

HODDLESDEN MILL, HODDLESDEN, DARWEN, LANCASHIRE

Archaeological Building Recording, Evaluation and Strip, Map and Record



Client: Kingswood Homes

Planning Application Ref.:
10/21/008

NGR:
371780 422490 (centre)

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September 2022



The Site	
Site Name	Hoddlesden Mill, Hoddlesden, Darwen
County	Lancashire
NGR	371780 422490 (centre)

Client	
Client Name	Kingswood Homes

Planning	
Pre-planning?	No
Proposal	Erection of 79 dwellings and associated remediation work
Planning Application No.	10/21/008
Condition number	18
Local Planning Authority	Lancaster City Council
Planning Archaeologist	Doug Moir, Lancashire County Council

Archaeological work	
Desk-based assessment done as previous phase of work?	Yes (Greenlane Archaeology 2021)
Description of work	Archaeological building recording (Historic England Level 2/3) and evaluation (three trenches) and strip, map and record of area within footprint of former mill

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Lancashire Record Office
Relevant HER	Lancashire County Council
Relevant Museum	Lancaster City Museum

Staffing	
Desk-based assessment	Dan Elsworth
Site work	Dan Elsworth, Tom Mace
Report writing	Dan Elsworth
Report editing	Jo Dawson
Illustrations	Tom Mace
Date(s) site work carried out	4/07/2022 – 21/07/2022

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Summary

Following the submission of a planning application for the construction of 79 dwellings and associated remediation work at the former Hoddlesden Mill, Hoddlesden, Darwen, Blackburn, Lancashire, Greenlane Archaeology was commissioned to produce a heritage assessment. This primarily comprised examination of documentary sources, principally old maps, as well as a site visit. The heritage assessment identified the potential for archaeological remains, primarily relating to the mill, to be present, and the site visit revealed that structural elements of the main mill buildings are still evident on site, as well as ancillary structures such as reservoirs. Subsequently, Greenlane Archaeology was commissioned to carry out a programme of building recording and targeted archaeological evaluation of the site of the earliest mill buildings in order to establish the presence of any surviving structural remains. This report details the results of the archaeological building recording, evaluation and strip, map and record carried out in July 2022.

The site is located within a wider area containing remains of prehistoric and Roman date, and Hoddlesden was, in the medieval period, a vaccary on the edge of the forest of Rossendale. However, the site is primarily of historical importance because of its connections to the textile industry. The site is a former textile mill, the origins of which are thought to have been as a calico printing works in the late 1770s, which developed into a substantial cotton mill in the middle of the 19th century, known as the Vale Rock Mill. This was enlarged with the addition of a large weaving shed and a second mill, St Paul's, in the later 19th century. The site continued in use until the late 20th century and was badly damaged by fire in 1998 and demolished shortly afterwards.

The building recording examined four main elements: the filter beds, an area of reservoirs, a former substation, and two areas of the former mill buildings, plus a further two small reservoirs and the line of the mill leat. The evaluation targeted the line of the mill leat and a pond as depicted on the earliest Ordnance Survey map of the area from 1849, while the strip, map and record examined the area of the former mill buildings, principally in order to examine evidence for the earliest phases of the site's development. The evaluation across the mill leat did reveal a structure thought to relate to this, but much of the area had been later levelled with dumped ash as part of a later expansion of the site. Some traces of the mill pond were found in the other two evaluation trenches, but it had clearly been heavily truncated by later activity. A row of pads for columns supporting the weaving shed roofs were also recorded. The strip and record found walls and other features belonging to an early phase of the mill, as well as rough pads for supporting posts and a large stone-built tank. Further rows of dressed stone pads almost certainly relate to a later phase of expansion in the mid-19th century. The buildings recorded within the main mill complex seem to include some elements relating to the earliest phases, but mostly to the later periods of expansion including the addition of a tandem engine in 1911. The filter beds, reservoirs, and substation are 20th century and probably relate primarily to the installation of electric power, which also resulted in the former engine house for the 1911 engine being substantially remodelled.

While the work at Hoddlesden was not able to prove that the late 18th century calico printing works was definitely on this site, and it is entirely possible on the basis of contemporary map evidence that it was elsewhere, it has shown how the site developed during the 19th and 20th centuries. The current development area also evidently does not include any elements relating to the power supply for the early mill, which are undoubtedly on the adjoining property to the south-east. The investigation of the site has added to the increasing collection of archaeologically examined examples of textile mills in the region, but its understanding would be considerably enhanced by further work recording the buildings to the south-east and potentially carrying out excavation within that area.

Acknowledgements

Greenlane Archaeology would like to thank Kingswood Homes for commissioning the project, and Andrea Fortune, Stuart Bullough and Ian Bonner at Kingswood for their assistance on site. Additional thanks are due to Luscombe Plant Hire for providing the plant and Peter Kellet for his excellent driving.

Thanks are also due to Doug Moir, Planning Officer (Archaeology) at Lancashire County Council for his input during the project, and to Adam Stanford at AerialCam, who produced the rectified images.

1. Introduction

1.1 Circumstances of the Project

1.1.1 The circumstances of the project are set out in the tables on the inside cover of this report.

1.2 Location, Geology, and Topography

1.2.1 The site is located on the north-east side of Hoddlesden, at the confluence of the Pickup Bank Brook and Hoddlesden Moss Brook, north-east of Johnson New Road (Figure 1). Hoddlesden is less than 0.5km east of Darwen and 3km south-east of the edge of Blackburn. It is located at approximately 210m above sea level (Figure 1). The solid geology is typically coarse-grained sandstone (gritstone) overlain by boulder clay derived from the last ice age and cut by streams into deep gorges (Countryside Commission 1998, 107). Although containing various urbanised and industrial landscapes the wider landscape is dominated by upland moor, heather and rough grazing (*op cit*, 109).

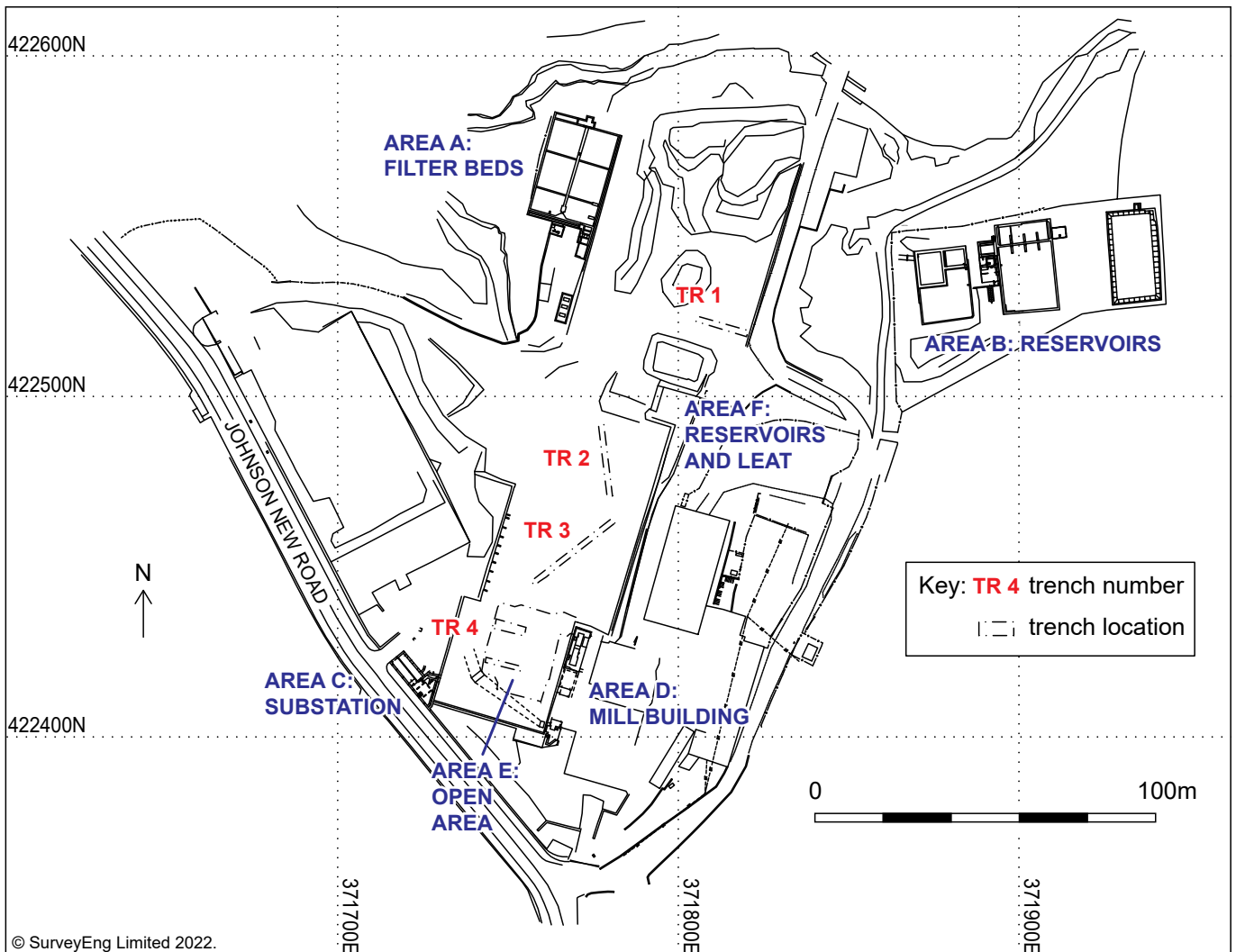
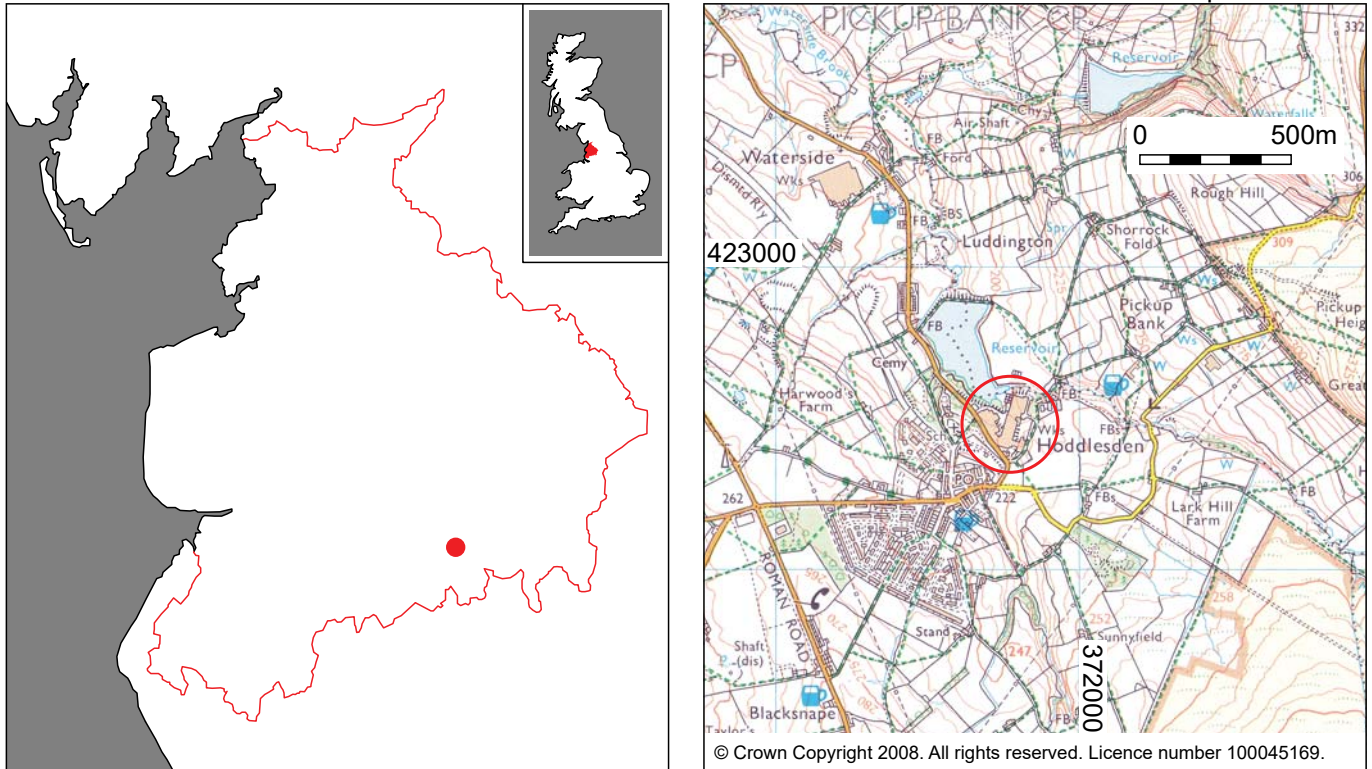


Figure 1: Site location

Client: Kingswood Homes

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2. Methodology

2.1 Desk-Based Assessment

2.1.1 A heritage assessment was produced by Greenlane Archaeology (2021) as part of an earlier phase of work. This principally comprised an examination of early maps of the site and published secondary sources as well as a brief site visit, equivalent to an English Heritage Level 1 survey (English Heritage 2016). The main part of the heritage assessment is the archaeological desk-based assessment, which was carried out in accordance with the guidelines of the Chartered Institute for Archaeologists (CIfA 2014b).

2.2 Building Recording

2.2.1 The building recording was carried out to Historic England Level 2/3 type standards (Historic England 2016), which provides a relatively detailed record of the building. The recording comprised the following elements:

- **Written record:** descriptive records of all parts of the building were made using Greenlane Archaeology *pro forma* record sheets;
- **Photographs:** photographs in colour digital format (as both 12meg jpegs and RAW files) were taken of the main features of the building, its general surroundings, and any features of architectural or archaeological interest. A selection of the colour digital photographs is included in this report, and the remaining photographs are in the project archive;
- **Rectified photographs:** rectified photographs of the exterior of the former mill buildings (Area D) and the extant wall around the open area (Area E) were produced by AerialCam from photographs taken on site by Greenlane Archaeology;
- **Drawings:** drawings were produced as follows:
 - i. plans of the main buildings were drawn by hand on site at a scale of 1:200 or 1:100, as appropriate. These drawings were used to amend and annotate a topographic survey of the site provided digitally by the client;
 - ii. a cross-section of the mill was drawn on site at a scale of 1:50;
 - iii. drawings of the external elevations of the mill building and elevations facing onto the open area to the west of the mill were produced by annotating printed versions of the rectified photographs provided by AerialCam (see above) and tracing them digitally.

2.3 Archaeological Evaluation and Strip, Map and Record

2.3.1 The evaluation and strip, map and record were carried out according to the standards and guidance of the Chartered Institute for Archaeologists (CIfA 2014b).

2.3.2 The topsoil was removed using a mechanical excavator with a toothless bucket and underlying deposits were cleaned and further investigated by hand. All finds were collected from all deposits, as far as was practical. The following recording techniques were used during the evaluation:

- **Written record:** descriptive records of all deposits and features (see *Appendix 2*) were made using Greenlane Archaeology *pro forma* record sheets, specifically trench record sheets;
- **Photographs:** photographs in colour digital format (both 12 meg JPEG and RAW file format) were taken of the site during the evaluation, including general views of the site, the surrounding landscape, and working shots. A selection of the colour digital photographs is included in this report and the remainder are included in the archive. A written record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets (Greenlane Archaeology 2007);

- **Instrument survey:** the trenches and topographic features were surveyed using a Leica reflectorless total station which captures the survey data as a digital .DXF file that can then be processed in AutoCAD. This enabled the location of each trench to be positioned and allowed levels above Ordnance Datum to be provided through reference to a nearby spot height;
- **Drawings:** drawings were produced on site as follows:
 - i. a trench plan of Trench 4 was produced by plotting the instrument survey at a scale of 1:100 and annotating it by hand on site;
 - ii. additional features were drawn at a scale of 1:20 or 1:1, as appropriate.

2.4 Finds

2.4.1 **Collection:** all of the finds were recovered by hand and stored in self-seal bags with white write-on panels on site before being removed for processing and assessment.

2.4.2 **Processing:** all of the artefacts recovered from the fieldwork were washed, with the exception of metal objects, which were dry-brushed. They were then naturally air-dried and packaged appropriately in self-seal bags with white write-on panels.

2.4.3 **Assessment and recording:** the finds were assessed and identified in the first instance by Jo Dawson. The finds were recorded directly into the catalogue produced as part of this report (*Appendix 3*).

2.5 Environmental Samples

2.5.1 No environmental samples were taken as no appropriate deposits were encountered.

2.6 Archive

2.6.1 The archive of the project will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this report, together with a copy of the report. The archive has been compiled according to the standards and guidelines of the ClfA guidelines (ClfA 2014c). In addition, details will be submitted to the *Online Access to the Index of Archaeological Investigations* (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public. A paper copy of the report will be provided to the client and a digital copy of the report will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this report.

3. Desk-Based Assessment

3.1 Introduction

3.1.1 The heritage assessment identified extant elements of the main mill buildings on site and a phase plan was produced based on an examination of early maps of the area (Greenlane Archaeology 2021; Figure 3). The desk-based assessment is intended to place the results of the building recording and evaluation in their local historical and archaeological context.

3.2 Map Regression

3.2.1 **Introduction:** early maps of the area tend to be relatively lacking in detail, such as Yates's plan of 1786 and Hennet's map of 1830 (see below), and no tithe map is available for the area. The earliest useful maps therefore date from the mid-19th century. The building recording area are indicated by letter and the trenches are marked and numbered on map extracts below.

3.2.2 **Yates's Map of Lancashire, 1786:** nothing is marked in the area on Yates's map of 1830 (Plate 1). Some buildings are shown, which probably relate to Hoddlesden, although it is not specifically named on the map and nothing is shown close to the branching watercourse to the north.

3.2.3 **Hennet's map of Lancaster, 1830:** buildings are shown which may represent the mill building(s) at Hoddlesden, but this is unclear (Plate 2).

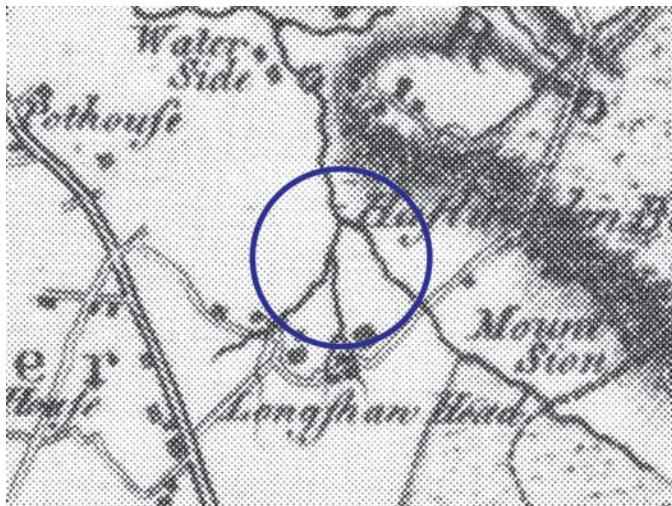


Plate 1 (left): Extract from Yates

Plate 2 (right): Extract from Hennet's map of 1830

3.2.4 **Ordnance Survey, 1849:** the 1849 edition of the Ordnance Survey shows the confluence of Hoddlesden Brook (north/south) and Pickup Bank Brook (east/west) to the north of the area, with smaller channels running to a pond north of Vale Rock Mill cotton mill (Plate 3).

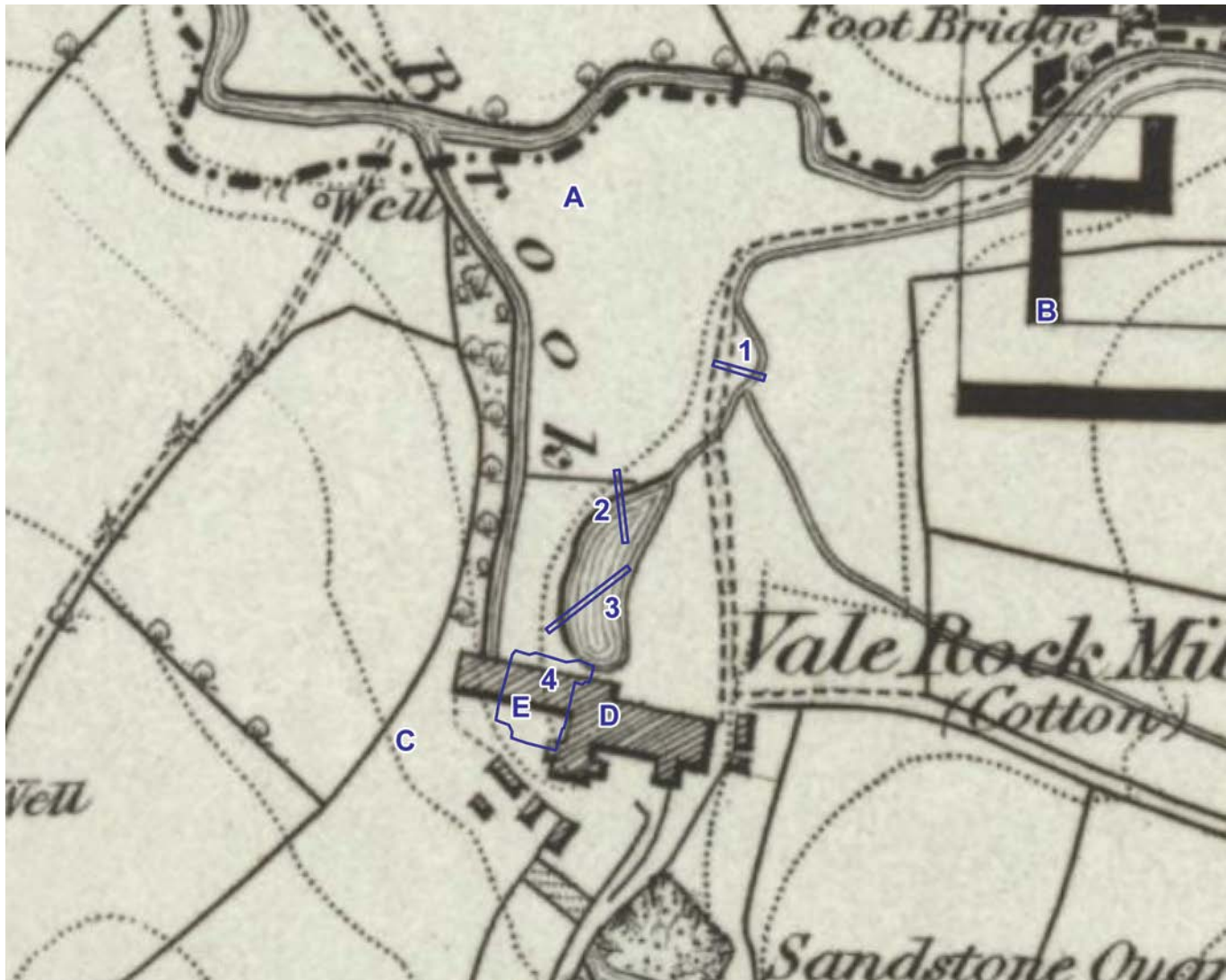


Plate 3: Extract from the Ordnance Survey map of 1849

3.2.5 **Ordnance Survey, 1893:** Vale Rock Mill has expanded considerably and is neighbour to Vale Rock Shed (cotton) and the newly built St Paul's Mill cotton mill (Plate 4). Additional outbuildings can also be seen, including some that are shown to be open sided. A large reservoir has been created at the confluence of the two brooks to the north and additional, smaller rectangular reservoirs can be found within the area. The smaller offshoots from Pickup Bank Brook are no longer shown where a footpath is depicted to the east side of the area. The Hoddlesden Branch of the Lancashire and Yorkshire Railway has been built and terminates south-west of the area.

