is likely to represent remains of buildings directly related to the industrial use of the site, and therefore not predate the 19th century.

Trench 3

Description

Trench 3 was excavated within the central portion of the workshops, on the eastern side of the site. It was orientated east-west, 2.0m wide and 7.0m in length. Below the concrete floor (301) a large northwest-southeast – running cut (314) truncated many of the layers noted as being stratigraphically below. Cut 314 ran for more than 3m, continuing beyond the edges of excavation. It was filled with a 90cm deep rubble and sand deposit (315) which sealed a concrete-covered pipe, which was only partially exposed at the base of the trench. A modern vitrified ceramic drain was noted immediately to the east of 314 (304), which lay below large sandstone blocks in a sandy matrix (303), within a U-shaped cut (305) which was partially truncated by 314. The drain ran east west from the east end of the trench before turning to the southwest at the south end of the trench.

Cut 305 cut through a series of horizontally deposited dump layers (306-311) which were comprised mainly of sandstone rubble and mortar within a sandy matrix, overlying a black clinker layer (311), 2m long, measured from the east end of the trench. This was provisionally identified as a solum for an earlier building. This layer appeared to peter out and slope down, giving way to a black humic sandy soil (312), which was interpreted as being naturally occurring soils.

To the west, cut 314 was not apparent, as the feature appeared to respect a low sandstone wall (316) 45cm wide and 82cm high. This wall was truncated by the modern floor level and continued below the level of excavation. To east of the wall a series of four horizontally deposited layers was noted (323-326). Layer 326 appeared to be a bedding layer comprising beach sand approximately 20cm thick, forming the base for a well-laid surface of substantial cobble sets (325). Bituminised macadam (324) sealed this surface, which was in turn sealed by a sand and rubble layer (323).



T3-9

The centreline of the trench contained a 45cm wide sandstone rubble wall which separated the deposits to the north and south. The wall ran for 4.7m before being truncated by cut 305. A brick wall one course -25cm - wide (321) abutted 318, 1.5m from the east end of the trench. The two walls contained a layer of mortar (322) that was interpreted as a solum. It was not further investigated.

Interpretation

Several walls intersect within this trench, and some of the surfaces either appear to comprise of bottoming materials or solum (326, 311, and 322) or finished surfaces (325) that respect these structures. This suggests that both internal and external spaces are visible within this trench, which may possibly be cross-referenced to the early mapping to determine which structures they might relate to.

The Similarity in width and construction of walls 316 and 318 suggests that they possibly matched up, and would have met at a corner, were it not for the truncation of cuts 305 and 314, indicating that a clearly defined building with internal floor/ underfloor surfaces was in this location.

Trench 4

Description

Trench 4 was 5.25m in length, 2m wide and orientated N-S. It was located within the workshop building, towards the S end of the site.

Machine stripping revealed a series of horizontally bedded layers to N of

The modern ground surface consisted of a 16mm thick layer of concrete with bitumen damp proof course (401), which was bedded onto a 200mm thick layer of mixed brick and sandy rubble (402). 402 sealed a substantial sandstone rubble wall (411), running E-W, which was 0.4m below the modern ground surface, 3.3m from the N end of the trench. On the N face, the wall widened 400mm below the top, into a possible footing, a further 120mm wider. To S, a 250mm thick layer (412) of dark brown-black humic sand with occasional broken pottery, glass and stone was noted. This was not excavated further, and continued.

A crushed limestone and rubble mix (404), 300mm thick extended 120cm N of the wall (411). Against this and to the north three successive layers of redeposited sand and sandy/ mortar mixes (403, 405, and 406) were noted. These three layers were laid down horizontally and between 50 and 120mm in thickness. 406 and 404 sealed a redeposited dark brown mixed sand (407), 200mm thick, which overlay a dark brown/black compacted sandy silt (408), 120mm thick, which in turn overlay a dark brown sand layer (409), 150mm in thickness. A sondage was excavated beneath this layer to reveal the natural substrate: a light brown sand showing slight evidence of panning (410).



T4-6

Interpretation

Trench 4 contains one item of note: the E-W running wall 411. This appears to have been truncated by later development, and was built onto naturally occurring sands. Its foundation course was visible, and clearly defined variations in soil type were noted to N and S of the wall. It is not possible from stratigraphy alone to identify which side of the wall was the interior of the building.

Trench 5

Description

Trench 5 was opened in the southern portion of the courtyard, and was approximately 5m in length. The loose nature of the deposits precluded a clearly defined ends to the trench, however the stratigraphy was visible, giving a clear indication of the nature of the area investigated.

An electrical service ran along the eastern edge of the trench, thereby narrowing it slightly to 1.25m, as this was left unexcavated.



T5-5

A tarmac skim (501) sealed the original courtyard surface of cobble sets (502). The cobbles were bedded into a 220mm thick layer of grey-brown ashy loam (503). This in turn lay above a crushed sandstone and mortar layer, 200mm thick (504), which sealed a 100mm thick layer of black cinder and crushed brick (505). Beneath 505 a mortar, river-worn cobble and crushed sandstone layer (506), 100mm thick was noted. This lay on a dark brown sand (507), which was interpreted as naturally occurring.

Interpretation

This trench appeared to have a series of buildup episodes visible in the stratigraphy; however no definite surfaces were visible, suggesting upfill on the site, rather than floor layers that were successively built upon.

Trench 6

Trench 6 was 5.7m in length, running N-S to the centre of the courtyard area. It was 1.8m in width initially, with modern services cut (609) running along the W side of the trench, reducing intact deposits to a strip 1.2m in width. An inspection tube was noted 1.6m from the N end of the trench.

A similar stratigraphic sequence was noted to trench 5 in the upper 600mm: a thin tarmac skim (601), sealing a cobble set surface (602), bedded into a mixed brown ashy loam (603), which overlay a crushed sandstone and mortar layer (604). 604 covered a black cinder and crushed brick layer (605), 100mm thick, which covered a mortar and crushed sandstone layer, also 100mm thick (606), which covered a 200mm thick layer of

dark brown sand (607). This sealed naturally occurring sands (608) which varied in colour and showed signs of leaching; becoming paler with depth.



T6-3

607 was not excavated north of the inspection pipe, so as not to disturb the equipment, however it is not thought that this compromised the recording of deposits.

Interpretation

The stratigraphy in trench 6 appears to be very similar to trench 5, and further suggests a single, sustained period of upfill on the site with the final ground surfaces remaining relatively unchanged since the initial construction of the site.

Conclusions

The map regression shows that there has been a gradual development of the site, predominantly through the 19th century, with little direct change for 150 years within the development site itself.

Two maps show that the site is close to or on the line of the fortifications of the citadel of Leith. The earlier map (Robertson, 1850) gives sufficient detail to discern the 19th century street plan close to the development site, and shows that Assembly Street initially curved south and linked to the wall, inferring that it was an access road which led to an east gate, which is partially corroborated by the (albeit unclear) Kirkwood (1) map of 1817. The line of Constitution Street appears little changed, suggesting that it was possibly within the wall, and that the fortifications lie under the buildings immediately to the east. The later Bartolomew map has an approximation of the citadel walls, and is unlikely to be very accurate.

The evaluation showed evidence of successive building and demolition phases within the site, set upon a former ploughsoil or leached subsoil, overlying a naturally occurring sand substrate. No evidence for large scale features associated with the construction of the citadel fortifications was noted, and the trenches were laid out across the site, giving a reasonable indication of the type of deposits and archaeological processes representative within the development area. Whilst it is acknowledged that the evidence contained within the six trenches does not preclude presence of further archaeological features within the site boundary, the findings suggest that the current and former buildings of 31 Assembly Street were constructed on open ground, and by association, outside the environs of the citadel.

The walls and other structures noted during the evaluation are likely to represent earlier phases in the development of the property, and as such may contain some evidence for former building layouts, however this is considered to be of limited research value, given the relatively recent date of the buildings and their utilitarian nature.

Given the negative results of the evaluation, and the evidence of the map regression, it is considered that the citadel walls were located slightly to the west of the development, and therefore it is highly unlikely that evidence for the citadel exists within the footprint of this study. Evidence of former structures on the site does exist, however they appear to be directly related to the mapped development of the site and are likely to be 19th or early 20th century in date, and light industrial in function. The dark sand layers identified at the base of each of the trenches are likely to correspond to cultivated ground, or potentially disturbed/ leached subsoils related to farming or pre-urban land use. The date of these soils is uncertain, but may potentially be Medieval, given the identification of a possible sherd of white gritty ware, or earlier. It is this layer in which early deposits may potentially survive.

The evaluation showed a lack of physical evidence for anything earlier than 19th century date within the site boundary. The map regression also showed no evidence of the 17th century citadel on the site, with its walls likely being located slightly further west, towards Constitution Street. With this in mind, it is not considered likely that the site contains evidence for any substantial remains, on the basis that any structures outside the 16th century fortifications would have been cleared for defensive purposes, if any were located there before.

There remains the possibility that other evidence for archaeological remains exist within the site which predates any of the archaeological features so far identified. This may relate to pre-Modern structures or activity which cannot be identified through map regression or historical analysis; the presence of which is impossible to predict. Consequently, isolated archaeological features of considerable antiquity may survive, cut into the lower deposits of the site, although no evidence has yet been identified for any.

