



Former Mondi Site
Holcombe Mill
Bridge Street
Ramsbottom

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Non-technical Summary

In August 2024, CFA Archaeology Ltd was commissioned by Eccleston Homes Ltd to undertake an archaeological trial trenching evaluation on land at the former Mondi Site, Ramsbottom, Metropolitan Borough of Bury. This work was in fulfilment of a condition attached to the planning permission for the redevelopment of the site comprising 57 dwellings.

Archaeological interest in the site relates to a paper mill which was established by the mid-late 19th century by James and Samuel Broadbent Ingham. The paper mill site expanded and changed ownership throughout the 19th and 20th centuries before operations finally ceased in 2008.

Following consultation with the Greater Manchester Archaeological Advisory Service (GMAAS), it was recommended that an archaeological evaluation should take place on the site, with three trenches located to specifically target the former boiler house, the old engine house, and a railway turntable. The aim of the evaluation was to determine the presence or absence of archaeological remains, with accompanying objectives including the recording of any archaeological features or deposits that were present, the identification, where possible, of the broad date and sequence of the remains, and to assess the potential for the recovery of finds.

The GMAAS also recommended that a programme of historic building recording should also be carried out on three standing buildings which were to be demolished as part of the redevelopment. The results of the historic building recording form a separate report to the trial trenching.

The archaeological trial trenching took place between the 19th and 23rd August 2024. The GMAAS visited the site during the course of the excavation and requested an extension to Area 1 in order to better understand the remains exposed in the original trench. A further programme of excavation was subsequently carried out at Area 1 in late January 2025

The findings of the evaluation included the remains of a boiler house, an economiser house, and their associated flue system at Area 1, an early wall foundation and later concrete surfaces at Area 2, and the partial remains of a railway turntable at Area 3.

1. INTRODUCTION

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) for Ecclestone Homes Ltd. The work was undertaken in two separate phases, the first running from the 19th to the 23rd of August 2024, and the second from 29th to the 31st January 2025. The CFA site code and project number for the works are HOMI and 5290, respectively.

The work was carried out in accordance with a Written Scheme of Investigation prepared by Archaeological Research Services Ltd (Appendix 4). The trial trenching specification was requested by Bury Council in response to planning application No. 70222 for a development comprising 57 no. dwellings, a public car park, public open space, landscaping, drainage and other associated works.

1.1. Site Location and Description

The development site (hereafter 'the Site') encompasses a total area of 3.2ha and is located in Ramsbottom (NGR SD 79387 16738). The Site is located at the bottom of Bridge Street, off Peel Bridge, which forms the northern boundary of the development. The Site is further bounded to the east by the meander of the River Irwell, to the south by the Ramsbottom Cricket Club grounds and to the west by the cricket club access road and East Lancashire railway line. The Site is currently occupied by three derelict buildings, one of which abuts a 31m tall chimney, whilst the remainder of the Site is largely covered by extensive concrete pads.

The underlying solid geology of the Site consists of mudstone and sandstone of the Marsden Formation with a small area adjacent to the north-western boundary of the site comprising Guiseley Grit sandstone. Both are sedimentary bedrock formed approximately 320 to 322 million years ago in the Carboniferous Period when the local environment was previously dominated by swamps, estuaries and deltas (British Geological Survey 2023). The superficial geology is described as superficial deposits of clay, silt, sand and gravel alluvium. The soils are characterised by the Cranfield Soil and Agrifood Institute as Soilscape 20, which is Loamy and clayey floodplain soils with naturally high groundwater (Cranfield University 2023).

1.2. Archaeological and Historical Background

A historic environment desk-based and historic buildings appraisal (Burpoe and Grange 2019) noted that the Site was once the location of a series of reservoirs associated with the Grant Brothers Square Works, which was located to the south-west of the Site. By the mid-late 19th century, the Site was partially infilled, and James and Samuel Broadbent Ingham had established a paper mill within the site boundary (McMullen 2023). The Site continually expanded throughout the 19th and 20th centuries, with the demolition and construction of a number of buildings within the Site.

The Site also changed hands several times, being known throughout its lifespan as Ramsbottom Paper Mill, Holcombe Mill, Trinity Paper Mill and finally Mondi, before the Site and operations were shuttered in 2008 as a result of rising fuel prices against a backdrop of

declining demand. The majority of the buildings within the Site were demolished between 2012 and 2015, with only three structures, the twice-shortened mill chimney, and the goit currently remaining (Burpoe and Grange 2019, ii).

1.3. Project Aims

In accordance with the Written Scheme of Investigation (McMullen 2023), the primary aim of the archaeological excavation was to determine the character, extent, date, integrity, state of preservation and quality of any identified archaeological features and deposits, therefore, ensuring their preservation by record.

The objectives of the evaluation were to investigate the extent of the proposed development area in order to:

- Ensure the recording of any archaeological assets discovered during the archaeological evaluation.
- Ensure that any below ground archaeological deposits exposed are promptly identified.
- Ensure the recording of all archaeological remains, to place this record in its local context and to make this record available.
- Undertake a programme of post-investigation assessment.
- Produce a report and disseminate the results.
- Make provision for archive deposition.

The investigations were conducted with a view to addressing objectives suggested by the published research priorities set out in the North West Historic Environment Research Framework (Research Frameworks 2023).

Relevant research priorities are those that focus upon industrial process and the impact upon trade networks; the adaptation and reuse of industrial buildings, some examples include:

- What can archaeology tell us about the production and use of consumer products and their typologies from the late 18th to early 20th centuries?
- How can the methodologies of textile mill surveys be applied to other monument types?

1.3.1. Additional Work

Ben Dyson, Senior Planning Archaeologist at the Greater Manchester Archaeological Advisory Service (GMAAS) visited the Site on 22 August 2024 to observe the remains in the three open trenches. Following this inspection, the GMAAS recommended that further work should be carried out on the below ground archaeology at Area 1 after demolition of the adjacent derelict structure (building C in other site documentation) down to slab level. The GMAAS recommendation stated that archaeological monitoring and recording should be undertaken at Area 1 to achieve a greater understanding of the form and function of the identified boiler beds and flue systems, and to determine their link to the adjacent buildings and chimney.

2. WORKING METHODS

2.1. Excavation Methodology

Three areas were excavated to the first archaeological horizon. A 14 tonne 360-degree mechanical excavator fitted with a toothless ditching bucket was used to remove modern overburden in successive level spits of no more than 0.2m. A breaker was fitted to the machine in order to break through the concrete and tarmac overlying the surviving archaeological deposits. The breaker was particularly useful in the excavation of Area 3. All machine excavation was directed by CFA's on-site supervisor and was carried out under constant archaeological supervision. The top of the first significant archaeological horizon was exposed by the machine to be then cleaned by hand and inspected for features. Any further excavation required to fulfil the objectives of the project was carried out by hand.

Archaeological remains were recorded by means of written records, drawings and photographs conforming to ClfA standards (ClfA 2023) and CFA's quality manuals. All features were planned with an industry standard Trimble GPS. The same equipment was used to establish levels above Ordnance Datum for the areas of archaeological investigation.

2.2. Standards and Guidance

CFA Archaeology Ltd is a registered organisation (RO) with the Chartered Institute for Archaeologists (ClfA). CFA follows all relevant ClfA, West England and Historic England Standards and Guidance (ClfA 2014, 2019, 2023, and Historic England and 2021).

2.3. Dissemination and Archiving

A summary of the results of archaeological works has been submitted for inclusion in the Online Access to the Index of Archaeological Investigations (OASIS V, Appendix 3). The OASIS reference is cfaarcha1-528157. A summary of the contents of the archive is shown in Table 1 below.

Phase	File/Box No.	Description	Quantity
Evaluation	File no. 1	Trench Record Sheets	3
		Context Register	2
		Context Sheets	42
		Digital photographic register sheets	7

Table 1: Contents of the Archive

3. RESULTS

3.1. General

A summary of the investigated features, structures and significant deposits can be found below. These results should be read in conjunction with Figures 1-4. Appendix 1 contains a Trench Summary and Appendix 2 contains a Context Summary.

3.2. Topsoil, Subsoil and Natural Deposits

Due to the high density of industrial buildings upon the site, and the prevalence of tarmac and concrete covering most of the area, there was very little to no topsoil or subsoil present in any of the areas excavated.

In Areas 1 and 2 demolition layer **101** and **201** overlay what remained of the industrial structures, while Trench 3 was capped by a thick tarmac deposit (**301**) that had to be removed with a breaker fitted to the excavator. This area had been used as a road through the mill complex in the later years of its use. None of the areas were excavated to a depth that exposed any geological deposits.

3.3. Excavation Areas

Three excavation areas were opened during the initial phase of fieldwork undertaken in August 2024, with a second phase of work comprising an extension to Area 1 being carried out in late January 2025 (Fig. 2). It was not possible to extend the edge of Area 1 further to the west during the second phase of excavation due to constraints associated with working alongside the masonry revetment supporting the east side of the active goit. The results of the additional investigation have been combined with the original findings of the Area 1 excavation (see below).

3.3.1. Area 1 (Fig. 2.1)

Area 1 was located on the western side of the site, positioned between the existing goit and a standing building adjoining the chimney. The excavation was carried out to investigate a structure located near to the chimney which was thought to be part of the boiler house. The first phase of excavation at Area 1 comprised an L-shaped trench, measuring 9.35m north/south by 6.50m east/west. The second phase of excavation at Area 1 comprised a rectangular trench, measuring 9m north/south by 15m east/west.

Mixed demolition rubble **101** extended across the entire footprint of Area 1. This layer was between 1m and 1.60m thick (Fig 4.1) and comprised material associated with the 21st century demolition of the mill buildings. Machine clearance of this deposit revealed a concrete floor surface, **104**, at 125.08m aOD (Fig. 4.2). This floor surface covered the majority of the base of Area 1, extending up to the south face of east/west orientated brickwork **102**. East/west orientated brick structure **102** was 1.09m wide and survived to a maximum height of 0.65m above floor surface **103** which lay along the north side of **102**.

A small area of surface **104** alongside **102** was lifted, exposing earlier brick and stone structures **105**, **106** & **107** below the later concrete floor. Too little of these earlier remains were uncovered during the first phase of excavation to enable interpretation of the structures, however a more complete picture was revealed during the subsequent additional phase of excavation when a rectangular extension measuring 15m east/west by 9m north/south was opened alongside the original trench (Fig. 4.3).

Brickwork **102** was re-recorded in the enlarged excavation area as **120**, where it was more clearly visible as a structural wall which extended for at least 6.70m up to and beyond the west edge of the trench. Wall **120** was built from red bricks, faced along its north and south elevations with light yellow firebricks; those along the south elevation were poorly preserved having been severely degraded by heat and chemical attack. The location of wall **120** matched that of the north external wall of the boiler house as shown on late 19th century Ordnance Survey mapping.

The remains of settings for three boilers (labelled A, B and C on Fig. 2.1) were identified to the south of wall **120**, with the likely presence of a fourth setting indicated by a small area of brickwork at the extreme western edge of the trench. Only the rear parts of each setting were exposed within the trench, comprising the remains of the dual flue chambers which would have been positioned below the open ends of the twin firetubes of each boiler. The vertical faces of the flues at all three settings were lined with light yellow firebricks, all of which were severely degraded by heat and chemical attack.

The extents of each setting was defined by a wide section of north/south orientated brickwork which would have formed the base of the side flues for each boiler and would have supported an upstanding dividing wall which ran along the gap between neighbouring boiler shells. Between settings A and B this brickwork was recorded as **115** and **118**, and between settings B and C as **124**. In all cases the upper parts of the dividing walls had been lost due to horizontal truncation during the subsequent construction of concrete floor surface **102**.

The double chamber (**123**) at the rear of setting A retained its firebrick partition (Fig. 4.4) that separated two 0.85m wide chambers which would have directed flue gases underneath the boiler shell. At setting B, the firebrick lined floor surface (**121**) of the eastern chamber was uncovered (Fig. 4.5). Although the easternmost setting, C, was largely concealed by a later concrete floor surface, the construction materials and position of **125** in relation to the other settings provided a clear indicator of its function (Fig. 4.6).

The space between the north end of the settings for the three boilers and the external wall of the boiler house was occupied by several masonry elements (Fig. 4.7). Sandstone blocks (**110**) formed a solid base or packing around a D-shaped brick structure (**114**), an arrangement which may have pre-dated the final arrangement of the boilers (Fig. 4.8). At the west side of the boiler house, east/west orientated brickwork **122** is likely to have formed part of the sub-structure to the main flue attached to the rear of the boilers.