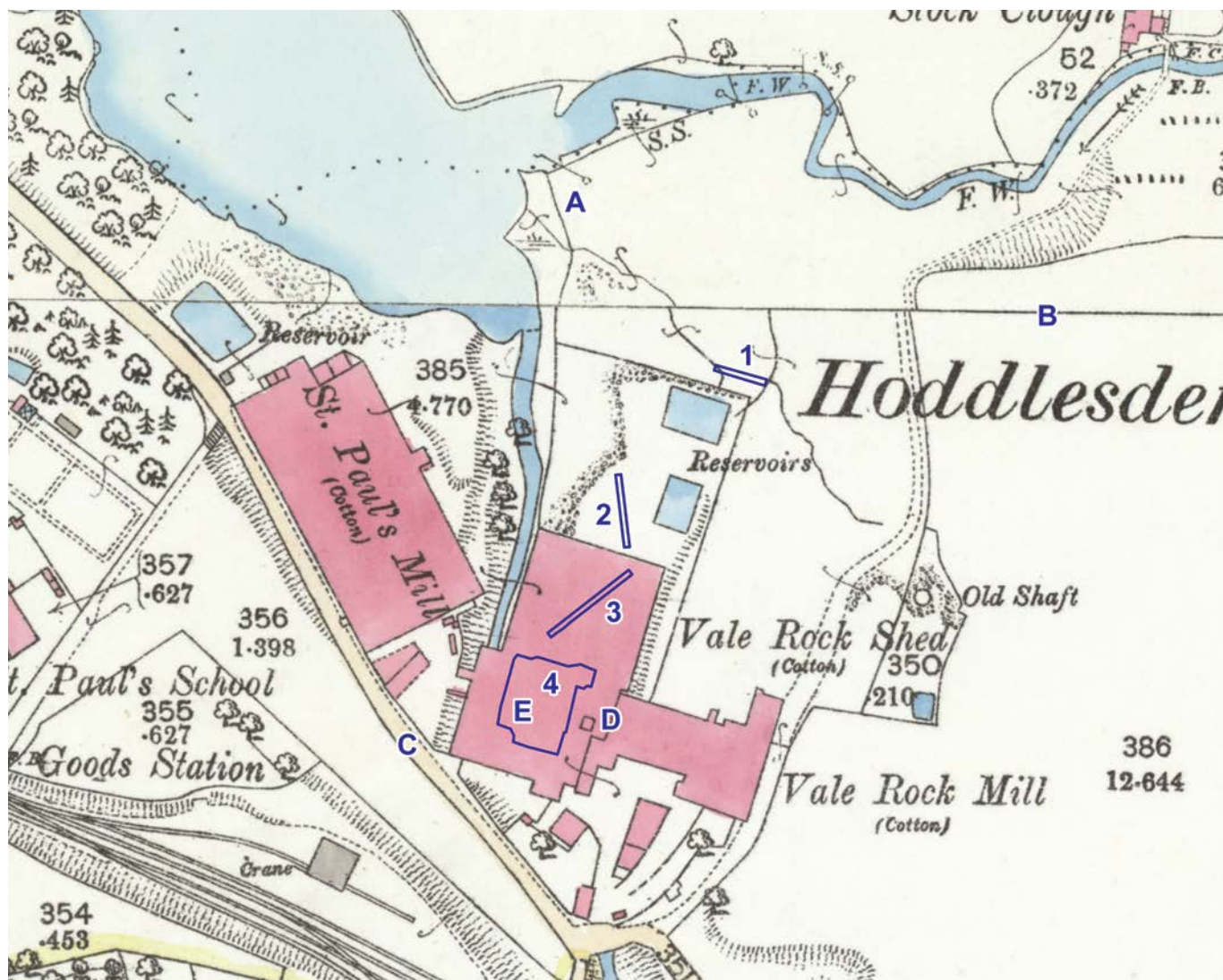


Plate 4: Extract from the Ordnance Survey maps of 1893

3.2.6 **Ordnance Survey, 1911:** some minor alterations have been made to St Paul's Mill and Vale Rock Mill (Plate 5; cf. Plate 4). A chimney shown to the east side of Vale Rock Shed is labelled (it was previously shown but not labelled on the 1893 edition).

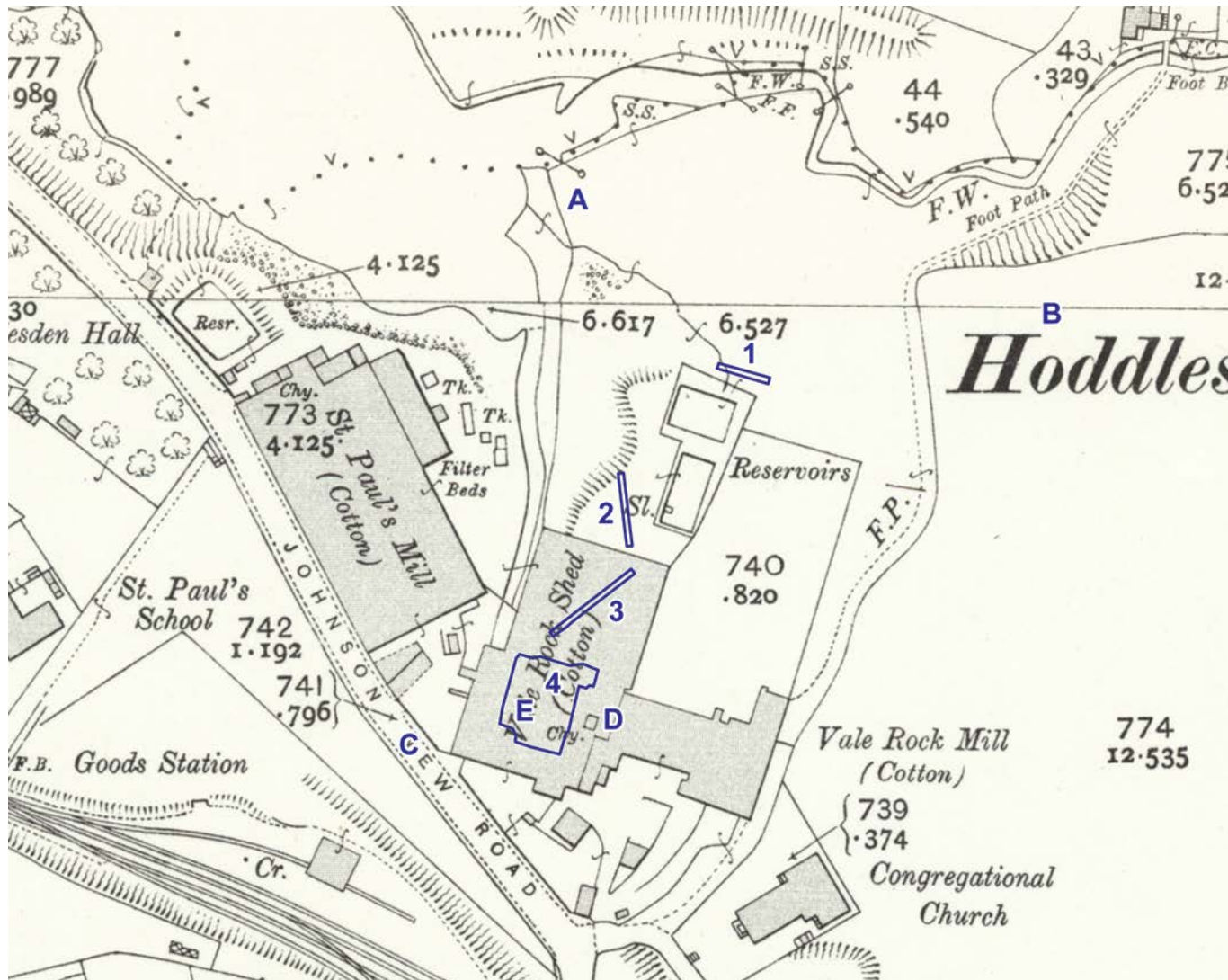


Plate 5: Extract from the Ordnance Survey maps of 1911

3.2.7 **Ordnance Survey, 1930:** the complex of buildings comprising St Paul's Mill, Vale Rock Shed and Vale Rock Mill has hugely expanded, especially to the north-east, and more rectangular reservoirs have been constructed to the north-east corner of the area (Plate 6; cf. Plate 5).

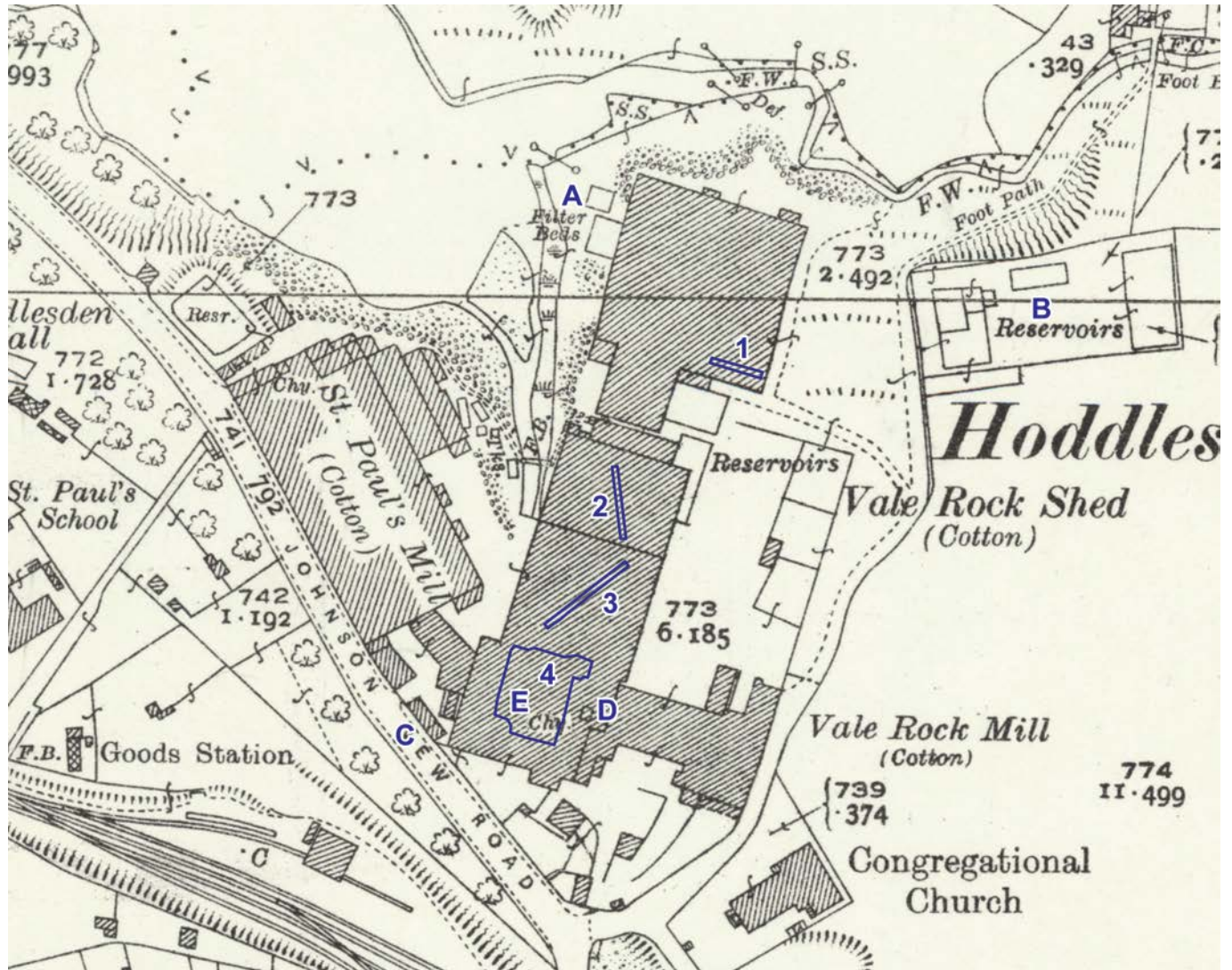


Plate 6: Extract from the Ordnance Survey maps of 1930

3.2.8 **Ordnance Survey, 1947:** the site is unchanged to the 1947 edition of the Ordnance Survey map, which includes additions from 1938 (Plate 7; cf. Plate 6).

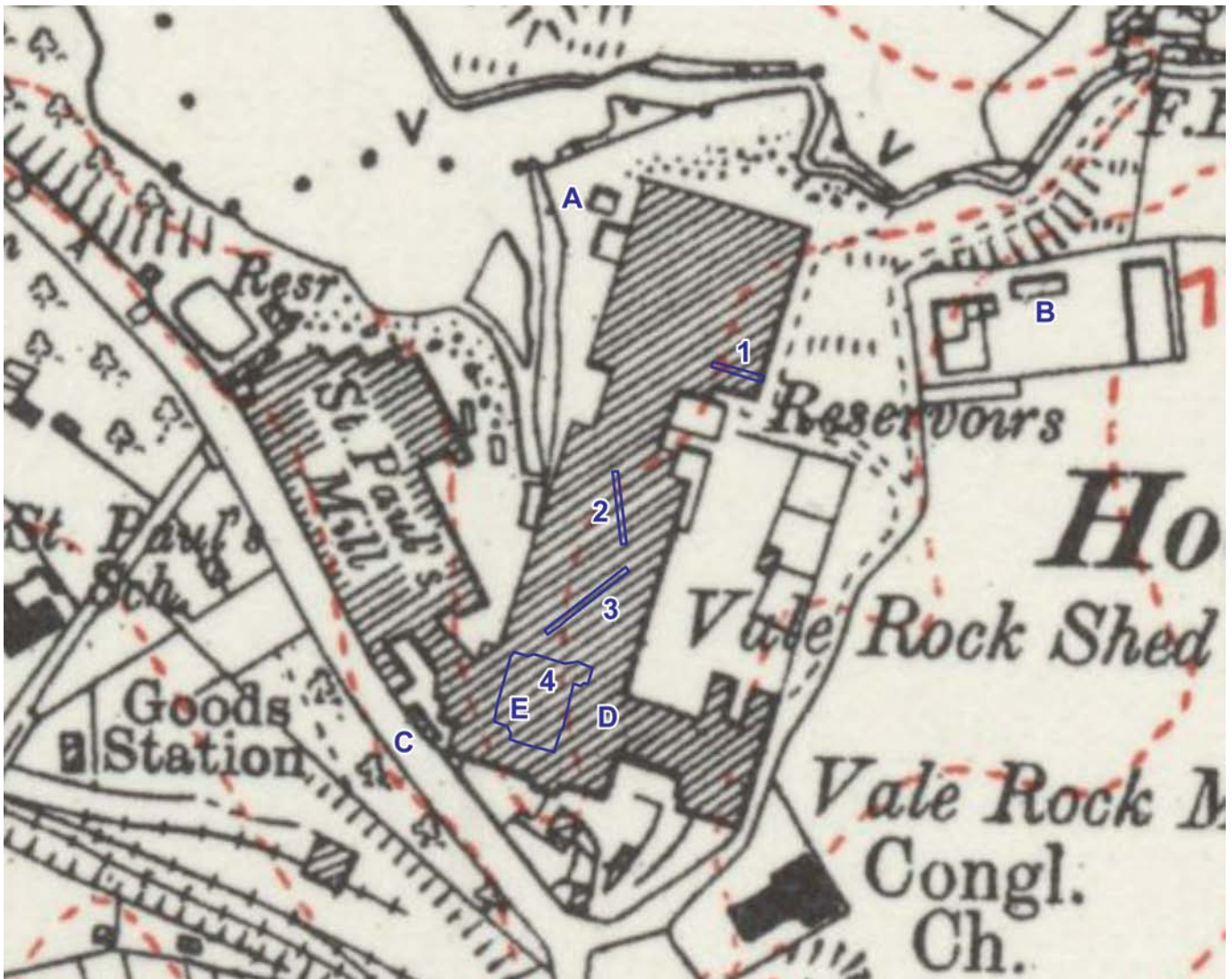


Plate 7: Extract from the Ordnance Survey map of 1947

3.2.9 **Aerial Photographs, 1988:** a series of eight aerial views of the site were captured as part of the Lancashire Mills Survey in 1988 (LRO LCC 4254/13-20 1988). These show the site essentially entirely intact as it was by the mid-20th century, although with some obvious modern additions to the east side of the Vale Rock weaving shed.



Plate 8: Aerial view of the site from the north-east (LRO LCC 4254/14 1988)



Plate 9: Aerial view of the site from the west (LRO LCC 4254/16 1988)

3.2.10 **Drawings, 1992:** Rothwell's detailed account of the site (Rothwell 1992, 11-13) is accompanied by two drawings of some of the buildings as they were at that time.

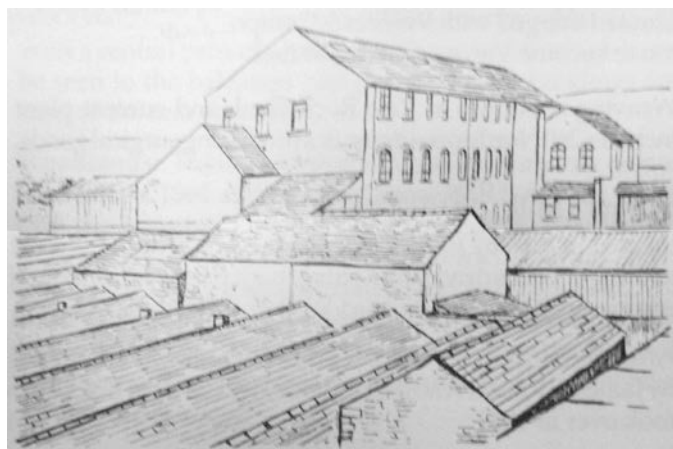


Plate 10: Drawing of Vale Rock Mill from the west (after Rothwell 1992, 11)

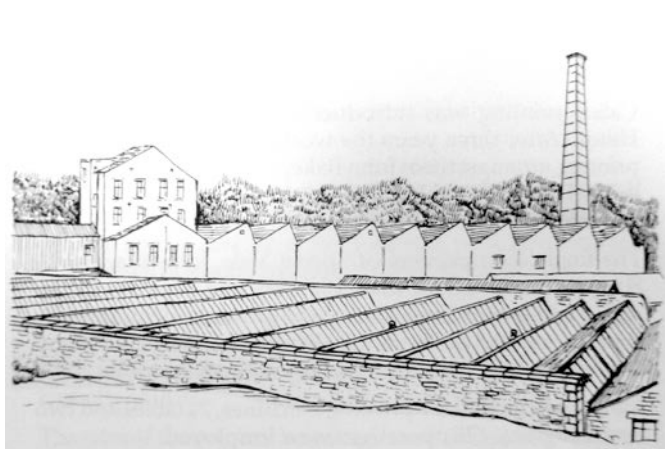


Plate 11: Drawing of St Paul's Mill from the north-east (after Rothwell 1992, 12)

3.3 LIDAR

3.3.1 **Lidar:** various elements of the former mill buildings can be seen on lidar imagery of the site freely available online. This shows the extent of the standing remains on the site, in particular the footprint of the main buildings, the reservoirs and other structures.

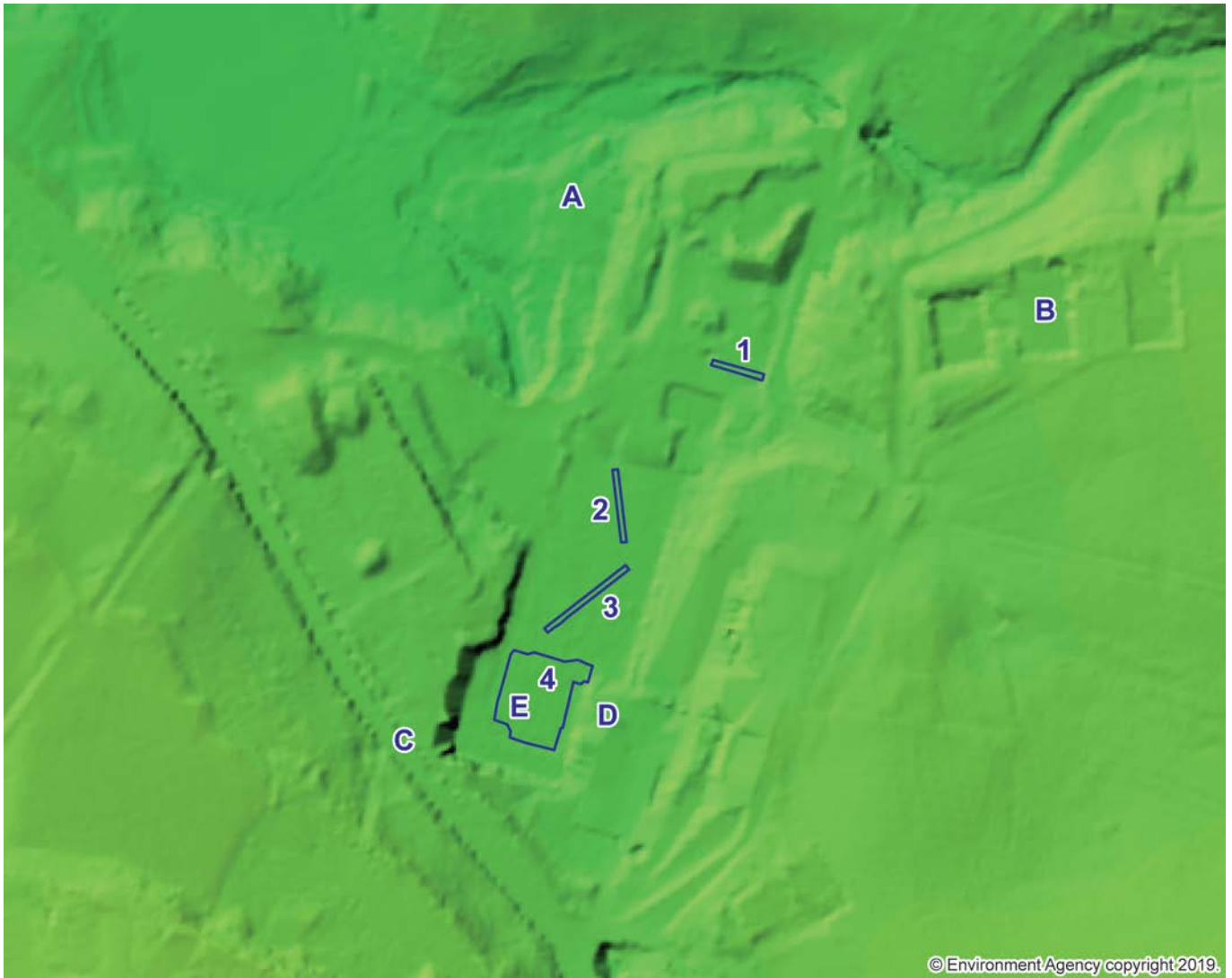


Plate 12: Lidar imagery of the site

3.4 Site History

3.4.1 **Introduction:** the background history to the site helps our understanding of the development and use of the site, where known, making use of the map evidence presented above (see Section 3.2) where relevant. The background to the site is intended to place the results of the project in its local context and in order to do so a brief discussion of the earlier history of its wider environs is also necessary.

