

# Bonnington Mills, 70-72 Newhaven Road, Edinburgh

Archaeological Mitigation Report No. 3888

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Bonnington Mills, 70-72 Newhaven Road, Edinburgh

**Archaeological Mitigation** 

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## **CONTENTS**

1.	Introduction	4
2.	Working Methods	8
3.	Archaeological Results	10
4.	Conclusions	15
5.	References	17
Append	lices	
1.	Context Register	18
2.	Photographic Register	20
3.	Drawings Register	23
Illustra	tions (bound at rear)	
Fig. 1	Site location and site plan	
Fig. 2	Historic maps	
Fig. 3a	Detailed plan of Block A	
Fig. 3b	Detailed plan of Block B/C	
Fig. 3c	Detailed plan of Block D & E	
Fig. 4	General shot of Block A, looking east	
Fig. 5	General shot of Room A1, looking east	
Fig. 6	Wall 065 in foreground, 063 in background	
Fig. 7	Block B/C, general shot, looking east	
Fig. 8a	Overlay of 1853 OS Town Plan showing related features	
Fig. 8b	Overlay of 1876 OS Town Plan showing related features	
Fig. 8c	Overlay of 1893 OS Town Plan showing related features	
Fig. 9	Brick machine mount 052	

- Fig. 10 Brick chimney 068 and concrete base 067
- Fig. 11 Brick chimney base 123
- Fig. 12 Brick flue system 124
- Fig. 13 Brick flue system 124
- Fig. 14 Earlier flue system 131

### 1 INTRODUCTION

### 1.1 General

This report presents the results of an archaeological excavation undertaken by CFA Archaeology Ltd (CFA) between June and July 2019 for a residential development at 70-72 Newhaven Road, Edinburgh (NT 26026 76022, centred) (Fig. 1). The work was commissioned by Queensbury Properties (Bonnington) Ltd.

Following the results of a programme of building survey (Cressey 2019) and archaeological evaluation (Mitchell 2019), the City of Edinburgh Council Archaeology Service (CECAS) required a programme of archaeological excavation, strip, map and record and watching briefs to take place prior to and during construction. An addendum (Addendum 2, dated 17 June 2019) to the Written Scheme of Investigation (WSI) covering this programme of works was produced by CFA on behalf of the client.

## 1.2 Background

Planning permission (Ref. No.17/01183/FUL) has been granted for a residential development with associated parking and landscape works. A building appraisal and desk-based assessment was carried out in 2017 to support the application and was reported under separate cover (Cressey 2017). The planning consent was granted subject to a condition requiring a programme of standing building survey and targeted architectural watching brief, which was undertaken by CFA between November 2018 and January 2019, the results of which were reported under separate cover (Cressey 2019). Watching briefs during site investigation (SI) and demolition works, and an archaeological evaluation were also carried out by CFA (Mitchell 2019).

Following on from the results of this programme of works, CECAS recommended a programme of archaeological excavation, strip, map and record, and watching briefs to take place prior to and during construction. This report covers the results of this last phase of works.

The development site, which encompassed an area of 0.35ha, was divided into a number of distinct areas where different mitigation measures were required (Fig. 1). Based on the results of the evaluation a broad model of where archaeological deposits survived was created and a mitigation strategy was agreed in consultation with CECAS. In the east of the site no further work was required.

Under Block A, B & C it was considered that the buried structural remains of 19<sup>th</sup> century industrial buildings survived in a coherent pattern and required excavation as the blocks' construction will remove or significantly compromise the remains. The residential buildings in Blocks A-C required piling for their construction. Therefore, a strategy of excavation was employed within the footprint of the buildings. Overburden was removed to the first archaeological horizon, the remains of which were recorded prior to removal. This was replicated until natural subsoil was encountered.

In the "courtyard area" ground reduction was required but no foundations were necessary so below formation level there will be preservation *in situ* (apart from where deeper services are to be inserted). In response to this reduced impact on the buried remains a Strip, Map and Record excavation was agreed; the area would be reduced to formation level or the first archaeological horizon (whichever comes first) under archaeological control. Exposed remains would be cleaned up and mapped and recorded before being removed to formation level under archaeological control. It was considered that there was the potential for preservation *in situ* down the southern side of the courtyard area. This area would be reduced to formation level under archaeological control, but if remains were uncovered during the site reduction these would be cleaned up and mapped and recorded before being removed. Where deep services cross the "courtyard area" these would be monitored under watching brief conditions as there was the potential for uncovering elements of the tanning tanks that were indentified in the evaluation.

A strip, map and record strategy was employed for the courtyard area, known herein as Blocks D & E, as the formation depth of the development allowed for preservation in situ below that depth. The overburden was removed down to a formation depth of 7.0m aOD on the western side of Block D and 6.7m aOD at the eastern side. Similarly, Block E was reduced to a level of 7.0m aOD on the western side to 6.5m aOD on the eastern side.

## 1.3 Historical Background

The development site lies on the southern bank of the Water of Leith and forms part of the medieval estate of Bonnington. John Lawson (CECAS) advised that the mills at Bonnington formed part of the lands given to Holyrood Abbey in its foundation charter of 1128 AD. Though the exact location of these early mills is unknown, mills in this location are recorded from the 15<sup>th</sup> century. The area was affected by the 16<sup>th</sup> century sieges of Edinburgh and Leith, with the Petworth Map depicting the 1559-60 siege, suggesting that the site formed part of the area for encampment of Lord Gray and the earl of Arran's forces (Harris 1991).

The cartographic record shows that the site has had a protracted history of industrial expansion and contraction during the 18-19<sup>th</sup> centuries. Roy's map of 1752-55 shows Bonnington existed by this time (Fig. 2a). On the south side of the crossing there is a schematic collection of buildings, some of which may have been associated with the early development of Bonnington Mills.

Gauldie (1999) refers to the engineer John Rennie's involvement at Bonnington Mills with the first installation of a new lantern wheel in 1780. This confirms that a new corn mill was under construction by this year and was probably the one that was situated upstream of Bonnington Bridge. It may have still been in existence during 1902 as the course of its lade was maintained and ran below Bonnington Bridge through a segmented arch.

Jon Ainslie's map of 1804 first names the site as Bonnington Mills (Fig. 2b). The development area was part of a much larger holding under the ownership of a family named Cunningham. Bonnington Bridge is shown crossing the Water of Leith. The mill complex is shown on either side of what would become Newhaven Road. On the

eastern side of the road five buildings are depicted. The largest is an inverted L-shaped building and the rest are rectangular. A mill lade running west to east through the site from the Water of Leith is also depicted.

Abernethy and Walker's map of 1807 shows five buildings present on the eastern side of the road. Four are rectangular and another is L-shaped (Fig 2c). The complex is not named.

Kirkwood's map of 1817 shows four buildings in the development area and shows the mill lade with a collection of irregular-shaped buildings under the ownership of Mr McLaine (Fig 2d).

Lizars' map of 1834 shows four buildings in the study area, two of which were L-shaped and two were more or less rectangular (Fig 2e). The complex extended westwards and the mill lade was still present.

The 1853 Ordnance Survey (OS) Edinburgh Town Plan shows that the site was extensively developed as Bonnington Mills on the north side of the mill lade (Fig. 2f). Within the proposed development boundary the largest building on the site was built around a grid of tanning pits, forming part of a tannery complex. A single square building was present to its NW, with what appears to be an external staircase on its north side. A T-shaped building was present on its west side adjoining Newhaven Road. Further west was a corn and flour mill with a granary building, outside of the development boundary.

The 1876 OS Edinburgh Town Plan shows that by that year the tannery had expanded considerably (Fig. 2g). The complex is now named as a *Tannery* comprising a series of large buildings with a small courtyard at its centre. Some of the buildings fronted Newhaven Road. The building with the external staircase on its north side has been extended and the T-shaped building has been subsumed into a larger complex. The mill lade is still present. Bonnington Foundry lies to the south, outside of the development boundary.

The 1893 OS Edinburgh Town Plan map of Edinburgh and 1894 OS 25 inch map (Fig. 2h) show very little change from the previous edition, but the complex is now named Bonnington Paper Mill. The courtyard at the centre of the complex has been altered slightly. The lade is still extant. The buildings on the north side of the main complex appear to be the same. Bonnington Iron Works and Bonnington Tannery lie to the south, outside of the development boundary.

The 1908 OS map (not shown) depicts the same level of detail as the 1893 map showing no changes had occurred. Although still visible on the 1908 map, the mill lade is not named, suggesting it was now no longer in use.

The 1914 OS map (Fig. 2i) depicts the site as *Paper Mills* and there is no significant alteration to the layout with only minor additions. An engineering works and boiler works are to the south, where the iron works had been previously.

The 1933 OS map now depicts the site as Bonnington Bridge Paper Mills and the building detail is the same as that shown on the 1914 OS map.

Ordnance Survey map editions post-dating the 1950s show the site in block layout plan and provide no useful details.