The remains of the lower part of an economiser house (**117**) were uncovered against the external elevation of the north wall of the boiler house (Fig. 4.9). This was an east/west orientated rectangular structure, measuring 1.50m wide by at least 6.80m long internally (the

west end of the structure lay beyond the edge of the trench) with a floor surface at 124.64m aOD. The internal elevations and floor of **117** were lined with light yellow firebricks which retained a surface coating of ash, and a single fragment of a part of a water tube scraper mechanism was recovered from the rubble backfill within the economiser house. This indicated that **117** represented the soot chamber, comprising the bottom part of the economiser house. External access to carry out inspections, cleaning, maintenance and repairs to the economiser unit was via a 0.50m wide hatch in the north wall of **117** (Fig. 4.10). The opening through **117** was supported by a metal lintel and was sealed by a metal framed door mounted in the north side of the wall. The area on the north side of the economiser house featured an external concrete floor surface at 124.61m aOD.

Exhaust gases exiting the rear of the settings for the boilers would have travelled west along a flue, before doubling back to the east where the gases passed through the economiser house. From this point, firebrick lined flue **109/112** exited the east end of the economiser house, turning 90 degrees to the north, and then continuing to an opening at the base of the chimney stack.

Floor level in the main flue at the east side of the economiser house was at 125.34m aOD, 0.70m higher than the interior floor level of **117**. The intersection between the east end of the economiser chamber and floor **122** incorporated an angled surface of bricks, presumably laid to smooth the flow of exhaust gases across the change in height (Fig. 4.11). Immediately to the east of here, a second, north/south orientated flue channel joined the east/west orientated flue (Fig 4.12). Although the rest of the second flue had been truncated by the construction of a later concrete upstand and associated floor surface, it is likely that the end of the north/south flue represented part of a bypass channel via which exhaust gases could be sent directly to the chimney without passing through the economiser house. A damper would have been used to control the directional flow of the exhaust gases at the intersection of the two flues, however no evidence remained of this mechanism.

From the boiler house, the main flue ran due north between side walls **108** and **109**, up to an opening in the south side of the circular chimney (Fig. 4.13). The flue channel was 1.50m wide internally, and was level along its exposed length, with the firebrick lined floor surface of the northern part of the flue at 125.34m aOD.

A north-west/south-east orientated brick structure (**111**) had been laid on top of the floor surface of the main flue, a short distance beyond the confluence of the two flue channels (see Fig. 4.12). Only a single course of bricks remained of **111**, which may represent a later modification to the flue, such as a deliberate reduction in the interior cross section of the flue, perhaps to create an appropriate draw for a reduced flow of exhaust gases.

3.3.2. Area 2 (see figures 2.2 and 3.1)

Area 2 was located in the centre of the Holcombe paper mill site and targeted the location of the earliest known engine house on the site, as depicted on OS mapping from 1892-1914. The area measured 4.6m in width and 8.2m in length and was excavated to a depth of 1m, at which point the floor level of the paper mill was reached (Fig. 4.14). Overlying the floor level was a layer of demolition rubble (**201**), very similar to the deposit which overlay the archaeological

remains in Area 1. This layer consisted of mixed clayey silt material with frequent inclusions of concrete, brick and other industrial waste and would have formed through the demolition process.

The excavation exposed a complex area of factory floor with several interlocking concrete slabs and culverts designed to house or support machinery. The oldest structure in Area 2 was **209** which comprised an east/west orientated wall foundation (Fig. 4.15). The foundation was built of sandstone blocks which clearly separated it from the concrete floors around it. The outer and inner faces of the foundation were dressed, with the centre of the structure packed with smaller rubble stone. The wall measured 0.63m wide and at least 0.18m deep. The feature was truncated in several places but at its greatest extent it stretched for 3.8m with an extra 1.1m surviving in the north-west corner of the area. It is likely that this foundation formed part of an interior wall to the older mill buildings. Its truncation by later features suggests it was probably completely demolished to floor level as the mill adapted during the 20th century.

The majority of the structures within Area 2 related to the paper mill's evolution and modernisation during the later 20th century. The floor area was divided by two distinct culverts (**203**) and (**210**) which were moulded in the concrete floor and lined with cast iron plates. Culvert **203** was orientated north-east/south-west along the eastern edge of the area (Fig. 4.16). It was covered by rectangular iron plates and continued beyond the southern and eastern edges of the trench. The culvert measured 0.38m wide, 3.46m long and 0.43m deep. Culvert **210** was located in the north-east corner of Area 2 (Fig. 4.17). This formed a 'T' shaped recess around the edges of **204**, **205** and **206** and cut through preexisting wall **209**. Culvert **210** emerged from the northern trench edge with a width of 0.96m, however when it changed orientation to run on an east/west (occupying the space between **209** and **205**), its width reduced to 0.39m. It was consistently 0.72m deep.

The remaining structures within Area 2 comprised concrete elements relating to the structural integrity of the building. Two concrete architectural supports, **207** (Fig. 4.18) and **208** housing a pair of cast iron stanchions protruded from the northern edge of the trench. These sat atop truncated wall **209** suggesting the wall was demolished to fit the new structures in order to provide a more modernised framework for the building. The majority of the floor space within the area was taken up by four separate raised concrete plinths, the largest of which was **204**. This concrete block was framed to the east by culvert **203**, to the north by culvert **210** and to the west by **206**. It measured 4.75m long, 2.85m wide and 0.43m deep. Most notably, there was a small 'U' shaped depression moulded into it measuring approximately 1m in length in addition to some cast iron brackets. These would have secured heavy machinery or an engine to the floor.

Concrete pad **205** abutted the northern edge of **204**. This measured 2.26m long, 1.82m wide and at least 0.41m deep (Fig. 4.19). The pad incorporated a large iron plate that was held in place with six bolts. Below the plate was a hollow recess.

Concrete plinths **202** and **206** bordered the eastern and western edges of Area 2. Both floors sat above **204** and continued beyond the edge of the trench. Concrete **202** was 2.3m long, 0.5m wide and 0.17m deep, with its longest axis running north to south. Similarly, **206** was 2.85m long, 1.44m wide and 0.72m deep as it helped frame the edge of culvert **210** (Fig. 4.20).

Both features represented an upper floor level to the factory compared to **204** which was possibly lower down to house machinery. The upper surface of **206** contained a circular depression similar to the one on **204**. It is possible that this housed a tank or a similar piece of machinery.

3.3.3. Area 3 (see figures 2.3 and 3.2)

Area 3 was located between Areas 1 and 2. Its position was selected to target the former location of a railway turntable located at the heart of the paper mill complex. The internal railway system enabled the transportation of materials to several locations across the complex. The turntable was located at the intersection of two perpendicular railway tracks, and could therefore rotate rail traffic to the north, south, east and west.

A hydraulic breaker attachment was used to penetrate a thick layer of tarmac (**301**) which covered Area 3. This had been laid as a road that replaced the railway as a means of transporting materials and products within the site. Beneath the tarmac was a light reddish yellow bedding layer (**302**) of made ground that formed a solid base for the tarmac. This deposit was also cut by several underground services. The same services also heavily truncated the turntable (**304**) & (**305**) meaning that what survived was very fragmented.

The turntable was constructed of mid-grey dressed stone blocks with an inner diameter of 3.44m and an outer diameter of 4.49m (Fig. 4.21). Much of the uppermost ring of stone blocks (**304**) had been removed by modern activity. The largest complete single block was 1.3m long, 0.52m wide and 0.37 deep. At the west side of the upper ring, a rectangular, ferrous metal plate was attached to the top of the blocks, possibly associated with the concrete block which projected into the interior space of the turntable.

The most complete section of the upper ring of the turntable was on its western side (Fig. 4.22) as the central part of the structure was heavily truncated by services and the eastern side had been damaged by later concrete structures associated with the expansion of the paper mill. The stone ring (**304**) was sat on top of a broad, shallow concrete bowl (**305**) which formed the majority of the surviving structure. The bowl had a very gradual gradient sloping from the edge down to the central flat plain. The sides and base of the bowl incorporated two features. The first being a 0.50m deep vertical shaft measuring 0.32m by 0.30m in cross section, located over a linear drain. The second feature was a recess in the centre of the bowl that was 0.19m deep, 1.34m wide north/south by at least 0.71m wide east/west (Fig. 4.23). This recess had contained the mechanism featuring the central pivot that allowed the turntable to rotate.

The lower part of the turntable bowl was filled by moist, black, fine grained industrial deposits **303** and **307** as well as the aggregate fills of the service cuts. The eastern edge of the turntable was heavily truncated by concrete slab **306** which measured 3.1m long, 0.74m wide and 0.57m deep. This concrete structure probably acted as a foundation to an extension of the main paper mill building.

4. DISCUSSION

4.1. Area 1

The archaeological remains exposed within Area 1 confirmed the survival of a building that was known from historic mapping, and enabled its identification as being part of the heat and power system associated with the standing chimney. The east/west orientated wall that was initially observed in the first phase of excavation at Area 1 and was then more extensively exposed in the second phase of excavation, was shown to be part of the north external wall of the boiler house. The partial remains of settings for three parallel, north/south orientated boilers were recorded within the boiler house, with fragmentary remains of brickwork to the west indicating the presence of a fourth boiler. Although the east external wall of the boiler house was not identified within the trench, an inspection of historic mapping suggests that the building was large enough to house a fifth boiler.

The remains of an economiser house were identified adjoining the external elevation of the north wall of the boiler house. Although the west end of the structure lay beyond the edge of the trench, sufficient remains of the firebrick lined north, east and south side walls, and the internal floor had survived that enabled the structure to be identified as the soot chamber which would have sat below the heat exchanger tubes of the economiser apparatus.

The upper levels of the brickwork forming the settings for the three boilers had been truncated to below the level of the side flues of each boiler, and also to below the level of the main flue which linked the boilers to the economiser house. However, it was possible to infer the route of the flues from the surviving brickwork, and to determine that the boiler house had been served by two flues, one carrying exhaust gases to the economiser house, and the second bypassing the economiser via a direct route to the chimney stack.

Evidence suggestive of a modification to the main flue which connected the boiler house to the chimney was observed at the base of the stack. The opening in the base of the chimney from the main north/south orientated flue was capped by a flat, reinforced concrete roof at approximately 2.50m above ground level. Brickwork had been inserted into the south elevation of the chimney above the concrete roof which indicated that the opening at the north end of the flue system had at one time been almost double the height it was during its final phase of operation. The chimney is known to have been lowered in height on two occasions, which may tie in with the modifications seen at the base of the stack; a lessening in boiler requirements, and the shortening of the stack would be a suitable explanations for the reduction in size of the internal cross section of the main flue.

The partial demolition of the settings for the boilers, and the insertion of a concrete floor at 125.08m aOD showed that the boiler house had been adapted over time, with the last phase of construction likely taking place in the late 20th century.

While no archaeological evidence for the internal railway system was identified within the trench at Area 1, 20th century Ordnance Survey mapping shows an east/west orientated track entering the south-west corner of the boiler house. This track provided access, via a turntable, to a siding in the goods yards at Ramsbottom station, and would have been used for the

regular delivery of coal to the boiler house, and probably for the occasional removal of clinker which had been raked out of the furnaces.

4.2. Area 2

Area 2 was located within the footprint of the main paper mill building and targeted the location of the earliest known engine house on the site, as depicted on mapping from 1892-1914. The purpose of the Area 2 excavation was to identify any surviving structures at the location and to determine if there were any structures still present that predated the 20th century floor level.

The remains found within this area were predominantly associated with the 20th century use of the building. The surviving structures consisted of mainly concrete floors designed to house machinery such as (206) and (204). These concrete deposits had faint depressions in them, suggesting the presence of heavy machinery that had been placed on the floor shortly after it had been constructed. Structure 205 continued this trend but instead seemed to be a hollow concrete structure capped by a large iron grill or plate. This too suggested the area was housing machinery linked to the paper manufacturing process. Deep, narrow culverts 203 and 210 were incorporated into the floor surfaces. These framed the concrete floors within the area and were probably installed to supply machinery with water from the boiler house as part of the manufacturing process or at least water management around this part of the site. They may also have been used to carry wastewater away from the area.

The installation of the culverts was probably contemporary with a complete re-engineering of the mill complex as it seems unfeasible that it would have happened after the concrete floors were installed. This event likely coincided with the demolition of older factory structures such as foundation 209 which was the only structure surviving in Area 2 that predated the modernisation. It may have supported an internal partition wall within the original mill building as the structure was demolished to the same level as the concrete floors around it. It was truncated by the installation of the culverts and two concrete stanchions (208) and (207) were placed above it. This indicates that the new stanchions replaced wall 209 as architectural supports for the overall building. After the building was demolished in the early 21st century the floor surfaces were buried beneath 201, a thick layer of rubble and demolition material.

4.3. Area 3

Area 3 targeted a turntable that had formed part of an internal railway system that served the mill complex. The function of this turntable was to link the internal system with the sidings at Ramsbottom Station on the Lancashire & Yorkshire Railway. Although heavily truncated by later activity including a concrete foundation, and pipework and ducting for various services, the surviving remains were sufficient to broadly determine the overall shape, size and various construction details of the base of the turntable.