3.4.2 **Prehistoric Period (c11,000 BC – 1st century AD):** while there is generally limited evidence for human activity in the wider region in the period immediately following the last Ice Age, there are occasional finds that demonstrate that the wider area was occupied from an early date, although probably not very intensely. Approximately 35km north-west of the site the so-called Poulton Elk was discovered in 1970; this comprised a skeleton of a male elk, later radiocarbon dated to the early post-Glacial period, associated with antler harpoon points, at least some of which were evidently lodged in its body, which, with other injuries, show that it had been hunted by humans (Hallam *et al* 1973). Elsewhere in the wider region habitation of this date is typically found in cave sites, with a number known on the northern edge of Morecambe Bay and east into Yorkshire, with excavations at a small number of cave sites revealing the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Cowell 1996, 20-21; Young 2002). Human remains from one of these have also recently been dated to approximately 7,100 BC (Smith *et al* 2013). The county was

clearly more densely inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered from across Lancashire (Barrowclough 2008, 48-53). Sites of this date typically comprise collections of distinctive artefacts, microliths, often discovered during field-walking and eroding from river banks (*ibid*). Coastal areas and river valleys are notably places where such material is frequently found in the wider region (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152; Hodgson and Brennand 2006, 26). However, on the higher ground, in areas such as the North Pennines, numerous such artefacts have been discovered where they have eroded from peat (Cowell 1996, 21; Spikins 1999).

3.4.3 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region. One of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, particularly in the north (Barrowclough 2008, 76), having been manufactured at Langdale in the central Lake District (Hodgson and Brennand 2006, 45). There is clearly, in general, some continuity from the preceding Mesolithic, with recent work at New Laund Farm, Whitewell in the Forest of Bowland to the north of Hoddlesden, revealing evidence for continued occupation into the Iron Age (Anon nd). During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still; with substantial examples including the multi-period Bleasdale Circle, to the north of Hoddlesden, which comprised a number of different elements including a circle of timber posts (Dawkins 1900; Varley 1938). The stone circle at Mosley Heights near Burnley is closer, which contained a range of burials alongside the stones (Barrowclough 2008, 121-123). Funerary monuments, including stone circles, have typically been examined more often than settlement sites (*op cit*, 108-129) with burials of 'Beaker' type more commonly found around the higher ground in the east of Lancashire (*op cit*, 130-133), with a large collection of material retrieved during excavations in the late 19th century at Whitehall near Darwen probably the closest example (*op cit*, 124-125). One characteristic of the lower areas, which have more wetland, is the ritual deposition of metal artefacts, particularly weapons, in water, with one style of metalwork being characteristic of the Fylde area (*op cit*, 152). Sites of Iron Age date are considerably less common in Lancashire, or at least examples that are well dated. Throughout the county settlement sites tend to comprise small enclosed groups of hut circles, although these are very difficult to identify in the archaeological record (*op cit*, 192) with larger hill-top hillforts found where there is suitable topography. Burials are almost unknown. There is likely to be considerable continuity in settlement sites from the end of the Bronze Age, with the Iron Age representing a period of even greater land enclosure and management, but excavated sites of this period are mostly in the south of the county (*op cit*, 193), with the exception of a recently excavated site near Poulton-le-Fylde, which is, at present, unpublished (Wardell Armstrong Archaeology 2014; 2018). There is likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period, at least in terms of 'native' settlement; it is evident that in rural parts of the wider region, initially at least, the Roman invasion had a minimal impact on settlement patterns (Philpott 2006, 73-74).

3.4.4 **Romano-British to Early Medieval Period (1st century AD – 11th century AD):** Hoddlesden lies approximately 12km south of the Roman fort at Ribchester, and immediately east of the main Roman road between the forts at Manchester and Ribchester. The Roman heritage of Ribchester, which was known as *Bremetanacum*, is well documented and has occasioned several large excavations and important finds, including the 2nd century Ribchester parade helmet. Past excavations have demonstrated the well-preserved nature of the Roman archaeology, which encompasses a complete sequence from the 1st to 5th centuries AD (Buxton and Howard-Davis 2000). The history of the fort and *vicus* are also relatively well known through inscriptions and documentary evidence. These demonstrate that the VI and XX Legions, the *Ala Secundae Asturum* (a Spanish cavalry unit), and Sarmatian auxiliary cavalry units were stationed there (Buxton and Howard-Davis 2000). By contrast, evidence for Roman activity in the area immediately around Hoddlesden is more limited, with the most tangible evidence being the road linking Manchester and Ribchester, which is located between Hoddlesden and Darwen to the west. This is still in use as a road but remains of the *agger* and traces of metalling have been reported (Margary 1957, 102-103). This road was probably established during the period of consolidation

of Roman rule in the north-west that occurred from the late 1st century into the early 2nd century (Shotter 2004, 52-72).

3.4.5 It is becoming increasingly evident that activity in the post-Roman period continued at many major sites, such as Ribchester. A wooden church dedicated to St. Wilfrid is alleged to have been built within the remains of the standing fort in the late 6th century, which was supposedly replaced by a stone structure in the 7th century (Baines 1870). The situation in more rural areas is typically less certain, with evidence generally very limited and reliant on a much smaller range of evidence (Newman 1996, 93-106). Place-name evidence demonstrates that many settlements in the area were in existence from at least this period, with Hoddlesden itself deriving from the Old English personal name *Hod* and a word for a deep narrow valley (Ekwall 1922, 10 and 75). Nearby, Darwen is named after the river, which derives from an even earlier British word for oak trees (*op cit*, 66) and shows the longevity of names in some cases.

3.4.6 **Medieval Period (11th century AD – 16th century AD):** as already seen, place-name evidence indicates that the area was populated in the early medieval period, with Hoddlesden first recorded at the end of the 13th century and Darwen only slightly earlier (Ekwall 1922, 66 and 75). Hoddlesden was historically located in the township of Over Darwen, which belonged to the barons of Newton in Makerfield from whom it was split into several descents (Farrer and Brownbill 1911, 269-275). In the 12th century it represented the westernmost limit of the Forest or Chase of Rossendale, until this was gradually broken up, and in 1296 it is referred to as a vaccary belonging to the Lord of Clitheroe, and there is also reference to the supply of timber to a forge or smelting furnace (*ibid*).

3.4.7 **Post-Medieval Period (16th century AD – present):** Over Darwen was recorded as containing a well-established textile industry from at least the 17th century (Farrer and Brownbill 1911, 269-275) and this remained the most significant aspect of the wider area's development in the post-medieval period. The site saw significant development as a result of the mechanisation of this industry during the 18th and 19th centuries, which is covered in some detail by Rothwell (1992, 11-13; OA North 2010, 79-80; HER ref 2077) and summarised below. The site is thought to have been the earliest surviving industrial site in Hoddlesden, which was started as a calico printing works in c1778 by the Hargreaves family, although by 1786 Oliver and Mary Hargreaves were using it for cotton spinning and by 1814 it was occupied by John Heap who was using waterpower for spinning mules. In 1819 John Crompton took the site on as a bleachworks and added new buildings. It may have been left vacant for a short time but was being used for power loom weaving by 1837 and was massively remodelled in 1843-1844. A weaving shed was added in the 1850s and it became known as the Vale Rock Mill. By 1861 it comprised a spinning mill for 15,000 spindles and a weaving shed for 500 looms, occupied by J & J Place and continued by John Place & Son. At this time a separate enterprise, St Paul's Mill, was also constructed, again by J & J Place, and this contained a further 600 looms powered by a pair of horizontal engines, with a new engine installed in 1895 and some enlargement to the site in 1912. Vale Rock Mill continued in use until 1980, with 4000 condenser mule spindles and 87 looms producing towelling by the 1890s and the original beam engine replaced in 1911 by a horizontal tandem.

3.4.8 The Vale Rock weaving shed became a separate enterprise, taken over by the Hoddlesden Manufacturing Co in 1884, which was formed by local residents, but was destroyed by a fire in 1889. It was later rebuilt and a new engine installed in 1907, replacing that of 1844. It continued in use until the 1990s.

3.4.9 The Vale Rock Mill was ultimately designated a Grade II Listed Building, but the whole complex was badly damaged by fire in 1998 and partially demolished by 2000 (Anon 1998), although elements were still apparently standing as late as 2009 (Pye 2009). A summary of the site's development, based on the available mapping and incorporating the documentary history, is presented in Figure 3.

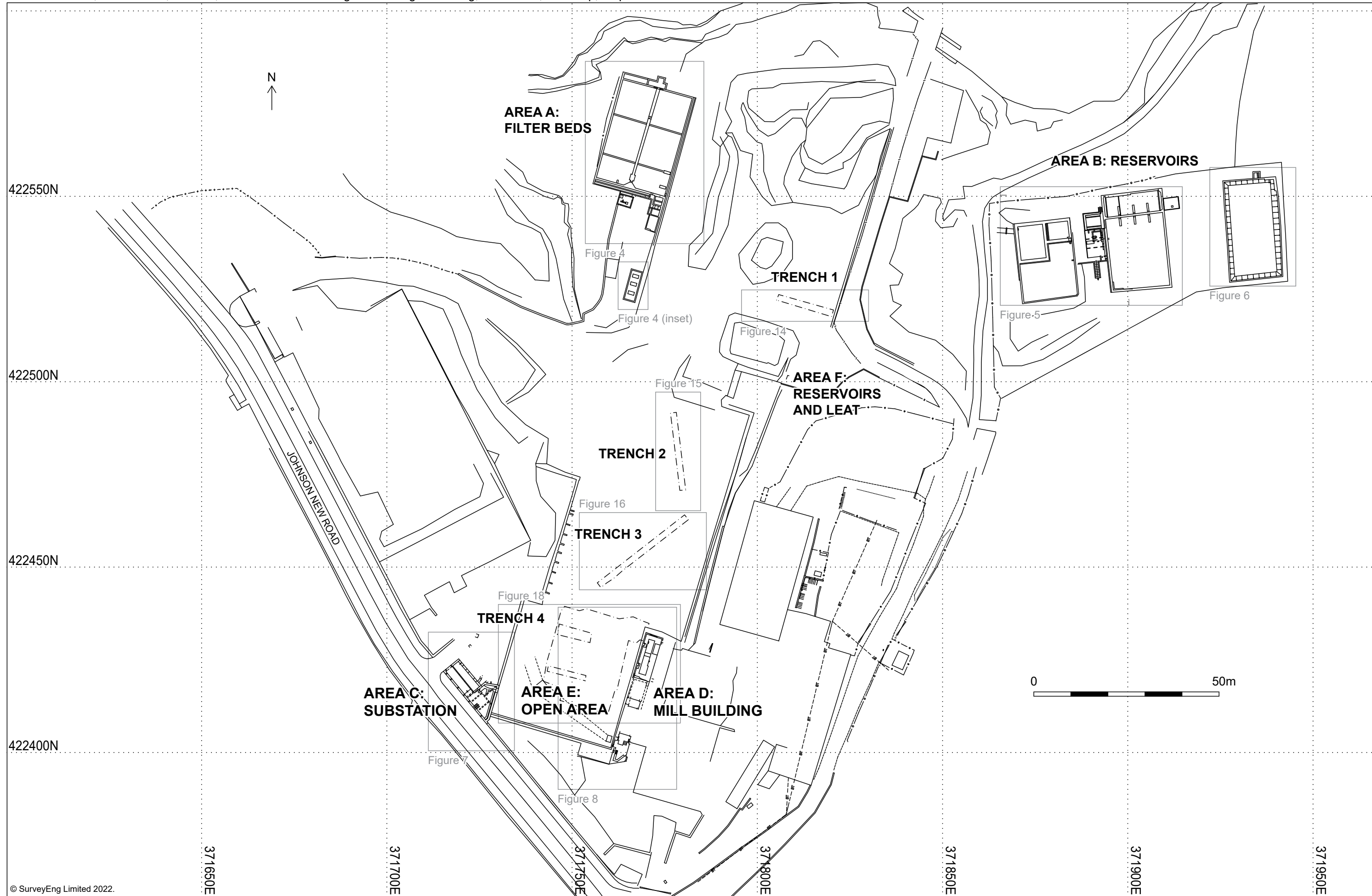


Figure 2: Site plan, showing figure locations and more detailed site plans

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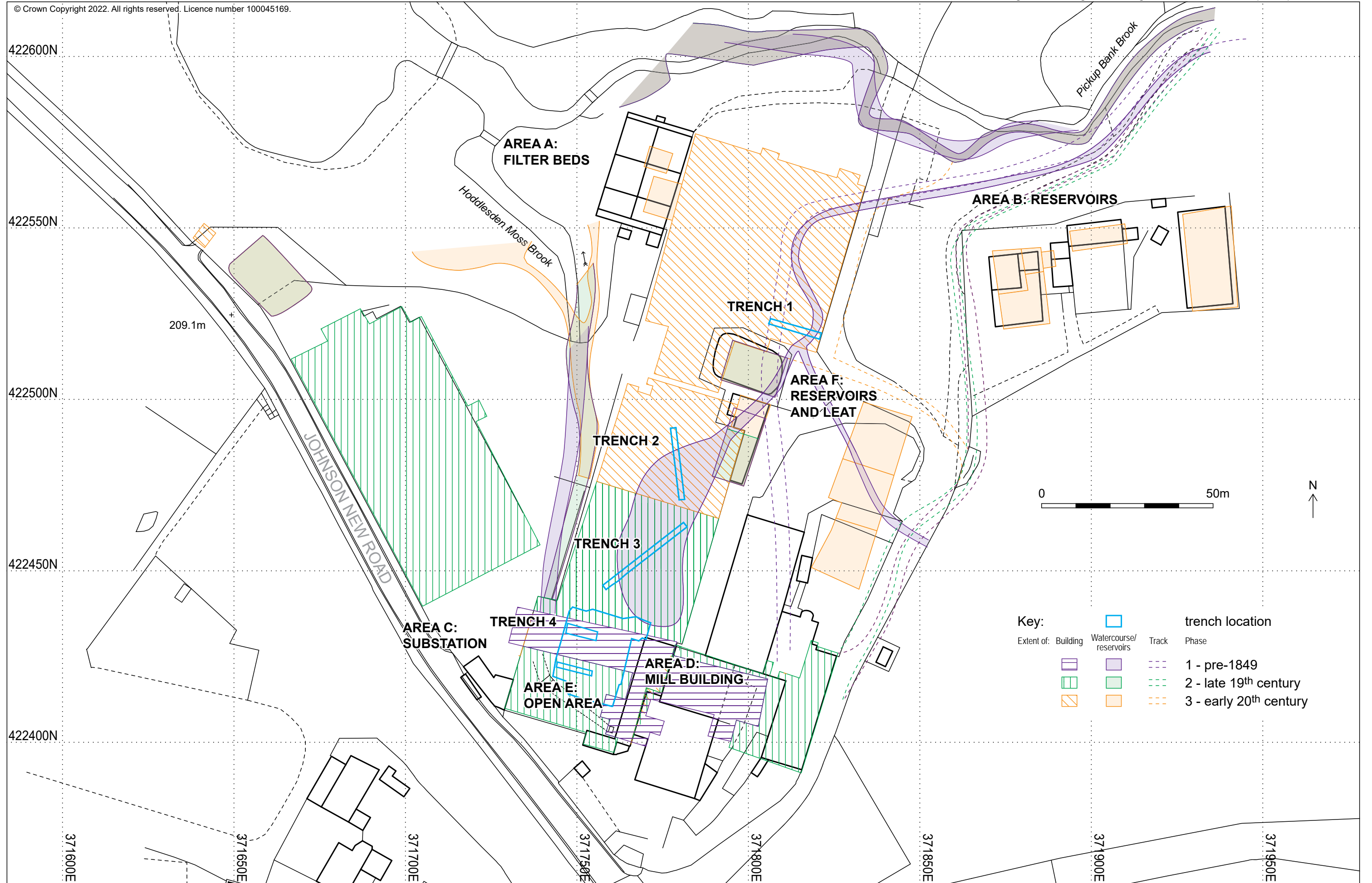


Figure 3: Trench locations overlaid on phase plan

4. Building Recording

4.1 Introduction

4.1.1 Five main areas of the site were recorded (see Figure 2):

- **Area A:** "Filter Beds", comprising the six brick and concrete tanks comprising the filter beds themselves, a separate brick tank and small brick structure (Figure 4);
- **Area B:** "Reservoirs", comprising the 'west tank', 'central tank', timber structure, timber shed and 'east tank' (see Figure 5 and Figure 6);
- **Area C:** "Substation", comprising the north, west and south rooms;
- **Area D:** "Mill Building", comprising the north-east end room, centre room and south-west end room;
- **Area E:** "Open Area" - an open area in front of the mill buildings in Area D; the walls around this to the south and west were originally part of the interior of buildings constructed during the later phase of the mill's development.
- **Area F:** "Pond and Leat" – although not part of the original WSI, photographs were also taken of these structures to provide additional context for the wider site.

4.2 Area A: Filter Beds

4.2.1 There is a tall, approximately north/south, **boundary wall** to the east. The south end is constructed from well-built stone walling, partially topped with red machine-made brick (Plate 13). At the north end the stone section is in much rougher large slabs of stone. In front (west) of the boundary wall, at its south end, is a rectangular **brick tank** constructed from machine-made brick (Plate 14), built against the wall but not butting it. Inside are the remains of three rectangular brick bases with curved tops, which evidently supported a cylindrical tank of some form.



Plate 13 (left): Boundary wall in Area A



Plate 14 (right): Brick tank in Area A

4.2.2 To the north of the brick tank there is a **small brick structure** against the boundary wall. The brick is laid in English Garden Bond in a ratio of three rows of stretchers to one row of headers. It has a pitched roof, with some slate remaining, a door to the east (Plate 15) and a 10-light metal casement window, with two hinged lights in the top, to the south (Plate 16). The doorway and window both have concrete lintels and the doorway has remains of a plain surround. Inside, it is fairly plain, with electrical boxes on the east wall and pipes in the floor (Plate 17 and Plate 18) and valve or pump and a deep pit in the north-west corner.



Plate 15 (left): East elevation of the small brick structure in Area A



Plate 16 (right): South elevation of the small brick structure in Area A



Plate 17 (left): Electrical boxes inside the small brick structure in Area A

Plate 18 (right): Pipe work inside the small brick structure in Area A

4.2.3 The **filter beds** are to the north of the small brick structure in Area A. They comprise two sets of three rectangular tanks separated by east/west brick walls coming off a north/south concrete spine wall that splays slightly at the north end and has the remains of a sluice gate just before this (Plate 19 to Plate 24). The south-eastern tank has an additional rectangular block of concrete set within it and a sluice gate leading into a channel alongside the east wall. There is a handrail on the south side and stepped section with pipe brackets and additional walls forming small channels with sluice gate on the north side (Plate 25 to Plate 26). There is also a driveshaft attached to the wall to the east just to the south of these. To the north are similar walls creating additional channels and four or more large concrete columns with iron brackets on top for supporting concrete pipes (Plate 27).



Plate 19 (left): General view of the filter beds from the south-east



Plate 20 (right): General view of the filter beds from the south-west



Plate 21 (left): General view of the filter beds from the west



Plate 22 (right): General view of the filter beds along the spine wall from the north



Plate 23 (left): South end of the spine wall of the filter beds, from the north



Plate 24 (right): Remains of a sluice gate in the north end of the spine wall of the filter beds, from the south



Plate 25 (left): Walls forming channels to the south of the filter bed, from the east

Plate 26: Sluice on the north side of the channels to the south of the filter beds, from the south



Plate 27: Concrete columns to the north of the filter beds, viewed from the south

4.3 Area B: Reservoirs

4.3.1 The reservoirs principally comprise three main areas (see Figure 5 and Figure 6): the 'west tank', a collection of smaller linked tanks; the 'central tank', a large tank to the south and smaller tank to the north; and the 'east tank', a single rectangular reservoir.

4.3.2 The **west tank** comprises three irregular, stone-built tanks with plinths (Plate 28 to Plate 32; Figure 5). The largest tank, to the south, is L-shaped and the other two are rectangular. There is a sluice

gate with a wheel at the east side (Plate 33) and an iron handhold ladder in the north-west corner (Plate 34). There is a channel from the west side with concrete sides and a valve in the base and pipe across (Plate 35 and Plate 36).



Plate 28 (left): The west tank in Area B viewed from the north-east



Plate 29 (right): The west tank in Area B viewed from the east



Plate 30 (left): The west tank in Area B viewed from the south-east



Plate 31 (right): North-west corner of the west tank in Area B



Plate 32: Plinth along the edge of one of the tanks in the west tank, Area B



Plate 33 (left): Sluice in the west tank in Area B

Plate 34 (right): Handhold ladder in the west tank in Area B

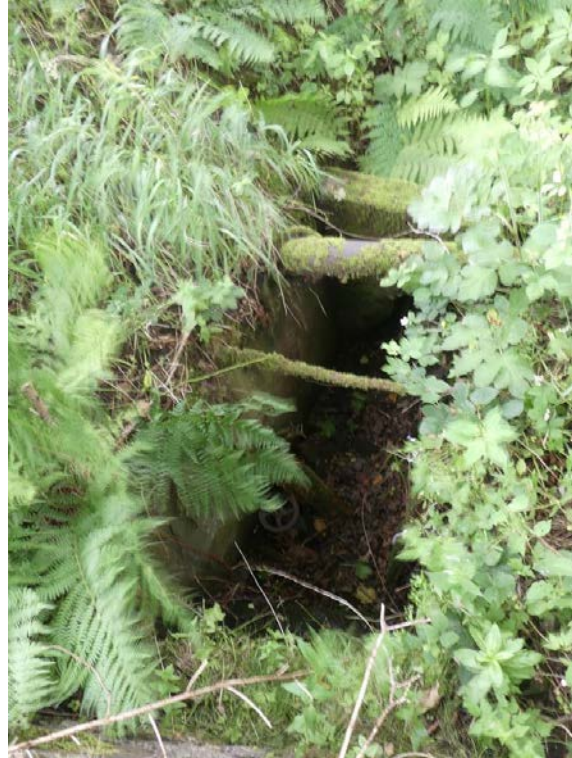


Plate 35 (left): Channel from the west side of the west tank, Area B

Plate 36 (right): Pipes in the channel from the west side of the west tank, Area B

4.3.3 The **central tank** is of concrete construction, with a large tank to the south side, with an east/west iron pipe to the east side, and smaller tank to the north (Figure 5; Plate 37 and Plate 38). There is a row of three buttresses on both sides of the wall dividing the two tanks. The smaller tank has a machine-made red brick dividing wall on the east side (Plate 39), a single brick-length thick, and there is a further division at the west end in concrete (Plate 40).



Plate 37 (left): The large tank to the south, part of the central tank, Area B

Plate 38 (right): The smaller tank to the north, part of the central tank, Area B



Plate 39: Red brick divide in the smaller tank, part of the central tank, Area B



Plate 40: Concrete divide in the smaller tank, part of the central tank, Area B

4.3.4 The building is extended by a mostly flat-roofed **timber structure**, centrally located on the west side (Plate 41). Although all of the cladding has been removed, it evidently housed a range of pipes, valves and other plant (Plate 42 to Plate 48). One of the valves is marked "B/G//8" on the west side and a pump(?) has a maker's plate, which is illegible. This structure is roughly rectangular with a stepped out section to the south-east corner and stairs down from the south (Plate 49 and Plate 50). Internally there is brick walling in the south-east corner and forming plinths and a concrete machine base. The stairs to the south are flanked by walls of machine-made brick.



Plate 41 (left): Timber structure to the west of the central tank, Area B



Plate 42 (right): General view inside the timber structure, Area B



Plate 43 (left): Machine base inside the timber structure, Area B



Plate 44 (right): West end of the north internal elevation of the timber structure, Area B



Plate 45 (left): Pipes and pump inside the timber structure, Area B



Plate 46 (right): pump inside the timber structure, Area B



Plate 47 (left): North and east internal elevations of the timber structure, Area B



Plate 48 (right): East internal elevation of the timber structure, Area B



Plate 49 (left): General view of the south end of the timber structure, Area B



Plate 50 (right): Stairs to the timber structure, Area B

4.3.5 There is a further extension to the north, comprising a tall concrete tank, topped with an iron handrail (Plate 51), with additional east/west divisions inside and pipes and bearings to the base (Plate 52 and Plate 53).