The building appraisal (Cressey 2017) confirmed that the majority of the buildings forming the Bonnington Mills Business Centre comprised numerous individual offices and retail units converted from a paper mill associated with the last phase of manufacturing on the site.

## 1.4 Objectives

The project's aims and objectives were:

- To excavate and record the historic structures within the footprint of Blocks A, B, C.
- To undertake a Strip Map & Record excavation within the part of the courtyard area (Block D).
- To ensure preservation *in situ* or undertake a Strip Map & Record excavation within a second part of the courtyard area (Block E).
- To undertake a watching brief on service trenches running through the "courtyard area" to identify and record any surviving archaeological remains.
- To prepare a report on the results of the work and where necessary undertake post excavation analysis, and if required publication of the results.

### 2. WORKING METHODS

### 2.1 General

CFA Archaeology Ltd follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidance as necessary.

Prior to the commencement of this programme of works, a watching brief was maintained during the 'grubbing up' of the foundations and floor surfaces relating to the buildings that had been previously demolished (Mitchell 2019).

Overburden removal was conducted by a mechanical excavator under close archaeological supervision.

The formation levels for construction across Blocks D & E were not very deep due to the nature of the development features that were to be constructed in those areas. These were in the main carparking and roads. The formation level across these areas ranged between 7.05m OD to 6.52m OD. The only development below this depth were service runs which were monitored under a watching brief. This meant that any features below the formation depths, that were not in the service runs, were preserved *in situ* (Fig. 1).

All excavation and on-site recording was carried out according to standard CFA procedures, principally drawing, photography and by completing standard CFA record forms. The stratification of all excavated areas was fully recorded whether or not significant archaeological deposits were identified.

A detailed survey of the site was carried out using industry standard electronic surveying equipment.

## 2.2 Excavation (Blocks A-C)

These areas were reduced down to the level of the 19<sup>th</sup> century structural remains by mechanical excavator under archaeological supervision. All archaeological surfaces were hand cleaned, recorded, photographed and planned.

Block A measured 22m north-north-west to south-south-east by 15m. Excavations proceeded to a depth of 5.6m aOD but it was not possible to reach the natural subsoil in this area as the ground was extremely contaminated and was prone to excessive groundwater. However, the structural remains that were uncovered did not appear to go below this depth so it is considered that all the structural remains in this area were exposed.

Block B/C measured approximately 37m north-east to south-west by 10m north-west to south-east, widening to 14m at the south-west end. Underlying 0.5m of demolition rubble were the remains of a modern concrete floor for the buildings that had been removed during the demolition period. Underlying this were the remains of earlier phases of buildings whose interiors had been backfilled up to the height of the surviving walls with a furnace ash material. The foundations of the buildings were sitting on clean sand.

After recording was completed the structures were removed by machine under watching brief to reveal the next underlying archaeological horizon or formation depth. During the removal of the buildings, details of the attributes of the buildings such as the thickness of floors were recorded when possible.

Digital images were taken to record archaeological contexts and to illustrate the progress of the excavations. A graduated metric scale was used in photographs. All photographs were recorded by individual number on a register that included information on the context and direction taken.

An overall site plan at an appropriate scale and relative to the national grid and ordnance datum was recorded using a combination of digital survey and hand-drawn plans of individual features and sections/elevations as required.

## 2.3 Strip, Map and Record (Blocks D & E)

Due to the potential for 19<sup>th</sup> century or earlier structural remains to be encountered within the courtyard area excavations to formation depth, a strip, map and record strategy was undertaken. The overburden was reduced down to the formation levels required for the development. Any archaeological remains were hand cleaned and then recorded using the methods noted above. The formation level within Blocks D & E ranged from between 7.0m aOD in the western half to 6.5m aOD in the eastern half.

Block D measured 26m north-north-west to south-south-east by 23m. Formation level was not far from the site surface so very few pre-modern features were identified, and most of the remains related to the use of the buildings in the recent past.

Block E measured 32m east-north-east to west-south-west and 7m transversely. As with Block D, formation level was not far from the site surface so only the modern overburden was removed down to a formation level of between 7.05m and 6.50m aOD. Therefore, the majority of the remains uncovered related to the modern use of the site.

## 2.4 Watching Brief

A watching brief was conducted during the excavation of deep service trenches, running through Blocks D & E. This took place where there was a potential that service trenches might cross the location of the tanning tanks found during the evaluation.

### 3. ARCHAEOLOGICAL RESULTS

Numbers in bold and parentheses are context numbers, a full list of which can be found in Appendix 1.

### 3.1 General

The features uncovered within each of the individual blocks all relate to the former Bonnington tannery complex and later paper mill. Some of the features could be directly related to the buildings depicted on the 1853 Ordnance Survey Town Plan (Fig. 8a), with a number of additional features reflecting the later 19<sup>th</sup> and mid 20<sup>th</sup> century development of the site.

The surviving remains relating to the earliest phase are discussed in Section 3.2, with the later redevelopments discussed in Sections 3.3 and 3.4.

## 3.2 Structures depicted on the 1853 OS Town Plan (Fig. 8a for map overlay)

Block A - Building 1 (Fig. 3a)

Building 1 was only partially uncovered during the course of the excavation and was depicted on the 1853 Ordnance Survey Town Plan as being roughly T-shaped with an outshot to the west (Fig. 8a). Only part of the western part of the building was exposed during the excavation (Fig. 4), with the location of much of the northern part lying outwith the excavation area. The eastern part of the building was within Block D and the formation level there (7m aOD) negated the identification of much of the eastern side. The majority of the identified remains were relatively fragmentary. The modern building which had been demolished in the previous programme of works had the same footprint and this represented the foundations of that building.

The northern part of Building 1 which was uncovered was a rectangular building aligned east-north-east to west-south-west and which measured 21m by 6.4m, part of which was within Block D. The building was divided into at least two rooms, but neither was uncovered in its entirety.

Room A1 measured 8.6m by 3.4m, internally, with the long axis following the alignment noted above. Room A2 measured 3.5m by 3.2m. The walls (**032**) were sandstone and lime mortar construction with a width of 0.6-0.8m and which survived to a maximum height of 0.7m. The wall dividing the two rooms (**031**) was slightly narrower, at 0.45m wide. A break in the build was visible to the east, with the wall continuing in the same construction (**070**) but wider, at 0.8m. At the south-eastern corner of Room A1 there was a bricked up doorway (**033**).

Internally, Room A1 had a brick and stone floor (034) and the base of a circular brick structure (040) with a channel (044) running through the middle, leading to a drain (038) (Fig. 5). The circular structure measured 3.3m in diameter and survived to a height of 0.15m. Two machine-fittings (042) and (043) and two parallel rows of eastwest aligned stone column bases (041) were also identified in Building 1. A brick and concrete wall (036, 037, 046), possibly forming an L-shape, was present in the northeast corner.

Within Room A2 was a brick and concrete plinth (073) and part of a brick and concrete floor (071).

The NNW-SSE aligned part of Building 1 was far more fragmentary and only short lengths of wall remained. Only two incomplete lengths of the western elevation survived (063 & 065) (Fig. 6). The wall was of sandstone and lime mortar construction and was 0.7m wide and survived to a height of 0.1m. Wall 056 was on the same alignment and may represent an internal wall, along with wall 069. The internal divisions of this part of Building 1 are not shown on the 1853 OS plan.

Small remnants of cobbled surface (051 & 059) likely represents the vestigial remains of an exterior cobbled courtyard.

The remains of a possible small outshot structure (**064**, **066**) were present on the western side of wall **065**, though not connected to it. This does not match with, but lies in the same location as, an internal square room seen on the 1853 OS Town Plan.

Block B/C - Building 2 (Fig. 3b)

Building 2 had only recently been demolished, the foundations of which were identified during the excavation (Fig. 7). It measured 10.6m by >4.3m externally, and was aligned east-north-east by west-south-west. The walls (**010**, **011**, **018**, **028**) were sandstone and mortar-bonded, ranged in width 0.44m to 0.6m wide and survived to a height of 1.75m in some places.

The building was divided into two rooms by a central corridor (013 & 015) leading to a circular staircase (016) within a semi-circular outshot on the northern side. This staircase had not been visible in the most recent modelling of the building. Either side of the stairwell were two blocked openings which were doorways through wall (011).

*Block B/C - The Lade (Fig. 3b)* 

To the west of Building 2 were the vestigial remains of the mill lade, aligned NE-SW, with a sandstone and mortar-bonded side wall (006), which formed the south-eastern side of the channel (Fig. 6). The north-western facing stonework had been dressed and to the south-east was a banking deposit of yellow lime mortar (007). The opposite side of the lade presumably survived to the west but was not identified as it lay beyond the limits of the excavation. Similarly, the base of the lade channel was not identified due to the water table and the presence of contaminants.

Block D - Building 1 and 5 (Fig. 3c)

Additional components of Building 1 were recorded. Wall (090) was a continuation of wall (032/070) on the same east-north-east to west-south-west alignment, forming the southern elevation of this part of the building. Wall (109) represented the northern elevation of Building 1. No further internal details belonging to this phase were identified.