Recommendations

In consultation with the City of Edinburgh Archaeological Officer, it is recommended that a programme of archaeological investigations be carried out to identify the presence or otherwise of any remains within the site during the development, notably during the foundation construction phase. The work will be carried out to a brief developed in consultation with the Archaeological Officer and agreed with the Client.

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Appendices

Drawing register

<i>Scale</i>	<i>Description</i>
1:20	Plan of trench 1
1:20	W elevation of trench 1
1:20	Plan of trench 2
1:20	W elevation of trench 2
1:20	Plan of trench 3, western end
1:20	Plan of trench 3, eastern end
1:20	S elevation of trench 3
1:20	Plan of trench 4
1:20	E elevation of trench 4
1:20	Plan of trench 5
1:20	W elevation of trench 5
1:20	Plan of trench 6
1:20	W elevation of trench 6
1:50	Warehouse: N internal elevation, ground floor
1:50	Warehouse: E internal elevation, ground floor
1:50	Warehouse: S internal elevation, 1 st floor
1:50	Warehouse: E and W internal elevations, 1 st floor
1:50	Warehouse: 2 nd floor – details of repeating window styles in S elevation, and brick repair in E elevation
1:50	Workshop, E internal elevation
1:100	Site plan survey (annotated drawing)
1:100	East Elevation Survey (annotated drawing)
1:100	Warehouse North Elevation Survey (annotated drawing)
1:100	Warehouse South Elevation Survey (annotated drawing)

Context register

<i>Number</i>	<i>Description</i>
101	Concrete floor, 120mm thick
102	Brick and cobble rubble layer, 200mm thick
103	Concrete floor surface, lying below 102, 100mm thick
104	Thick layer of randomly set brick rubble - whole bricks, 250-300mm thick
105	Dark brown sandy fill with some rubble, appears to be fill material for cut 107
106	Ashy white deposit surrounding horizontally set, painted timber (probably relatively modern) - not waterlogged
107	Cut for 106 - 500mm wide, 500mm deep, vertical sided
108	Light grey pebbly sand, 40mm thick
109	Black ashy clinker layer with occasional brick, 70mm thick
110	Grey-brown mortar rubble, 50mm thick
111	Humic silty sand, 100mm deep, not bottomed
112	Thin layer of black ashy clinker and gravel, 40mm thick
113	Off-white crushed sandstone and mortar, 80mm thick
114	Black ashy clinker layer, 60mm thick
115	Loose, dark brown sandy rubble layer
116	Rectangular stone pad, partially exposed
117	Loose ashy clinker and lime mortar mix fill material
118	Cut for stone pad 116
201	Concrete floor surface, 100mm thick

- 202 Bitumen-rich rubble bottoming to 201, 180mm thick
 203 Large cobbles, set into 204, 80mm thick
 204 Layer of very light brown shelly sand, 180mm thick
 205 Mortar, brick and rubble layer, light brown in colour, 160mm thick
 206 Dark brown/ black ashy rubble layer with broken stone and brick fragments, 200mm thick
 207 Dark grey-brown sand with some charcoal and occasional ceramic, approx. 150mm thick
 208 Cut for wall 210
 209 Wall: rubble built sandstone wall, lime bonded, 44cm wide, running N-S. Does not extend across whole width of trench
 210 Fill to wall cut 208: dark grey-brown mixed sandy rubble
 211 Thin bitumen and gravel layer, 20mm thick, possibly damp proof measure
 212 Crushed stone, brick and creamy-yellow mortar/ sandstone mix, 50mm thick
 213 Pinkish-grey concrete and rubble layer, 60mm thick
 214 Large, roughly squared sandstone blocks and rubble set on bed of 10mm chippings, 300mm thick
 215 Light brown small rubble, sand and mortar
 216 Cut for wall 217
 217 Rough sandstone rubble wall, lime mortared, 700mm wide, truncated below 214; possibly interpreted as foundation course
 218 Mid-brown and with mortar flecks
 301 Concrete floor surface, 100mm thick
 302 Bitumen base to 301, 10mm thick
 303 Dark grey-brown sand with large sandstone blocks, filling cut 305
 304 Vitrified ceramic drain, running E-W from E end of trench, turning off to SW through S section of trench, 500mm below ground surface
 305 Cut for drain 304, U-shaped, elongated in section
 306 Brick, crushed rubble and mortar in sandy matrix, 160mm thick
 307 Grey-brown sand and rubble layer with some clinker and brick, 300mm thick
 308 Lens of small sandstone rubble and mortar pieces in light brown sand, 100mm thick
 309 Layer of small sandstone rubble pieces in creamy light brown/ mortar mix, 120mm thick
 310 Banded sand layer, probably redeposited
 311 Black clinker layer 100mm thick, possible solum layer
 312 Dark brown sand layer: probably first pre-19th century layer
 313 Concrete encased fireclay drain
 314 Cut for 313
 315 Large rubble blocks in sandy matrix - fill to 314
 316 Remnant of wall 450mm wide, running N-S, truncated by 314
 317 Substantial, partially dressed wall 850mm wide, lime mortar bonded, disturbed by 314. Runs N-S
 318 Sandstone rubble wall 450mm wide, running E-W
 319 Mixed dark brown-black silty sand with midden material within, lies above 320
 320 Layer of crushed sandstone and mortar, lying above 311, within "room" formed N of 318
 321 Narrow dividing wall of sandstone rubble, 250mm wide, running N-S
 322 Mortar layer, appears to be possibly compressed (possible solum?) Cut on S side of 318 by cut for drain 304
 323 Dark brown sandy layer, with some occasional small rubble pieces
 324 Bituminised tarmacadam layer
 325 Cobble sets, bedded onto shelly sand
 326 Light brown beach sand (levelling?)
 401 Concrete with bitumen base (damp proofing?), 150mm thick

402	Mixed brick and sandy rubble, 150mm thick
403	Thin band of redeposited creamy yellow sand, 80mm thick
404	Crushed sandstone and rubble mix abutting upper surface of wall 411, 300mm thick
405	Thin layer of dark grey-brown mixed sand and rubble with some charcoal flecks, 80mm thick
406	Thin layer of mortar rubble and sand, 50mm thick
407	Dark brown mixed sand, apparently redeposited, 220mm thick
408	Dark brown/ black compacted sandy silt, 100mm thick
409	Dark brown sand layer with occasional black manganese flecks, 160mm thick
410	Light brown sand showing signs of panning (natural), not bottomed
411	Substantial partially dressed rubble sandstone wall, 800mm wide with visible, wider, foundation course, over 700mm deep
412	Dark brown-black humic sandy layer with occasional broken stone, pot and glass, 250mm deep
501	Thin skim of tarmac, 30mm thick
502	Cobble sett layer, 180-250mm deep, set into sand bedding
503	Dark grey-brown mixed ashy loam layer, 220mm deep
504	Crushed sandstone and lime mortar layer, 200mm thick
505	Black cinder and crushed brick, 100mm thick
506	Mortar, cobble and crushed sandstone layer, 100mm thick
507	Dark brown sand
601	Thin skim of tarmac, 30mm thick
602	Cobble setts, 100-150mm deep, bedded on gritty sand
603	Dark grey-brown mixed ashy loam layer, 200mm deep
604	Crushed sandstone and lime mortar layer, 200mm thick
605	Black cinder and crushed brick, 100mm thick
606	Mortar and crushed sandstone layer, 100mm thick
607	Dark brown sand, 200mm thick
608	Mixed coloured sand, showing some panning and manganese flecks (natural)
609	Vertically sided cut, over 600mm wide, running N-S on W side of trench, containing 610 and 611
610	Ceramic drain pipe
611	Mixed brown-grey sand, mortar and brick fragments, filling 609

Finds register

<i>Context</i>	<i>Number of pieces</i>	<i>Dating</i>	<i>Description</i>
207	1		Possible white gritty ware body sherd (lost)

Photographic register

Evaluation

Trench &

shot	Desc:	Looking
T1-1	General shot of trench	E
T2-1	Progress shot of machine strip	S
T2-2	Progress shot of machine strip	S
T2-3	Progress shot of machine strip	S
T2-4	Progress shot of machine strip	W
T2-5	Progress shot of machine strip	SE
T2-6	Cleaned natural	S

T2-7	Cleaned natural	N
T2-8	Detail of wall 209 in W section	W
T3-1	Progress shot of initial strip	E
T3-2	Further progress shot showing exposed walls 318 and 317	E
T3-3	Detail of relationship between 318 and 317	-
T3-4	Cleaned trench, showing contexts 312, 317, 318, 319, 320, 321	W
T3-5	Cleaned trench, showing contexts 312, 317, 318, 319, 320, 321	E
T3-6	313	E
T3-7	313	N
	E end of trench, showing cut remnant for ceramic drain removed during machining, 318, 321, 322	W
T3-8		W
T3-9	Shot of trench, showing 318 and associated contexts	W
T4-1	Progress shot during initial strip	N
T4-2	Progress shot during initial strip	S
T4-3	Cleaned surfaces, showing wall 411	S
T4-4	Cleaned surfaces, showing wall 411	S
T4-5	Cleaned surfaces, showing wall 411	N
T4-6	Cleaned surfaces, showing wall 411	E
T5-1	Pre-excitation, showing cobbling (502) below tarmac 501	S
T5-2	Pre-excitation, showing cobbling (502) below tarmac 501	N
T5-3	Machining in progress	S
T5-4	Cleaned bottom of trench, showing old electrical duct in E side of trench	S
T5-5	W section of trench, showing deposition	SW
T5-6	Cleaned bottom of trench, showing old electrical duct in E side of trench	N
T6-1	Pre-excitation, showing cobbling (602) below tarmac 601	N
T6-2	Initially stripped base of trench, showing 608, 610, 611	S
T6-3	Cleaned base of trench, showing 608, 610, 611	S
T6-4	Cleaned base of trench, showing 608, 610, 611	SE
T6-5	Cleaned base of trench, showing 608, 610, 611	NE
T6-6	Cleaned base of trench, showing 608, 610, 611	N