Plate 51 (left): Concrete tank and timber structure to the west of the central tank, Area B



Plate 52 (right): Internal divisions of the concrete tank to the west of the central tank, Area B



Plate 53: Base of the concrete tank to the west of the central tank, Area B

4.3.6 There is a **timber shed** between the east and central tank. The shed is constructed from tongue and groove planks on a timber frame and plywood inside (Plate 54 to Plate 56). It has a corrugated concrete roof and concrete floor and fixed structure comprising four steel L-beams on the south side (Plate 57). There is a plan window to the west.



Plate 54 (left): Timber shed, Area B, viewed from the south-east



Plate 55 (right): Timber shed, Area B, viewed from the north-west



Plate 56 (left): General view inside the timber shed, Area B



Plate 57 (right): Iron L-beam structure on the south side of the timber shed, Area B

4.3.7 The **east tank** is a simple rectangle of concrete construction with steep battered sides with channels and an iron pipe in the north-east corner (Figure 6; Plate 58 to Plate 61). There is a projecting section on the north side, forming a small pit with a plastic pipe projecting high-up from the main wall (Plate 62). This small pit is also of concrete construction with two iron pipes in the base.



Plate 58 (left): General view of the east tank, Area B, viewed from the south-west



Plate 59 (right): General view of the east tank, Area B, viewed from the north-west



Plate 60 (left): North end of the west wall of the east tank, Area B



Plate 61 (right): South end of the west wall of the east tank, Area B



Plate 62: Pit to the north side of the east tank, Area B

4.4 Area C: Substation

4.4.1 The substation is mainly of stone construction, comprising yellow gritstone, and some brick internally, mostly of fairly late machine-made types. The building is an irregular L-shape in plan (Figure 7). It is single storey with a flat roof and orientated north-west/south-east against the road to the south-west. The south-east end is difficult to access from the exterior due to the position of the slope.

4.4.2 The **north-west** external elevation has quoins at the corners and a large stone gatepost against the south-west end (Plate 63). It is fairly plain except for a very wide doorway inserted on the south-west side, with a concrete lintel, the remains of a plain surround and obvious areas of rebuild around it.



Plate 63: North-west external elevation of the substation, Area C

4.4.3 The **north-east** external elevation has a doorway on the north-west side (Plate 64), with quoins in the jambs, and a concrete lintel with rebuild around this and the south-east jamb, suggesting it was inserted. There are two windows to the south-east: the north-west one has a concrete lintel and rebuild around and below it, suggesting it was originally a doorway; the south-east window is higher and has a concrete sill and no lintel, just rough stones at the top of the wall, where it was perhaps reduced in height (Plate 65).



Plate 64 (left): North-east external elevation of the substation, Area C

Plate 65 (right): Window in the north-east elevation of the substation, Area C

4.4.5 There are two projecting buttresses at 45° to the wall of stone and brick. Externally, these are rendered and scored, but between them the space is tiled. The rest of the wall has remains of plaster and was presumably internal to the building originally, which must have originally extended to the north-east.

4.4.6 The **south-east** external elevation is plain stone, with some evident re-pointing, and a small high window on the north-east side (visible from Area E; see Plate 134).

4.4.7 The **south-west** external elevation is mostly fairly plain with randomly coursed stone (Plate 66 and Plate 67). There is a doorway at the south-east end with a security grill over (Plate 68). There are quoins at the south-east end that extend 0.5m into the boundary wall (Plate 69).



Plate 66 (left): North-west end of the south-west external elevation of the substation, Area C
Plate 67 (right): South-east end of the south-west external elevation of the substation, Area C



Plate 68 (left): Doorway on the south-west external elevation of the substation, Area C

Plate 69 (right): Quoins at the south-east end of the south-west external elevation of the substation, Area C

4.4.8 Internally, the **west room** has a concrete floor and concrete ceiling on I-beams. The walls are mostly limewashed/painted white (Plate 70). The **north-west** elevation has a wide doorway for a double door with plain surrounds and concrete over the jambs (Plate 71). The **north-east** elevation is concrete block laid English Garden Bond in a ratio of five rows of stretchers to one row of headers, with a join or opening in the centre (Plate 72 and Plate 73). The **south-east** elevation has a double doorway, with only one modern glazed door remaining, and a concrete lintel (Plate 74). The lower part of the **south-west** elevation is stone and the upper part is brick. It is mostly plain, with modern shelves against it, and three high vent holes (Plate 75).



Plate 70 (left): The west room of the substation, Area C



Plate 71 (right): Doorway at the north-west end of the substation, Area C



Plate 72 (left): North-east elevation of the west room of the substation, Area C, viewed from the south



Plate 73 (right): North-east elevation of the west room of the substation, Area C, viewed from the north



Plate 74 (left): South-east end of the west room of the substation, Area C



Plate 75 (right): South-west elevation of the west room of the substation, Area C

4.4.9 The **south room** has a concrete floor with a channel along the south, east and part of the north sides of the room (Figure 7). The ceiling is concrete on iron I-beams. The walls are mostly exposed stone and parts are machine-made red brick. The **north-west** elevation has a wide doorway on the south-west side with a concrete lintel. There is a pillar in brick to the north-east and a slight recess and return for a broken stub wall in brick beyond which is a blocked doorway or opening filled with stone (Plate 76). The **north** elevation comprises an angled return, which is very cracked and damaged, with some odd reused dressed quoins (Plate 77). The **south-east** elevation has a very high window at the north-east end, concreted round the surround and with iron pieces over the lintel (Plate 78). The elevation is otherwise plain with a small high vent near the centre and slightly rounded in the south corner (Plate 79). The **south-west** elevation has two high level vents and a central plank and batten door up a flight of brick steps (Plate 80 and Plate 81). The lower section is gridded, extending to the ceiling, mostly stone but part of the north-west end is brick.



Plate 76 (left): North-west elevation of the south room of the substation, Area C



Plate 77 (right): North elevation of the south room of the substation, Area C



Plate 78 (left): North-east end of the south-east elevation of the south room of the substation, Area C

Plate 79 (right): South-west end of the south-east elevation of the south room of the substation, Area C



Plate 80 (left): South-west elevation of the south room of the substation, Area C

Plate 81 (right): Door in the south-west elevation of the south room of the substation, Area C

4.4.10 The **north room** has a tiled floor comprising red quarry tiles and a concrete ceiling. The walls are mostly painted brick. The **north-west** elevation is plain with an electrical cabinet attached (Plate 82). The **north-east** elevation has a doorway on the north-west side with a concrete lintel (Plate 83). The doorway now houses the remains of a timber frame, apparently for a window. The wall is finished with gypsum plaster. There are two windows to the south-east (Plate 84). The top of the one to the north-west is blocked and has an inserted concrete lintel and plain surround. The one to the south-east extends to the ceiling and has a concrete sill and plain surround. The **south-east** elevation is plain with meters attached to a board (Plate 85). The **south-west** elevation is plain brick with a framed notice board attached to the north-west end.



Plate 82 (left): General view of the north-west end of the north room of the substation, Area C
Plate 83 (right): Doorway at the north-west end of the north room of the substation, Area C



Plate 84 (left): The south-east end of the north-east elevation of the north room of the substation, Area C
Plate 85 (right): General view of the south-east end of the north room of the substation, Area C

4.5 Area D: Mill

4.5.1 The building recording examined accessible parts of the extant buildings, which originally formed the south-east wing of the mill (Figure 8). The accessible sections comprise the north-east end room, a centre room and the south-west end room at lower floor level, with a single room at upper floor level at the south-west end. The earlier section of the mill is stone and at least two storeys high, extending outside the site boundary to the south-east. This has a mono-pitch corrugated roof while the recorded section, to the north-west, has a mono-pitch slate roof and a massive three-light skylight. The fully recorded section is mostly constructed from machine-made red brick laid in stretcher bond, with some individual rows alternating header/stretcher and some all headers.

4.5.2 **North-east external elevation:** the south-east side has a truncated wall abutting the main building and forming part of the boundary wall to the north-east (Plate 86; Figure 10). This then comprises a wall with a mono-pitch top, with quoins on the south-east side. There is plaster over the lower part and a doorway in the upper section, extending to roof. The door has a thin stone sill/step and is blocked with brick. There is an iron girder on a bracket supporting a beam running to the north-west. The main section steps out in brick (Plate 87), again with a projecting girder supporting a beam (Plate 88) and with a bearing box on the south-east side (Plate 89) and a window/doorway to the north-west. There is a modern metal flue in the upper section.



Plate 86 (left): North-east external elevation of the mill building, Area D

Plate 87 (right): North-west side of the north-east external elevation of the mill building, Area D



Plate 88 (left): Bracket and girder supporting a beam in the north-east external elevation of the mill building, Area D

Plate 89 (right): Bearing box on north-east external elevation of the mill building, Area D

4.5.3 **North-west external elevation:** the north-east section in brick has a row of four high-level windows, with bull nosed brick sills and remains of plain timber surrounds and concrete lintels (Figure 11; Plate 90 and Plate 91). There are scars of a north-light roof above and remains of trough guttering. The doorway to the south-west end of this section houses a low plank and batten door *in situ*, but the opening was evidently originally much taller (Plate 92). There is a single random stone in the wall above and a slight step beyond. South-west of that, the lower part of the wall is brick in English Garden Bond in a ratio of five rows of stretchers to one row of headers, cladding a stone wall behind. The north-light roof scars and iron troughs continue to the south-west (Plate 93). The central double doorway has a plain surround and concrete lintel and rebuilt jambs (Plate 94). There is a further doorway at the south-west end, raised above ground level, with a plain surround and thin timber lintel.



Plate 90 (left): General view of the north-west external elevation of the mill building, Area D

Plate 91 (right): North-east end of the north-west external elevation of the mill building, Area D



Plate 92: North-east doorway in the north-west external elevation of the mill building, Area D



Plate 93 (left): South-west end of the north-west external elevation of the mill building, Area D

Plate 94 (right): Central doorway on the north-west external elevation of the mill building, Area D

4.5.5 **Lower floor, north-east end room:** the apparently earth floor is covered in rubbish and lower than outside ground level on the north-west side by at least 0.5m, rising up in the south corner. The walls are exposed stone and brick, with the brick in English Garden Bond in a ratio of three rows of stretchers to one row of headers. There is a massive central **block of brick masonry**, the top six courses comprising glazed brick (Plate 95 to Plate 98). This block has a timber-lined opening at the north-east end (Plate 99 and Plate 100).



Plate 95 (left): South-west end of the south-east side of the central block of brick masonry in the north-east end room (lowe floor) of the mill building, Area D

Plate 96 (right): Centre section of the south-east side of the central block of brick masonry in the north-east end room (lower floor) of the mill building, Area D



Plate 97 (left): North-east end of the brick block in the north-east end room (lower floor) of the mill building, Area D

Plate 98 (right): Glazed brick in brick block in the north-east end room (lower floor) of the mill building, Area D



Plate 99 (left): Timber lined opening in the brick block in the north-east end room (lower floor) of the mill building, Area D

Plate 100 (right): High-up view of the timber lined opening in the brick block in the north-east end room (lower floor) of the mill building, Area D

4.5.6 The **north-west** elevation has two brick pillars correlating to those on the floor above sat on large stone pads (Plate 101). The doorway at the south-west end houses a plank and batten door with chamfered jambs. The **south-west** elevation is stone on massive stone footings. There is a return on the south-east side leaving a gap to the adjoining building (Plate 103). The **south-east** elevation is stone with a rubble-filled gap on the south-west side, with brick in the south-west jamb (Plate 104). This elevation is otherwise plain apart from a brick return at the north-east end, forming a large block (Plate 105), and brick build at the south corner, in-filling a door with bull-nosed jamb on the south-west side (Plate 106). The **north-east** elevation is brick and plain apart from a ragged hole in the centre (Plate 107).



Plate 101: North-west elevation of the north-east end room (lower floor) of the mill building, Area D

Plate 102: Pillar at the north-east end of the north-west elevation of the north-east end room (lower floor) of the mill building, Area D



Plate 103 (left): Return on the south-east side of the south-west elevation of the north-east end room (lower floor) of the mill building, Area D

Plate 104 (right): Rubble-filled gap on the south-east elevation of the north-east end room (lower floor) of the mill building, Area D



Plate 105 (left): Brick return at the north-east end of the south-east elevation of the north-east end room (lower floor) of the mill building, Area D

Plate 106 (right): Brick in-fill and blocked door at the north-east end of the south-east elevation of the north-east end room (lower floor) of the mill building, Area D



Plate 107: Ragged hole in the north-east elevation of the north-east end room (lower floor) of the mill building, Area D

4.5.7 **Upper floor, north-east end room:** the upper floor has a concrete floor and is open to the mono-pitch roof, clad with boards, with a half-truss with angled brace. The walls are mostly painted brick with plain skirting. It is basically a single room but is subdivided on the south-west side by a stud partition (Plate 116). The **north-west** elevation has four windows, with some frame with a moulded edge remaining in the south-west one (Plate 108 and Plate 109). There is a pair of brick buttresses, one at either end of the room, the one to the south-west is clad round an iron column supporting I-beams forming lintels to the windows (Plate 110 and Plate 111). The north-east column is below a brace for the beam (Plate 112). The **north-east** elevation is plain apart from a central doorway (Plate 113). The east corner of the **south-east** elevation is clad with board and brackets for shelves and tongue and groove boards to the south-west over the rest (Plate 114 and Plate 115). The **south-west** elevation is also boarded over but there is a large void exposed on the south-east side with the corner of the building to the south-west exposed (Plate 117).



Plate 108 (left): South-west end of the north-west elevation of the north-east end room (upper floor) of the mill building, Area D

Plate 109 (right): North-east end of the north-west elevation of the north-east end room (upper floor) of the mill building, Area D



Plate 110 (left): South-west buttress on the north-west elevation of the north-east end room (upper floor) of the mill building, Area D

Plate 111 (right): Iron column clad round by the south-west buttress, north-east end room (upper floor) of the mill building, Area D



Plate 112 (left): North-east buttress on the north-west elevation of the north-east end room (upper floor) of the mill building, Area D

Plate 113 (right): North-east elevation of the north-east end room (upper floor) of the mill building, Area D



Plate 114 (left): North-east end of the south-east elevation of the north-east end room (upper floor) of the mill building, Area D



Plate 115 (right): South-west end of the south-east elevation of the north-east end room (upper floor) of the mill building, Area D



Plate 116 (left): Stud partition to the south-west end of the north-east end room (upper floor) of the mill building, Area D



Plate 117 (right): Void to the south corner of the north-east end room (upper floor) of the mill building, Area D

4.5.8 **Centre room:** this room has concrete floors and is open to the roof. The upper level is inaccessible. The walls to the **north-east** and **south-west** are concrete block meeting brick pillars at the

south-east ends. The **north-west** elevation is just a large doorway with a concrete lintel and rebuild over, with the remains of a 20th century double door present (Plate 118). The south-east elevation is handmade brick and the bond is not clear (Plate 119). The lower part is collapsing and includes firebricks. There is a butt joint return with old and new concrete block in the **south-east** elevation.



Plate 118 (left): North-west elevation of the centre room of the mill building, Area D

Plate 119 (right): South-east elevation of the centre room of the mill building, Area D

4.5.9 **South-west end room:** this room has a concrete floor and concrete steps on a concrete block going down to the north-east with an iron handrail (Plate 120). There is an inserted flat ceiling, with the roof visible above with half-trusses with angled braces as per the north-east end of the mill. There is a projecting stone column in the centre of the **north-west** elevation and plinth to the north-east (Plate 126). The elevation has some brick to the north-east side, and there is brick blocking a doorway with no lintel at that end, but the elevation is otherwise stone (Plate 121). The **north-east** elevation essentially just comprises a blocked opening, filled with concrete blocks. There is a brick column to the south-east end (Plate 122). The **south-east** elevation returns after the column and there is a further return in stone, with concrete cladding, and iron steps up to a raised area of concrete blocks at the south end of the room with metal shelving on top (Plate 123 to Plate 127). There is a blocked doorway with concrete blocks at the south-west end of the elevation, which is early brick beneath plaster (Plate 124).



Plate 120 (left): North-east end of the north-west elevation of the south-west end room of the mill building, Area D



Plate 121 (right): Brick in the north-east end of the north-west elevation of the south-west end room of the mill building, Area D



Plate 122 (left): North-east end of the south-east elevation of the south-west end room of the mill building, Area D



Plate 123 (right): Stairs from the north-east to the south-west ends of the south-west end room of the mill building, Area D



Plate 124 (left): South-west end of the south-east elevation of the south-west end room of the mill building, Area D



Plate 125 (right): Shelving to the south end of the south-west end room of the mill building, Area D



Plate 126 (left): South-west end of the north-west elevation of the south-west end room of the mill building, Area D



Plate 127 (right): Detail of the metal stairs to the south end of the south-west end room of the mill building, Area D

4.6 Area E: Open Area

4.6.1 **South-west elevation of the courtyard (north-east facing):** this elevation is mostly of stone construction but the centre is brick, covered by remains of concrete render (Figure 10; Plate 128 to Plate 130). There is a blocked doorway with quoins in the jambs south-east of centre (Plate 131) and a high-level doorway at the south-east end. The high-level doorway has a plain surround and lintel formed by an iron plate extending the length of the wall, with a brick wall stepped back above. There is a small window on the south-east side and at least two beam girder ends projecting.



Plate 128 (left): South-east end of the south-west elevation of the courtyard/open area, Area E

Plate 129 (right): Central section of the south-west elevation of the courtyard/open area, Area E



Plate 130 (left): North-west end of the south-west elevation of the courtyard/open area, Area E

Plate 131 (right): Detail of blocked door in the south-west elevation of the courtyard/open area, Area E

4.6.2 North-west elevation of the courtyard (south-east facing): the south-west side is covered by render but north-light roof scars leave the brickwork exposed in places (Figure 12; Plate 132). There is a high-level window from the substation (Area C) at the south-west end (Plate 134). A large area of the wall has collapsed in the centre (Plate 133). An iron structure, comprising a girder with mesh on top, is situated between two north-west/south-east wall returns within this collapsed section (see Figure 12). There is a pair of blocked bearing boxes to the north-east (Plate 135) before a return in the wall to the south-east. This return wall extended further south-east originally across what is now open area. North-east of this return is solid concrete mass retaining wall with seven concrete block buttresses (Figure 13; Plate 136 and Plate 137).



Plate 132 (left): South-west end of the north-west elevation of the courtyard/open area, Area E

Plate 133 (right): Central section of the north-west elevation of the courtyard/open area, Area E



Plate 134 (left): High-level window at the south-west end of the north-west elevation of the courtyard/open area, Area E

Plate 135 (right): Bearing boxes on the north-west elevation of the courtyard/open area, Area E



Plate 136 (left): South-west end of the concrete retaining wall to the north-west side of the courtyard/open area, Area E



Plate 137 (right): North-east end of the concrete retaining wall to the north-west side of the courtyard/open area, Area E

4.7 Area F: Reservoirs and Leat

4.7.1 This area comprised a smaller rectangular reservoir or pond of brick construction but lined with concrete, the remains of another to the south, comprising part of one wall, and the mill leat running approximately north/south towards the mill buildings (Area D). The leat was constructed from stone walls with stone sett lining inside.