Wall **077** corresponded with the western elevation of Building 5 (the wall of the building containing tanks as depicted on the 1853 OS Town Plan). Wall **077** was sandstone and lime mortar-bonded, measured 14.6m long, 0.65m wide, and survived to a height of 0.5m. A brick-built drainage channel (**083**) ran alongside the wall. A fragment of sandstone surface (**082**) may well belong to this phase of building.

A short length of L-shaped brick wall (128 & 129), which measured 2m and 2.5m long respectively, was recorded to the south of Building 5. Wall 128 abutted what was probably an earlier sandstone wall 130. This may be part of a tanning tank depicted on the 1853 OS map.

## 3.3 Structures depicted on the 1876 OS Town Plan (Fig. 8b)

Block A - Building 1B (Fig. 3a)

Building 1 had been extensively developed and enlarged by this date, with the original T-shaped building subsumed into a larger roughly square building. The northern part of Building 1 can still be seen in plan within the new building, extended so that it joined on to the tannery building to the east, but the southern part of the building had been substantially enlarged.

None of the remains could be confidently related to buildings depicted on the 1876 OS Town Plan: however, a number of internal features may relate to this later phase.

It is likely that it was during this phase that the concrete floor (072) was laid within the newly enlarged building. This concrete was removed in order to ascertain if any further remains were surviving beneath. The underlying deposits consisted of extremely contaminated, oily dark grey clay which had to be removed due to the contamination.

Two large brick machine mounts (048 & 052) were built into the concrete surface and, given their alignment and location, must be related to this later phase, along with brick wall 049 and stone setting 050, which cut across the earlier wall 063 and courtyard cobbling. Brick partition wall 062 may also be an internal feature from this phase.

Block B/C - Building 3 (Fig. 3b)

The 1876 map depicts an extension to the west side of Building 2 (Building 3) and as with Building 2 it had only recently been demolished.

The surviving foundations measured 5.5m by 4.5m externally and were aligned east-north-east by west-south-west and abutted the western wall of Building 2. The walls (008 & 009) were constructed in a similar sandstone and mortar method and survived to a height of 0.65m. Along the top of the western wall (008) was a single course of red bricks. Drains (021, 022, 024) to the north and west may relate to this extension.

Block B/C - Building 4 (Fig. 3b)

The 1876 map depicts an extension to the east side of Building 2 (Building 4).

Only the north-western wall of Building 4 (017) was identified to any great degree during the excavation. A small section of the south-eastern corner (027), along with the possible north-western (014) and north-eastern (026) corners, indicated the north-western elevation was 9m long. A culvert (029) extended through the wall. A brick manhole (030) was present to the exterior of the SE corner.

## 3.4 Features depicted on the 1893 OS Town Plan (Fig. 8c)

Only two features could be confidently related to the 1893 Ordnance Survey Town Plan, the date by which the complex became the paper mill. The first of these was the circular brick chimney base (**068**) sitting on a square concrete base (**067**), located within the south-eastern corner of Block A (Fig. 10), labelled on the map as a chimney. The chimney measured 1.9m in diameter with an internal aperture of 1.0m, and survived to a height of 0.35m (4 courses). By this time the site functioned as a paper mill.

Within Block D a red brick wall **093**, which measured 3.5m long, 0.2m wide and 0.35m high, forms the southern elevation of the extended building depicted on the 1893 OS map, within the central courtyard.

The concrete floor **078** and drain **108** probably relate to the extended building forming the north side of the central courtyard at this date.

### 3.5 Features depicted on the 1945 Ordnance Survey Plan

The only feature which could be confidently related to the 1945 map was a large brick chimney (123) and flu system (124) uncovered in the eastern end of Block E.

The chimney measured 3.5m in diameter and had an internal aperture 1.8m in diameter; it was 0.4m deep (7 courses) with a brick-lined base (Fig. 11, 12 & 13). The flue system had a large ramp, aligned east-north-east by west-south-west, which led up to the chimney and was 5.5m long and 0.85m wide, with another flue leading away from the chimney, aligned north-east by south-west, which measured 3m long and 1.25m wide. Where the two flues joined, the chimney had been bricked up. Both of the elements of the flue system were heavily stained with soot. The flue system appeared to have been rebuilt as it was overlying a concrete and brick base (131) on a slightly different alignment (Fig. 14).

### 3.6 Miscellaneous features

The majority of features within Block D and E could not be confidently related to any of the maps. However, most of the features appear to represent the later phases of development of the site.

To the north of the flue system (124) in Block E was a possible room which consisted of concrete walls 125, 126 & 127, truncated by the later flue system.

At the south-western corner of Block E was what appeared to be a small rectangular room which measured 4m by 2m (externally) and was defined by 3 brick walls (104, 105, 106) and was abutting brick wall 098. It appeared to sit inside an L-shaped length

of sandstone and mortar-bonded wall (103 & 099). Wall 099 measured 3.5m long, 0.75m wide and survived to a height of 0.25m. Wall 103 measured 2.75m long, 0.5m wide and survived to a height of 0.25m.

Adjoining its north side was another possible room which was defined by walls **096**, **097** & **098**. Wall **096** was a sandstone and mortar wall which measured 3.5m long, 0.25m wide and 0.15m in height. Wall **097** was red brick construction and abutted wall **096**. It measured 4m long, 0.25m wide and survived to a height of 0.2m, and formed a curved corner at the southern end. Wall **098** was 2.5m long, 0.26m wide and 0.3m high. The only internal feature was a concrete drain (**102**). An area of cobbling was present to its east (**101**).

In the north-east corner of Block D were the vestigial remains of a cobbled surface (114) bounded by sandstone walls 112, 113 and 114. Another short section of sandstone wall (120 & 121) was located just to the north. The cobbled surface had a coating of black soot and appears to be associated with the building which housed a boiler and is depicted on the 1853 OS Town Plan, or a small outshot and linking wall visible on the 1876 and 1893 OS maps. However, the remains were extremely fragmentary and it was not possible to be certain with which phase it was associated.

The remainder of the features were all patches of floor surfaces. These included concrete surfaces **095**, **103** and **088**, and brick surface **089**.

As noted above, it is likely that much of the remains were related to the most recent phase of development of the site as there were modern services present and certainly the floor surfaces were the ones recorded during the demolition process.

## 3.7 Watching Brief

The watching brief didn't encounter the remains of the tanning tanks; the northernmost drainage runs were most probably too far north and hence not located over the tanks and the southernmost drainage run most likely did not go deep enough to uncover the tanks.

### 4. CONCLUSIONS

An archaeological strip and map, and an excavation was carried out in advance of a residential development at 70-72 Newhaven Road, Edinburgh. This programme of works followed on from mitigation measures which included a building appraisal and desk-based assessment, a standing building survey, evaluation and watching briefs.

The excavation identified vestigial remains relating to a mid-19<sup>th</sup> century tannery complex and the later 19<sup>th</sup> century Bonnington Paper Mills. No structural remains dating to the early 19<sup>th</sup> century could be identified with any certainty, for example the buildings on Ainslie, Kirkwood and Lizars' maps, apart from the mill lade which is first recorded on the 1804 map but is likely to be earlier in date and relate to the mill buildings recorded in the mid-18<sup>th</sup> century by Roy.

The redevelopment of the site between 1834 and 1853 resulted in the creation of a tannery within the Bonnington Mills complex and the earliest structures identified appear to relate to this complex, with other structures and features relating to the redevelopment and expansion of the tannery through the later 19<sup>th</sup> century and its conversion into a paper mill.

Much of the structural remains represented the foundations of recently demolished buildings, which were the subject of a comprehensive programme of building survey prior to their demolition.

In Block A the earliest identified remains were parts of Building 1, which was the roughly T-shaped building depicted on the 1853 OS Town Plan. The internal features relating to this phase were previously unknown and only identified during the excavation. However, although the two rooms identified contained brick features, column bases and machine fittings, the function of these features is unclear. Remnants of an exterior cobbled courtyard were identified. This building was later enlarged, which is labelled as Building 1B, and was depicted on the 1876 OS Town Plan; machine mounts probably relating to this phase were recorded, along with a later chimney and another wall relating to this building's further expansion between 1876 and 1893.

Within Block B/C the earliest structure to be recorded was one side wall of the mill lade. The earliest structure which could be related to the 1853 OS Town Plan was Building 2, a building with an external staircase on its north side which at this date was separate from the rest of the complex. This was followed by the addition of Building 3 and 4 sometime prior to the 1876 OS Town Plan, as extensions to Building 2. The previously unknown elements within Block B/C and subsequently identified during the excavation were the remains of the spiral staircase on the northern side of Building 2 and the mill lade to the north-west. Few internal features survived and the function of this building and its later extensions is unclear.