Standing Building Recording

Courtyard/ loading bay

CY-01	Sliding door into workshop from loading bay
CY-02	Entrance to southernmost workshop
CY-03	Bricked up window to E of loading platform
CY-04	Steps leading to loading platform for lift
CY-05	Loading door to lift
CY-06	Level 1 (ground floor) entrance to main building, awning and steps to 1st floor (level 2)
CY-07	Blocked windows in adjacent building
CY-08	Blocked windows in adjacent building
CY-09	Alley
CY-10	Workshop exterior along alley side (W)
CY-11	View of main building and lift shaft
CY-12	Modified doorway into workshop
CY-13	Swing-away lifting apparatus
CY-14	Blocked windows and doorway at N end of alley on adjacent property
CY-15	Alley looking S to main building
CY-16	Modified doorway into workshop
CY-17	Blocked window openings at S end of alley
CY-18	Level 1 entrance showing modification
CY-19	Stairs leading to level 2, showing brick blocking

- CY-20 Stairs leading to level 2, showing brick blocking
CY-21 View from stairs into covered loading bay

Exterior shots of complex

- EX-01 Office, NE corner
EX-02 Office, NE corner
EX-03 Office, NE corner
EX-04 Substation building
EX-05 Workshop building, showing various builds
EX-06 NE view of substation
EX-07 Gable of workshop extension
EX-08 Long side of workshop extension, looking SW
EX-09 Long side of workshop extension, looking SW, with main building E gable in background
EX-10 Lift shaft
EX-11 Main building, E gable
EX-12 Long side of workshop extension, looking SW
EX-13 Main building, E gable
EX-14 Build change at SE corner of workshop
EX-15 S gable of workshop
EX-16 S elevation main building
EX-17 S elevation main building
EX-18 S elevation main building
EX-19 S elevation main building
EX-20 S elevation main building
EX-21 W gable main building
EX-22 W gable main building
EX-23 W elevation workshop
EX-24 Blocked archway into L1 of main building
EX-25 Hinge bracketry detail on blocked archway
EX-26 Modified window opening
EX-27 Metal hoop fixed to wall immediately below eaves
EX-28 Modified window opening
EX-29 Shuttered window, L1
EX-30 Barred window, L1
EX-31 Window L1 with modern boarding

Office – interior shots

- OF-01 Front door from inside reception area
OF-02 Reception desk
OF-03 Reception window
OF-04 Director's office
OF-05 Director's office
OF-06 Director's office
OF-07 Stairs to 1st floor
OF-08 Window in upper storeroom
OF-09 Shelving and cornicing in storeroom
OF-10 Baby Belling cooker in mess room

Workshop – interior shots

- WS-01 Main area, looking S
WS-02 Toilet and shower room
WS-03 N gable wall showing shower room and access to offices
WS-04 Detail of heater apparatus
WS-05 Detail of internal wall separating 2 halves of workshop
WS-06 E wall of workshop and internal N gable of extension

WS-07	N gable of extension showing blocked opening
WS-08	E wall of workshop and door into loading bay viewed from NE
WS-09	Door into loading bay and foreman's office
WS-10	Sliding door into workshop from alley
WS-11	Interior of foreman's office
WS-12	Foreman's office

Level 1, warehouse – ground floor

L1-01	Lift shaft doors
L1-02	NE corner
L1-03	E elevation showing blocked doorway
L1-04	Window, S elevation, E end
L1-05	Concrete ceiling
L1-06	View of ground floor, looking W
L1-07	Small ?investigation holes in ceiling
L1-08	Intact wooden shutters on S elevation window
L1-09	Blocked doorway on S elevation
L1-10	General view of shutters, S elevation
L1-11	Rubble construction of W elevation
L1-12	Blocked window in N elevation and rubble construction, note relieving arch over window
L1-13	Blocked window in N elevation, showing relieving arch over window
L1-14	Blocked window in N elevation
L1-15	Lift shaft

Level 2, warehouse – 1st floor

L2-01	Lift shaft concertina doors
L2-02	Blocked openings, N wall

L2-03

L2-04	S wall
L2-05	E wall showing belt drive shaft
L2-06	E wall showing belt drive shaft
L2-07	E wall showing belt drive shaft
L2-08	E wall showing belt drive shaft
L2-09	SE corner

Level 3, warehouse – 2nd floor

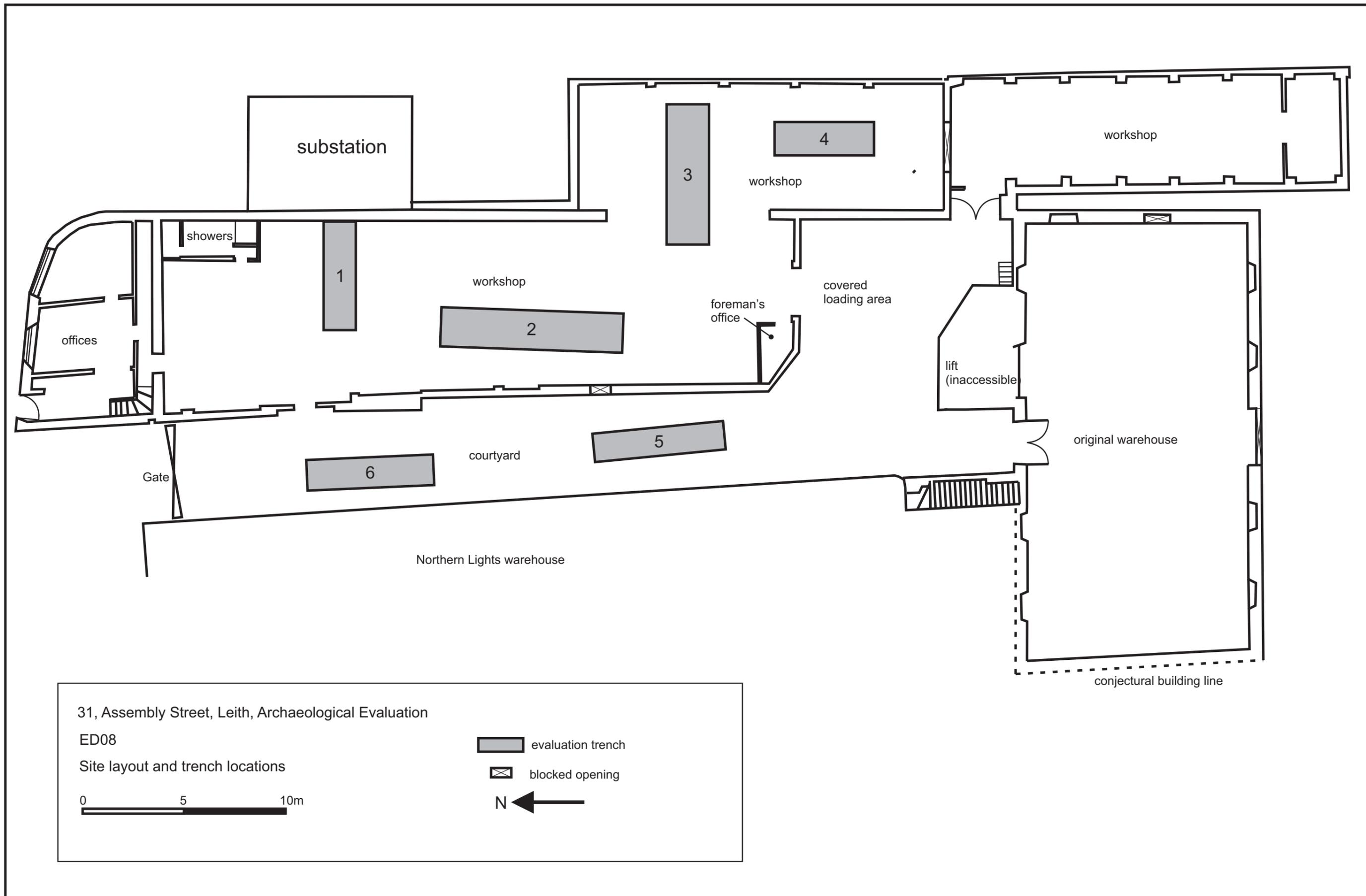
L3-01	Looking NE across floor, showing concrete structure and tie-rods
L3-02	Looking N across centre of floor
L3-03	Graffiti
L3-04	Graffiti
L3-05	S wall showing tie rods
L3-06	Centre of W gable showing structure and blocked opening
L3-07	Window blocking N wall
L3-08	Lift shaft exterior opening
L3-09	Modified window in N elevation
L3-10	Detail of centre of W gable showing structure and blocked opening

Level 4, warehouse - attic

L4-01	View of attic
L4-02	View of attic
L4-03	View of attic
L4-04	Entrance to lift shaft & concertina door
L4-05	English wheel
L4-06	English wheel