Plate 138 (left): The intact reservoir, viewed from the west



Plate 139 (right): The intact reservoir, viewed from the north-west



Plate 140: The leat, viewed from the north-west

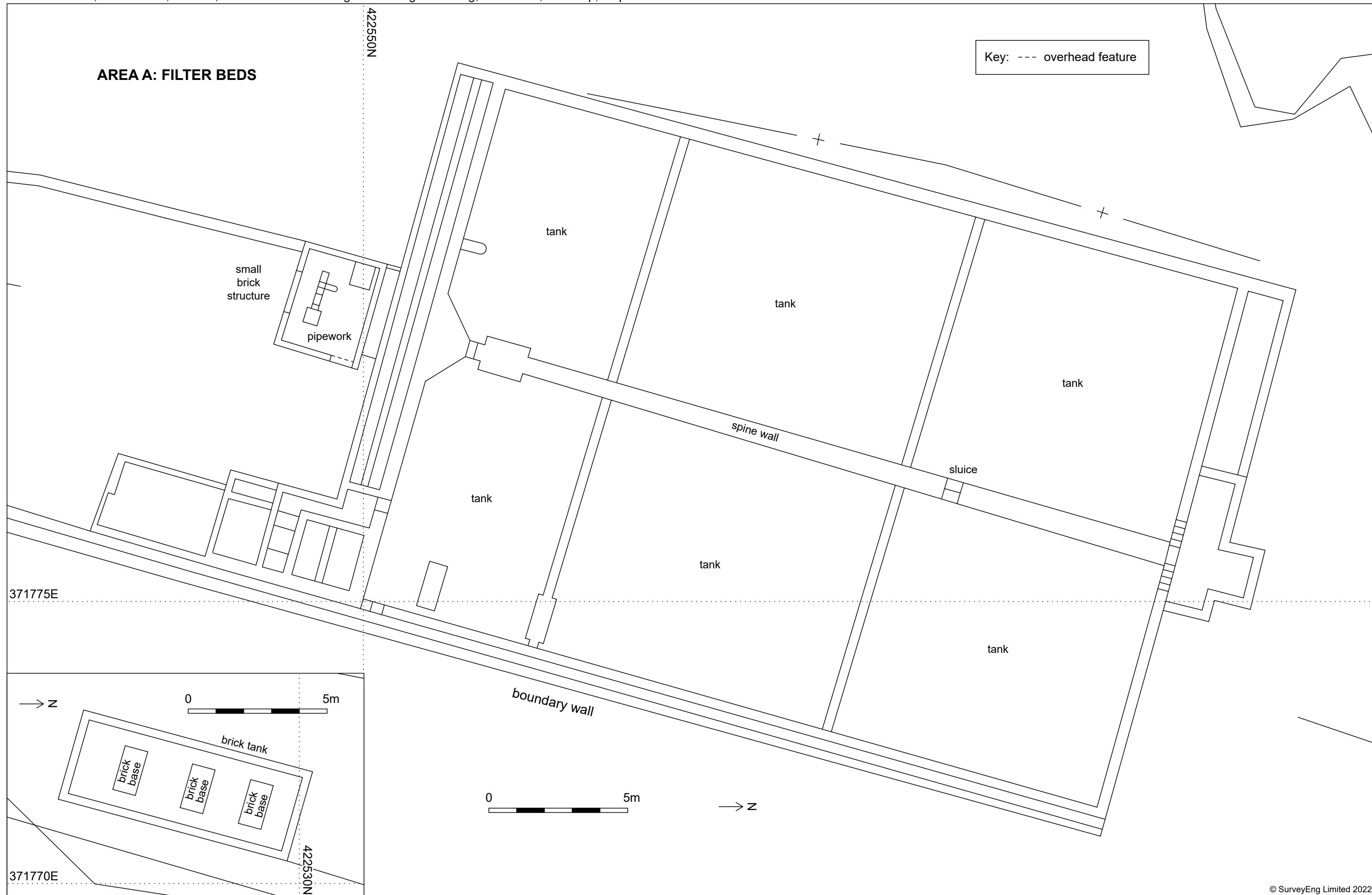


Figure 4: Plan of the north and south ends (inset) of Area A

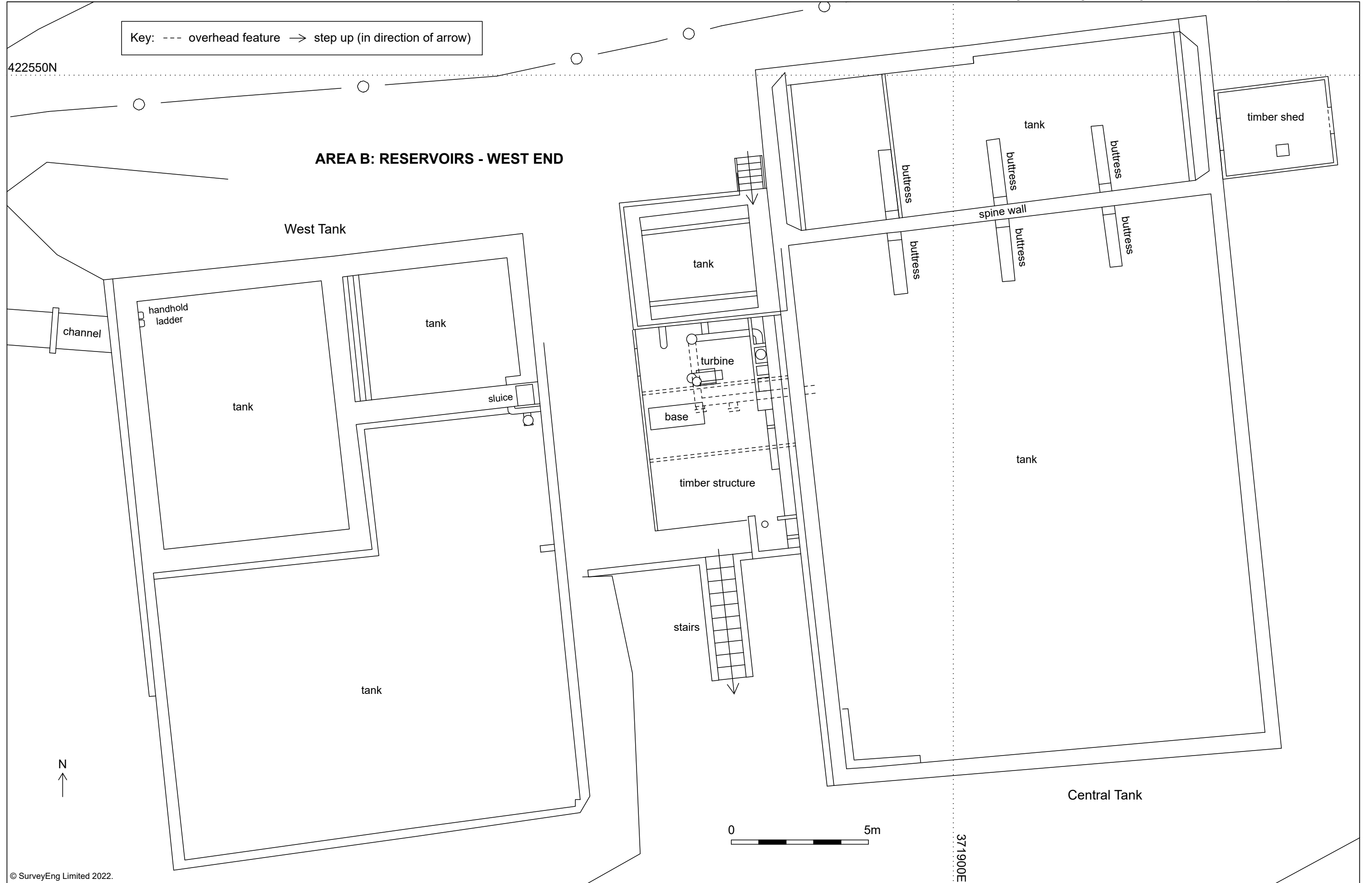


Figure 5: Plan of the west end of Area B

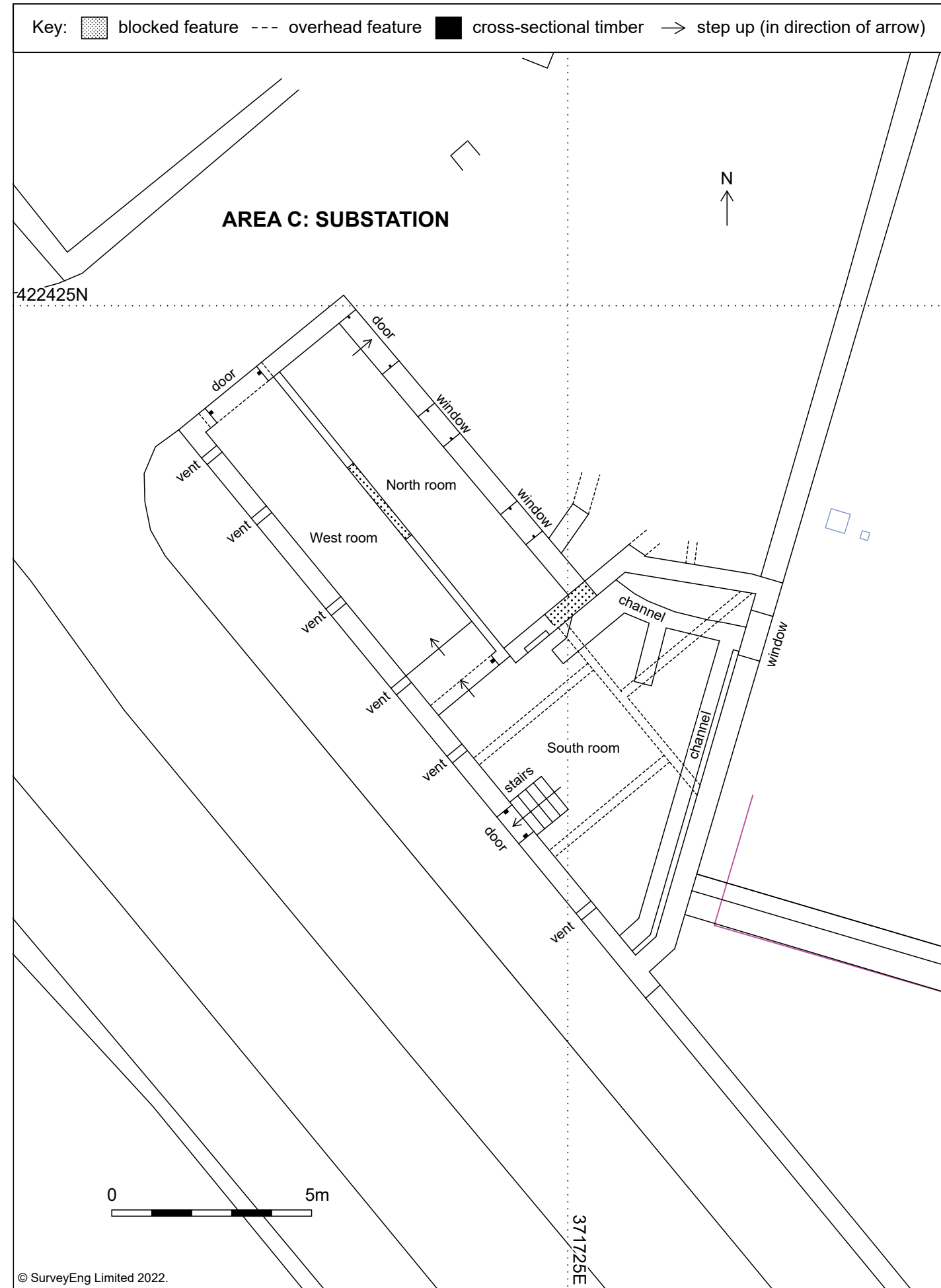
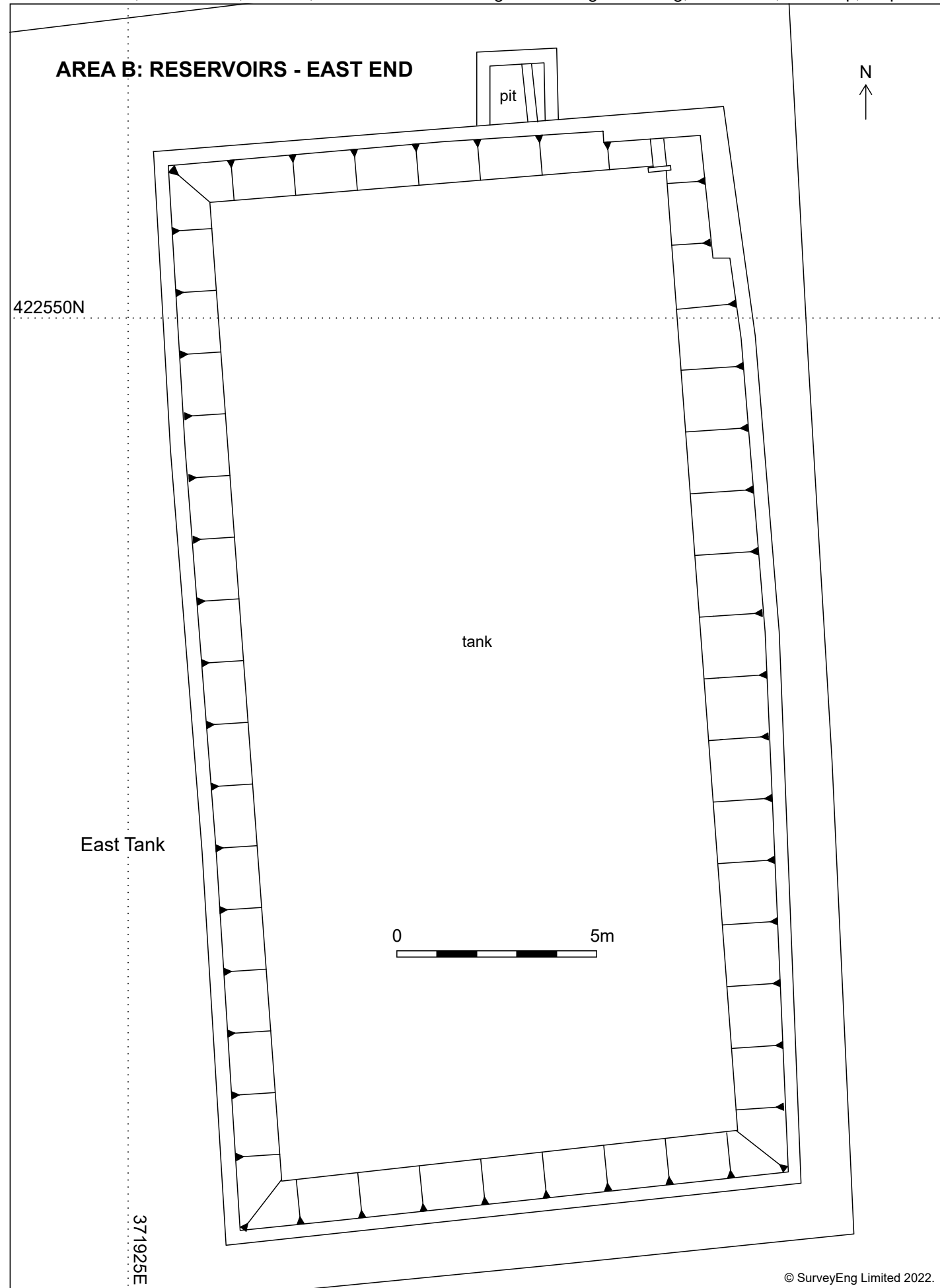


Figure 6 (left): Plan of the east end of Area B
Figure 7 (right): Plan of Area C

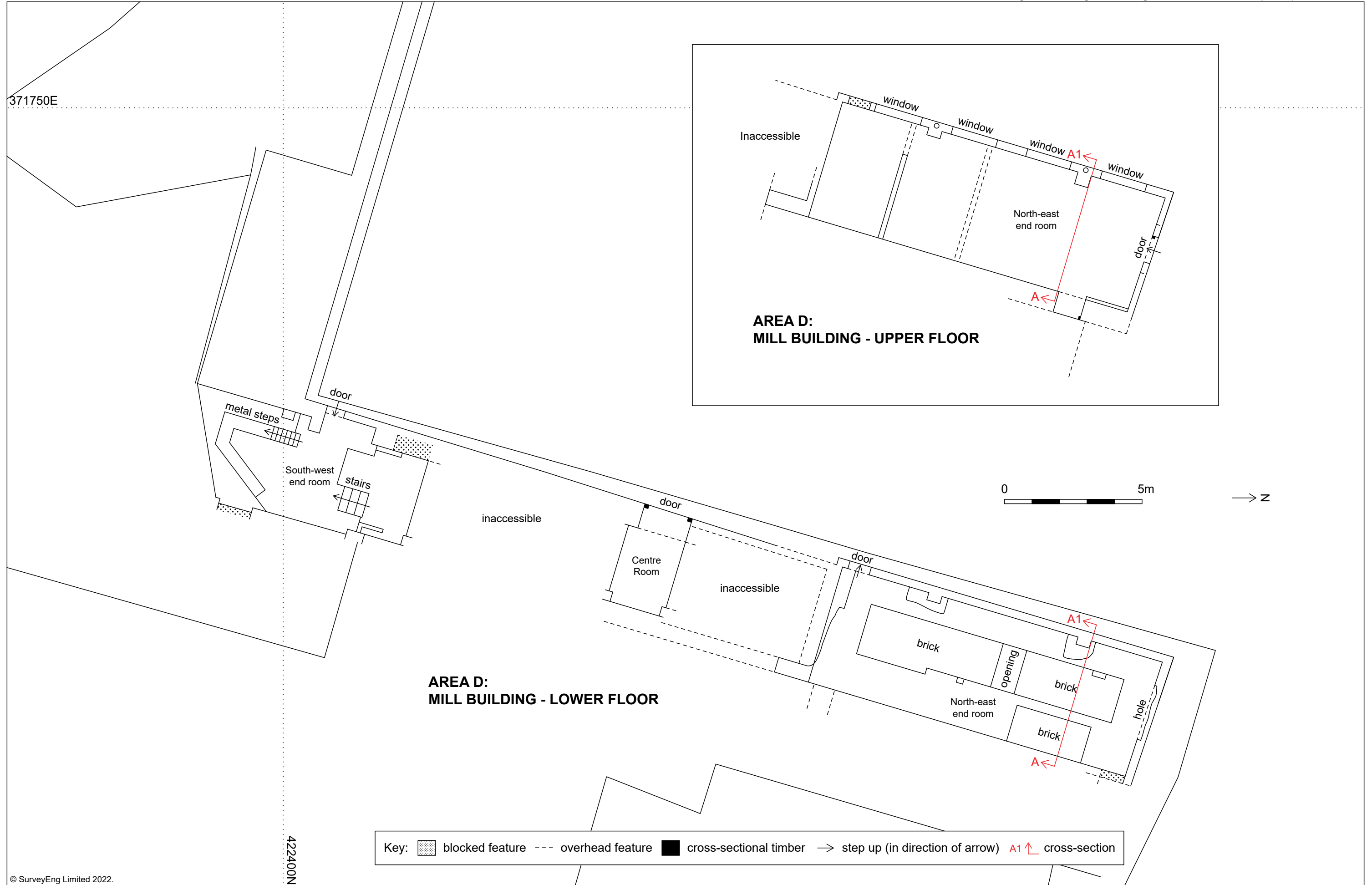


Figure 8: Floor plans of the mill building (Area D)

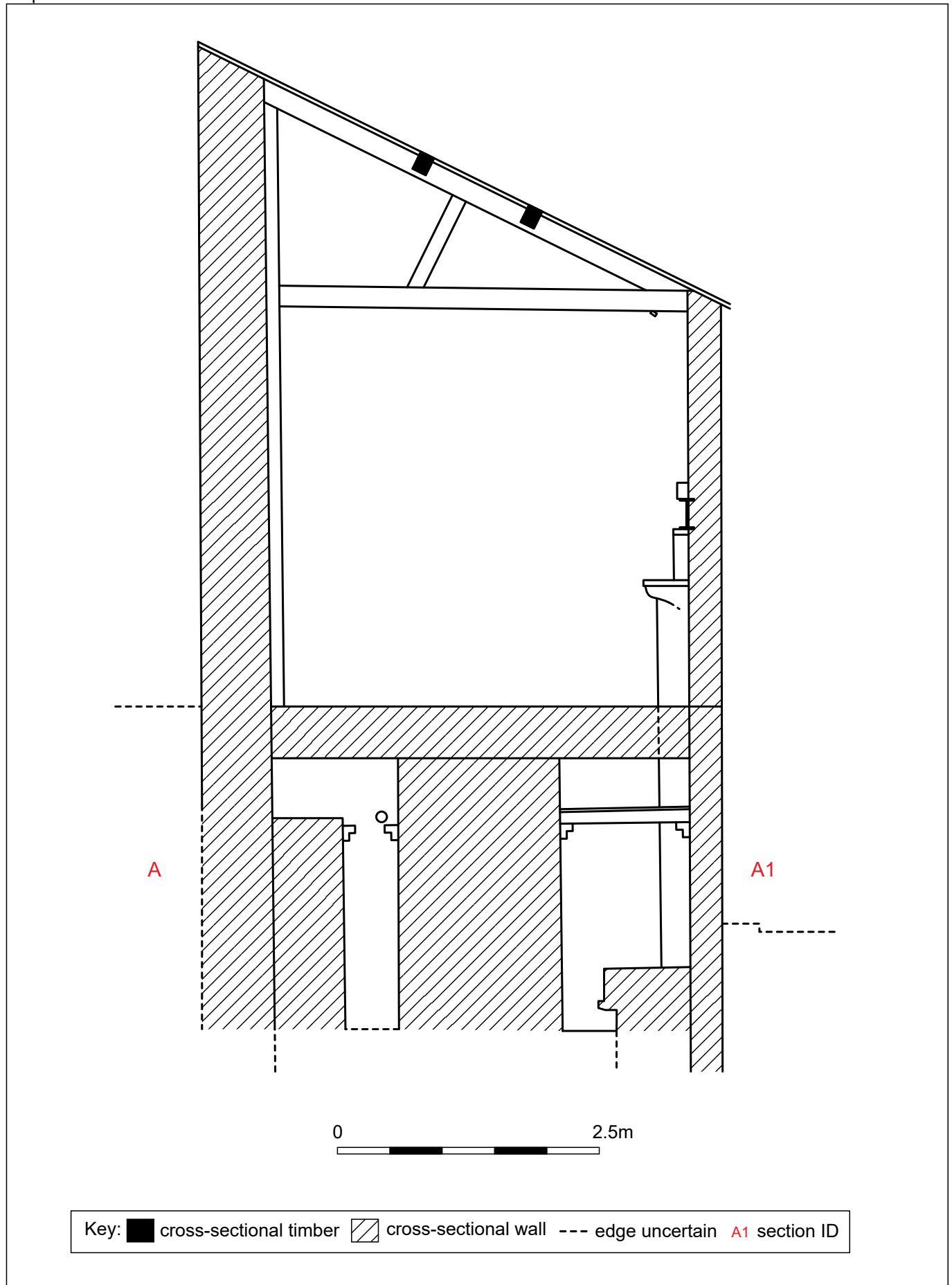


Figure 9: Cross-section of the mill building

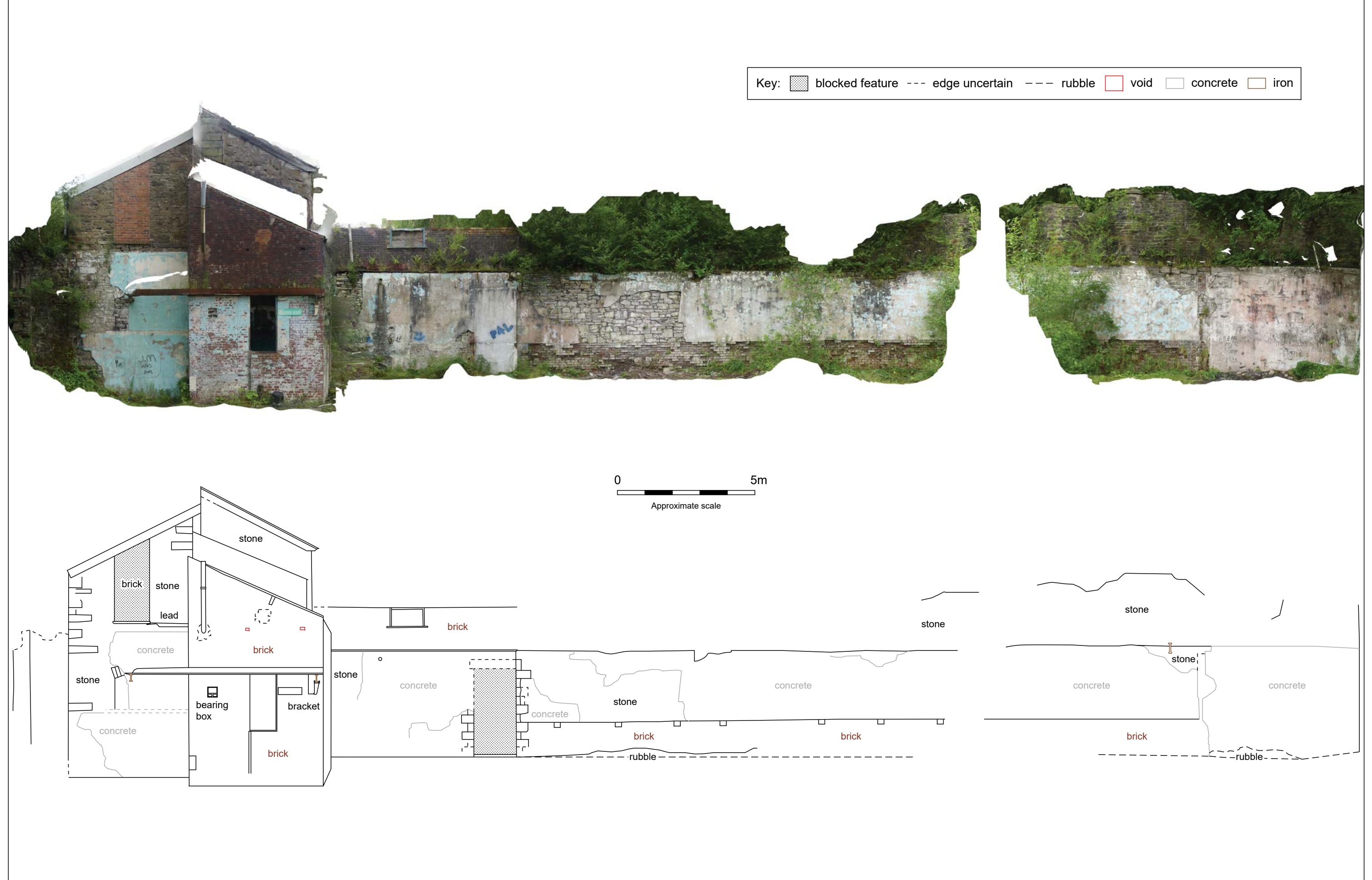


Figure 10: Rectified photograph and annotated drawing of the north-east external elevation of the mill building (Area D) and south-west elevation of the courtyard/open area (Area E)