In Block D, only part of the eastern end of Building 1 part of the western elevation of Building 5 (the wall of the building containing tanning tanks as depicted on the 1853 OS Town Plan) could be confidently related to any of the cartographic sources. Part of a tanning tank depicted on the 1853 OS map was also uncovered. Much of the other remains seem to be associated with the later mid-20<sup>th</sup> century phase of development.

Much the same can be said about the remains identified in Block E, which included a chimney and flue dating to the 20<sup>th</sup> century.

The project archive, comprising all CFA record sheets, maps and reports will be deposited with the National Record of the Historic Environment of Scotland and copies of reports will be lodged with the City of Edinburgh Council Sites and Monuments Record.

On completion of this project, a summary statement will be submitted for publication in *Discovery and Excavation in Scotland* and will also be reported on through *OASIS Scotland*.

### 5. REFERENCES

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Cartographic

Abernethy and Walker ca. 1807 To the Honourable The Magistrates of Leith This Plan of the City Harbour Wet Dock And other Improvements

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

Kirkwood, J. 1817 The Plan of the City of Edinburgh and Its Environs

Lizars, W H 1834 Plan of Edinburgh

Ordnance Survey 1853 (Surveyed in 1852) Edinburgh Town Plan sheet 16, 1:1056

Ordnance Survey 1876 Edinburgh Town Plan sheet 16, 1:1056

Ordnance Survey 1893 Edinburgh Town Plan sheet III.4.I, 1:500

Ordnance Survey 1894 Edinburgh III.4.1

Ordnance Survey 1914 Edinburghshire III.4

Ordnance Survey 1945 *Plan NT2676SW-B*, 1:1250

Roy Military Survey of Scotland, 1747–55

## **APPENDIX 1: Context Register**

Context no.	Fill of	Type	Description	
001		Deposit	Overburden	
002		Deposit	Grey-Gritty Sand	
003		Deposit	Concrete	
004		Deposit	Concrete	
005		Structure	Wall Foundation	
006		Structure	Stone Wall, NNE-SSW. C1852	
007		Deposit	Banking against (005) NNE-SSW	
008		Structure	Stone Wall N-S	
009		Structure	Stone Wall E-W	
010		Structure	Stone Wall N-S	
011		Structure	Stone Wall E-W	
012		Structure	Stone Wall E-W	
013		Structure	Stone Wall N-S	
014		Structure	Wall Stump	
015		Structure	Stone Wall N-S	
016		Structure	Stone Stairwell	
017		Structure	Stone Wall	
018		Structure	Stone Wall N-S	
019		Structure	Wall Foundation	
020		Structure	Wall Foundation	
021		Service	Pipe Cutting (005) and (006)	
022		Service	Pipe, Running N-S. Cutting 009	
023		Service	Pipe, Running N-S. Cutting 010	
024		Service	Drain	
025		Deposit	Re-deposited Sand	
026		Structure	Wall Stump	
027		Structure	Stone Wall	
028		Structure Structure	Stone Wall	
030		Structure	Culvert Manhole	
030		Structure	Stone Wall, N-S	
031		Structure	Stone Wall, IV-S Stone Wall, E-W	
032		Structure	Doorway, Blocked. Within (032)	
034		Surface	Floor Surface	
035		Service	Drain	
036		Structure	Concrete Wall, E-W	
037		Structure	Brick Wall, E-W	
038		Service	Drain	
039		Service	Drain	
040		Structure	Circular Brick Structure	
041		Structure	Stone Pads	
042		Structure	Machine Fitting	
043		Structure	Machine Fitting	
044		Service	Iron Scar	
045		Service	iron Pipe	
046		Structure	Brick Wall	
047		Service	Ceramic Pipe	
048		Structure	Mixed Red Brick Structure	
049		Structure	Brick Wall, E-W	
050		Structure	Stone Setting	
051		Surface	Cobble Surface	
052		Structure	Block of Red Brick	
053		Structure	Iron Fittings of 050	
054		Structure	Iron Fittings of 052	
034	1	Structure	Hon I mings of 032	

Context no.	Fill of	Type	Description	
055		Structure	Iron Fittings of 060	
056		Structure	Stone Wall, N-S	
057			VOID	
058			VOID	
059		Surface	Cobble Surface	
060		Surface	Concrete Surface	
061		Structure	Stone Wall, NNW-SSE	
062		Structure	Red Brick Wall	
063		Structure	Stone Wall NNW-SSE	
064		Structure	Stone Wall, NNW-SSE	
065		Structure	Stone Wall, NNW-SSE	
066		Structure	Stone Wall, WSW-ENE	
067		Structure	Chimney Base	
068		Structure	Chimney Brick	
069		Structure	Stone Wall	
070		Structure	Stone Wall E-W	
071		Surface	Brick and Concrete Flooring	
072		Structure	Concrete foundations	
073		Structure	Brick and Concrete Plinth	
074		Surface	Brick and Concrete Flooring	
075		Surface	Cobble Surface	
076		Surface	Concrete Surface	
077		Structure	N-S Sandstone Wall	
078		Surface	Concrete Surface	
079		Structure	Iron Plate, within 078	
080		Structure	N-S Brick Wall between (078) + (081)	
081		Surface	Concrete Surface	
082		Surface	Sandstone Surface under 078	
083		Structure	Brick Wall	
084		Surface	Concrete Surface	
085		Surface	Concrete Surface	
086		Service	Drain	
087		Structure	Manhole	
088		Surface	Concrete Surface	
089		Surface	Brick Surface	
090		Structure	Stone Wall, E-W	
091		Surface	Concrete Surface	
092		Structure	Brick Plinth	
093		Structure	Brick Wall E-W	
094		Structure	Stone Wall E-W	
095	-	Surface	Concrete Surface	
096		Structure	Stone Wall, N-S	
097		Structure	Stone Wall, E-W	
098		Structure	Red Brick Wall, N-S. Return of 097. Abuts 097	
099		Structure	Stone Wall, N-S	
100		Surface	Possible Sandstone Surface	
101		Surface	Cobbled Surface	
102		Structure	Concrete, Stone and brick Structure	
103		Structure	Stone Wall, E-W, return of 099	
104		Structure	N-S Running Red brick Wall	
105 106	-	Structure	E-w Return of 104 N-S return of 105	
106	-	Structure	Possible Sandstone Surface	
107		Surface Service	Modern Service	
108			E-W Wall	
110	-	Structure	NNW-SSE Red Brick Wall	
110		Structure	Outer E-W Running Wall of Flu	
111	<u> </u>	Structure	Outer E-W Kullining Wall Of Flu	

Context no.	Fill of	Type	Description	
112		Structure	Inner E-W Running Wall of Flu	
113		Structure	N-S connecting wall of Flu	
114		Surface	Floor of Flu- Cobbled Soot covered flooring	
115		Structure	N-S running westward Wall	
116		Structure	N-S Red Brick wall, eastward	
117		Structure	Red Brick Wall- N-S	
118		Surface	Internal Sandstone Flooring	
119			VOID	
120		Structure	E-W running outer Sandstone Wall	
121		Structure	N-S Running wall. Internal Wall	
122		Structure	N-S running wall. External Sandstone facing Wall.	
123		Structure	Chimney	
124		Structure	Flue System	
125		Structure	Westward Concrete wall, Abuts, 126	
126		Structure	North Concrete Wall. Abuts 125 and 127	
127		Structure	Eastward Concrete Wall Stub, cut by ceramic drain.	
128		Structure	E-W running red brick wall	
129		Structure	N-S running red brick wall	
130		Structure	Sandstone N-S running wall, Abuts 128	
131		Structure	Concrete foundations beneath 124	
132		Structure	Concrete pad	
133		Structure	Brick and concrete load bearing or machinery stand	
134		Structure	Brick and concrete load bearing or machinery stand	
135		Surface	Concrete Surface	
136		Structure	Brick Manhole.	