L4-07	Makers mark - Walter Frost, Eagle Ironworks, Rochdale
L4-08	English wheel
L4-09	Detail of sarking
L4-10	Entrance to lift shaft
L4-11	Broken tools and steam drive shaft gears on floor of attic

Illustrations



31, Assembly Street, Leith, Archaeological Evaluation

ED08

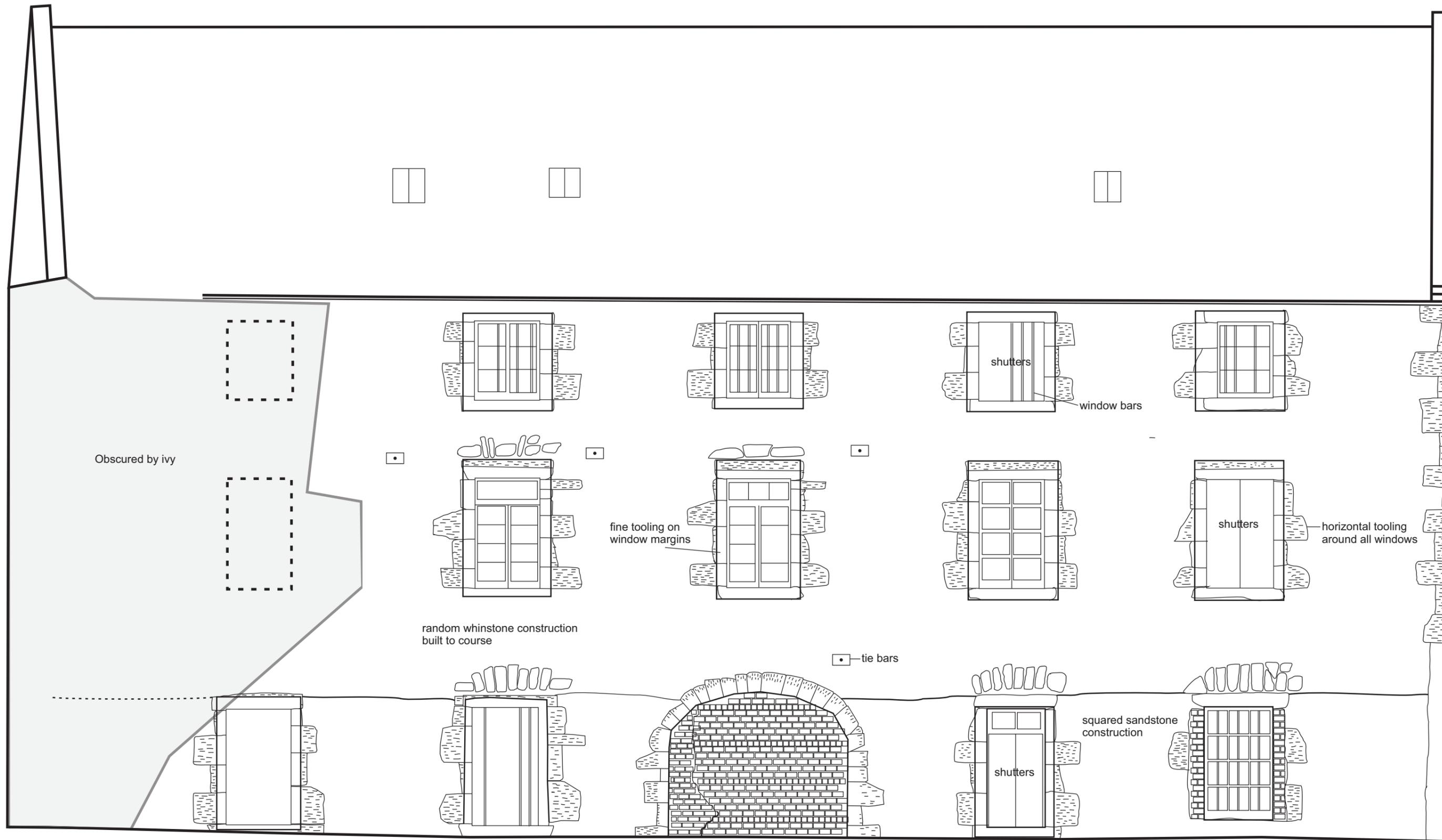
Site layout and trench locations

0 5 10m

 evaluation trench

 blocked opening

N 

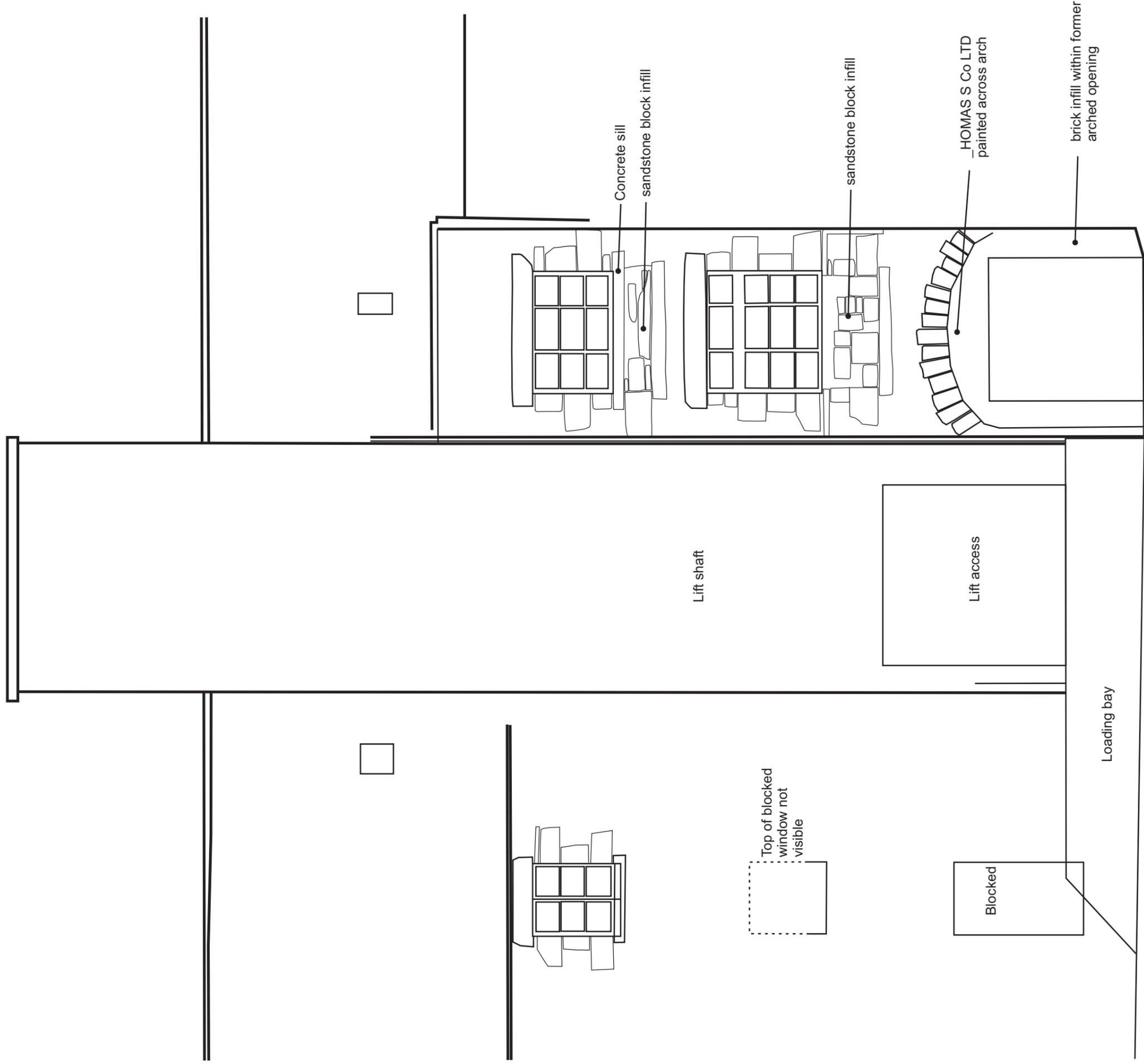


31, Assembly Street, Leith, Standing building survey

ED08

South elevation (from survey)

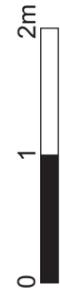


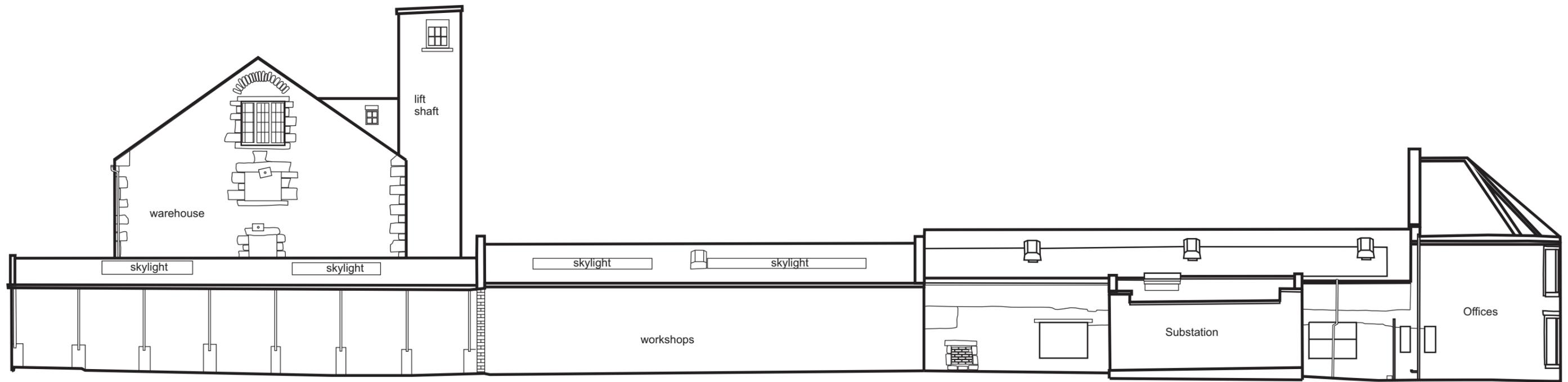


31, Assembly Street, Leith, Standing building survey

ED08

Courtyard elevation (from survey)