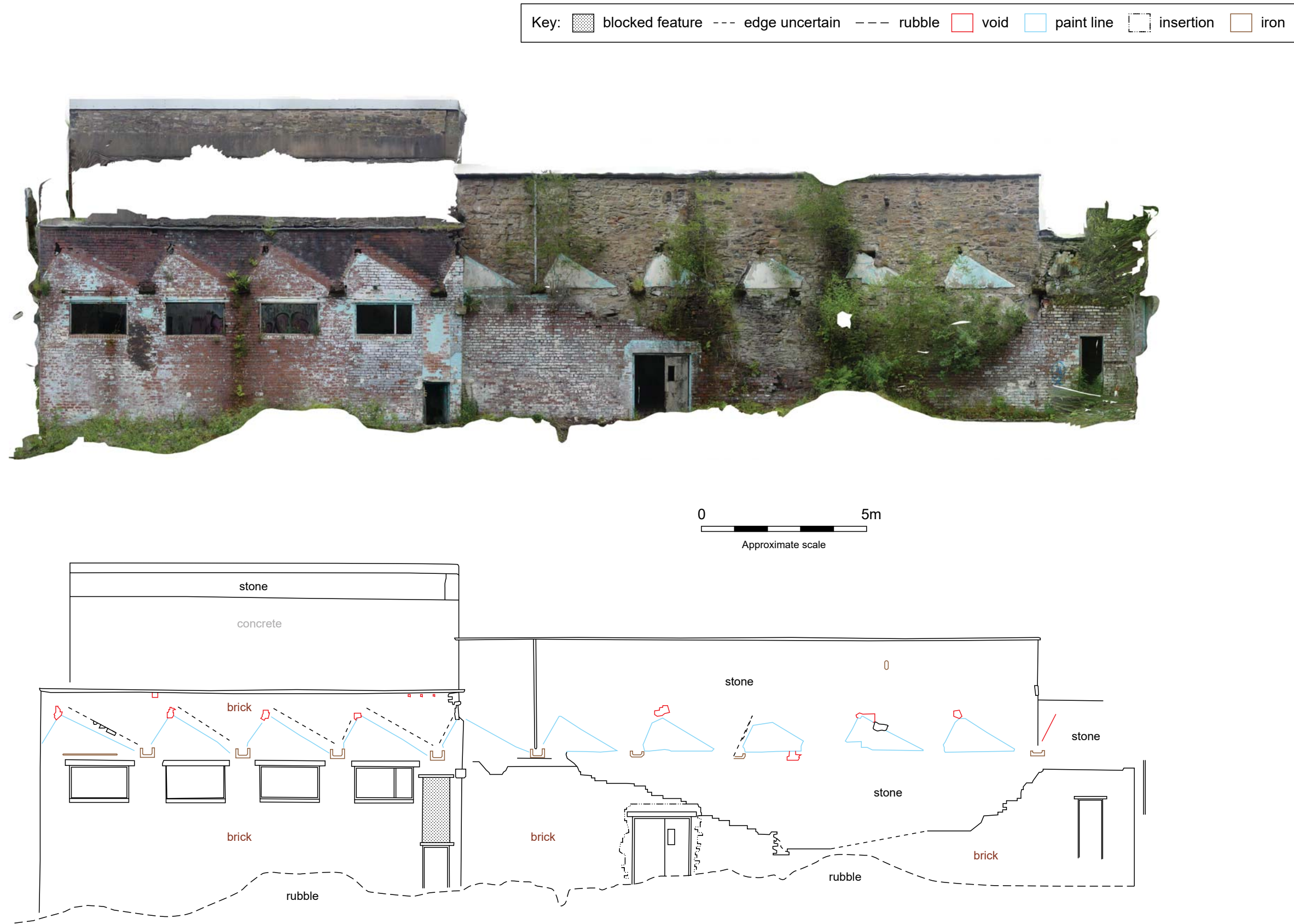


Figure 11: Rectified photograph and annotated drawing of the north-west external elevation of the mill building (Area D)

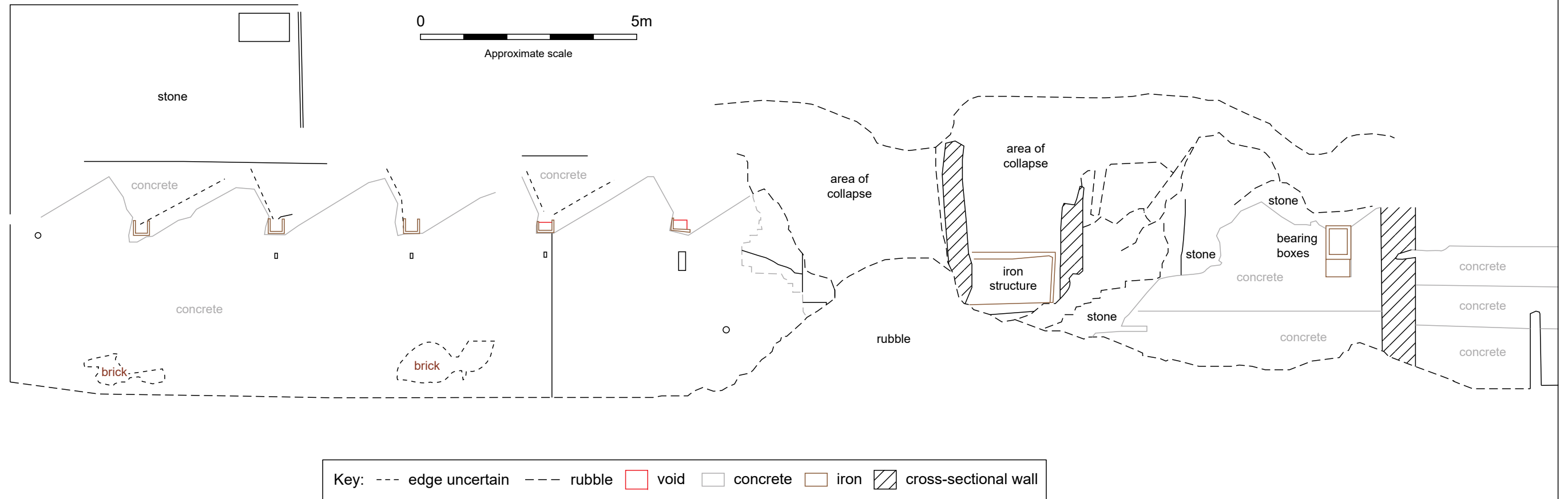
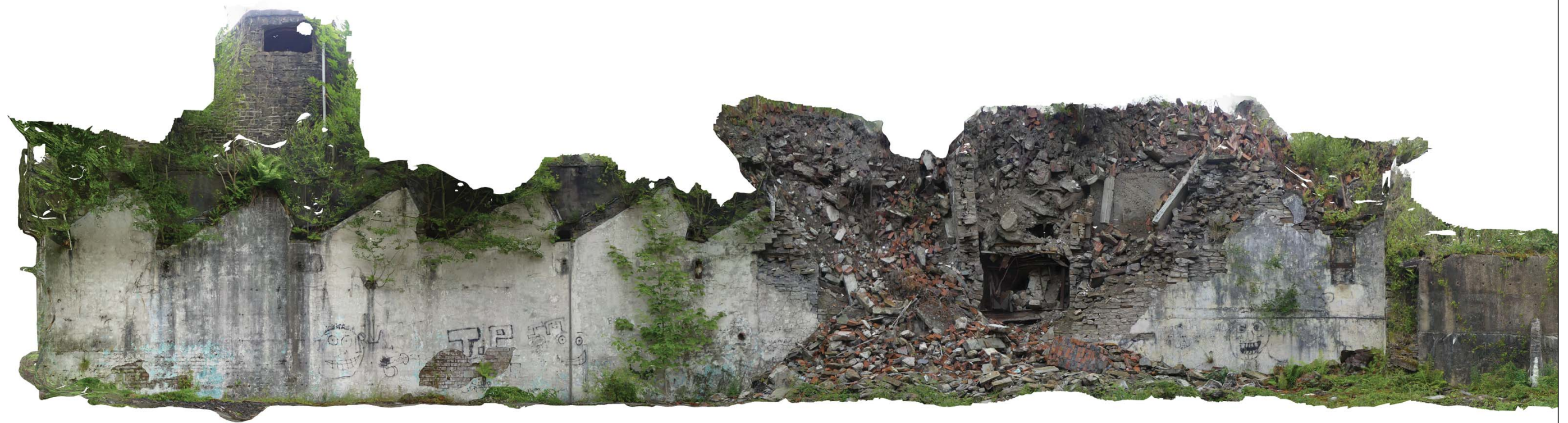


Figure 12: Rectified photograph and annotated drawing of the north-west elevation of the courtyard/open area (Area E, south-west end)

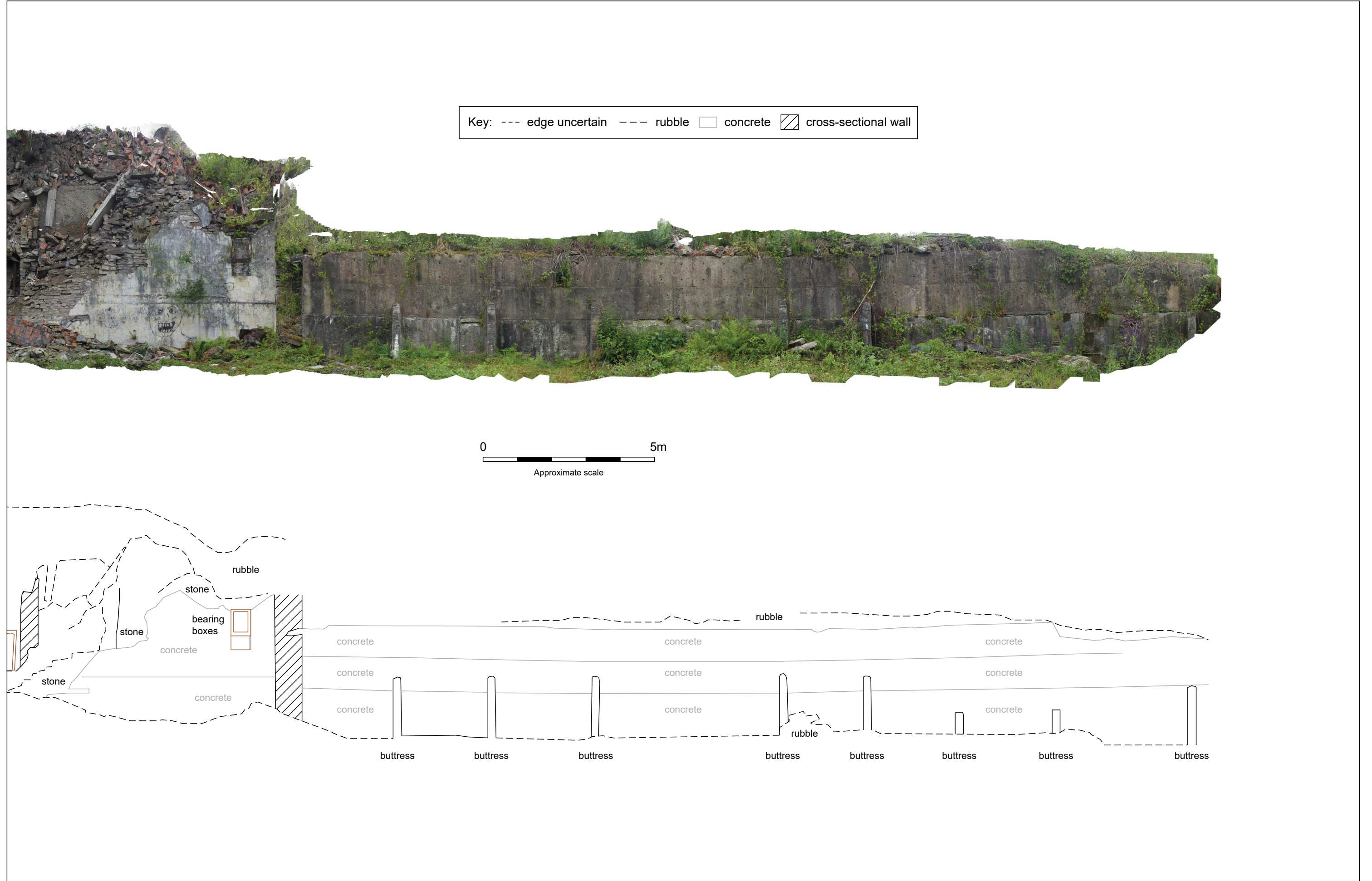


Figure 13: Rectified photograph and annotated drawing of the north-west elevation of the courtyard/open area (Area E, north-east end)

5. Evaluation and Strip, Map and Record

5.1 Introduction

5.1.1 The evaluation comprised the excavation of three evaluation trenches (Trench 1 (26.6m²), Trench 2 (33.4m²), and Trench 3 (48.8m²)), while the strip, map and record comprised the excavation of a larger area (of 510m²), labelled 'Trench 4'. The total area of investigation totalled c620m².

5.1.2 Trench 1 targeted the possible line of the mill leat and was located close to one of the boundary walls (Plate 141 and Plate 142) within the footprint of 20th century mill buildings (see Figure 3). Trench 2 and 3 were intended to cross the edge of the mill pond. Trench 2 was also within the footprint of 20th century mill buildings, but Trench 3 (Plate 143) was within the footprint of late 19th century mill buildings (see Figure 3). Trench 4 was located within what is now a large open area on the south side of the site (Plate 144 and Plate 145), which was within the footprint of the late 19th century mill buildings but also across the footprint of the earlier 19th century building. Within this area two additional small trenches were excavated, intended to reveal the extent and nature of any early remains relating to the mill site.



Plate 141 (left): Pre-excitation view of the location of Trench 1, viewed from the west

Plate 142 (right): Pre-excitation view of the location of Trench 1, viewed from the south-west



Plate 143: Working shot (Trench 3)



Plate 144 (left): General view of Trench 4 from the north



Plate 145 (right): General view of Trench 4 from the north-west

5.2 Results

5.2.1 **Trench 1:** this trench measured c15.5m long by 1.8m wide and was aligned approximately east/west (Figure 14; see Plate 146 to Plate 150). The sandy-clay natural (**105**) and bedrock was exposed to the east end of the trench only, due to the thickness of overlying deposits, which prevented safe excavation to any greater depth (Plate 149 and Plate 150; Figure 17). The upper deposit, a layer of overburden, was a mix of brick and stone rubble in a dark brown gravelly sand matrix up to 0.5m thick (**100**). Below that, across most of the mid-section of the trench, was a loose dump of ashy sand and other lenses, including re-deposited natural (**101**), at least 0.5m thick. Towards the base of the trench, at the limit of excavation, at a depth of c1.3m, a dark grey silt deposit up to 0.1m thick (**102**) was exposed, which may have been a buried soil horizon. A firm grey clay (**103**) was exposed below the overburden at the east end. This deposit could be a clay lining to the mill leat (**104**). A slot was dug through this deposit with a machine and the bedrock exposed. The re-deposited material to the side, within **101**, perhaps formed a bank to the edge of the leat.



Plate 146 (left): Trench 1 viewed from the east
Plate 147 (right): Trench 1 viewed from the west



Plate 148 (left): West end of Trench 1, showing various ashy and sandy lenses within 101

Plate 149 (right): Bedrock exposed at the east end of Trench 1



Plate 150: North-facing section of Trench 1

5.2.2 **Trench 2:** this trench was c21m long by 1.8m wide and orientated approximately north/south (Figure 15). The rooted topsoil (**200**) was a soft, pale brownish-grey silt, c0.1m thick. Below that, across the centre of the trench, was a dump of mottled dark greyish-brown angular cobbles (**201**), below which was a firm grey clay (**202**) filling a very shallow linear cut (**203**) (Plate 151). The natural (**204**) was a firm, mid brownish-orange sandy-clay, with some patches of softer sand (Plate 152).



Plate 151 (left): Trench 2 viewed from the south

Plate 152 (right): Trench 2 viewed from the north

5.2.3 **Trench 3:** this trench was c30m long by 1.8m wide and orientated approximately north-east/south-west (Figure 16; Plate 153 and Plate 154). The topsoil (**300**) was a loose mid greyish-brown silt, less than 0.1m thick. Below that, at the north-east end of the trench, was a stone slab or column base (**301**), comprising rough mortared pieces rather than one large block (Plate 155). South-west of that, close to the centre of the trench on the south-east side was a partly visible pad (**306**) (Plate 156). South-west of that was a spread of pale grey clay (**302**) in a very shallow north-west/south-east cut (**303**) (Plate 157). A third stone pad (**304**) was partly visible to the south-west of this spread of clay (Plate 158). At the south-west end of the trench was a north/south aligned wall (**305**) built from angular gritstone (Plate 159 and Plate 160). The wall was in cut **308**, c0.4m to 0.5m wide and 0.4m deep, cut into the natural (**307**) (Plate 161). The deposit to the south-west of the wall towards the end of the trench may have been re-deposited natural (**309**).



Plate 153 (left): Trench 3 viewed from the north-east

Plate 154 (right): Trench 3 viewed from the south-west



Plate 155 (left): Stone slab or column base 301

Plate 156 (right): Partly visible pad 306



Plate 157 (left): Spread of pale grey clay (302) in Trench 3



Plate 158 (right): Partly visible pad 304



Plate 159 (left): Wall 305 viewed from the east



Plate 160 (right): Wall 305 viewed from the west



Plate 161: Slot dug through the south end of Wall 305 viewed from the south

5.2.4 **Trench 4:** this trench comprised a larger open area (Figure 18). Across it was a 0.2m to 0.3m thick disturbed silty deposit (**400**), containing angular cobbles and boulders, concrete slabs, brick, ironwork, and modern refuse material. Below this, a sandy/ashy clay bedding material (**429**) for the former floor surface was encountered across the area, although very disturbed in places. Two test trenches were excavated through bedding material (**429**) to the natural (**435**). The natural (**435**), exposed in these additional trenches, was a mid-orange sandy clay and gritstone bedrock, with some fragmented, shale-like bedrock in the north-east trench. Across the area a range of structures were encountered. Along the north edge was a north-west/south-east aligned wall (**401**) (Plate 162 and Plate 163). Immediately to the south-west side of this wall was a stone culvert, the full extent of which was not investigated, which appeared to have been modified (Plate 164 to Plate 166). The original culvert (**433**) was constructed from smaller slabs of stone, and was partially silted-up, below a void, with a soft dark brownish silt (**434**) at the base. This had later been topped with larger and more irregular stones (**402**), bringing it up to the same level as **429**. To the south-west of that and again parallel to wall **401** was a row of pads for iron columns, each comprising a large block of roughly shaped stone (**403** to **409**; see Plate 167 to Plate 173). South-west of that and to the south-east side of the area was a group of four pads, forming a rectangle (**410** to **413**; see Plate 174 to Plate 177). These comprised smaller stones bonded with mortar rather than comprising a single large slab as elsewhere. Excavation of a trench to the west exposed three further pads (**432**; see Plate 178 to Plate 181) of a similar construction roughly in line with the northernmost of the pads in this group, which presumably formed part of the same phase of construction. The central one of this group was badly damaged and the one to the north-west was partly coloured luminous orange. West of that group of four to the south-east side and close to the centre of the area was a pad for a column or a support for a driveshaft (**414**; Plate 182), which may also date from an early phase of the mill. There were multiple additional pads for columns, all comprising dressed blocks with a square recess for the column (**426** still had the iron fixing plate *in situ*) forming three rough rows, from just north of centre, extending to the south-west end (**415** to **417**, **419** to **422**, **424** and **426**; see Plate 183 to Plate 191). To the north-west end of the centre row was a larger, roughly rectangular pad for a column or another driveshaft support (**418**; see Plate 192). Towards the south-west of the area was another north-west/south-east wall, extending across the site, with a possible gap in the centre, although this may have been due to later truncation (**423**; Plate 193 and Plate 194). To the north side and parallel to this wall was a stone culvert (**427**; Plate 195 and Plate 196), the base of which was filled with a soft silt (**430**). South of the wall and against the south-west side of the area was a large circular tank, at least 2m deep (although not fully excavated), the walls comprising well-dressed blocks in regular courses (**425**; see Plate 197 to Plate 201). One side of the feature was exposed, forming a semicircle (the remainder extended outside the area of excavation), the upper edge of which comprised yellow gritstone flags partly cut through by pad **426**. It was filled with an upper deposit of sandy clay with lots of rubble and brick (**428**), below which was a loose, dark ash and clinker deposit more than 2m thick (**431**).



Plate 162 (left): Wall 401, viewed from the north-west



Plate 163 (right): Wall 401, viewed from the south-east



Plate 164 (left): Culvert 402 to the south-west side of wall 401



Plate 165 (right): Culvert 402, viewed from the north-west



Plate 166: Capping stones removed from culvert 402, revealing the original structure 433



Plate 167 (left): Pad 403



Plate 168 (right): Pad 404



Plate 169 (left): Pad 405



Plate 170 (right): Pad 406



Plate 171 (left): Pad 407
Plate 172 (right): Pad 408



Plate 173: Pad 409



Plate 174 (left): Pad 410
Plate 175 (right): Pad 411



Plate 176 (left): Pad 412
Plate 177 (right): Pad 413



Plate 178 (left): Pads in the north-east trench (grouped as 432), viewed from the north-west
Plate 179 (right): Pads in the north-east trench (grouped as 432) viewed from the south-east



Plate 180 (left): North-west pad, part of 432

Plate 181 (right): South-east pad, part of 432



Plate 182: Pad 414



Plate 183 (left): Pad 415

Plate 184 (right): Pad 416



Plate 185 (left): Pad 417
Plate 186 (right): Pad 419



Plate 187 (left): Pad 420
Plate 188 (right): Pad 421



Plate 189 (left): Pad 422
Plate 190 (right): Pad 424



Plate 191 (left): Pad 426
Plate 192 (right): Pad 418



Plate 193 (left): Wall 423, viewed from the north-west
Plate 194 (right): The north-west end of wall 423