## **APPENDIX 2: Photographic Register**

Shot No.	Summary description of subject	Facing
001	Location Shot, backfilled Block C	NE
002	South facing section of Excavated Block C	N
003	Oblique of Excavated Block C	NE
004	Base of excavated Block C	N
005	Working Shot	Е
006	Working Shot	Е
007	Working Shot	Е
008	Working Shot	Е
009	North-facing section of gas of 'plinth' left for gas monitoring station	NE
010	Block C showing flooding	WSW
011	Block C showing flooding	WSW
012	Block A, working shots	S
013	Block A, working Shots	N
014	Block A concrete breaking	SE
015	Block A Concrete Breaking	NE
016	NW-facing elevation of Lade wall 006	SE
017	Plan of Lade 006	NNE
018	Plan of 005, 021, 007 and 008	NNE
019	Wall 008 WSW-facing elevation	ENE
020	Deposit of yellow mortar (007)	SE
021	Plan of deposit of white mortar (019) which may form the foundations	N
	of the annex on Building 4	
022	Plan of 019, 024, 020. 007 and 006	NNE
023	N-facing side of the Wall 012	S
024	N-facing side of the Wall 012	S
025	Wall 008, internal face of the wall	WSW

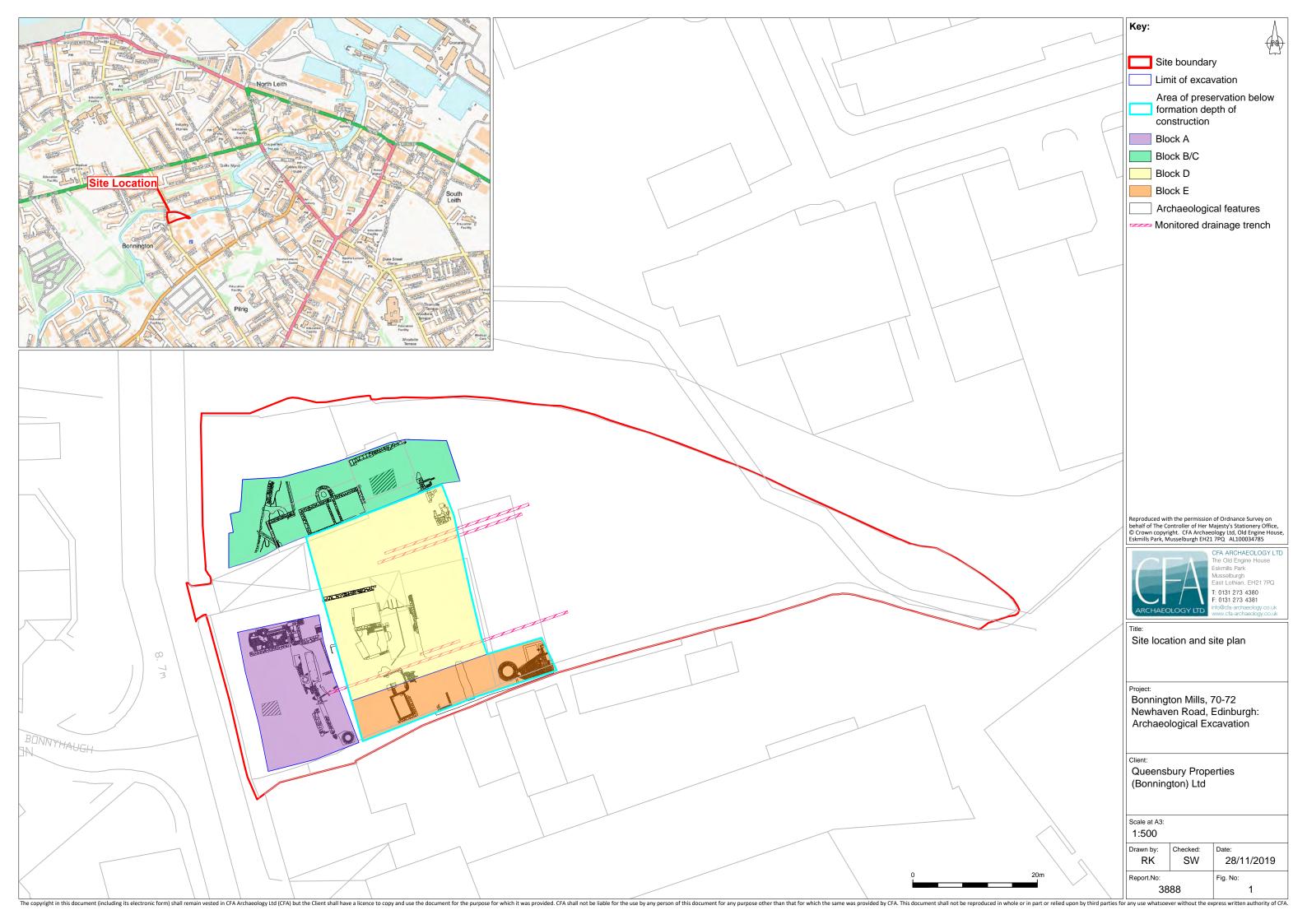
Shot No.	Summary description of subject	Facing
026	Wall 010, internal face of wall	WSW
027	Wall 028, internal face of wall	SSE
028	General Shot of 011, 016, 013 and 015	NNW
029	General Shot of 011, 016, 013 and 015	NNW
030	Wall 009, internal face of the wall	NNW
031	Wall 009, external face of the wall	SSE
032	Wall 011, external face of NNW elevation	SSE
033	Wall 011, internal face of wall	NNW
034	Wall 011, internal face of wall	NNW
035	Wall 011, internal face of the northern elevation	NNW
036	Wall 011, internal face of the northern elevation	NNW
037	Wall 011, internal face of the northern elevation	NNW
038	Wall 011, internal face of the northern elevation	NNW
039	General shot of Block B/C	Е
040	General shot of Block B/C	Е
041	General shot of Wall 027	ENE
042	Plan shot of Wall 027	NNW
044	S facing Section of 014 and 017	N
045	S facing Section of 017	N
046	S facing Section of 017 and 029	NNE
047	S facing Section of 017 and 029	NNW
048	N facing Section of 011	SW
049	General Shot of 011, 016, 013 and 015	SW
050	General Shot of B3	Е
051	Shot of 042	E
052	Plan of 043	E
053	Shot of 040	N
054	Shot of 038	W
055	S facing Section of 036	N
056	Plan of 034	N
057	Plan of 039	W
058	Plan of 039	N
059	S facing Section of 033	N
060	Plan of 032	Е
061	N facing Section of 032	S
062	W facing Section of 031	Е
063	S facing Section of 070	N
064	S facing Section of 070	N
065	W facing Section of 056	W
066	Plan of 071	E
067	Plan of 071	N/A
068	E facing Section of 031	W
069	N facing of 032	S
070	W facing Section of 073	E
071	N facing Section of 048	S
072	W facing Section of 048	Е
073	Plan of 048, 049, 051 and 052	E
074	Plan of 049	N/A
075	Plan of 049	N/A
076	Plan of 050	N/A
077	S facing Section of 052	N
078	E facing Section of 052	W
079	Plan of 052	S
080	Plan of 059, 061, 063, and 062	E
081	Plan of 059, 072, 050. 052 and 051	NNW
082	Plan of 059, 061 and 063	W
083	Plan of 063	N/A

Shot No.	Summary description of subject	Facing
084	Relationship shot of 063 and 059	NNW
085	S facing Section of 062	N
086	Plan of 062	N/A
087	Plan of 067 and 068	E
088	Plan of 067 and 068	E
089	Plan of 067 and 068	E
090	Plan of 067 and 068	N/A
091	Relationship shot between 032 and 070	N
092	Relationship shot between 032 and 070	N
093	S facing Section 070	N
094	Plan of 064	SSE
095	Plan of 064	SSE
096	Plan of 066	N/A
097	Plan of 065	N/A
098	Plan of 065	N/A
099	Relationship between 065 and 064	N
100	Are shot of 065 and 064	N
101	Block A	SE
102	Block A	Е
103	Plan of 069	Е
104	plan of 056 and 069	NE
105	S facing Section of LOE	N
106	S facing Section of LOE	N
107	General Shot of Block A	N
108	General Shot of Block A	Е
109	General Shot of Block A	SE
110	General Shot of Block A	E
111	General Shot of Block A	SW
112	General Shot of Concrete surfaces 078	E
113	General Shot of Concrete surfaces 078	SW
114	Wall 109	E
115	Elevation of Wall 109	S
116	wall 090	E
117	wall 090	W
118	Shot of 088, 081 and 078	W
119	Shot of 088, 081 and 078	NE NE
120	Shot of 092	SW
121	Elevation of wall 077	E
122	oblique of 077	NE
123	Post ex of area under ramp	
124	111, 112, 113 and 114	E
125	Plan of 114	E
126	Plan of overall building	NW
127	122, 121, and 120	E
128	122, 121, and 120 Overall of internal of building	W S
129	ĕ	E E
130	plan of 123 Plan of 124	
131		W
132	plan of southern flue 124 Plan of overall structure 123, 124 and 125	E E
133	Plan of overall structure 123, 124 and 125 Plan of 124	E
134		
135	Section of 126, 125 and 127 Chimpay been glopped out 122	N E
136	Chimney base cleaned out 123	E E
137	Chimney base cleaned out 123	S
138 139	Overall of 133	S
	Plan of wall stub cutting 133 Plan of 133	W
140	F1a11 01 133	VV