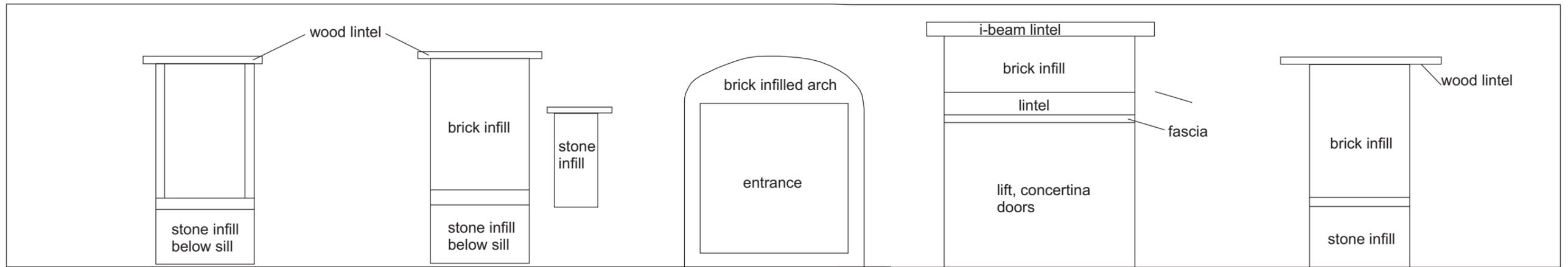


31, Assembly Street, Leith, Standing building survey

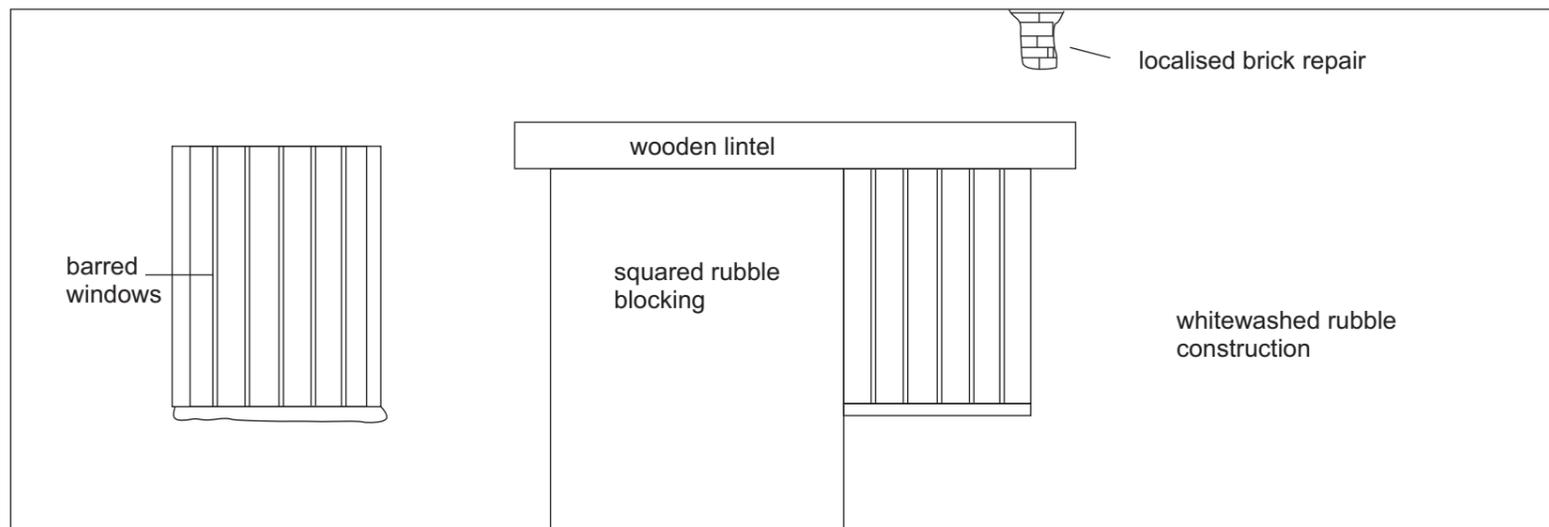
ED08

East elevation (from survey)



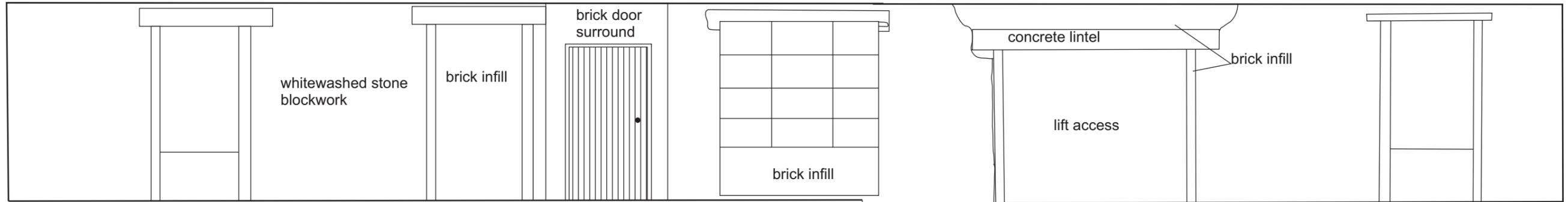


31, Assembly Street, Leith, Standing building survey
ED08
North internal elevation, ground floor

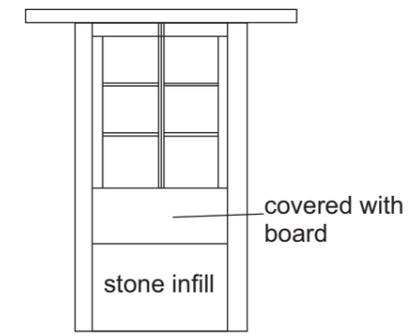
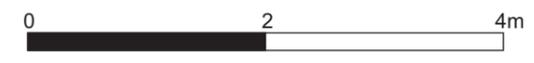


31, Assembly Street, Leith, Standing building survey
ED08
Ground floor, E internal elevation

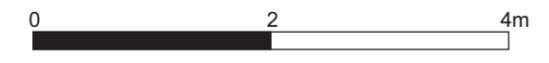


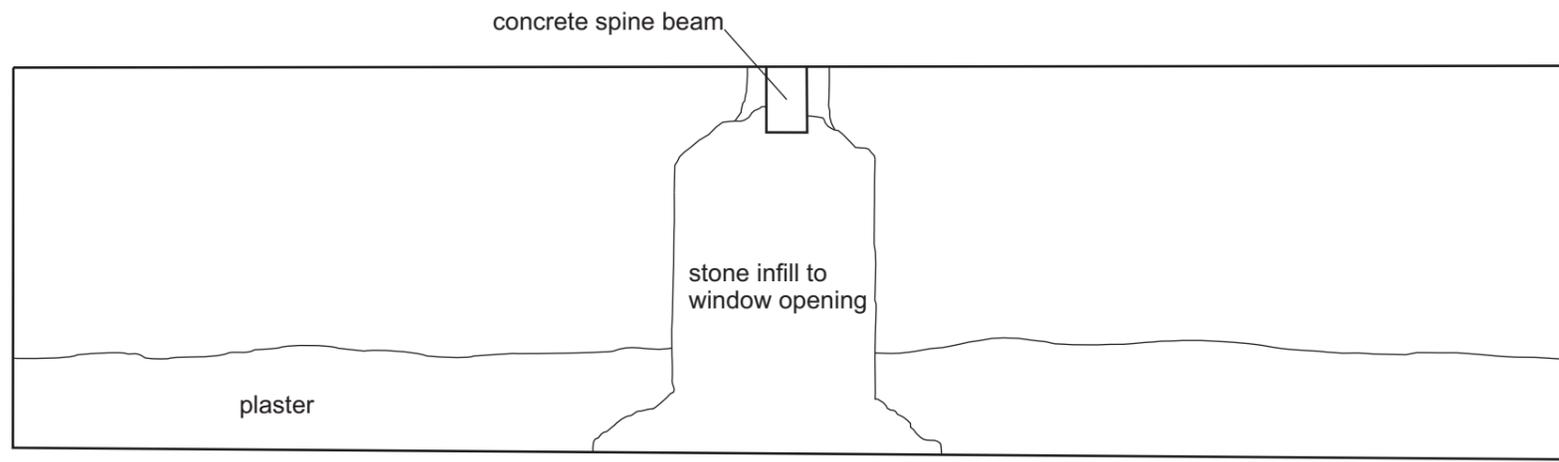


31, Assembly Street, Leith, Standing building survey
ED08
S internal elevation, 1st floor (from survey)