Plate 195 (left): Culvert 427 to the north-east side of wall 423



Plate 196 (right): Capping stones removed from culvert 427



Plate 197 (left): South-east side of tank 425



Plate 198 (right): Inside of tank 425



Plate 199: General view of 425 from the north-east



Plate 200 (left): The south-east side of tank 425, cut by pad 426



Plate 201 (right): The north-west side of tank 425, cut by pad 426

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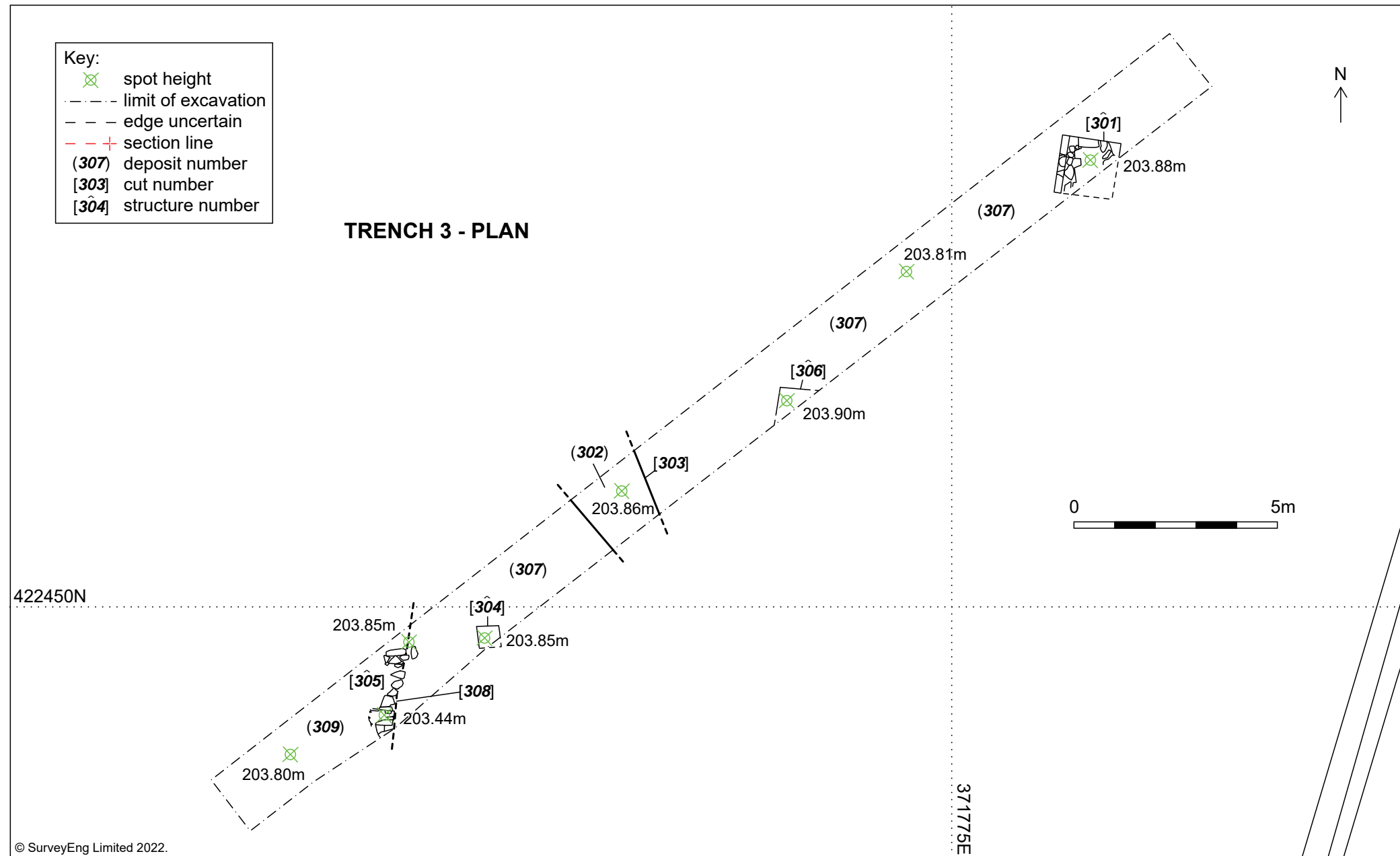
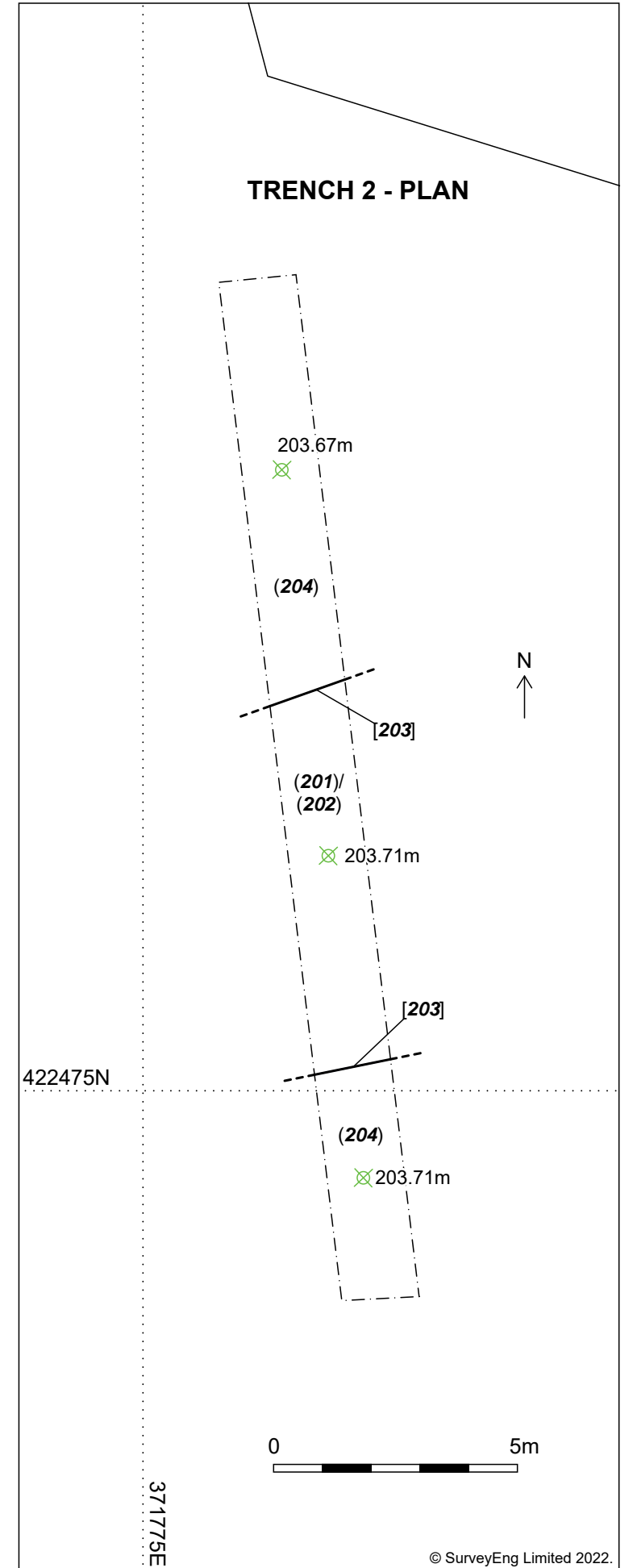
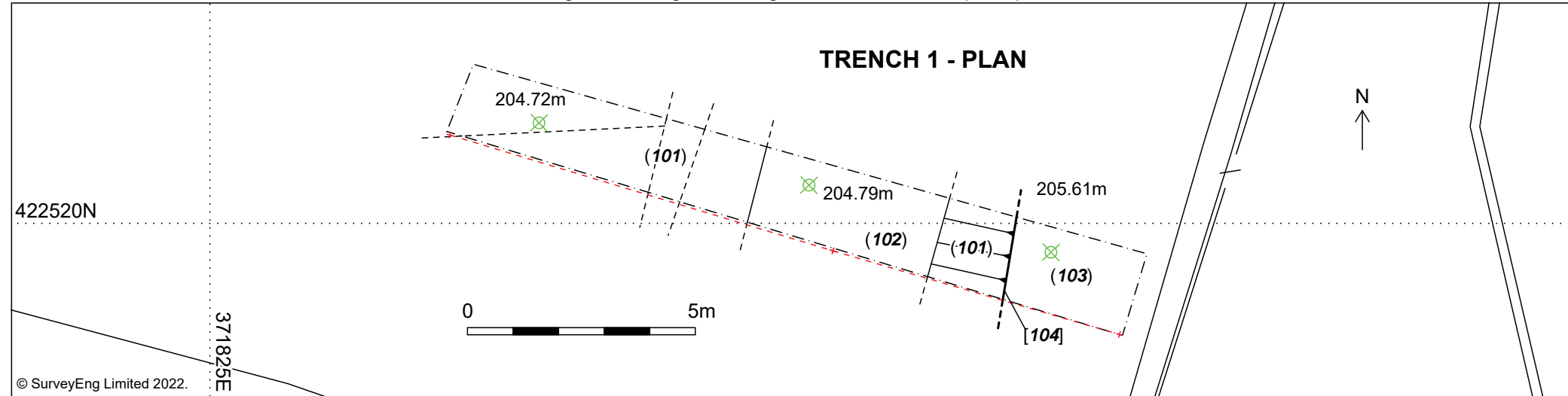
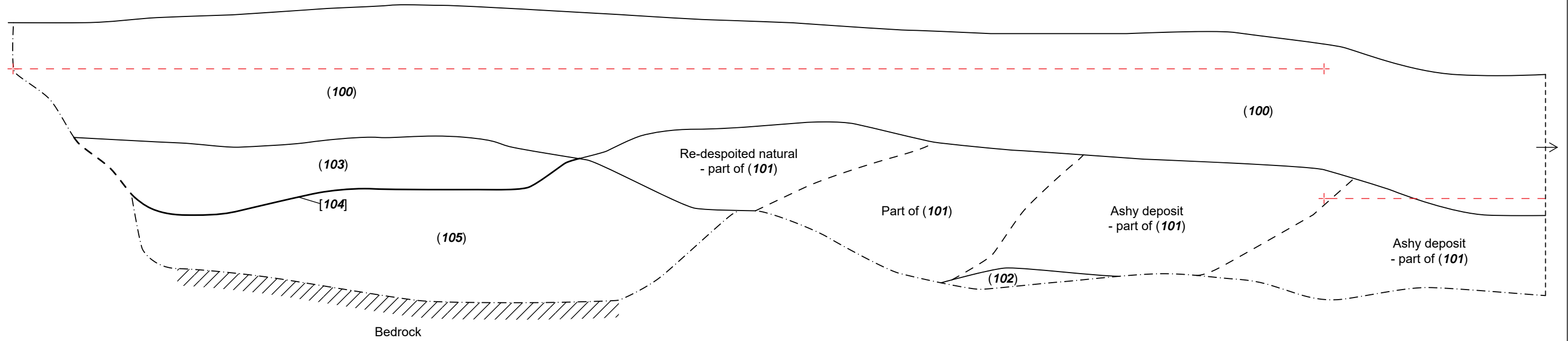


Figure 14 (top left): Trench 1 plan; Figure 15 (right): Trench 2 plan; Figure 16 (bottom left): Trench 3 plan

NORTH-FACING SECTION OF TRENCH 1 - EAST END



NORTH-FACING SECTION OF TRENCH 1 - WEST END

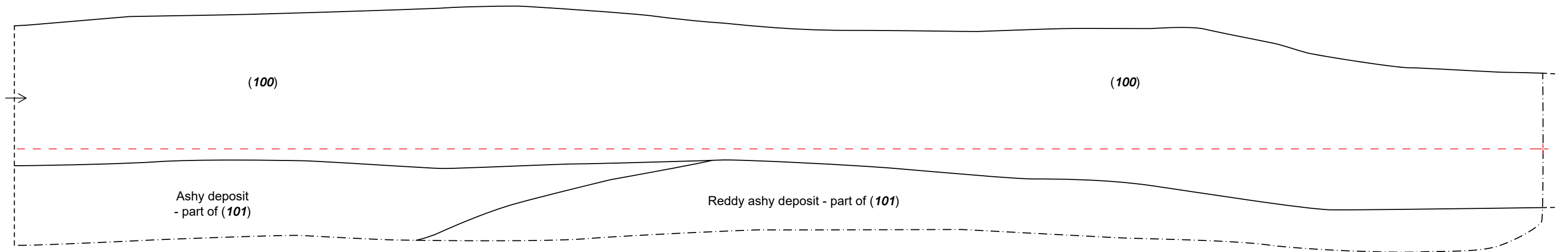


Figure 17: North-facing section of Trench 1

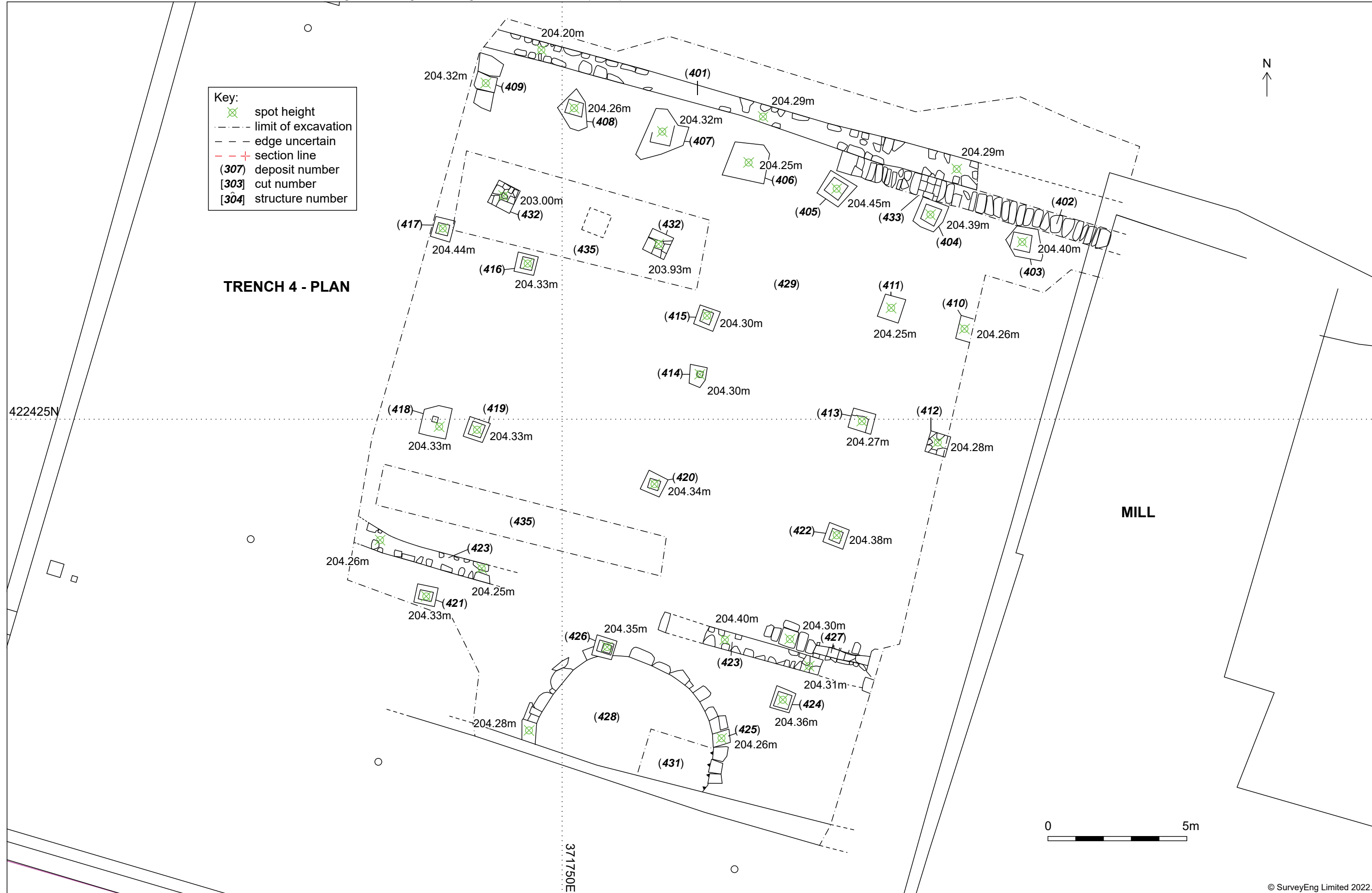


Figure 18: Trench 4 plan

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5.3 Finds

5.3.1 **Introduction:** a total of six finds were recovered during the evaluation and strip, map and record, all of probable or definite post-medieval date. These are discussed by type below and a complete list of all the finds is provided in *Appendix 3*.

5.3.2 **Post-medieval pottery:** three fragments of post-medieval pottery were recovered, from dumped deposits **428** and **429**. Two are fairly typical types of white earthenware of probable 19th century date, although one with 'shell edge' decoration is more likely to be late 18th to early 19th century date. The other piece was a mottledware dish rim, of probable late 17th to early 18th century date.

5.3.3 **Ceramic building material:** a single piece of dark red earthenware brick with apparently sand-cast faces was recovered from the structure of the wall in Trench 3 (**305**). While not closely dateable it is likely to be post-medieval and is similar to material used in firebricks.

5.3.4 **Glass:** two fragments of window glass were recovered, one from each of contexts **430** and **431**. The example from **430** was much thinner and probably earlier but both are likely to be of 19th century date.

6. Discussion

6.1 Results

6.1.1 The various phases of work each revealed evidence of different aspects of the development of the site, from its origins until its final destruction. These can be detailed as follows:

6.1.2 **Phase 1** (late 18th - early 19th century): the earliest evidence from the site was revealed in the strip, map and record area (Trench 4) where the two parallel walls (**401** and **423**) and associated culverts (**427** and **433**) represent the four-storey building that was still standing on the site (Rothwell 1992, 12), until it was destroyed by fire, and is shown on the Ordnance Survey map of 1849. This section evidently represented the main spinning mill, with the engine house, boiler room and associated structures to the north-east (*ibid*). A latrine turret projected from the south-east side, which possibly explains the gap in wall **423**. The large tank to the south-east (**425**) is evidently also early in date, and perhaps relates to this latrine tower, acting as a cess pit. However, although it was not fully exposed, its position suggests it was connected to the culverted stream that runs to the south-east, so it was perhaps used as a water tank for extracting water from this for use on site. The spacing of pads **410-413** and the three grouped as **432** would suggest that they related to this initial phase, probably supporting timber posts that supported the beams of the upper floors. Dating this structure is difficult, but the limited number of finds recovered from the deposit overlying pads **432** (**429**) do indicate an early 19th century date at the latest. This building therefore presumably relates to one of the earliest known phases of use of the site, although it cannot be connected with any certainty to the operation of a calico mill in the late 1770s. Elsewhere on the site, evidence for this phase is limited. In Trench 1 the line of the probable mill leat was revealed (**104**, lined with clay **103**), which is shown on the earliest map of the site and presumably supplied water for the original, water-powered, mill, perhaps as early as the late 18th century. However, no dating evidence for this was recovered. In Trenches 2 and 3 evidence for the mill pond that corresponded with the leat was present in the form of clay deposits **202** and **302** filling wide but shallow cut features (**203** and **303**). These were evidently substantially truncated by later activity and no direct dating evidence was obtained for them, but they do correspond with the position of the pond on the Ordnance Survey map of 1849. The rough stone wall (**308**) also broadly corresponds with the line of the edge of the pond and so also belongs to this phase.

6.1.3 Within the recorded buildings the standing remains of a wall corresponding with buried element **401** was evident in the north-west elevation of Area E as well as two further walls for a narrower extension, demonstrating that this building continued to the north-west, as shown on the early mapping. This end was evidently later essentially buried by a dump of material, some probably as a result of deliberate levelling of the ground to build the St Paul's mill and the rest following demolition in c2000. It is evident from the excavation and the building recording that the power for this early phase was not located within the site boundary, having almost certainly been to the south-east. It has therefore not been possible to identify any evidence for how the Phase 1 mill was powered; it is thought to have been water powered until 1844 (Rothwell 1992, 11) and the line of the leat would suggest, if this was the case, that the wheel pit was just outside of the current development area and is now buried by later buildings.

6.1.4 **Phase 2** (early to mid-19th century): the majority of the stone pads in Trench 4 are dressed and arranged in a similar style (**414-422**, **424** and **426**) to support iron columns and probably all belong to a single phase of development. This clearly post-dates the tank (**425**), which was cut through by **426** and filled with a large deposit of ash (**431**) and then topped with a clayey deposit (**428**). A similar deposit was also spread across the rest of the area of Trench 4 (**429**), presumably to form a bedding layer for a stone flag floor, since removed. The top of culvert **433** was also raised with larger stones (**401**) in order to be at the same level and presumably to provide extra strength. Again, dating this phase is difficult, but it is likely to relate to the period of development known to have occurred at the site in the 1840s and 1850s (Rothwell 1992, 11), which evidently saw new weaving sheds added around the older building, supported on iron columns, and iron columns added inside the original structure. Again, dating this phase from the archaeological evidence is difficult, however finds recovered from the dumped deposits

used to level the site (**429**) and fill the top of the tank (**428**) suggest an early 19th century date, although older residual material was also present, while the deposit of ash (**431**) indicates the era in which steam engines were widely used and such material would have been plentiful; the only find recovered from this deposit, a piece of window glass, is difficult to date.

6.1.5 The building recording revealed a large doorway in the north-east elevation which presumably relates to this phase but it is not clear where this led as the area behind is now totally infilled.

6.1.6 **Phase 3** (late 19th – early 20th century): the map evidence shows that the site continued to grow in the second part of the 19th century, some of it as early as the 1860s, and this was evident in various parts of the site. In Trench 1 the original, probably natural, slope of the ground, which was made use of to form the earlier mill leat, was levelled out by the dumping of a considerable deposit of ash and clinker (**101**). In Trench 3 a row of square stone-built pads (**301**, **304** and **306**) was revealed, which no doubt formed supports for iron columns for the weaving shed roof, which the map evidence shows was built between 1911 and 1930. In Trench 4 the row of large irregular blocks used for pads for columns (**403-409**) perhaps also belong to this stage and suggest that wall **402** was at least partly demolished at ground floor level to open out the space into the adjoining weaving shed.

6.1.7 Evidence within the buildings for this phase is found in the scars of the north-light roofs evident in Area E, and what was evidently the bases for the tandem engine built in 1911 in the lower floor of the north-east end room of Area D, and the large long space to the south-west of this of uncertain use. It is apparent that these sections are abutted to structures relating to the earlier phases of the mill that were outside of the current development area. The building recording revealed evidence for a series of north-light windows in the walls in Area E, which do not apparently correspond to any of the lines of pads. The truncated remains of some iron columns still remain around the edges of Trench 4, partly buried by a later concrete floor, although it is again not certain which phase these relate to. A pair of bearing boxes in the north-west elevation of Area E probably belong to this phase, as they would correspond to the use of a steam engine for power probably from the 1911 engine, and they line up with the row of rough pad stones (**403-409**).

6.1.8 **Phase 4** (mid to late 20th century): it is apparent from the map evidence that the filter beds (Area A), the reservoirs (Area B) and the substation (Area C) were all built or substantially enlarged after 1947, although all contained elements constructed in the early 20th century. The filter beds were presumably constructed in order to purify waste water from the textile mill before it re-entered the local watercourses (Coburn 1928). The small building was presumably a pump house to facilitate the movement of water, and the brick enclosure to house a large metal tank. The reservoirs no doubt supplied water to the mill, potentially for a variety of purposes, but initially presumably for boilers for the steam engine. The building recording revealed that the later structure housed a variety of valves and possibly turbines indicative of the production of electricity on site. The substation was evidently constructed to deal with distributing electricity around the site during this period. It is not recorded when the conversion to electrical power took place. Other evidence for this phase is present in the north-east end of the mill buildings (Area D), where the former boiler room was decommissioned and a floor added to create the upper floor room, which was also subdivided. This was apparently used for offices (Rothwell 1992, 12) and new windows were inserted in the north-west elevation just below the weaving shed roof. The substation evidently underwent a number of changes, presumably in the later 20th century, with a dividing wall of concrete block added, presumably to accommodate new plant, with a new doorway inserted in the north-west wall.

6.2 Significance

6.2.1 The remains recorded through the excavation and building recording have revealed a considerable amount of information about the development of the site, although limited only to those areas within the current development. This means that key elements such as the sources of power, particularly those relating to the early phases of the site's development, have not been investigated as these are almost certainly outside the current site boundary to the south-east; they are possibly

preserved in the range of standing buildings on the adjoining land. These parts of the site are typically the ones that have been targeted for investigation in the past, especially through excavation (Nevell 2010, 156). Nevertheless, it adds to an increasing body of archaeological work looking at textile mills, much of which has been concentrated in Manchester, but also several sites in Lancashire, which were more generally recorded as part of the *Lancashire Textile Mills* survey (OA North 2010). Fewer examples have been excavated in the area around Darwen, with the exception of the Moorgate Mill in Blackburn, which revealed a range of features including pads for supporting iron columns like those at Hoddlesden (Wessex Archaeology 2013). The work at Hoddlesden also adds to the aims of the *North West Regional Research Framework* questions, notably PM27 'How do the industries associated with the North West evolve and develop during this period' (Research Frameworks 2022), in particular because textile mills in more isolated locations such as Hoddlesden have not been investigated as much as those in urban areas such as Manchester, where large amounts of urban development have made this more likely, but also because of the possible connections to the calico printing industry, although it was not possible to prove this link. Further investigation on the adjoining site would undoubtedly be useful in examining this, but additional documentary research might also provide additional information.

6.3 Conclusion

6.3.1 The investigative work at Hoddlesden mill has not conclusively revealed any evidence for the calico works thought to have been on the site in the late 18th century, although it is possible that the earliest phase of remains do relate to this. It is also, however, possible that the calico mill was never on this site. As Parker has noted the calico mill was apparently just '*beside the Hoddlesden Brook*' (Parker 2012, 90) and while a mill is not shown on Yates' map of 1786 at Hoddlesden, one is shown further up the Hoddlesden Brook to the north-west. It is possible therefore that the site was never established until the early 19th century and then as a cotton mill from the outset. It is not considered likely that further work on the current site would provide any further insight into its development, but should the adjoining site be redeveloped, it would be crucial to the understanding of the site as a whole that the buildings there be recorded and further excavation be carried out where practical to do so.