No elements of the revolving turntable mechanism had survived, presumably having been removed for practical reasons after the internal railway system went out of use. It was not possible to determine the chronology for the disuse and subsequent dismantling of the turntable from the surviving remains. The railway sidings at Ramsbottom station may still have

been in use for the import and export of raw material and goods to the mill complex when the turntable was taken out of use, with transport to and from the station and within the mill site being carried out by small motor vehicles. This evolution of transport would have provided more flexibility of the movement of goods than the internal rail system allowed.

The presence of the Lancashire & Yorkshire railway in Ramsbottom had provided a crucial transport link which enabled the establishment and of the paper mill, and the many other industries in the town including engineering works, cotton mills, and foundries. Improvements to the road network and road vehicles during the 20th century had resulted in changes to the way that raw materials and goods were transported, with the use of the railway system declining in favour of road transport. The construction of the internal railway system at Holcombe Mill reflects the importance of rail transport to industry as a whole during the late 19th century, and the subsequent disuse and removal of the turntable illustrates the evolution of transport in the 20th century.

5. CONCLUSION

The excavations that took place on the former site of Holcombe Mill in Ramsbottom were successful in meeting the aims and objectives detailed in the project WSI. The excavations revealed floor surfaces and internal structures relating to the mill buildings and were able to identify the function of the buildings through the archaeological remains such as the boiler house found in Area 1. The work carried out also successfully found remains of structures pre-dating the later concrete floors of the mill in Area 2 with the exposing of Wall (209) which represented part of an earlier structure which had been truncated by later development at the location. Work carried out in Area 3 confirmed the partial survival of a turntable which had formed part of the internal railway system used to transport raw materials into goods into and out of the mill site.

The archaeological remains recorded in all three trenches showed evidence for truncation by later structures; this demonstrated an ongoing process of use, redundancy and adaptation of the buildings from the establishment of the paper mill in the latter half of the 19th century though to its final closure in 2008.

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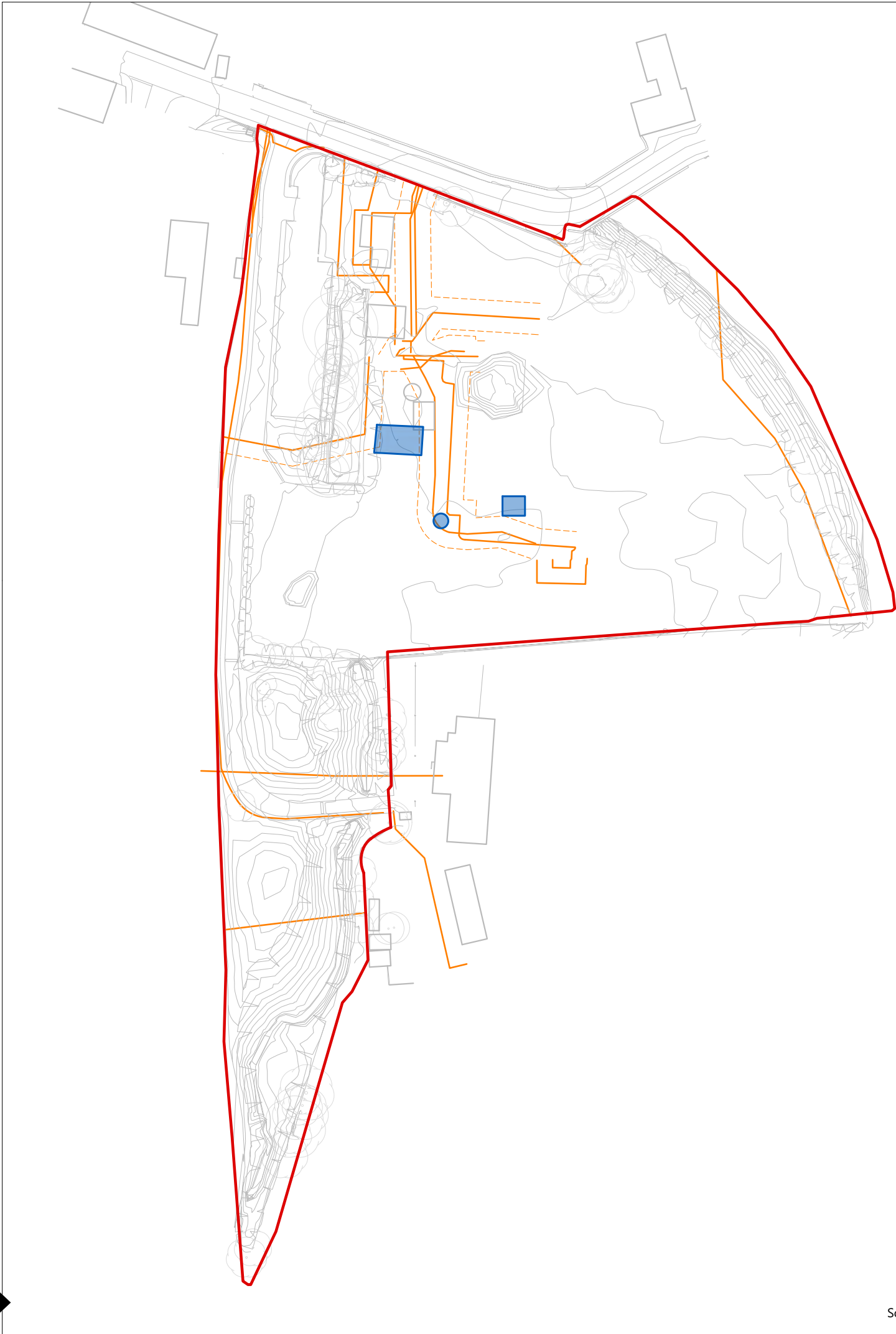
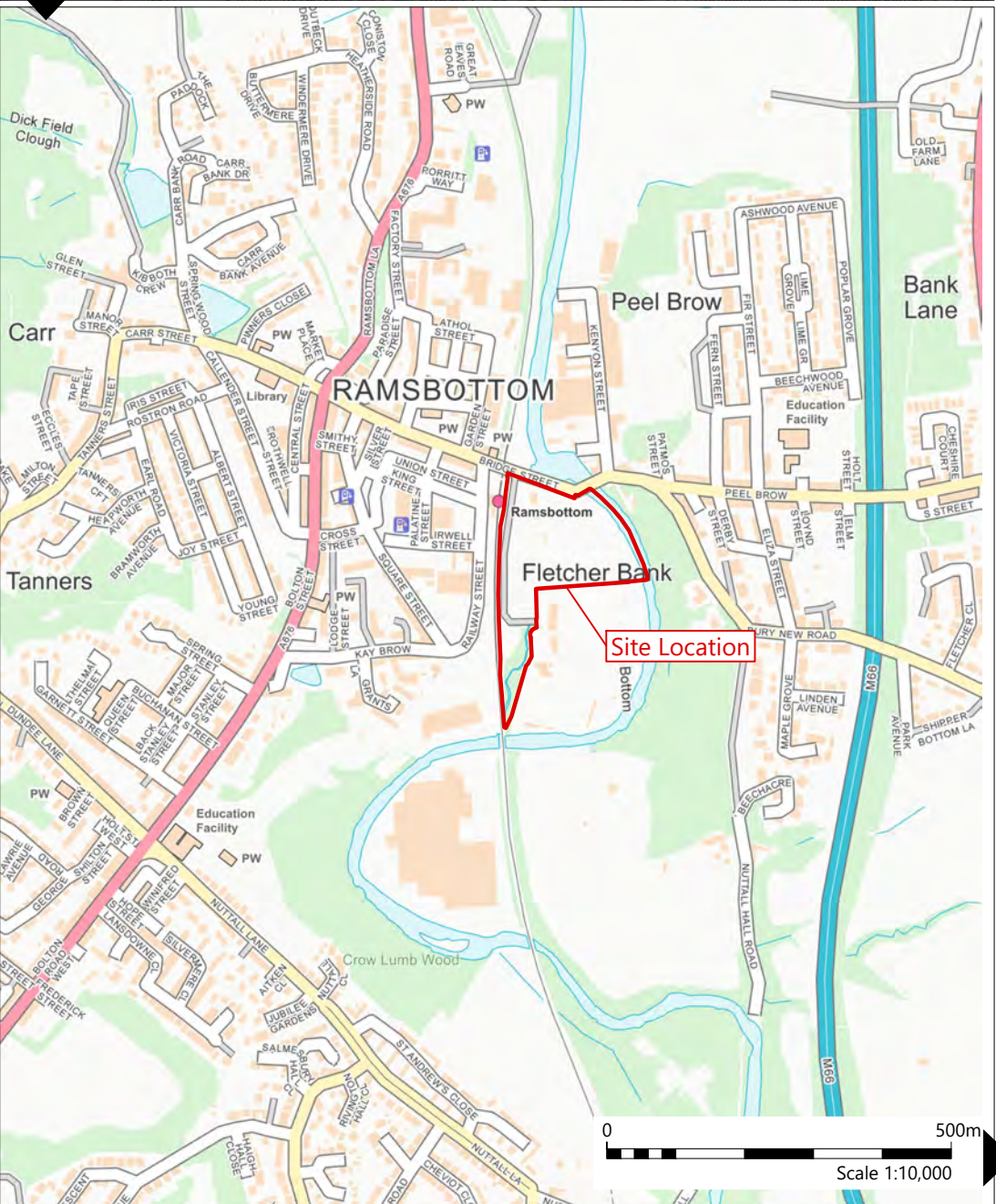
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FIGURES AND APPENDICES



Key:

Site Boundary

Service and Buffer

Trench

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ARCHAEOLOGY Ltd

Title:

Site and Excavation area location plan

Project:

Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom

Client:

Eccleston Homes

Scale at A3:

Varies

Drawn by:

SB/CA

Checked:

SW

Date:

10/03/2025

Report No:

4546

Fig. No:

1



Key:

- Site Boundary
- Trench
- Feature
- Structure
- Concrete Floor Surface
- Modern
- Drain

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Title:
Overall Survey Plan of
Excavation Areas, overlaid on
1892 Ordnance Survey Plan

Project:
Former Mondi Site,
Holcombe Mill, Bridge Street,
Ramsbottom

Client:
Eccleston Homes

Scale at A3:
1:400

Drawn by: SB/CA	Checked: SW	Date: 10/03/2025
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Report No: 4546	Fig. No: 2
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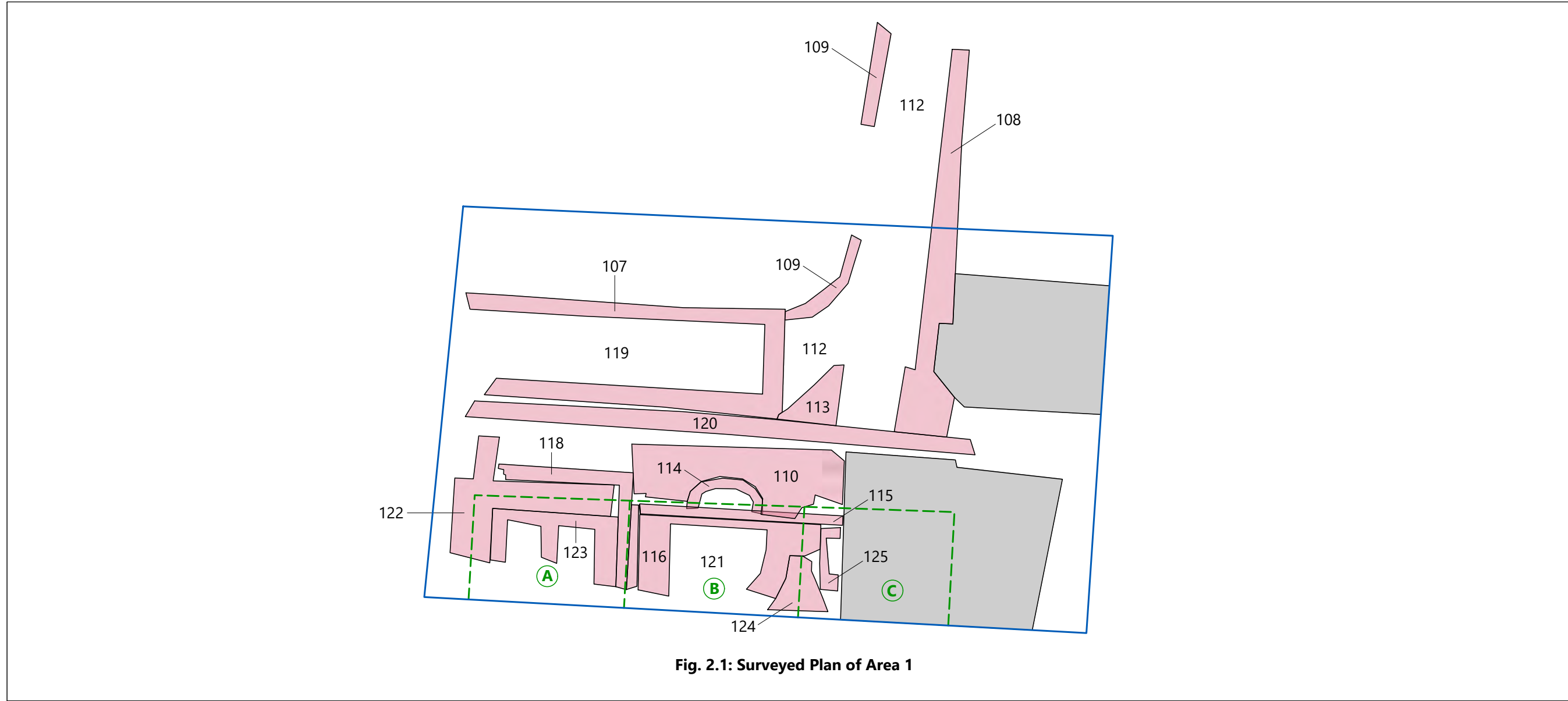