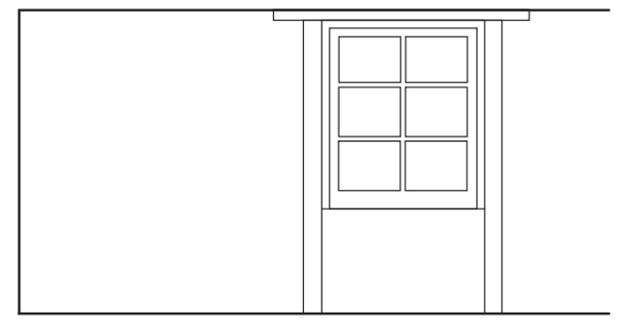


31, Assembly Street, Leith, Standing building survey
ED08
Example of window structure on S elevation

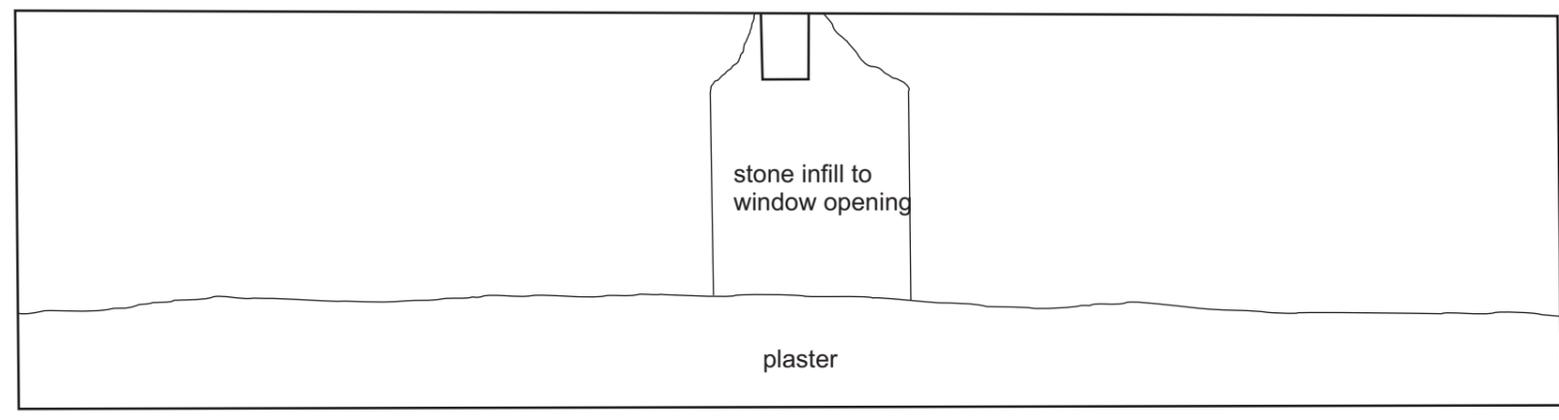




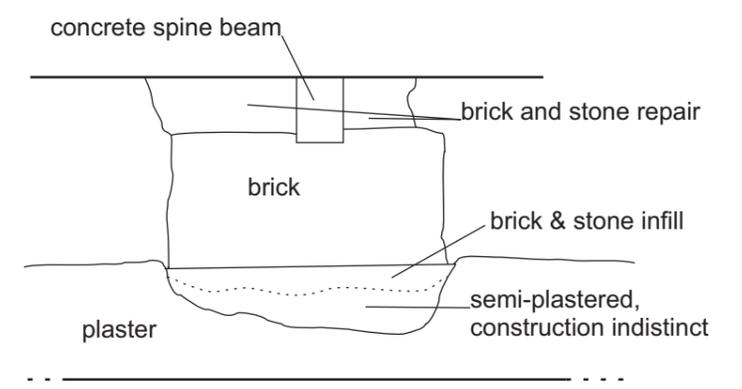
31, Assembly Street, Leith, Standing building survey ED08
 E internal elevation, 1st floor
 0 2 4m



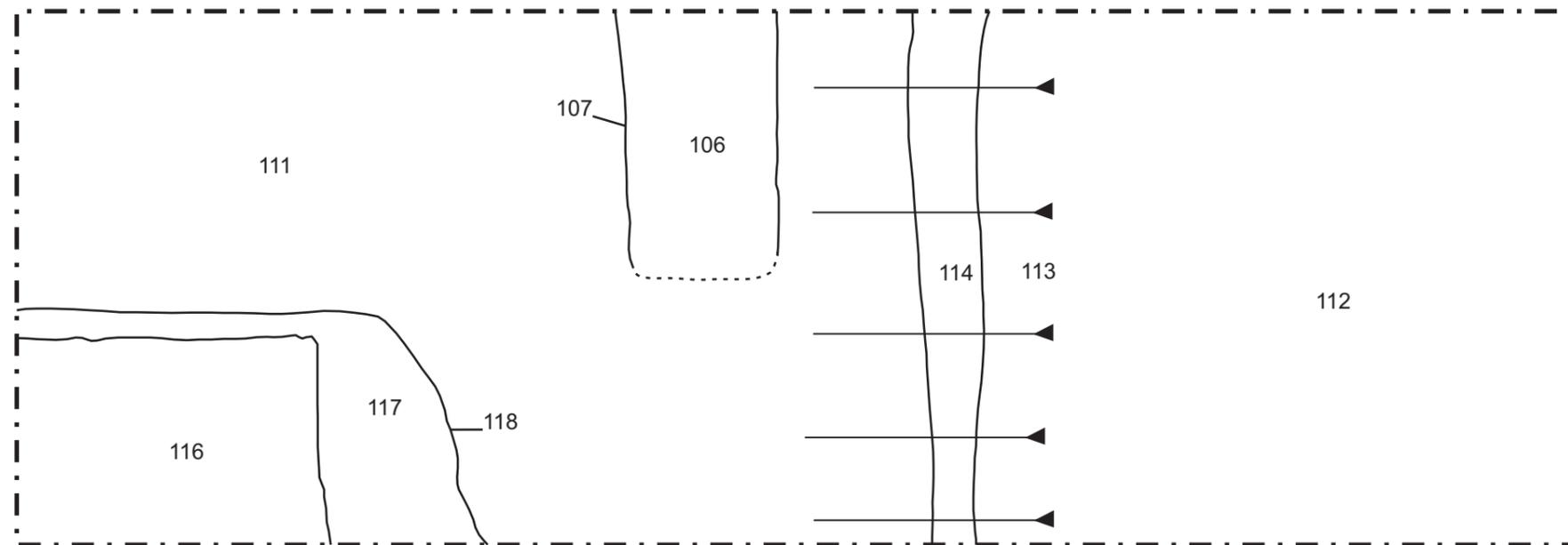
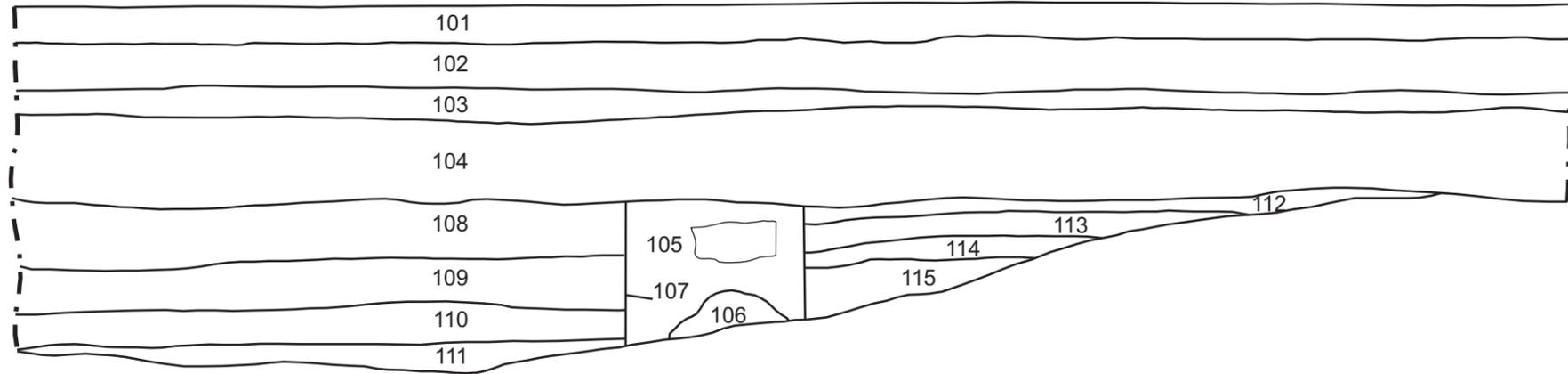
31, Assembly Street, Leith, Standing building survey ED08
 S elevation, 2nd floor, E end:
 example of repeating window style
 0 2 4m



31, Assembly Street, Leith, Standing building survey ED08
 W internal elevation, 1st floor
 0 2 4m



31, Assembly Street, Leith, Standing building survey ED08
 E elevation, 2nd floor: detail
 0 2 4m