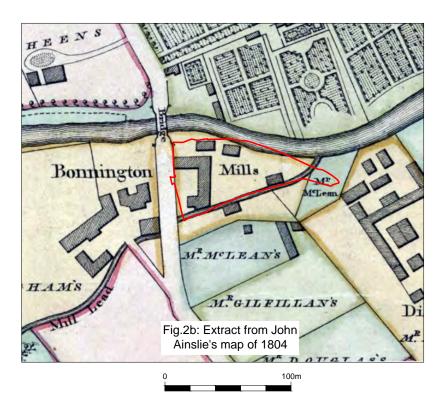
Shot No.	Summary description of subject	Facing
141	Cross section of bricked up flue (124) connection to chimney (123)	SW
142	Cross section of bricked up flue (124) connection to chimney (123)	SW
143	Evidence of phasing 124 west side	Е
144	Evidence of phasing 124 west side	S
145	Evidence of phasing 124 East side	S
146	Evidence of phasing 124	Е
147	Evidence of phasing 124	Е
148	124 Potential phasing	Е
149	124	Е
150	124	Е
151	Southern Flue 124	Е
152	Southern Flue 124	Е
153	Northern Flue 124	Е
154	124	Е
155	124	Е
156	124 including potential phasing	NW
157	123	NW
158	123 brick Reuse	NW
159	123 brick Reuse	Е
160	124- Phasing	SW
161	124- Phasing	

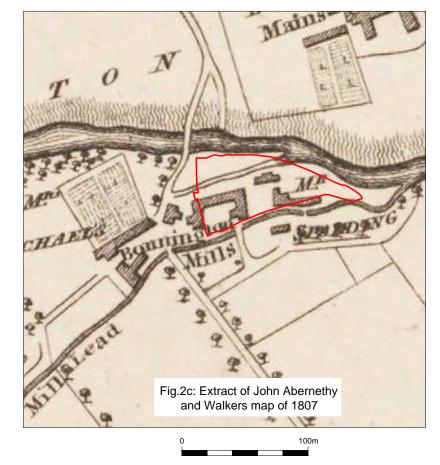
## **APPENDIX 3: Drawings Register**

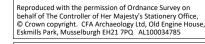
Dwg	Sheet	Scale	Plan /	Description/contexts
No.	No.		Section	
1	1+2	01:50	Plan	Plan of Block B and C
2	3+4	01:50	Plan	Plan of block A
3	4	01:20	Section	South facing Elevation of Walls
4	5+6	01:50	Plan	Plan of Car Park Area
5	7	01:50	Plan	Plan of Chimney base and south area of site
6	8	01:20	Section	Profile of Flue System, (124)
7	8	01:20	Section	Profile of Chimney (123)
8	9		Plan	Plan of Building (120)













Historic Maps

Key:

Site boundary

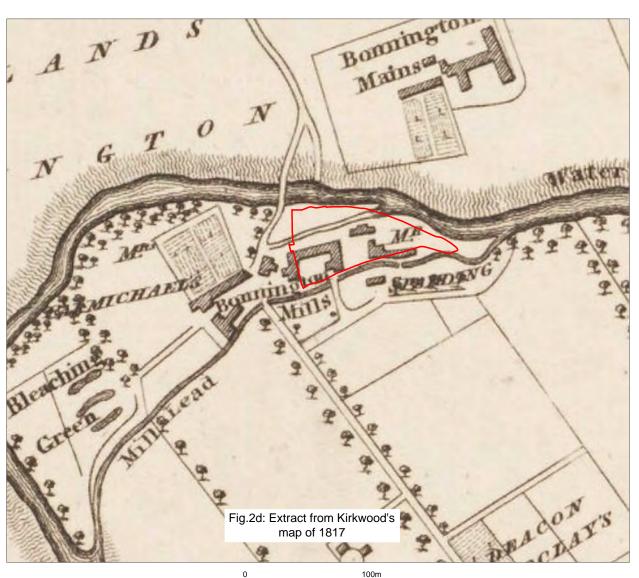
Bonnington Mills, 70-72 Newhaven Road, Edinburgh: Archaeological Excavation

Cruden Homes Ltd

Scale at A3:

1:5000 & 1:3000

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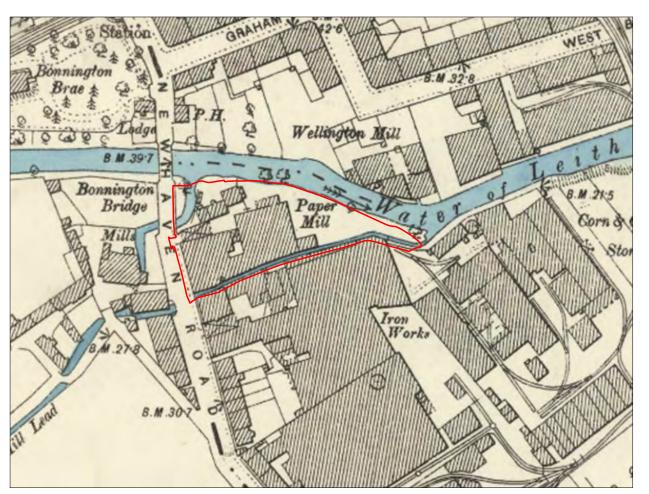


Fig.2f: Extract from 1853 Edinburgh Town Plan

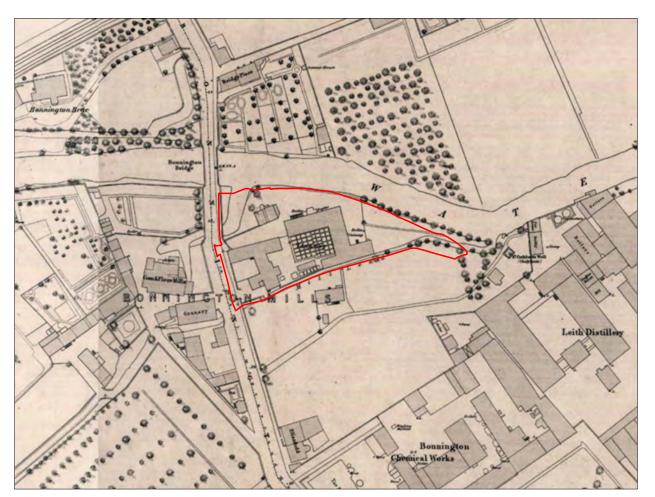


Fig.2h: Extract from 1894 OS map of Edinburgh



Fig.2g: Extract from 1876 Edinburgh Town Plan

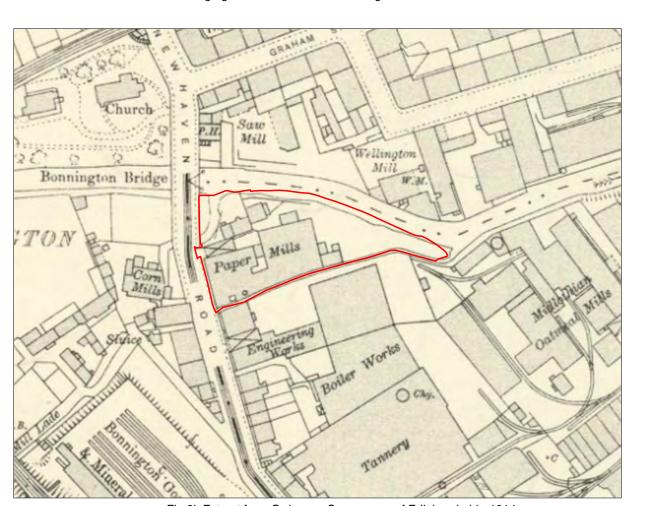
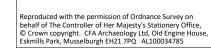


Fig.2i: Extract from Ordnance Survey map of Edinburghshire1914





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Historic Maps

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Client:

Cruden Homes Ltd

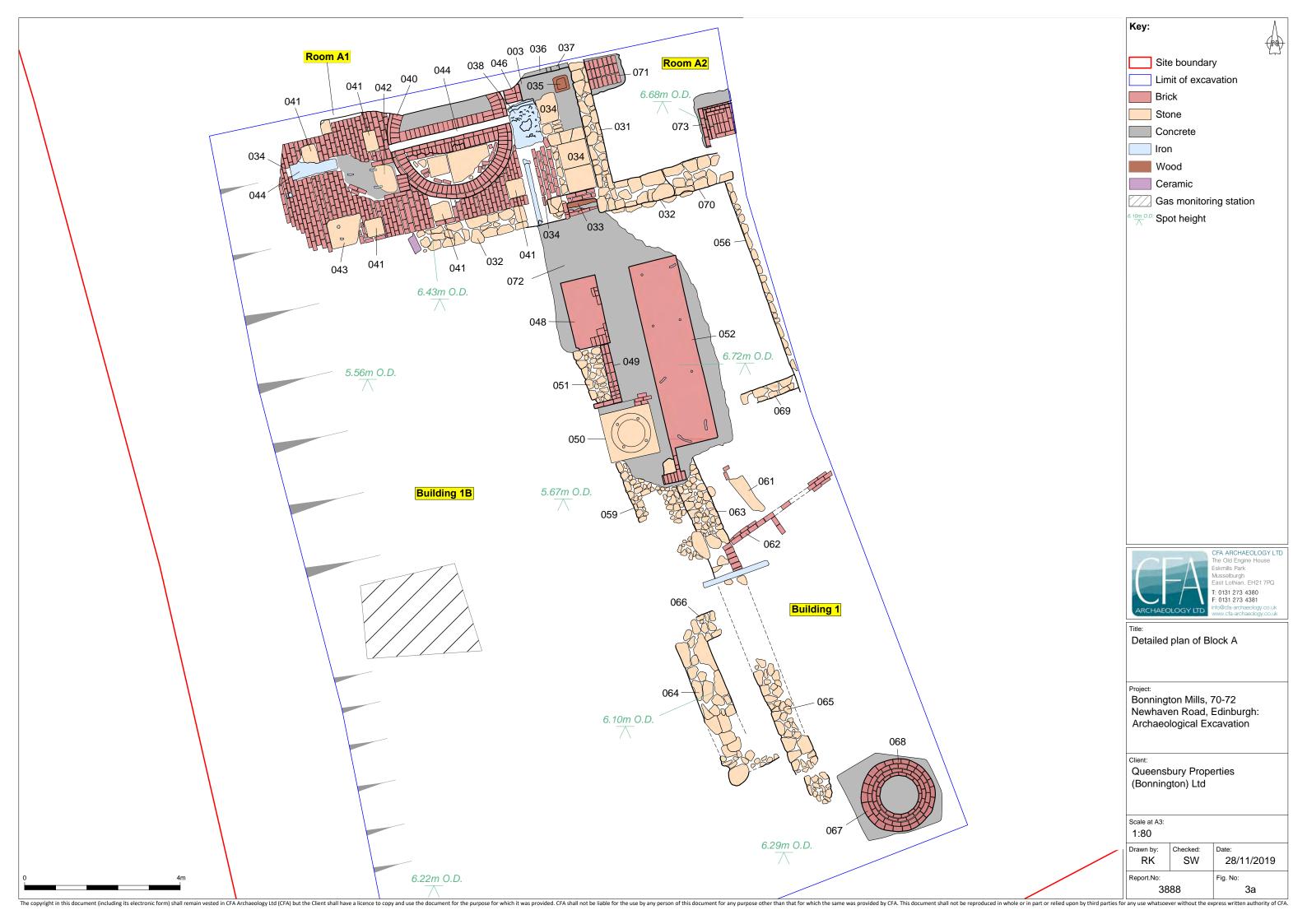
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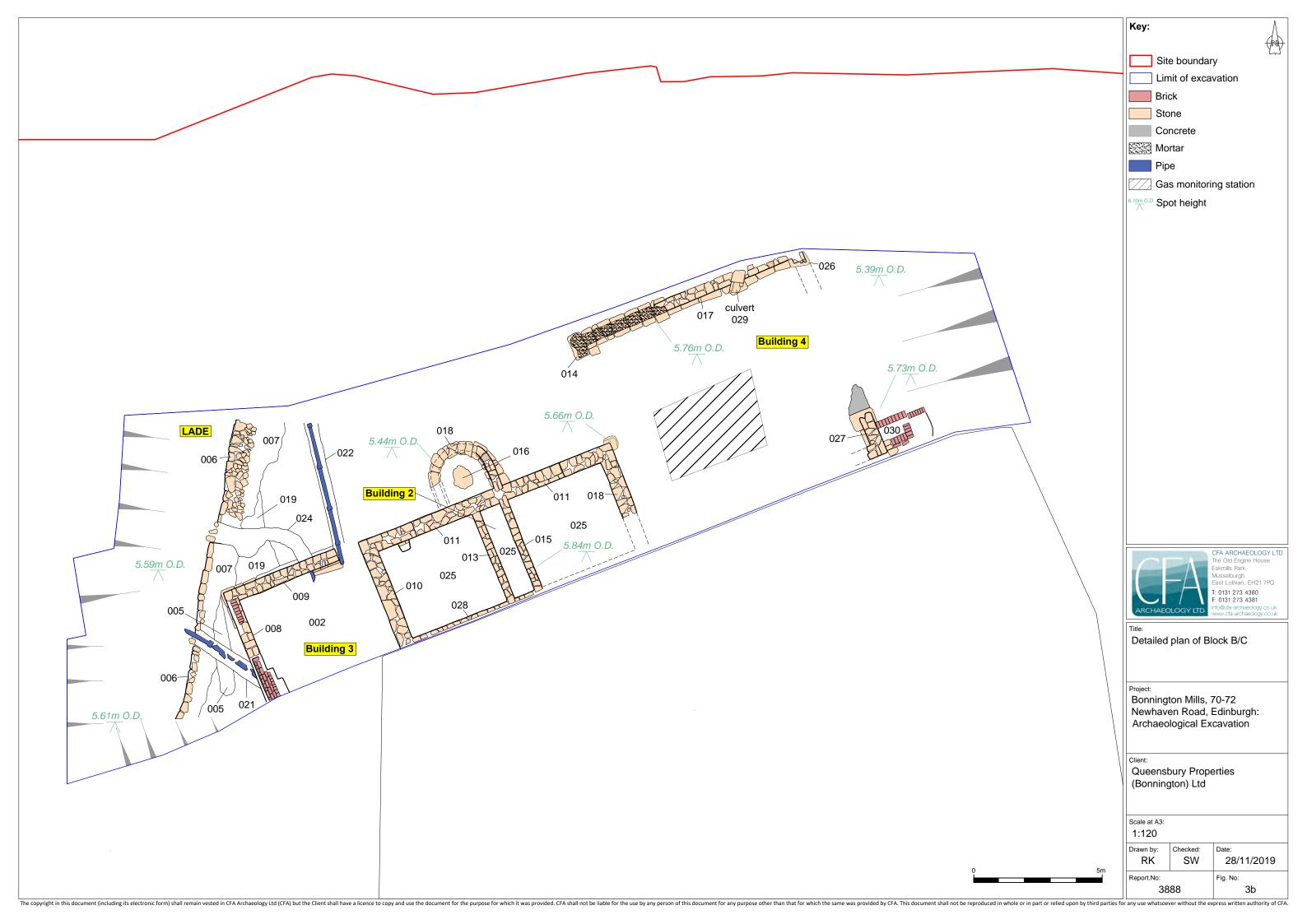
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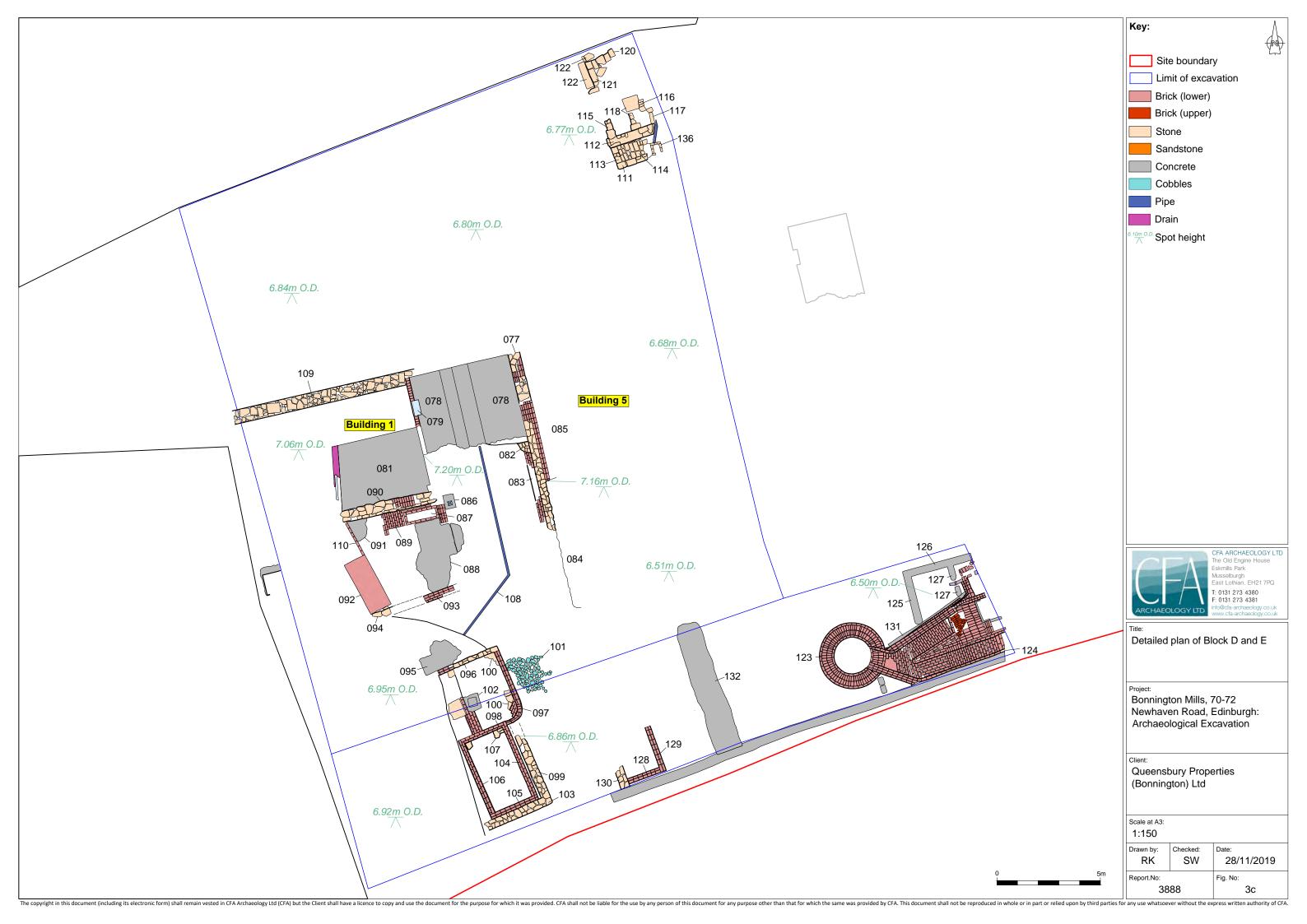