Fig. 2.1: Surveyed Plan of Area 1

Key:

- 101 Context Number
- Ⓐ Extent of the setting for a boiler
- Trench
- Feature
- Structure
- Concrete Floor Surface
- Modern
- Drain

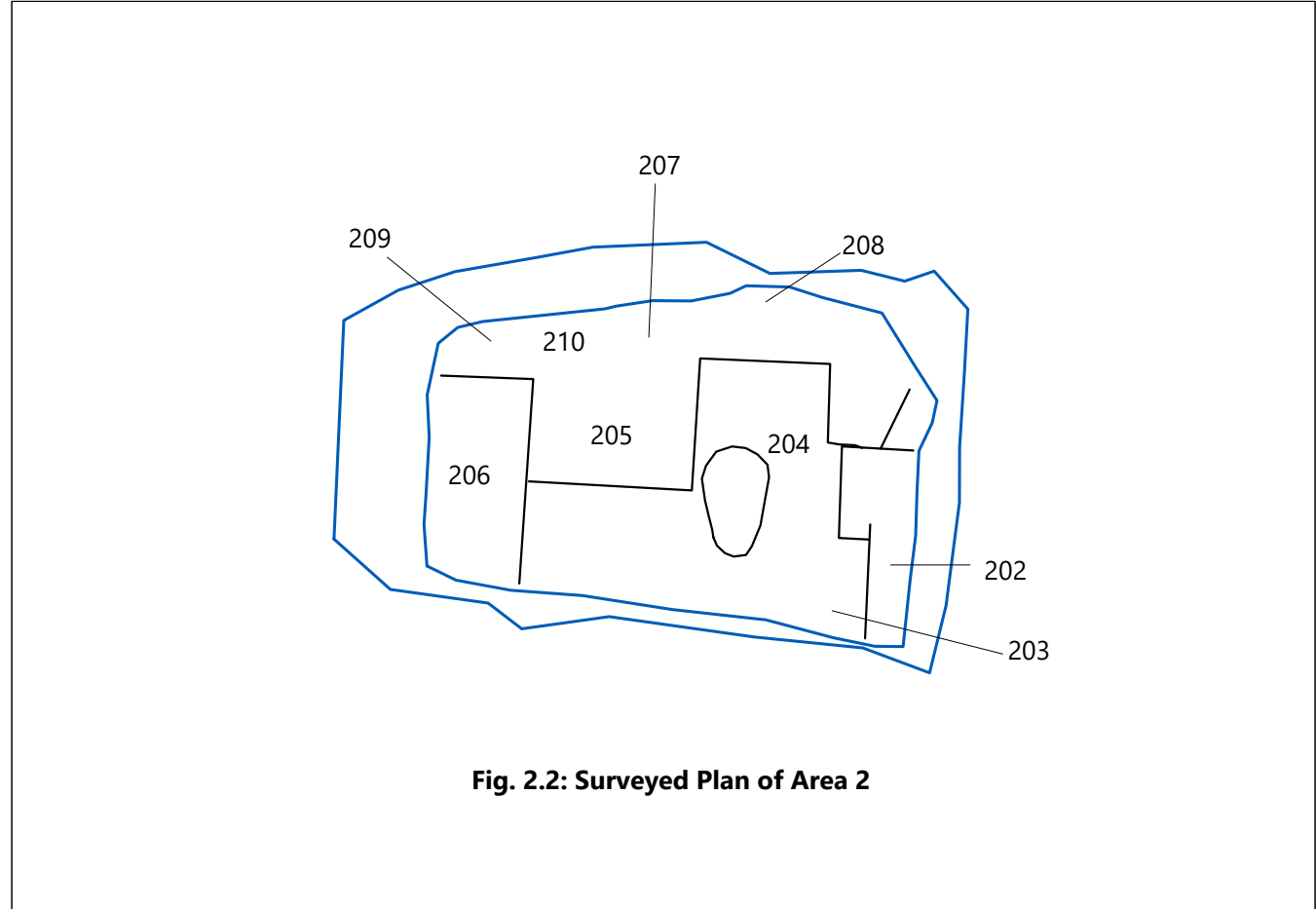


Fig. 2.2: Surveyed Plan of Area 2

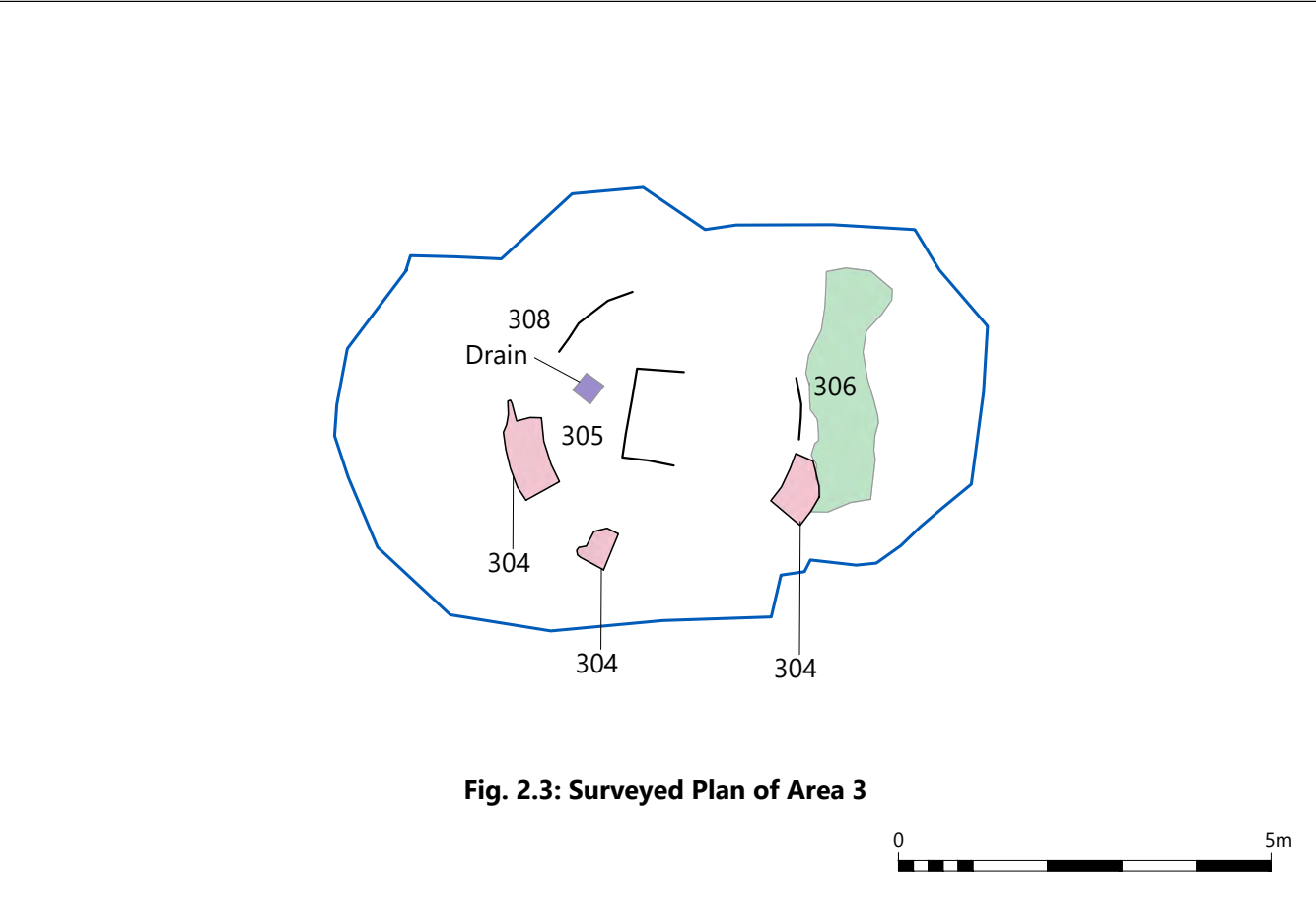


Fig. 2.3: Surveyed Plan of Area 3

CFA
ARCHAEOLOGY Ltd

Title:
Overall Survey Plan of
Excavations Areas

Project:
Former Mondi Site,
Holcombe Mill, Bridge Street,
Ramsbottom

Client:
Eccleston Homes

Scale at A3:
1:100

Drawn by: CA	Checked: SW	Date: 10/03/2025
Report No: 4546	Fig. No: 2.1 - 2.3	



Fig. 3.1: Orthophotograph of Area 2

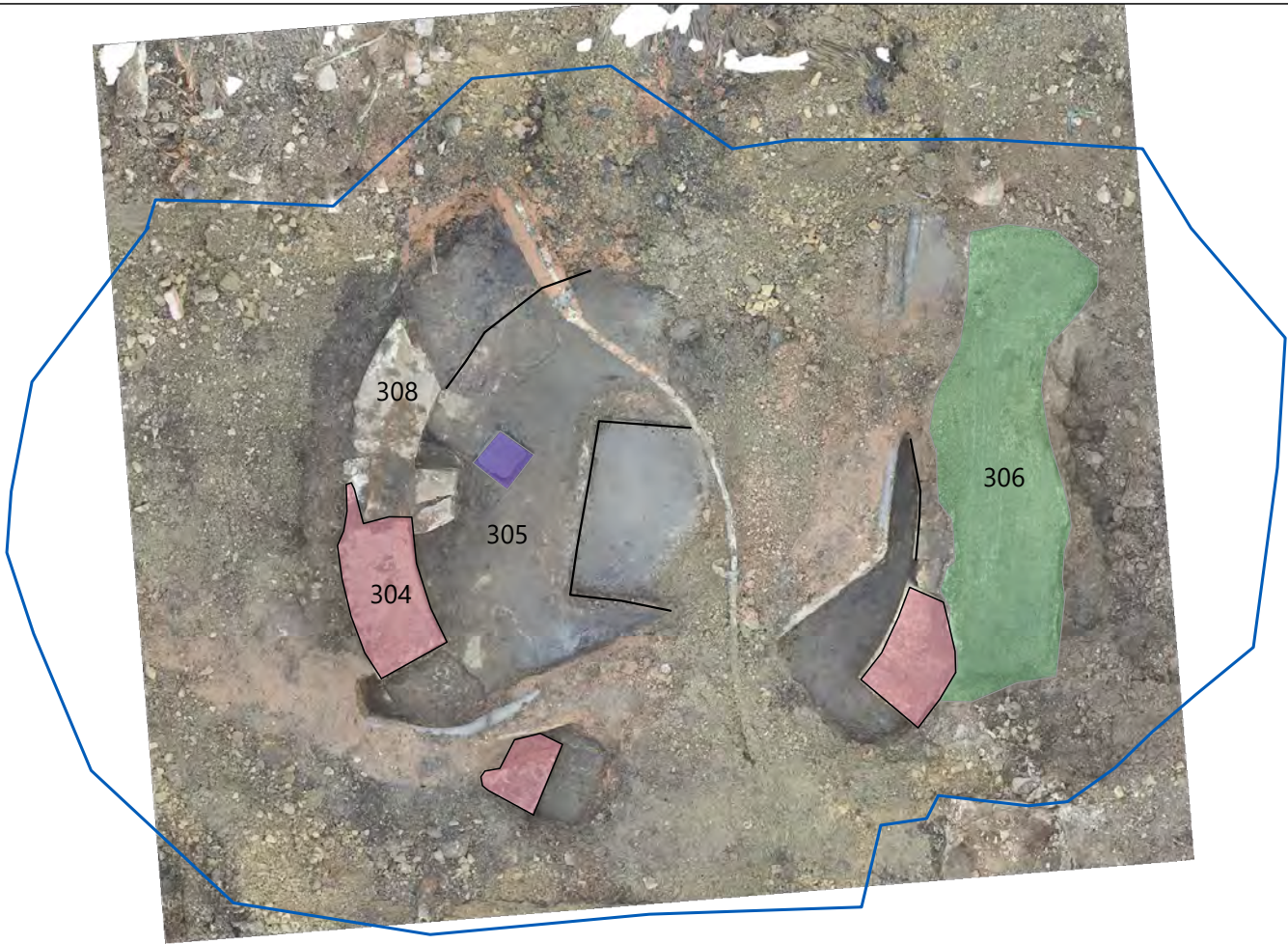


Fig. 3.2: Orthophotograph of Area 3



Key:

101 Context Number

Trench

Feature

Structure

Modern

Drain



Title: Orthophotographs		
Project: Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom		
Client: Eccleston Homes		
Scale at A3: 1:50		
Drawn by: SB/CA	Checked: SW	Date: 10/03/2025
Report No: 4546		Fig. No: 3.1 - 3.2



Fig. 4.1: Demolition rubble 101 in section



Fig. 4.2: View looking north across surface 104



Fig. 4.3: View looking north-east across extension to Area 1



Fig. 4.4: Chamber 123 and foundation 115/118 at rear of setting A



Fig. 4.5: Firebrick lined chamber at rear of setting B



Fig. 4.6: Brickwork 124 and chamber 125 at rear of setting C



Fig. 4.7: View looking east across the north end of the boiler house



Fig. 4.8: Stonework 110 and brickwork 114 at north end of setting C



Fig. 4.9: View looking NE across the east end of economiser chamber 117



Fig. 4.10: Access hatch in south facing internal elevation of economiser chamber



Fig. 4.11: Angled brickwork at the west end of flue floor 112



Fig. 4.12: Intersection of two flue channels at the east side of the economiser house



Fig. 4.13: View looking north along main flue towards the chimney stack



Fig. 4.14: View looking west across Area 2



Fig. 4.15: View looking west along foundation 209



Fig. 4.16: View looking east at concrete floor 202 and culvert 203



Fig. 4.17: View looking south at culvert 210



Fig. 4.18: Stanchion base 207 at the north edge of Area 2



Fig. 4.19: Concrete and iron structure 205



Fig. 4.20: View looking south along concrete platform 206



Fig. 4.21: View looking east across remains of turntable



Fig. 4.22: Rim of turntable 304 with base 305, incorporating square drain



Fig. 4.23: View looking east at the recess in the centre of concrete bowl 305

Appendix 1: Area Summary Table

Area	Description
1	Situated between the goit and the existing chimney on the site. This area was initially excavated in an L-shape, but was subsequently enlarged to a rectangular area measuring 9m north/south by 15m east/west. Area 1 targeted a building believed to be the boiler house.
2	This area was located in the centre of the main mill building targeting the location of the earliest known engine house on the site, as depicted on mapping from 1892-1914. It measured 4.6m wide and 8.2m long and was rectangular in shape. The area was orientated east to west. The area targeted the centre of the mill floor to establish the level of preservation the 20 th century floor and any other deposits below it.
3	Area 3 was located between Area 1 and 2. It was situated to target a turntable that redistributed rail vehicles throughout the mill complex. The opened trench measured 8.50m east/west by 5.50m north/south.

Appendix 2: Context Summary Table

Context no.	Type	Length (m)	Width (m)	Height/Depth (m)	Description
AREA 1					
101	Deposit	+10	+5	1.2-1.6	Demolition backfill deposit covering the whole area. Formed through the demolition of the mill site. Mid brownish grey in colour that was very firmly compact. 80% of this deposit was rubble and broken building material.
102	Structure	+3.35	1.09	0.29-0.65	Red brick wall running east to west across the area. Made with a mix of both frogged and unfrogged brick that were bound by a light to mid grey mortar, the bricks were alternating header and stretchers. The outer bricks of the wall facing north seem to be part red brick and part pale yellow brick suggesting they had a heat resistant property built into them. seems to abut both 103 and 104.
103	Structure	+3.35	1.35	-	Pale yellow bricks tainted and stained by the dark refuse and waste material deposited above them. Unfrogged and bound by a dark blackish grey mortar (this may also have been stained by the waste material deposited upon the structure. All bricks were laid out as stretches. All the bricks seem to be heat resistant given their yellow colour, meaning this was probably the base a boiler chamber.
104	Structure	+7	3.75	0.2	Dark to mid grey concrete floor. Probably 20th century in date forming the mill floor. Very smooth in texture orientated north to south. No bonding needed. Overlies previous floor structures (105) and (106)
105	Structure	1.5	0.6	0.43	Dark red and yellow stones, possibly sandstone or iron stone. Seemingly not bound by mortar. Possibly the previous floor surface for the boiler house building.
106	Structure	0.59	0.11	0.08	A small row of red bricks, unfrogged stretchers bound by a course mid to dark grey mortar. Seemingly contemporary with (105), with both structures possibly forming an early floor structure to the boiler building. Both structures were covered by (104).
107	Structure	0.63	0.5	-	Pale grey white fill, friable ashy silty sand composition with irregular sized sandstone and cob inclusions. Fills the space between (105) and (106). Possibly acted as the bedding layer beneath (105) and (106).
108	Structure	>8	0.30-0.70		North/south orientated eastern side wall of the main flue leading from the boiler house to the chimney. Constructed from red bricks, with a lining of yellow firebricks to the western elevation.
109	Structure	>8	0.37		North/south orientated western side wall of the main flue leading from the boiler house to the chimney. Constructed from red bricks, with a lining of yellow firebricks to the eastern elevation. South end of 109 was connected to the economiser house.
110	Structure	4.92	1.60		Structure constructed from sandstone rubble bedded in light pink lime mortar. Appears to underlie the east/west foundation of the final phase boiler house, so possibly forms part of an earlier foundation.

Appendix 2: Context Summary Table

Context no.	Type	Length (m)	Width (m)	Height/Depth (m)	Description
111	Structure	2.35	0.22		North-west/south east orientated brickwork laid across the internal width of the main flue, between walls 108 and 109. Only a single course of red bricks remained. Possibly inserted to reduce the internal cross section of the flue, in order to manage the flow of exhaust gases.
112	Structure	>8.50	1.50		Floor surface along the interior of the main flue leading from the boiler house to the chimney. Constructed from light yellow firebricks.
113	Structure	1.08	0.80	0.17	133 comprises brickwork at the confluence of two flue channels; one coming direct from the boilers, the other from the economiser house. Constructed from red brick, with yellow firebricks used to line the exterior faces.
114	Structure	1.74	0.73	>0.07	D-shaped structure located against the north end of a setting for a boiler. Constructed from red bricks, the outermost course utilising bricks with five vertical perforations.
115	Structure	4.48	0.21	>0.21	L-shaped wall forming the north-western corner of the setting for a boiler. Brickwork 116 abuts the interior face of 115, forming the firebrick lining to the western chamber at the north end of the bottom flue for a boiler.
116	Structure	4	0.89	>0.23	Brickwork forming the north end of the bottom flue of a setting for a boiler. Constructed from red bricks to the rear, with a lining of yellow firebricks to the exposed faces. The firebricks are in very poor condition, having been degraded by heat and chemical attack. 116 surrounds floor surface 119.
117	Structure	>7.25	2.10	0.90	Three walls and internal floor surface forming the remains of the bottom part of an economiser house. 117 was rectangular in plan, orientated east/west, and was constructed against the north external wall of the boiler house. The walls and floor (119) of the internal chamber were lined with yellow firebricks. Access to the chamber was via a 0.50m wide hatch in the north side wall.
118	Structure		0.36	>0.21	Red brick wall forming part of the north end of the setting for a boiler, and a dividing wall between two adjacent boiler settings. The north end of 118 is keyed into exterior wall 120.
119	Structure	>2.60	1.50		Internal floor surface along the base of the economiser house (117). Constructed from yellow firebricks, and sealed below a layer of black soot.
120	Structure	>10	0.48	0.55	East/west orientated foundation to the north, exterior wall of the boiler house. Constructed from red bricks, with the remains of a lining of yellow firebricks along the uppermost surviving courses of the south elevation.
121	Structure	2.13	0.89		Floor surface across the north end of the bottom flue of a setting for a boiler. Covers the base of a chamber lined by brickwork 116. Constructed from yellow firebricks.
122	Structure	>4	0.60		Brickwork forming part of the north end of the setting for a boiler, likely from below the flue channel exiting the rear of the boiler. Fills the space between brickwork 123 at the end of the bottom flue, and dividing wall 118.

Appendix 2: Context Summary Table

Context no.	Type	Length (m)	Width (m)	Height/Depth (m)	Description
123	Structure	>1.28	2.65	>0.24	Brickwork forming the north end of the bottom flue of a setting for a boiler. Constructed from red bricks to the rear, with a lining of yellow firebricks to the exposed faces. The firebricks are in very poor condition, having been degraded by heat and chemical attack. Retains a north/south orientated central partition of firebricks which separated the two halves of the end of the bottom flue.
124	Structure	>1.30	1.20	>0.17	Brickwork forming part of the structure between two parallel, north/south orientated boiler beds.
125	Structure	>0.89	>0.30	>0.10	125 comprised the western part of a chamber located at the north end of the bottom flue of the setting for a boiler. Rear part built from red bricks, with a lining of yellow firebricks to the exposed face.
AREA 2					
201	Deposit	+8	+6	1.2	Demolition backfill deposit covering the whole area. Formed through the demolition of the mill site. Mid brownish grey in colour that was very firmly compact. 80% of this deposit was rubble and broken building material.
202	Structure	2.28	0.5	0.17	This structure is a large concrete footing or floor, possibly for machinery. The feature continues beyond the eastern and southern LOE's of the area. Small square iron footings were present suggesting it used was to help keep machinery in place. This concrete structure sits atop (204). the western edge of (202) forms the eastern edge of culvert (203).
203	Structure	3.36	0.38	0.43	This culvert was linked to the sites industrial process. The feature was moulded between the concrete slabs (202) and (204) with vertical sides and a very flat base. It ran on a northeast-southwest alignment diagonally through the eastern side of the area, it was covered by iron plates roughly 0.8m long and the same width as the culvert. the base of the feature was also lined with an iron plate. a strong smell of oil was noted during its excavation.
204	Structure	4.75	2.85	0.26-0.43	(204) was a large concrete floor set within the paper mill. It was sandwiched between (202) to the east and (206) to the west. The floor was made of concrete and extended south beyond the LOE. A 'U' shaped impression on the floor seems to have been left by some machinery suggesting it housed large engines or machines linked to the paper production process. There were also several iron brackets left fitted to the floor, again demonstrating the presence of heavy machinery within the area.
205	Structure	2.26	1.82	0.41	This was a rectangular structure with a concrete border around a hollow chamber capped with a large iron covering. It is probable that this was the bed or base for a large piece of machinery or possibly a fuel tank for machinery close by. The structure was bordered to the north by culvert (210) which also implied that the machinery stored in this area needed a supply of water either to the machines or carrying water away from them.

Appendix 2: Context Summary Table

Context no.	Type	Length (m)	Width (m)	Height/Depth (m)	Description
206	Structure	2.86	1.44	0.2-0.74	(206) was very similar to (202) and (204). It was a large dense concrete block mounted to the west of (204) and was slightly higher. Like (204), this feature also had an indented area left by the presence of a machine, in this case it was a small circular ringed depression in the southwest of the area. this possibly was the footprint of a fuel tank. feature extended beyond the southern and western LOE's of area 2. The northern edge of (206) forms the southern edge of culvert (210).
207	Structure	1.8	0.27	0.18	Whitish grey concrete deposit located on the northern edge of the area. Possibly a concrete floor similar to (206). This structure also seems to have housed a cast iron stanchion or support for the mills roof. Very similar in nature to (208).
208	Structure	1.31	0.34	0.11	Small concrete platform similar to (208) as it also houses a cast iron architectural support for the building roof or upper floors however this is unclear as only 0.34m of the feature has been exposed as it continues under the LOE.
209	Structure	7.3	0.6	0.4	East/west orientated linear foundation running across the northern end of Area 2. Partially truncated by culvert (210). Appear to relate to an earlier phase of the building and was demolished to floor level with the addition of the later concrete floors. Constructed from sandstone blocks, those on the faces of the wall were dressed and bonded with lime mortar. Probably supported an interior wall. The fact that it was replaced by concrete blocks housing iron stanchions suggests this wall wasn't simply a partition but probably added to the structural integrity of the building.
210	Structure	3.13	0.39	0.72	Concrete lined culvert very similar to (203). It had an iron pad lined base and ran on an east to west alignment across site. The culvert was 'T' shaped with it emerging from the northern LOE before it cut through (209) and then changed direction to run parallel to both (209) and (205). similar to (203), its purpose was to supply water to the heavy machinery within the main paper mill building.
AREA 3					
301	Deposit	+5	+5	0.13	Tarmac level that covered the whole area and continued way beyond the LOE. Thick deposit forming s sturdy road surface to transport goods on.
302	Deposit	+5	+5	0.31	Light reddish yellow sandy gravel formation layer for the tarmac above
303	Deposit	+5	+5	0.2	Dark reddish black sandy gravel and demolition material. This deposit was within and outside of the turntable and probably formed during the industrial processers on the mill site.
304	Structure	-	-	0.37	Stone ring that made up the top part of the turntable structure. Well faced and well cut sandstone that was a mid to dark grey in colour, possibly stained through industrial use. Heavily damaged due to being truncated to the west by later concrete buildings and through the centre by modern services.