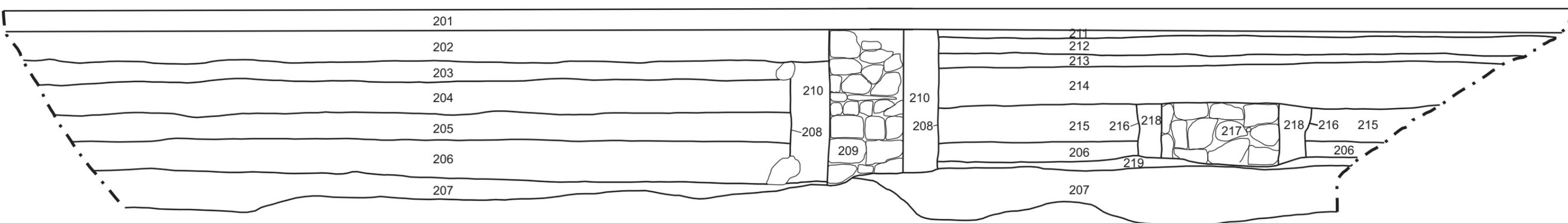
31, Assembly Street, Leith, Archaeological Evaluation

ED08

Trench 1: plan view and E elevation

0 0.5 1m

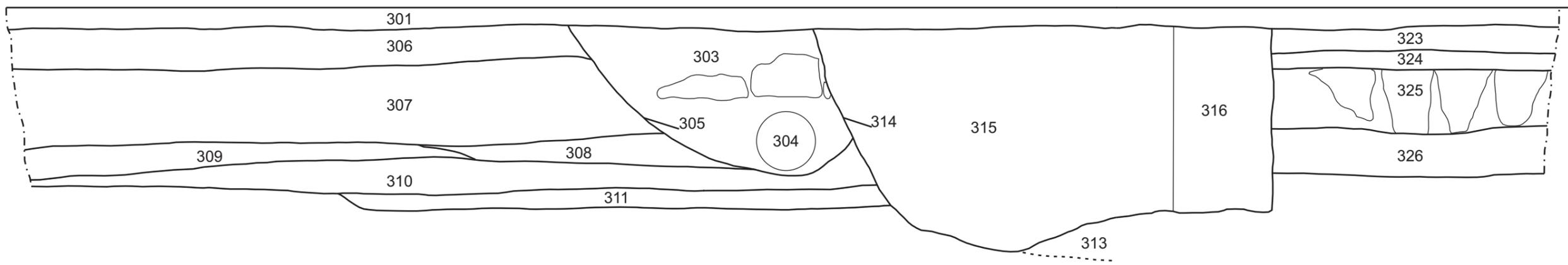
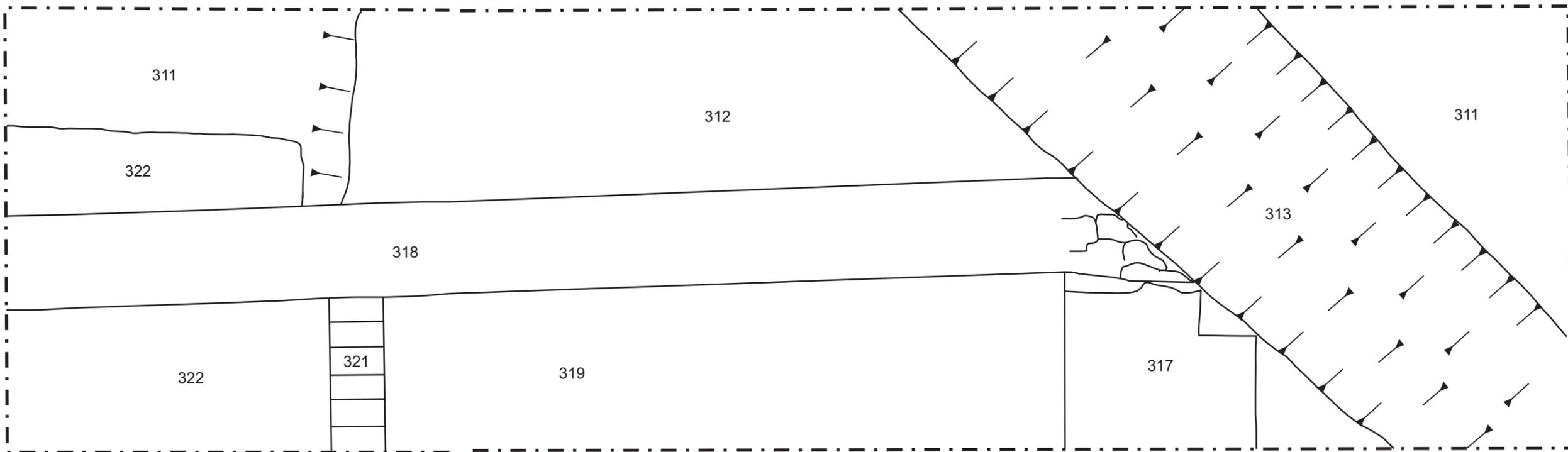




31, Assembly Street, Leith, Archaeological Evaluation
 ED08
 Trench 2: plan view and W elevation

0 0.5 1m

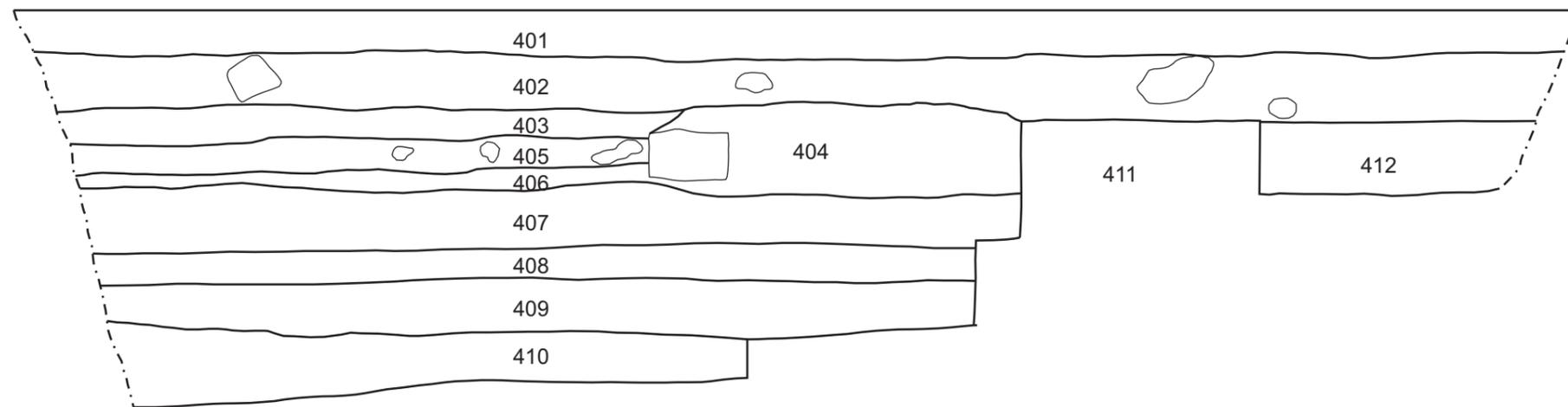
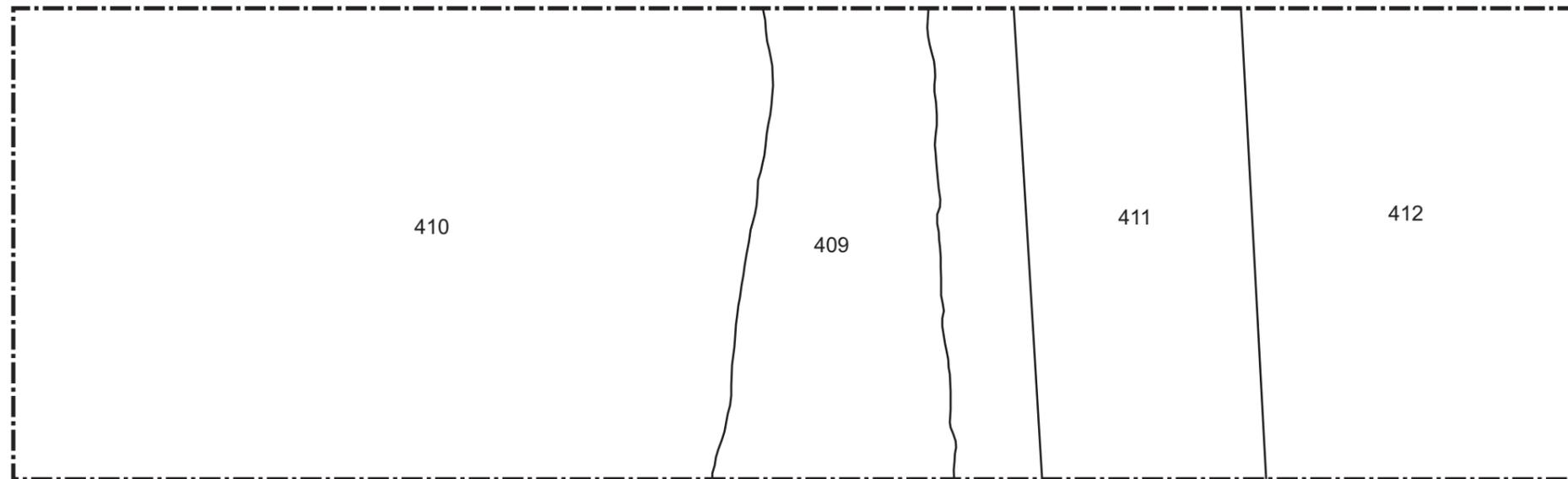
N ←