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Appendix 1: Project Design

Archaeological Building Recording, Evaluation, and Strip and Record Cover Sheet and Project Design

The Site	
Site Name	Hoddlesden Mill, Hoddlesden, Darwen, Blackburn
County	Lancashire
NGR	371780 422490 (centre)

Client	
Client Name	Kingswood Homes

Planning	
Pre-planning?	No
Planning Application No.	10/21/008
Plans	Erection of 79 dwellings and associated remediation work
Condition number	18
Local Planning Authority	Blackburn with Darwen Borough Council
Planning Archaeologist	Doug Moir, Lancashire County Council

Archaeological work	
Desk-based assessment done as previous phase of work?	Yes
Description of work	Archaeological building recording (Historic England Level 2/3), evaluation and strip, map and record (see appended plan)
Approximate area	Recording of standing structures in north-west, north-west, and south part of site, as per attached plan Excavation of three evaluation trenches, 2 x 25m long, 1 x 20m long Strip and record area c40m by 40m with subsequent evaluation of areas of interest
Relevant Regional Research Framework questions	PM27

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Lancashire Record Office, Preston
Relevant HER	Lancashire County Council
Relevant Museum	Blackburn Museum and Art Gallery
Digital Archive	Archaeological Data Service

1. Introduction

1.1 Project Cover Sheet

1.1.1 All the details specific to this project are set out on the cover sheet of this project design. The project design itself covers all elements that are involved in archaeological building recording (to Historic England Levels 2 and 3), evaluation, and strip and record.

1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have worked continuously in commercial archaeology since 2000 and 1999 respectively, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Chartered Institute for Archaeologists' (CIfA) Code of Conduct. The building recording will be carried out according to the Standards and Guidance of the CIfA (CIfA 2014a).

1.3 Staff

1.3.1 **Dan Elsworth (MA (Hons), ACIfA)** graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has managed many recent projects in Cumbria and Lancashire including several archaeological building recordings. He is very experienced at building recording, having carried out numerous such projects, mainly in Cumbria and Lancashire.

1.3.2 **Tom Mace (BA (Hons), MA, MCIfA)** has extensive experience of working on a variety of archaeological projects, especially watching briefs, but also excavations, evaluations, and building recordings, as well as report writing and illustration production. He joined Greenlane Archaeology in 2008 having worked for several previous companies including Archaeological Solutions and Oxford Archaeology North. He currently works on a broad range of projects and is also responsible for the production of all illustrations for reports and publications as well as some post-excavation assessments. He is a Member of the Chartered Institute for Archaeologists.

1.3.3 **Jo Dawson (MA (Hons), ACIfA)** graduated from University of Glasgow in 2000 with a joint honours degree in Archaeology and Mathematics, and since then has worked continuously in commercial archaeology. Her professional career started at Glasgow University Archaeological Research Division (GUARD), following which she worked for Headland Archaeology, in Edinburgh, and then Oxford Archaeology North, in Lancaster. During this time she has been involved in a range of different archaeological projects. She has extensive experience of both planning and pre-planning projects, and has undertaken assessments of all sizes. Since establishing Greenlane Archaeology in 2005 she has managed numerous projects in south Cumbria, including desk-based assessments and evaluations. She currently mainly carries out quality control of reports and post-excavation assessments. She is an Associate member of the Chartered Institute for Archaeologists.

2. Objectives

2.1 Desk-Based Assessment

2.1.1 Where an archaeological desk-based assessment has not already been carried out in a previous phase of work, the objective will be to examine early maps of the site and any other relevant primary and secondary sources in order to better understand its dating and development, and set it in its historic context.

2.2 Building Recording

2.2.1 To undertake a programme of archaeological building recording of the building to the level stated on the cover sheet of this project design (Historic England 2016).

2.3 Evaluation

2.3.1 To excavate evaluation trenches as specified in the project design cover sheet, in order to identify the presence of any archaeological deposits, features, and structures on the site and establish their form, function, and date where possible.

2.4 Strip and Record

2.4.1 To strip an area as specified in the project design cover sheet, in order to identify the presence of any archaeological deposits, features, and structures on the site and establish their form, function, and date where possible.

2.5 Report

2.3.1 To produce a report detailing the results of the desk-based assessment and building recording, which will outline the character, form and development of the historic fabric of the building.

2.6 Archive

2.4.1 Produce a full archive of the results of the project.

3. Methodology

3.1 Desk-Based Assessment

3.1.1 Where an archaeological desk-based assessment has not already been carried out in a previous phase of work, an examination of various sources, particularly early maps and plans relating to the site, will be carried out, including other relevant primary and secondary sources. The sources that will be used as part of the desk-based assessment will include:

- **Record Office/Archive Centre:** the majority of original and secondary sources relating to the site are deposited in the relevant Record Office(s) or Archive Centre(s), as specified in the cover sheet of this project design. Of principal importance are early maps of the site. These will be examined in order to establish the development of the site, date of any structures present within it, and details of land use, in order to set the site in its historical, archaeological, and regional context. In addition, any details of the site's owners and occupiers will be acquired where available;
- **Online Resources:** where available, mapping such as Ordnance Survey maps and tithe maps will be consulted online;
- **Greenlane Archaeology:** Greenlane Archaeology's office library includes maps, local histories, and unpublished primary and secondary sources. These will be consulted where relevant, in order to provide information about the history and archaeology of the site and the general area.

3.2 Archaeological Building Recording

3.2.1 The archaeological building recording will be carried out of the buildings shown on the attached plan, to Historic England Level described on the cover sheet (Historic England 2016). This will comprise three types of recording:

- **Drawn Record:** plans of the structures will be produced using a total station coupled to a portable computer running Auto CAD and Theo LT. These will then be printed out and hand-annotated to produce plans of the structures, indicating alterations, phases, and the location of each photographed feature of architectural or historic interest. These plans are then drawn up to produce the final illustrations. In addition, a plan showing the location of the building in relation to other nearby buildings, structures and landscape features will also be produced;
- Where useful in terms of understanding the development of the building elevation drawings will be produced using the same technique. In addition, one or more cross-section will be produced where these will show the details of significant architectural features, such as roof structures, and/or will be useful in explaining the relationship between different elements of the building. These drawings will be drawn up for inclusion as figures in the report;
- **Written Record:** descriptive records of all elements of the building will be made on Greenlane Archaeology standard *pro forma* record sheets. These records will describe the building's plan, form, function, age, and construction materials. They will then be used to provide an account of the development of the building. In

addition, the landscape and historic setting of the building will be described, in particular its relationship with other nearby buildings, streets, settlements and other structures;

- **Photographic Record:** photographs in colour digital JPEG and RAW file format at a size of 12meg, using a Panasonic Lumix DC-FZ82 with a sensor size of over 18 megapixels, will be taken in accordance with the guidance produced by Historic England (2015). These will cover both general and detailed shots of the external elevations, individual rooms and circulation areas, but also scaled photographs of specific features of architectural or archaeological interest. In addition, a record of the associated landscape and nearby buildings will also be made where practical to do so. A selection of these photographs will also be used for illustrative purposes within the report, and a written record will be kept of all of the photographs that are taken.

3.3 Evaluation

3.3.1 The anticipated number and dimensions of evaluation trenches are set out on the cover sheet of this project design. The evaluation methodology, which is based on Greenlane Archaeology's excavation manual (Greenlane Archaeology 2007) and the guidance of the ClfA (ClfA 2014b), will be as follows:

- The trenches will be excavated with regard to the position of any known constraints, focussing on the areas of high archaeological interest or potential, and avoiding areas which are likely to have been severely damaged or truncated by later activity, unless they are considered to have a high potential;
- The overburden, which is unlikely to be of any archaeological significance, will be removed by machine under the supervision of an archaeologist until the first deposit beneath it is reached;
- All deposits below the overburden will be examined by hand in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale. Deposits will only be sampled, rather than completely removed, below the first identified level of archaeological interest, unless specified by the Planning Archaeologist (see cover sheet), with the intension of preserving as much *in situ* as possible;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. Negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include hand-drawn plans and sections, typically at a scale of 1:20 and 1:10, respectively, and photographs in colour digital JPEG and RAW file format at a size of 12meg, using a Panasonic Lumix DC-FZ82 with a sensor size of over 18 megapixels will be taken in accordance with the guidance produced by Historic England (2015);
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the evaluation for further assessment as far as is practically and safely possible. Should significant quantities of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the evaluation, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors, who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any human remains discovered during the evaluation will be left *in situ*, and, if possible, covered. The Planning Archaeologist will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will be carried out under the guidance of the local coroner, and a licence obtained from the Ministry of Justice, under Section 25 of the Burial Act of 1857;

Map and Record

- Any objects defined as ‘treasure’ by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- The evaluation trenches will be backfilled following excavation although it is not envisaged that any further reinstatement to its original condition will be carried out.

3.3.2 Should any significant archaeological deposits be encountered during the evaluation these will immediately be brought to the attention of the Planning Archaeologist so that the need for further work can be confirmed. Any additional work will be carried out following discussion with the Planning Archaeologist and subject to a new project design, and the ensuing costs will be agreed with the client.

3.4 Strip and Record

3.4.1 The anticipated area to be stripped is set out on the cover sheet of this project design. The strip and record methodology, which is based on Greenlane Archaeology’s excavation manual (Greenlane Archaeology 2007) and the guidance of the ClfA (ClfA 2014b), will be as follows:

- The area(s) will be stripped with regard to the position of any known constraints, focussing on the areas of high archaeological interest or potential, and avoiding areas which are likely to have been severely damaged or truncated by later activity, unless they are considered to have a high potential;
- The overburden, which is unlikely to be of any archaeological significance, will be removed by machine under the supervision of an archaeologist until the first deposit beneath it is reached;
- All deposits below the overburden will be examined by hand in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale. Deposits will only be sampled, rather than completely removed, below the first identified level of archaeological interest, unless specified by the Planning Archaeologist (see cover sheet), with the intension of preserving as much *in situ* as possible;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. Negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include hand-drawn plans and sections, typically at a scale of 1:20 and 1:10, respectively, and photographs in colour digital JPEG and RAW file format at a size of 12meg, using a Panasonic Lumix DC-FZ82 with a sensor size of over 18 megapixels will be taken in accordance with the guidance produced by Historic England (2015);
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the strip and record for further assessment as far as is practically and safely possible. Should significant quantities of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the strip and record, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.4* above), who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any human remains discovered during the strip and record will be left *in situ*, and, if possible, covered. The Planning Archaeologist will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will be carried out under the guidance of the local coroner, and a licence obtained from the Ministry of Justice, under Section 25 of the Burial Act of 1857;

- Any objects defined as ‘treasure’ by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- The areas stripped will be backfilled following excavation although it is not envisaged that any further reinstatement to its original condition will be carried out.

3.4.2 Should any significant archaeological deposits be encountered during the strip and record these will immediately be brought to the attention of the Planning Archaeologist so that the need for further work can be confirmed. Any additional work will be carried out following discussion with the Planning Archaeologist and subject to a new project design, and the ensuing costs will be agreed with the client.

3.5 Report

3.3.1 The results of the archaeological building investigation, evaluation, and strip and record will be compiled into a report, which will provide a summary and details of any sources consulted. It will include the following sections:

- A front cover including the appropriate national grid reference (NGR);
- A concise non-technical summary of results, including the date the project was undertaken and by whom;
- Acknowledgements;
- Project Background;
- Methodology, including a description of the work undertaken;
- Results of the building recording;
- Results of the evaluation;
- Results of the strip and record;
- Discussion of the results including phasing information, with reference to the relevant *Regional Research Framework* questions as stated on the cover sheet;
- Bibliography;
- Index to the project archive;
- Illustrations at appropriate scales including:
 - a site location plan related to the national grid;
 - a plan showing the location of the buildings recorded in relation to nearby structures and the local landscape;
 - plans of all of the principal floors of the building showing the location of each photographed feature of architectural or archaeological interest, and a phase plan if appropriate;
 - elevations of the building (where ‘as existing’ elevations are already available);
 - a cross-section or cross-sections showing relevant details such as the roof structure, where appropriate;
 - photographs of the building, features of architectural/historic interest and its landscape, accompanied by appropriate descriptions;
 - a photo location plan showing the position and direction of each shot taken;
 - plans showing the location of each evaluation trench and the area of strip and record and the remains encountered within them;
 - detailed plans of specific features of interest recorded within each evaluation trench/the area of strip and record;

- copies of selected historic maps and plans of the building relevant to understanding its development.

3.4 Archive

3.4.1 The paper archive, comprising the drawn, written, and photographic record of the building and the results of the evaluation and strip and record, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this project design, together with a copy of the report, according to the relevant guidance (LCC 2021). The archive will be compiled according to the standards and guidelines of the ClfA (ClfA 2014c). In addition, any digital elements of the project will be archived with the Archaeology Data Service (ADS). The details of the project will be submitted to the Online Access to the Index of archaeological investigations (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

3.4.2 A paper copy of the report will be provided to the client and a digital copy of the report will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this project design.

4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project on the date specified on the Order Form, or at another date convenient to the client. It is envisaged that the elements of the project will be carried out in the following order:

- **Task 1:** rapid desk-based assessment (where this has not already been carried out as a previous phase of archaeological work);
- **Task 2:** on-site archaeological building recording;
- **Task 3:** on site archaeological evaluation;
- **Task 4:** on site archaeological strip and record;
- **Task 5:** production of draft report including illustrations;
- **Task 6:** feedback on draft report, editing and production of final report;
- **Task 7:** finalisation and deposition of archive.

4.2 Greenlane Archaeology will provide the Planning Officer (Archaeology) at Lancashire County Council with notice of the start date of the project and liaise with them in order to facilitate any site visits that might be required.

5. Other matters

5.1 Access and clearance

5.1.1 Access to the site will be organised through co-ordination with the client and/or their agent(s). In addition, the building will be cleared by the client in order to allow internal photographs to be taken without obstructions. Greenlane Archaeology reserves the right to increase the price if the building has not been cleared at the time of recording, if this results in additional time on site to photograph the building's interior once it has been cleared. This also applies if the exterior is not accessible or obstructed to the extent that it prevents the building recording taking place as required.

5.2 Health and Safety

5.2.1 Greenlane Archaeology carries out risk assessments for all of its projects and abides by its internal health and safety policy and relevant legislation. Health and safety is always the foremost consideration in any decision-making process.

5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£1,000,000**. Details of this can be supplied if requested.

5.4 Environmental and Ethical Policy

5.4.1 Greenlane Archaeology has a strong commitment to environmentally and ethically sound working practices. Its office is supplied with 100% renewable energy by Good Energy, and uses ethical telephone and internet services supplied by the Phone Co-op. In addition, the company uses the services of The Co-operative Bank for ethical banking, Naturesave for environmentally-conscious insurance, and utilises public transport wherever possible. Greenlane Archaeology is also committed to using local businesses for services and materials, thus benefiting the local economy, reducing unnecessary transportation, and improving the sustainability of small and rural businesses.

6. Bibliography

ClfA, 2014a *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*, Reading

ClfA, 2014b *Standards and Guidance for Archaeological Field Evaluation*, revised edn, Reading

ClfA, 2014c *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*, Reading

Historic England, 2015 *Digital Image Capture and File Storage: Guidelines for Best Practice*, Swindon

Historic England, 2016 *Understanding Historic Buildings: a Guide to Good Recording Practice*, Swindon (<https://content.historicengland.org.uk/images-books/publications/understanding-historic-buildings/heag099-understanding-historic-buildings.pdf>)

Lancashire County Council (LCC), 2021 *Guidance for the Deposition of Archaeological Archives*, unpubl

Research Frameworks, 2022 *North West Regional Research Framework*, <https://researchframeworks.org/nwrf/research-agenda/>

Appendix 2: Summary Context List

Location	Context	Type	Description	Interpretation
Trench 1	100	Deposit	Mixed brick and stone rubble, loose with lots of modern rubbish timber, etc, in a dark brown gravelly sand; up to 0.5m thick	Overburden
Trench 1	101	Deposit	Loose, dark reddish-brown/black ash in sand matrix, at least 0.5m thick; some vitrified brick and other lenses, including re-deposited natural	Ash dump; the re-deposited natural probably a wall or bank forming one edge of the leat
Trench 1	102	Deposit	Soft, dark grey silt, up to 0.1m thick at the base of the trench	Buried soil?
Trench 1	103	Deposit	Firm, grey clay, 1m wide east/west	Leat lining?
Trench 1	104	Cut	Shallow, 0.2-0.3m deep and c2.5m wide	Leat cut?
Trench 1	105	Deposit	Firm, mid yellowish-orange, sandy clay, 5% rounded cobbles and boulders	Natural
Trench 2	200	Deposit	Soft, pale brownish-grey silt, c0.1m thick; rooted and occasional angular boulders	Topsoil
Trench 2	201	Deposit	Mottled dark greyish-brown, loose with 10% angular cobbles, 0.1m thick; some modern glass	Dump
Trench 2	202	Deposit	Pale, firm grey clay; <0.1m thick	Mill pond fill or lining?
Trench 2	203	Cut	Linear cut, over 7.6m wide; very shallow, 0.2m, shallow sloping sides	Linear cut
Trench 2	204	Deposit	Firm, mid brownish-orange sandy-clay with some patches of softer sand	Natural
Trench 3	300	Deposit	Loose, mid greyish-brown, sandy-silt; 50% angular cobbles, some ironwork, broken slab and modern rubbish	Topsoil
Trench 3	301	Structure	Stone slab/column base made from rough mortared pieces rather than one block; 1.4m by 1.4m	Pad
Trench 3	302	Deposit	Spread of pale grey, clay, <0.1m thick	Clay fill of 303
Trench 3	303	Cut	Cut, 1.5m wide, very shallow	Cut
Trench 3	304	Structure	Pad, partly visible, like 301 ; possibly a single block?	Pad
Trench 3	305	Structure	0.4-0.5m wide north/south wall, of random angular gritstone construction, mostly under 0.3m in longest dimension	Wall
Trench 3	306	Structure	Pad, partly visible, like 301 ; partly visible, possibly a single block?	Pad
Trench 3	307	Deposit	Firm, sandy clay, mid brownish-orange; some disturbed patches	Natural
Trench 3	308	Cut	Cut for wall, 0.4-0.5m wide, 0.4m deep, near vertical cutting into 307	Cut for wall 305
Trench 3	309	Deposit	Re-deposited or disturbed natural; mottled dark brownish-orange firm sandy clay, south-west of wall 305	Re-deposited or disturbed natural
Trench 4	400	Deposit	0.2-0.3m thick loose mid brownish-grey silt, with 60% angular cobbles and boulders, concrete slabs, brick, ironwork and modern refuse material	Overburden
Trench 4	401	Structure	Rough courses of yellow millstone / grit stone in a lime mortar, each stone max. 0.3m to 0.4m long; north-west/south-east linear wall, 0.5m wide by >20m long	Wall of the mill building of late 18 th to early 19 th century build

Location	Context	Type	Description	Interpretation
Trench 4	402	Structure	Culvert of roughly dressed, yellow gritstone slabs, up to 0.5m long by 0.2m thick, in a drystone or lime bond; low slab sides with flags on top; at least 10m long north-west/south-east, 0.6m wide at the top, 0.3 in the base, with sides at least 0.2m tall; note: rough top stones are actually a later modification with original structure (433) below	Culvert parallel to 401
Trench 4	403-409	Structure	Rough, yellow gritstone slabs, with no bonding or courses, typically 1.2m square, but 409 is 1.5m by 0.7m; all have scars for an iron plate, 0.5m by 0.5m, except 406 ; note: 405 was knocked out of position	Row of pads for iron columns
Trench 4	410-413	Structure	Rough, yellow gritstone pad stones; some brick on south-west side of 411 , lots of mortar, perhaps made up of small parts rather than one big slab; 0.9m by 0.9m	Pads for columns; possibly grouped with 432 and part of an early phase of the mill
Trench 4	414	Structure	Roughly dressed, yellow gritstone, rectangular pad, 0.6m by 0.7m	Pad for column or support for driveshaft
Trench 4	415-417	Structure	Roughly dressed, yellow gritstone pads with cut / rebate for column support; typically 0.75m by 0.75m with a rebate 0.4m by 0.4m; pad 417 is 0.22m thick; note: 417 was lifted out of place	Pads for columns
Trench 4	418	Structure	Roughly rectangular, yellow gritstone pad, 1.m long by 1m wide, with a hole 0.2m by 0.2m cut through	Pad for column or driveshaft support
Trench 4	419-422	Structure	Roughly dressed, yellow gritstone pads with cut / rebate for column support; typically 0.75m by 0.75m with a rebate 0.4m by 0.4m	Pads for columns
Trench 4	423	Structure	North-west/south-east wall of rough, yellow gritstone, angular slabs up to 0.4m, with a possible opening in the centre; >20m long and 0.6m wide; outer skin of larger stones and rubble core, with lots of lime mortar	Wall
Trench 4	424	Structure	Roughly dressed, yellow gritstone pads with cut / rebate for column support; c0.75m by 0.75m with a rebate 0.4m by 0.4m	Pad for columns
Trench 4	425	Structure	Curved area of yellow gritstone flags, each up to 0.5m on the longest side; turned out to be the top of a wall of a large tank, at least 2m deep, of well-dressed blocks in regular courses, curved round in a semi-circle	Large tank
Trench 4	426	Structure	Roughly dressed, yellow gritstone pads with cut / rebate for column support, cruciform iron plate; c0.75m by 0.75m with a rebate 0.4m by 0.4m and a plate 0.3m by 0.3m	Pad for columns
Trench 4	427	Structure	Yellow gritstone slabs, up to 0.8m long but typically 0.5-0.7m each, on top of an inner channel, 0.3-0.4m deep; the void was 0.2m deep onto 430	Culvert parallel to wall 423
Trench 4	428	Deposit	Firm, mottled dark brown sandy clay, with lots of angular cobbles (75%), rubble and some brick	Dumped deposit, infilling top of tank 425
Trench 4	429	Deposit	Loose, mottled dark orange sandy/ashy clay, with angular cobbles and gravel (80%); 0.2m thick across the area; very disturbed in various areas; below 400	Bedding for former floor
Trench 4	430	Deposit	Soft, dark purplish grey, silt; 0.3m wide and 0.03m thick	Fill of culvert 427 below void

Location	Context	Type	Description	Interpretation
Trench 4	431	Deposit	Loose, dark grey and reddish-black ash and clinker deposit, +2m thick	Fill of structure 425
Trench 4	432	Structure	Three buff yellow gritstone pads of rough stone flag construction, typically 0.8m by 0.8m; the central one is badly damaged; the north-west one is partly coloured luminous orange	Pads for columns for early phase of mill; same as 410 to 414? [group together]
Trench 4	433	Structure	Yellow gritstone flags 0.05m thick, 0.6m long, forming original construction of culvert (402)	Original construction of culvert 402
Trench 4	434	Deposit	Dark brownish-grey soft silt, 0.2m wide; below void 0.15m deep	Fill of culvert (433/402)
Trench 4	435	Deposit	Firm, mid orange, sandy clay with some greyish yellow gritstone bedrock; 10% rounded gravel	Natural revealed in additional trenches

Appendix 3: Summary Finds List

Context	Type	Qty	Description	Date range
305	CBM	1	Dark red earthenware brick or tile fragment, sand cast surface, possibly fire brick	Post-medieval?
428	Pottery	1	White earthenware hollowware fineware rim with blue slip on exterior	19 th – early 20 th century
429	Pottery	1	White earthenware blue shell edge plate rim	Late 18 th – early 19 th century
429	Pottery	1	Mottledware coarseware buff-bodied earthenware dish rim	Late 17 th – early 18 th century
429	Pottery	1	White earthenware hollowware fineware rim with blue slip on exterior	19 th – early 20 th century
430	Glass	1	Very light turquoise flat pane fragment	19 th century?
431	Glass	1	Very light turquoise flat pane fragment	19 th century?