Appendix 2: Context Summary Table

Context no.	Type	Length (m)	Width (m)	Height/Depth (m)	Description
305	Structure	-	-	-	this formed the internal bowl of the turntable. Made of sandstone like (304), it was a thick and firm stone structure with gradually sloping sides leading to a flat base. The base had a small square drain cut into it to the western side of the structure. in the very centre was a larger square recess that probably housed the main turntable mechanism on which the track would rotate.
306	Deposit	3.1	0.74	0.57	Large concrete block that truncates the turntable. Probably fitted as an extension to the main paper mill building. Located to the eastern side of the area. Possibly acted as a foundation.
307	Deposit	-	-	0.22	The same as (303) however it has been redeposited due to modern disturbance from the underground services.

Appendix 3: OASIS Summary

OASIS ID (UID)	cfaarcha1-528157
Project Name	Archaeological Evaluation at Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom
Sitename	Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom
Sitecode	HOMI
Project Identifier(s)	5290
Activity type	Evaluation
Planning Id	70222
Reason For Investigation	Planning requirement
Organisation Responsible for work	CFA Archaeology Ltd
Project Dates	19-Aug-2024 - 23-Aug-2024
Location	Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom NGR: SD 79387 16738 LL: 53.6467372733994, -2.313296477866801 12 Fig: 379387,416738
Administrative Areas	Country: England County/Local Authority: Bury Local Authority District: Bury Parish: Bury, unparished area
Project Methodology	Three evaluation trenches were opened within the development site, targeted on specific structures of the former paper mill site. The objective of the evaluation was to determine the level of preservation of these elements of the paper mill and to investigate whether any structures dating from the early phases of the sites use had survived.
Project Results	The three trenches specifically targeted parts of the mill to prove the level of preservation of earlier mill buildings. Area 1 proved the survival of the boiler house and associated economiser house. Area 2 identified a heavily truncated stone wall foundation in the centre of the main mill building, surrounded by 20th century concrete structures. Excavation at Area 3 exposed the remains of a railway turntable that had been heavily damaged by modern services.
Keywords	Boiler House - 20TH CENTURY - FISH Thesaurus of Monument Types Railway Turntable - 20TH CENTURY - FISH Thesaurus of Monument Types
Funder	Private or public corporation Ecclestone Homes
HER	Historic England review - unRev - STANDARD
Person Responsible for work	Phil Mann
HER Identifiers	
Archives	Digital Archive - to be deposited with Archaeology Data Service Archive; Physical Archive - to be deposited with Bury Museum and Archives;

Appendix 4: Written Scheme of Investigation

WRITTEN SCHEME OF INVESTIGATION

Former Mondí Site, Holcombe Mill, Bridge Street,
Ramsbottom

Evaluation Trenching
Historic Building Recording



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Written Scheme Of Investigation For Archaeological Evaluation Trenches And Historic Building Recording At Former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom

ARS LTD REPORT 23/174



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Issue	Author	Checked by	Approved by	Date approved	Reason for issue
1	Joseph McMullen	Lucie McCarthy	Lucie McCarthy	10/12/2023	Initial draft for consultation

Prepared on behalf of: Ecclestone Homes Ltd
Planning Reference: 70222
Local Authority: Bury Council
Site central NGR: SD 79387 16738
OASIS ID: TBC

WSI for Archaeological Evaluation and Historic Building Recording: former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom |



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I INTRODUCTION

1.1 Project and Planning Background

1.1.1 This is a Written Scheme of Investigation (WSI) for evaluation trenching and historic building recording that has been prepared by Archaeological Research Services Ltd (ARS Ltd) on behalf of Ecclestone Homes Ltd.

1.1.2 The WSI sets out a scheme of evaluation trenching work and historic building recording to be undertaken to Historic England's Level 2 Standard in support of a planning application for development at the former Mondi Site, Holcombe Mill, Bridge Street, Ramsbottom. The buildings subject to recording are a derelict brick building and two stone buildings. The development comprises the erection of 57 no. dwellings, the retention of a chimney and goyt and the demolition of 3 existing buildings, together with engineering operations to create a development platform, public car park, substation, public open space, landscaping, drainage, the layout of internal estate roads and footways and other associated works (Planning Ref: 70222).

1.1.3 An archaeological desk-based assessment (DBA) and Heritage Impact assessment was conducted in 2019 in support of a planning application for the proposed development. The assessment identified that the site was the location of a former paper mill, the site went through a period of near continuous expansion throughout the 19th and 20th centuries.

1.1.4 An archaeological evaluation is required in line with the *National Planning Policy Framework (NPPF)*. "...Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation" (MHCLG 2022, para 194).

1.1.5 On the advice of Greater Manchester Archaeological Advisory Service as archaeological advisors to the Local Planning Authority, a consultation response was received which states:

- ◆ Historic building recording set at Historic England Level 1-2, to ensure that as much information as is reasonably and safely practicable is recorded prior to the demolition and full loss of the three buildings identified for survey. There is particular interest in the northern side of building C, where the building recording could inform on an area for post demolition evaluation of two square structures (possible earlier chimneys) as depicted on the 1892 OS plan (Figure 3 of the old WSI). All demolition should cease at slab level in case below-ground evaluation or watching brief is needed here to understand the building's development.
- ◆ A low-level photographic survey of the surviving chimney and goyt should be undertaken prior to their refurbishment.
- ◆ The archaeological evaluation trenching plan needs some slight revisions to target the most appropriate parts of the site, including: an L-shaped Trench 1 in the former boiler house (No.7 on the 1983 plan shown in Figure 6 of the DBA), instead of Trench 3 a targeted strip-map-sample area over the footprint of the 'Old Engine House' (No.14A on the 1983 plan shown in Figure 6 of the DBA), Removal of Trench 2 and replacement with a targeted strip-map-sample area over the turntable at the south-east corner of the boiler house/south-west corner of the main mill structure depicted on the 1892 OS plan (Figure 3 of the WSI)

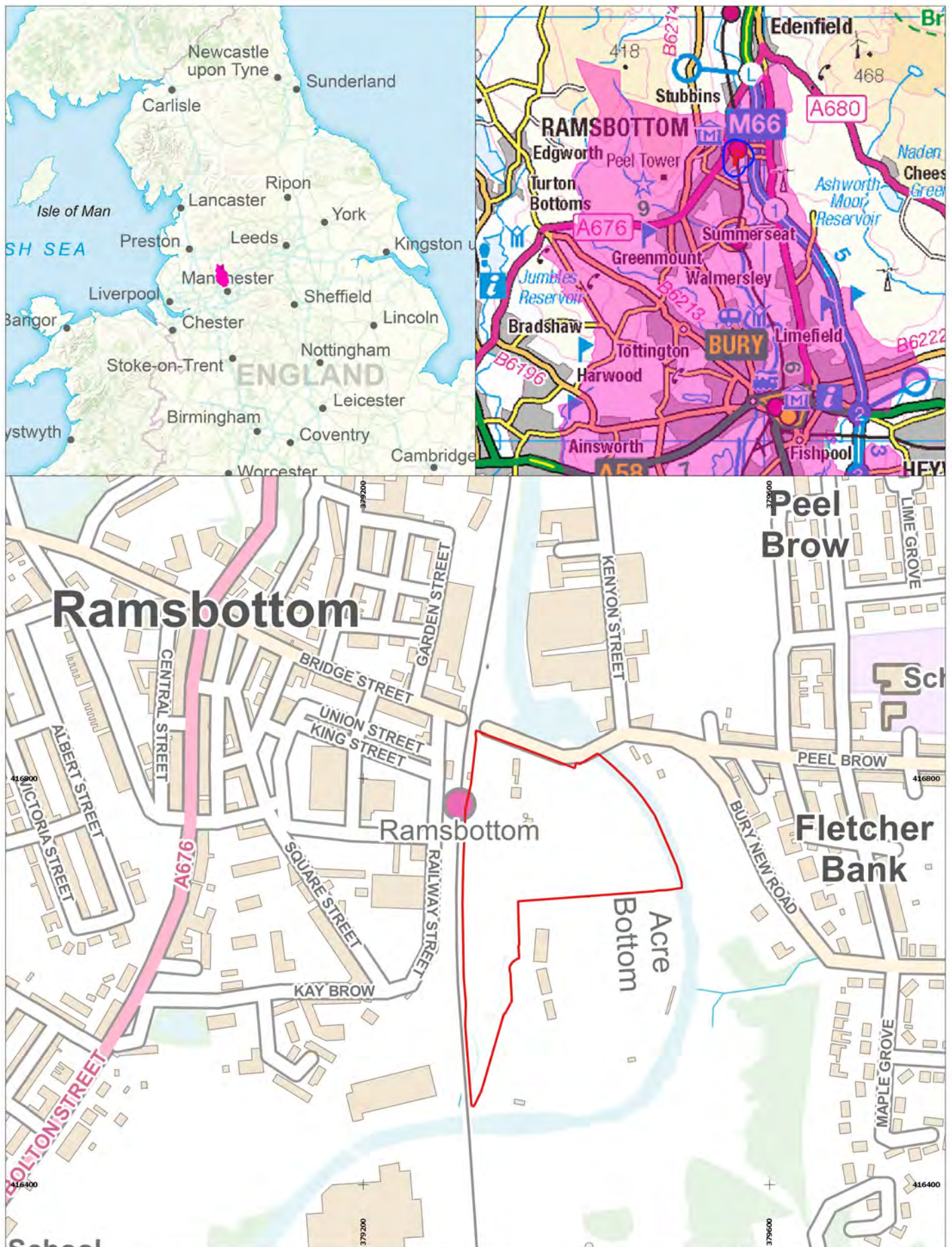


- ◆ Depending upon the results of the building recording and archaeological evaluation/strip, map works there may be a need to undertake targeted archaeological area excavation and/or development watching brief(s) to record any further significant surviving remains.

1.1.6 The scope of this WSI is therefore to evaluate the impact of the development proposal by a historic building recording to be undertaken to Historic England's Level 2 Standard and archaeological evaluation trenching and strip map sample exercise.

1.1.7 Any variations to this scope of works will be by agreement of the Client and the archaeological planning advisor to the Local Planning Authority (LPA). Should discoveries be made of local or greater importance, this may lead to further requirements being issued by the LPA for the purpose of mitigation in accordance with the NPPF (MHCLG 2022, para 205). If a further stage of work is necessary it would require a separate WSI and scope of works.





Site name: Holcombe Mill, Ramsbottom
 Date: February 2020
 Drawn by: MB
 Scale: Varies

**Figure 1:
Site location**

- Site Boundary
- Bury Council



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1.2 Site Location and Description

1.2.1 The proposed development encompasses a total area of 3.2ha and is located Ramsbottom (Figure 1; NGR SD 79387 16738). The site is located at the bottom of Bridge Street, off Peel Bridge which forms the northern boundary of the PDA. The site is further bounded to the east by the meander of the River Irwell, to the south by the Ramsbottom Cricket Club grounds and to the west by the cricket club access road and East Lancashire railway line. The site is currently occupied by three derelict buildings, one of which abuts a 31m tall chimney, whilst the remainder of the site is largely covered by extensive concrete pads.

1.3 Geology and Soils

1.3.1 The underlying solid geology of the site consists of mudstone and sandstone of the Marsden Formation with a small area adjacent the north-western boundary of the site comprising Guiseley Grit sandstone. Both are sedimentary bedrock formed approximately 320 to 322 million years ago in the Carboniferous Period when the local environment was previously dominated by swamps, estuaries and deltas (British Geological Survey 2023). The superficial geology is described as superficial deposits of clay, silt, sand and gravel alluvium

1.3.2 The soils are characterised by the Cranfield Soil and Agrifood Institute as Soilscape 20, which is Loamy and clayey floodplain soils with naturally high groundwater (Cranfield University 2023).