31, Assembly Street, Leith, Archaeological Evaluation
 ED08
 Trench 3: plan view and S elevation

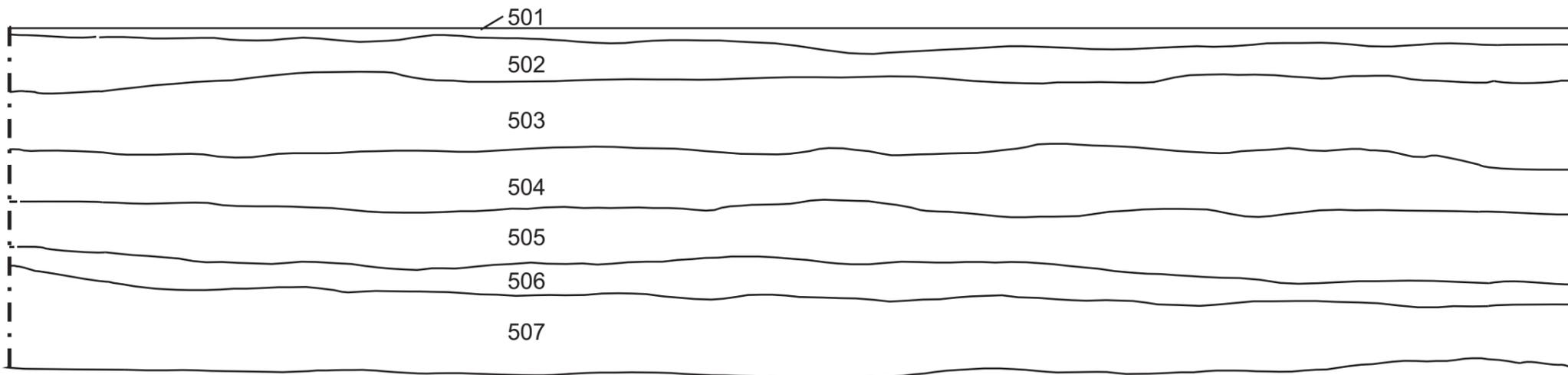
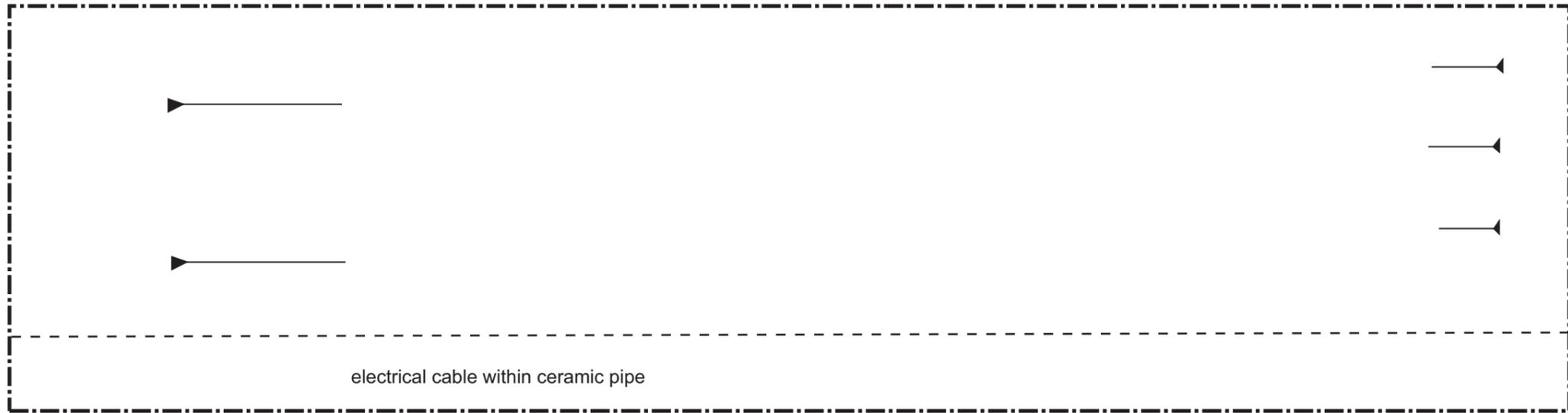
0 0.5 1m

N



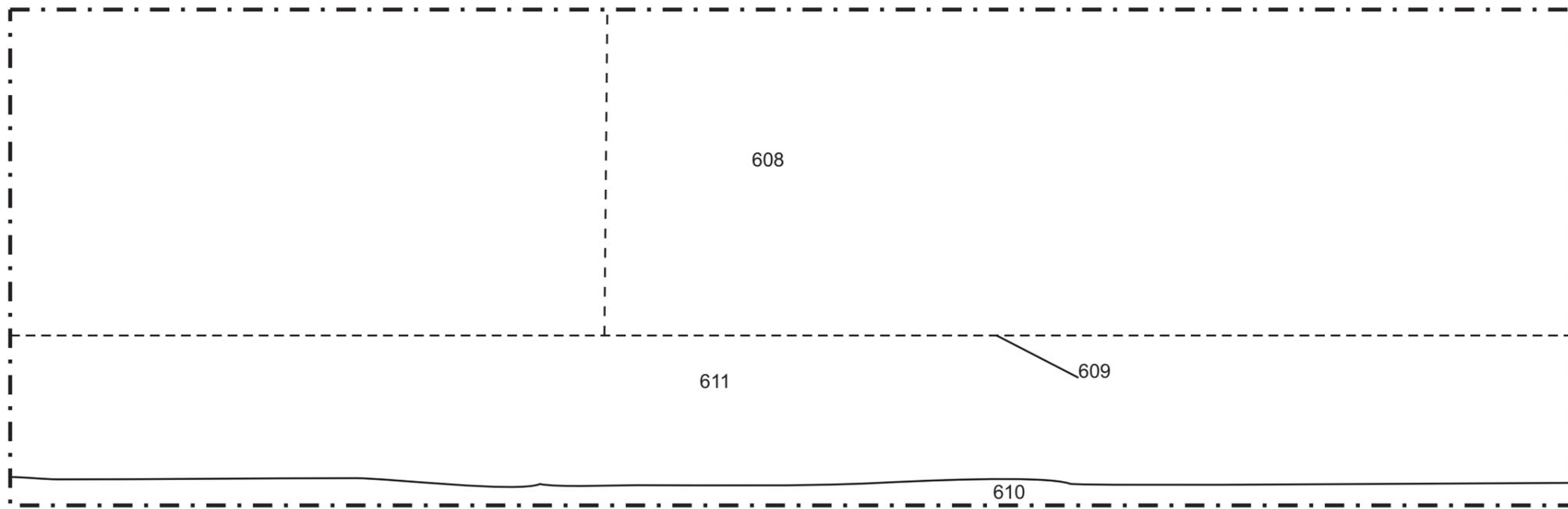
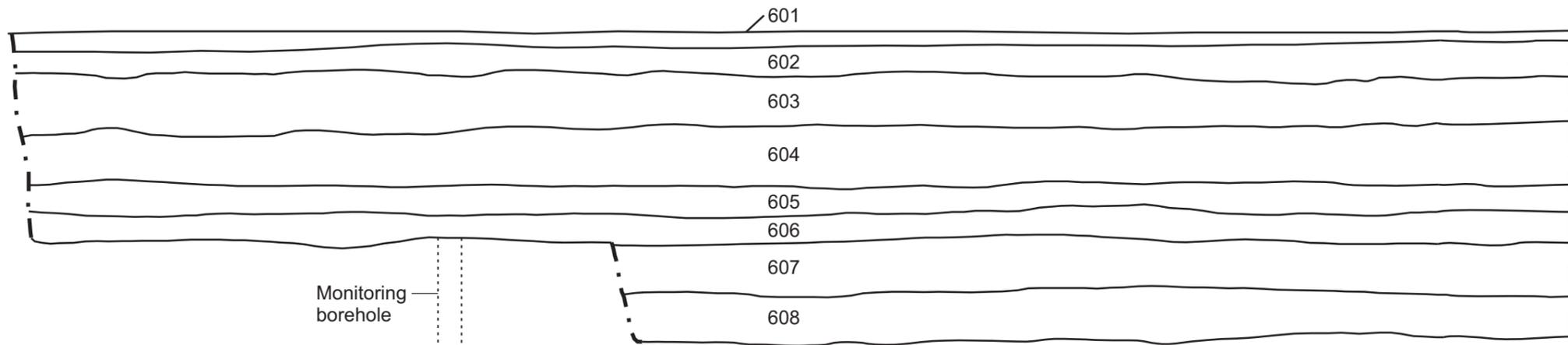
31, Assembly Street, Leith, Archaeological Evaluation
ED08
Trench 4: plan and E elevation





31, Assembly Street, Leith, Archaeological Evaluation
ED08
Trench 5: plan and W elevation

0 0.5 1m → N



31, Assembly Street, Leith, Archaeological Evaluation
ED08
Trench 6: plan and W elevation

0 0.5 1m

→ N