Fig. 4: General shot of Block A, looking east



Fig. 5: General shot of Room A1, looking east



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Fig. 6: Wall 065 in foreground, 063 in background



Fig. 7: Block B/C, general shot, looking east



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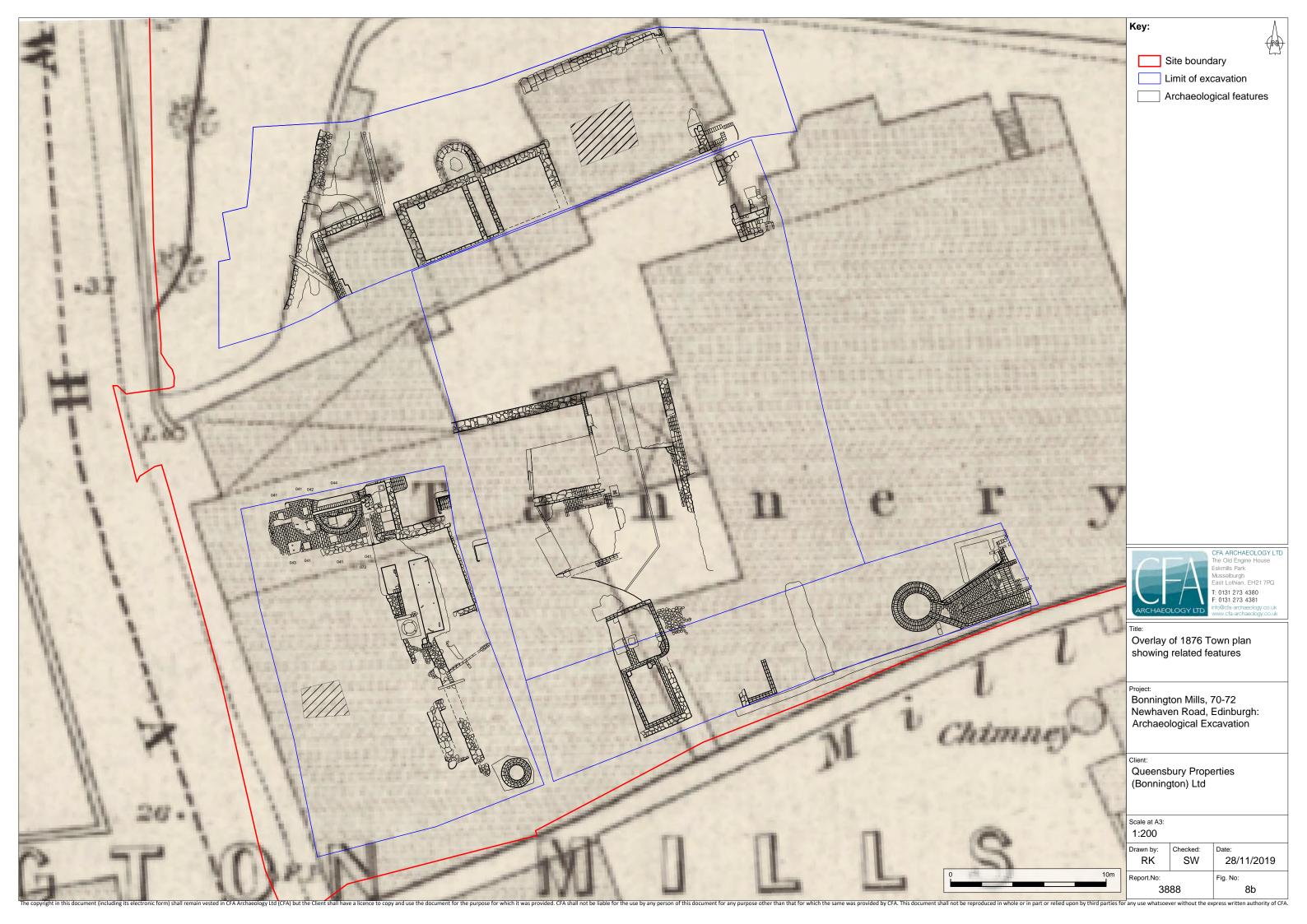
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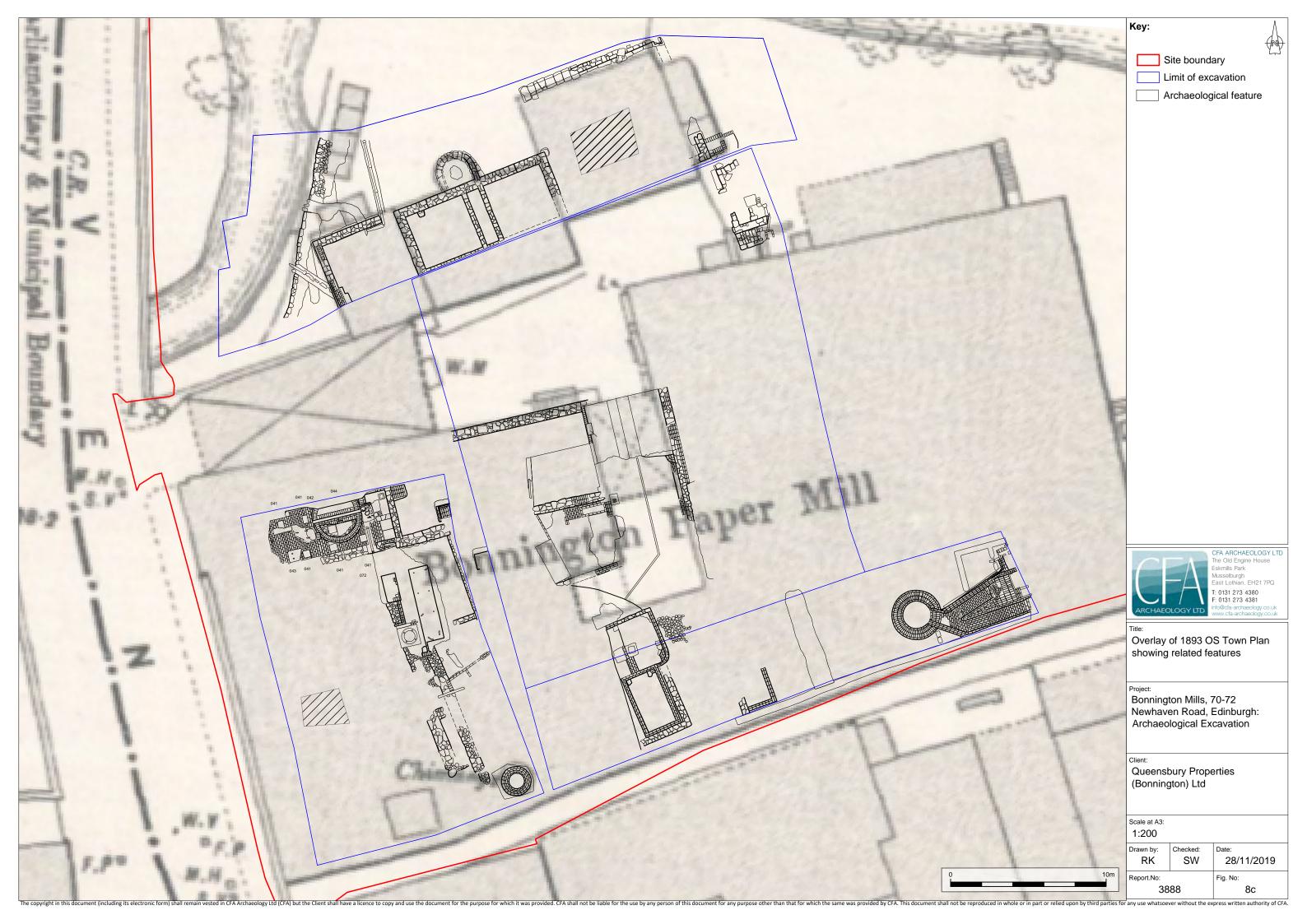




Fig. 9: Brick machine mount 052



Fig. 10: Brick chimney (068) and concrete base (067)



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Fig. 11: Brick chimney base (123)



Fig. 12: Brick flue system (124)



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Fig. 13:Brick flue system (124)



Fig. 14: Earlier flue system (131)

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