1.4 Archaeological and Historical Background

1.4.1 A historic environment desk-based and historic buildings appraisal (Burpoe and Grange 2019) was produced which noted that the site was once the location of a series of reservoirs associated with the Grant Brothers Square Works, which was located to the south-west of the development site. By the mid-late 19th century, the site was partially infilled, and a paper mill was established within the site boundary by James and Samuel Broadbent Ingham. The site continually expanded throughout the 19th and 20th centuries, with the demolition and construction of a number of buildings within the site. The site also changed hands several times, being known throughout its lifespan as Ramsbottom Paper Mill, Holcombe Mill, Trinity Paper Mill and finally Mondi, before the site and operations were shuttered in 2008 as a result of rising fuel prices against a backdrop of declining demand. The majority of the buildings within the site were demolished between 2012 and 2015, with only three structures, the twice-shortened mill chimney, and the goit currently present within the site (Burpoe and Grange 2019, ii).



2 AIMS AND OBJECTIVES

2.1 Historic Building Recording Aim and Objectives

2.1.1 The aim of the building recording is to provide a descriptive and visual record of the historic buildings, prior to development works taking place.

2.1.2 The objectives of the building recording are as follows.

- ◆ To produce a formal description of the standing buildings, including their elevations, floor plan, roof structure, flooring, internal layout and spaces, detailing, form and fabric, and evidence for phasing and development.
- ◆ To produce a full visual photographic record with photographic scales of the exterior and interior of the buildings with all photographs descriptively captioned and cross referenced to a plan(s) clearly showing the viewing position, direction and photographic image reference.
- ◆ To produce measured and annotated survey drawings where appropriate showing the location of features of historic interest.
- ◆ To produce an account of the buildings' origins, development and use.
- ◆ The historic building recording will comply with a Level 2 standard as outlined in the Historic England volume *Understanding Historic Buildings. A Guide to Good Recording Practice* (Historic England 2016).

2.2 Evaluation Aim

2.2.1 The aim of archaeological evaluation is to determine the presence or absence of archaeological remains that may be affected by the proposed development, and where possible to establish their significance.

2.3 Evaluation Objectives

2.3.1 The objectives of evaluation are to investigate the extent of the proposed development area in order to:

- ◆ record evidence for the absence/presence, location and extent of any archaeological features or deposits that may be present;
- ◆ identify, where possible, the broad date and sequence of the remains;
- ◆ establish the integrity and condition of preservation of any remains present;
- ◆ assess potential for recovery of artefactual and/or environmental remains;
- ◆ assess any palaeoenvironmental or other ecofactual potential of deposits; and,
- ◆ where possible establish the significance of any archaeological remains.

2.4 Relevant Research Aims and Objectives

2.4.1 The investigations will be conducted with a view to addressing objectives suggested by the published research priorities set out for the North West Research Frameworks (Research Frameworks 2023)



2.4.2 Research priorities that might become relevant are those that focus upon industrial process and the impact upon trade networks; the adaptation and reuse of industrial buildings, some examples that may be relevant include:

- ◆ Ind53: What can archaeology tell us about the production and use of consumer products and their typologies from the late 18th to early 20th centuries?
- ◆ Ind54: How can the methodologies of textile mill surveys be applied to other monument types?



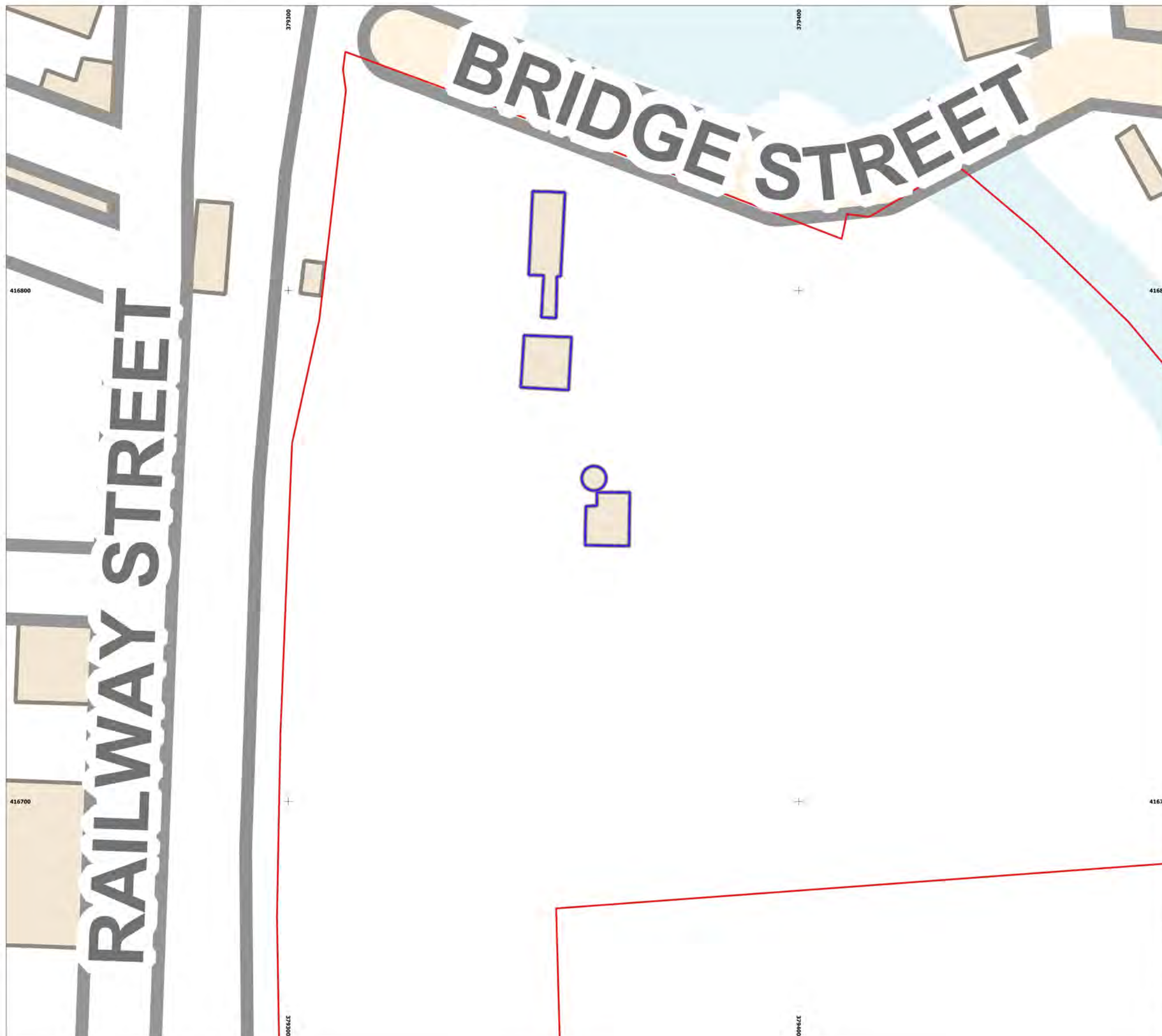
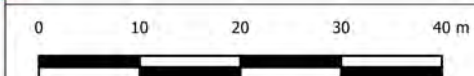


Figure 2: Upstanding Buildings within the Site Boundary

- Site Boundary
- Buildings Subject to Historic Building Recording



Site name: Holcombe Mill, Ramsbottom
 Date: December 2023
 Drawn by: JM
 Scale: 1:750 @ A3

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3 HISTORIC BUILDING RECORDING STRATEGY

3.1 Coverage

3.1.1 The buildings subject to recording are a derelict brick structure and two stone buildings located within the site.

3.1.2 The buildings will be recorded to the equivalent of Historic England's (2016) *Understanding Historic Buildings – A guide to good recording practice* Level 2 building survey standard, prior to their demolition.

3.1.3 A methodology for the implementation of all elements of the historic building recording is presented below.

3.2 Methodology

3.2.1 The buildings will be placed in their historical context with an overall interpretation and phasing provided.

3.2.2 Any stored materials will be emptied from inside the building, and all vegetation and other obstructions to the exterior elevations will be cleared away prior to the building recording being undertaken. Adequate lighting for internal record photographs will be provided, including the use of portable lighting powered by a battery or generator if required.

3.2.3 The archaeologist on site will, where health and safety constraints allow, carefully examine all parts of each building prior to the commencement of the photographic and drawn recording, in order to identify all features relevant to original and later use. As part of this exercise, the archaeologist on site will produce written observations (e.g. on phasing; on detailing, on building function), sufficient to permit the preparation of a report on the structures identified. Each external wall or internal space should be examined individually and the results of that examination noted in a systematic fashion. These site records will be adequate to allow a full architectural and archaeological description of the building to be included in the subsequent report, as a walk around and through each building, starting with setting, then progressing to all sides of the structure in sequence, and finally to the interior from the ground floor up.

3.2.4 The building recording drawn record will include the following:

- ◆ Site location plans at suitable scales (preferably indicating the position of the site within the country, within the county and a clear plan of the precise location/outline of the building i.e. 1:50).
- ◆ A plan(s) indicating the position and orientation of photographs/images included in the report.
- ◆ A set of detailed measured survey drawings including floor plans and, if accessible, one cross section through each identified building and one long section through each range (with a contingency allowance for an additional cross-section and an additional long-section, as required) with annotations and conventions following Historic England standards (2016). These will be based on an architect's drawings of the site provided by the client, but it is the responsibility of the archaeological contractor to check the drawings supplied and to make any necessary adjustments or corrections.

3.2.5 High resolution digital photographs (16 megapixels) will be taken using a digital single lens reflex camera (Nikon L810).

3.2.6 Where possible, photographs will include a graduated scale and cameras will be mounted on tripods for extra stability. Details of the photographs will be recorded on pro-forma index sheets, which include location, subject and orientation. The location and direction of the photographs will be plotted on scaled plans forming part of the general archive.



3.2.7 The photographic record will cover as a minimum:

- ◆ Photographs of the setting, exterior and interior of the buildings. A two-metre ranging rod will be included in a selection of general shots in order that the scale of all elements of the building can be sufficiently established.
- ◆ The external appearance of each building is to be recorded. Typically, a series of oblique views will show all external elevations of the structures and give an overall impression of size and shape. Where an individual elevation embodies complex historical information or have been conceived as formal compositions, views at right angles to the plane of the elevation may also be appropriate.
- ◆ The overall appearance of principal rooms and circulation areas for all rooms and areas that are accessible.
- ◆ Photographs of any external or internal detail, structural or decorative, which are relevant to the design, development, or use of the buildings, which does not show adequately on general views.
- ◆ Copies of maps, drawings, views, photographs, dates, inscriptions, or contents present in the buildings and illustrating their development/use, or that of its site.

3.3 Report

3.3.1 The report will contain the following as a minimum.

- ◆ Non-technical executive summary
- ◆ Introductory statement
- ◆ Aims and purpose of the project
- ◆ Methodology
- ◆ Precise location of buildings, by name or street number, civil parish, town and National Grid reference
- ◆ The date when the record was made, the names of the recorders and the archive content/character and location
- ◆ A note of any relevant statutory designations
- ◆ A discussion of the buildings' form, function, date, and sequence of development and significance. Together with a discussion of the names of architects, builders, patrons and owners if known. This will include a note of any evidence for demolished structures or removed plant associated with the building
- ◆ An architectural and archaeological description of the buildings will be produced
- ◆ A discussion of published sources relating to the buildings and their setting, an account of its history and an analysis of historic map evidence, including an element of additional archival research to supplement the information produced in the original building appraisal
- ◆ Discussion and conclusions
- ◆ References
- ◆ Statement of intent regarding publication
- ◆ Supporting data – tabulated or in appendices
- ◆ A register of photographs taken
- ◆ Confirmation of archive transfer arrangements
- ◆ A copy of the WSI and OASIS form

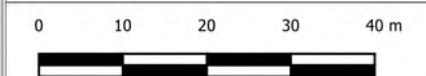
A draft report will be submitted to the archaeological planning advisor for agreement and comment before being issued as a planning document to the client.





Figure 3: Trench Location overlaid on 1892 Ordnance Survey Plan

- Site Boundary
- Trench Plan
- Targeted Strip Map and Sample



Site name: Holcombe Mill, Ramsbottom
Date: December 2023
Drawn by: JM
Scale: 1:900 @ A3

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4 FIELDWORK STRATEGY

4.1 Coverage

4.1.1 It is recommended by Ben Dyson, Senior Planning Archaeologist, that demolition should be carried out to slab level. If demolitions need to proceed deeper then an archaeological watching brief will need to be carried out.

4.1.2 The fieldwork will comprise of 1 trial trench and 2 areas subject to targeted strip map and sample. The extent of the site subject to targeted strip map and sample and evaluation is depicted on Figure 3, which comprises Trench 1 (49.554 m²), Old Engine House strip map and sample (93.980 m²) and Turntable strip map and sample (16.856 m²).

4.1.3 The exact location of each trench and excavation area may be subject to minor repositioning to avoid utilities, overhead services, drains, tree preservation orders and/or other constraints (i.e. no more than 1.0m, or allowing for exclusion). Any substantive change will be by agreement of the archaeological planning advisor. The trenches, excavation area and any archaeological features within them will be planned and tied into the Ordnance Survey National Grid using survey grade equipment operating to an accuracy of $\pm 0.05\text{m}$.

4.1.4 The trenches and excavation areas will target both locations where archaeological remains may be expected, and areas where archaeological remains are less likely in order to evaluate for presence or absence.

4.2 Methodology

4.2.1 The trench and excavation areas will be accurately tied into the National Ordnance Survey Grid and located at a suitable scale. Survey data of features will be collected using survey grade equipment typically providing accuracy of $\pm 0.05\text{m}$ (Historic England 2016). Digital data will be surveyed with equipment using Real Time Kinematic (RTK) corrections from a Global Navigation Satellite System (GNSS) network. The same equipment will be used to record known points on drawn plans and sections and to take spot heights to supplement other available planning/survey techniques as applicable.

4.3 Machine Excavation

4.3.1 A suitably experienced archaeologist will direct machine excavation. The machine works will be undertaken using a toothless ditching bucket. Topsoil, subsoil, and non-archaeological modern overburden will be removed to the surface of the first archaeological horizon, or where this is absent the natural substrate. Where excavation requires digging through hard standing or tarmac, a breaker will be used. No trench or excavation will be reduced to below 1.2m without stepping out the sides for safe working.

4.3.2 Each trench and excavation area will be machined cleanly, sufficient to identify and establish the extent of any archaeological features present. Any modern features will be mapped in extent, profile and recorded photographically before removal to reach earlier deposits. Pre-excavation photographs will be taken of each trench and any exposed archaeology within them.

4.3.3 During evaluation, unexpected, complex, or undated archaeological remains may be encountered. Care will be taken not to compromise the integrity of the archaeological record without first undertaking a full investigation. Where archaeological remains are encountered that



are of greater significance, complexity or quality and preservation than anticipated (*e.g.* human burial, kiln *etc.*), then the client will be informed, and the archaeological planning advisor will be consulted. Burials are not typically excavated as part of evaluation work.

4.3.4 Any cellars exposed during machine excavation will be emptied checked for potentially hazardous waste or other contaminants and will be cordoned off/excluded if they are considered a risk to health. Where cellars are filled with soil or rubble without contaminants, the cellars will be emptied, cleaned up and a rapid record undertaken. They will then be available during hand excavations for safely disposing of loose spoil.

4.3.5 Machine excavation will seek to avoid disturbing, breaking, or grubbing out large foundations that may damage the surrounding archaeological remains. Where these are found they may be left *in situ* and utilized as a means of providing support or revetments against the baulk and edges of excavation. If removal is necessary, they will be recorded and then broken up in manner to avoid disturbing any other surviving remains.

4.3.6 The site will then be reduced to the top of the archaeological horizon using a mechanical excavator, smooth ditching bucket and as directed by the site archaeologist. A further stage of recording will then take place to examine any earlier surviving remains. Structural remains and soil horizons will be cleaned rapidly for photographic purposes and a hand drawn plan prepared to scale. If more detailed hand excavation is required, or investigation of other ancillary features is required, then this will be undertaken at this level. Where a soil horizon exists test pits will be excavated, 2m by 2m in size, to investigate and record the sequence of soil layers prior to further reduction.

4.3.7 Following the creation of a full context record, plan, drawn records and recovery of artefacts/bulk samples for an archaeological horizon, this may then be removed by mechanical excavation to uncover any earlier horizons, or where these are absent, to expose the natural substrate. The archaeological planning advisor will be given opportunity for an interim inspection prior to reduction. The spoil heaps and excavated areas will be scanned with a metal detector to ensure maximum finds retrieval. A process of detailed hand excavation will then ensue to investigate the stratigraphic layers and sequence of any structures, their associated spaces, and other features.

4.3.8 Excavation areas will be machined cleanly, sufficient to identify and establish the extent of any archaeological features present. Photographs will be taken during machine preparation to record the process.

4.3.9 Where unexpected, complex, or undated archaeological remains are encountered care will be taken not to compromise the integrity of the archaeological record without first undertaking a full investigation. Where archaeological remains are encountered that are of greater significance, complexity or quality and preservation than anticipated (*e.g.* human burial, kiln *etc.*) the Client will be informed, and the archaeological planning advisor will be consulted.

Investigation and Recording

4.3.10 All archaeological features and deposits will be sample excavated to achieve the evaluation objectives. Archaeologically sensitive horizons will be subject to limited hand excavation and/or auguring in the following ways:

- ◆ Isolated discrete features such as non-structural pits or features representing industrial activities, will be half sectioned in the first instance (50% of each feature).



- ◆ Archaeological linear features, such as ditches and gullies that are not of a structural nature will be sample excavated (minimum 10% by length of each linear). Where possible, interventions will be a minimum 1m in width.
- ◆ Postholes and stakeholes will be half-sectioned (50% of each feature).
- ◆ Where it is desirable to understand the relationship of more than one intersecting feature, and this relationship cannot be viewed in plan following hand cleaning, sections will be strategically located and stratigraphically excavated to elucidate sequence and secure accurate finds provenance.

4.3.11 Where more structured deposition occurs, this may be subject to a variation in sampling strategy and/or quantity subject to the nature of the archaeological remains and in discussion with the archaeological planning advisor (i.e. pottery middens, cereal processing waste, demolition spreads etc.).

4.3.12 Linear cut features (i.e. ditches and gullies) will receive investigation according to their hierarchy of importance within the site:

- ◆ No features will go without investigation; however, well-preserved features will receive greater attention than those of a fragmentary or highly truncated nature.
- ◆ Linear features of a structural nature (*e.g.* beam slots, sill beam gullies *etc.*) and ditches/gullies that are close to areas of domestic habitation or close to industrial/craft activities (*e.g.* drainage gullies, partitions between plots *etc.*) will be subject to the greatest attention.
- ◆ Typically intervention slots will be a minimum 1.0m wide.

4.3.13 Features requiring specialist attention such as burials, kilns, wells, buildings, structures, floor levels and other significant industrial or domestic features or deposits will be cleaned, planned, and photographed but will be left intact pending a more suitable method of investigation. Samples or finds will only be retrieved for assessment purposes, leaving the majority undisturbed unless otherwise agreed with the archaeological planning advisor.

4.3.14 Deep features such as wells or ponds will be investigated by hand as far as Health and Safety measures allow, usually to 1.2m depth. An augur may be employed from this point to establish the anticipated full depth of the well or pond. Further excavation would be by consultation with the archaeological planning advisor and Client (as deep excavations may affect foundation designs). If agreed a machine section will be cut after all other programmed works are completed in order to allow a half-section to be recorded to full depth and finds/samples to be collected. This may require a system of machine stepped edges to reach the full depth.

4.3.15 Area deposits, such as buried soils and former land surfaces, will be sampled excavated in the first instance as deemed suitable in consultation with the archaeological planning advisor. Once the deposit is understood and has been recorded subsequent stripping, usually by spit, by machine will be undertaken to reveal any underlying features/deposits.

4.3.16 All excavated spoil will be visually scanned to retrieve any artefacts. Artefacts will be collected by hand and retained, provided they are uncontaminated, receiving appropriate care prior to removal from site (ClfA 2020b; Walker 1990; Watkinson & Neal 2001). No contaminated finds or samples will be retained. Unstratified animal bones and modern material will not be collected, but noted on relevant context sheets. Selected examples of material that comprise a large quantity of a standard product, such as brick or tile, will be retained for assessment by a specialist.



4.3.17 Limited representative samples of bricks from brick-built structures, and selective products of the brick working proves will be retained for specialist analysis where appropriate. For brick structures, the record will include details of brick dimensions, and type (handmade/machine made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins). Brick samples will be taken for structures likely to pre-date the mid-19th century.

4.3.18 Archaeological features will be recorded on individual trench plans or on an all-features plan at a scale of 1:50 or 1:100, appropriate to their complexity. Buildings and other significant remains (*i.e.* kiln, stone structures *etc.*) will be planned individually in greater detail. Sections or profiles through features and stratigraphic sequences will normally be drawn at a scale of 1:10, or 1:20 for long sections. All levels will be related to Ordnance Datum.

4.3.19 All archaeological deposits and artefacts encountered during the investigation will be fully recorded. Recording will follow the Company's field recording practices appropriate to the archaeology under investigation (ARS Ltd 2020). All archaeological features will be given a separate context number. Deposits will be described on *pro-forma* trench recording logs, and if stratigraphic detail is needed, on context record sheets. The information given will include details of the context, its relationships, interpretation and a checklist of associated finds and samples. Stratigraphic matrices will be compiled where archaeological sequences can be discerned.

4.3.20 Digital photographs will form the principal photographic record for report purposes and will follow the standards of Historic England where applicable (Historic England 2015a). Digital photographs will form the principal photographic record for report purposes. A photographic record will be maintained by high resolution digital photography. Overall images of the site will be taken prior to excavation. Detailed images of individual features will be recorded. All photographs, except general site images or specific images for publication, will include a north arrow and suitable photographic scale.

Soil Samples

4.3.21 Deposits of clear archaeological origin, with the potential to provide paleoenvironmental evidence, industrial residues, small animal/fish bones, datable charred remains and/or micro artefacts significant to the interpretation of the site will be reviewed by the project manager and archaeological planning advisor to agree an appropriate sampling strategy. Should a sequence of superimposed deposits of note be present, column sampling may be considered.

4.3.22 Where there is evidence for industrial activity, macroscopic residues will be collected by hand as a sample. Separate samples (*c.* 10ml) will be collected from micro-slugs (*i.e.* smithing hammer scale or glassworking spherical droplets) in accordance with best practice (Historic England 2015b; 2018).

4.3.23 Sampling methods will typically follow guidelines issued by Historic England (Campbell *et al.* 2011) and will be targeted in order to assess the quality of organic preservation that may be present.

4.3.24 Typically, bulk environmental samples will be collected from contexts that have potential for further analysis. Bulk sample sizes will be 40 litres per context or the entire excavated portion of smaller features if less than 40 litres and collected and stored in sealable buckets.

4.3.25 The application of specialist sampling techniques such as column sampling, geoarchaeological sampling, or samples for scientific dating purposes will be considered where appropriate. If such a variation is required by the LPA, advice from the Historic England Regional



Scientific Advisor (RSA) may be sought. Close attention will be paid to retrieve samples that have the potential to contribute to the proposed mitigation objectives.

Human Remains

4.3.26 If any human remains are encountered, they will be investigated sufficient to confirm identification and then left *in situ*. They will not be exposed, disturbed, cleaned, or recorded in detail. The client, local Coroner and the archaeological planning advisor will be informed immediately upon discovery of human remains by the Project Manager.

4.3.27 If removal is deemed necessary and appropriate on the requirement of the LPA it will be completed following the issue of the relevant Ministry of Justice license in accordance with the relevant legislation and according to the conditions set out therein. Any exhumation will be undertaken following current best practice guidelines (APABE/Historic England 2017; Mitchell and Brickley 2017).

Treasure

4.3.28 Finds coming under the definition of 'treasure' as defined by the Treasure Act 1996 will be reported to the Portable Antiquities Finds Liaison Officer within 48 hours of discovery by the Project Manager and dealt with under the procedures of the Treasure Act and Code of Practice (DCMS 2008). This includes both precious metals and base metals where they are of prehistoric date. Suitable measures will be taken to ensure their security where removal cannot take place (*e.g.* they are within a human burial).

4.3.29 The archaeological planning advisor will also be notified and, if necessary, a meeting arranged to determine if further investigation in the vicinity of the find spot is required.

5 MONITORING ARRANGEMENTS

5.1.1 Notice is given prior to commencement of the archaeological works upon submission of this WSI to the archaeological planning advisor. The proposed start date will be a minimum of 10 working days from submission. Work will not commence until the WSI has been approved.

5.1.2 If the start date is not known, then the archaeological planning advisor will be kept informed of progress and will be notified when a start date has been set within 5 working days, assuming that the WSI has already been approved and there have been no changes to the proposal.

5.1.3 The archaeological planning advisor for the LPA is Ben Dyson, Senior Planning Archaeologist.

5.1.4 ARS Ltd will consult with the archaeological planning advisor at regular intervals throughout the course of the work. The archaeological planning advisor is invited to attend for monitoring purposes by appointment. It is expected that archaeological monitoring will take place on a regular basis for large projects.

5.1.5 The client will afford reasonable access to the archaeological planning advisor for the LPA or representative officers, for the purposes of monitoring the archaeological work.



5.1.6 A visit on completion may be needed to advise on requirement for any mitigation stage. Backfill will not proceed without the agreement or prior arrangement of the archaeological planning advisor.

6 VARIATIONS TO THE SCOPE OF WORKS

6.1.1 If an archaeological discovery is made for which the resources allocated to the project itself are not sufficient to support treatment to a satisfactory and proper standard then work in the relevant area will cease until the client and local planning authority's archaeological advisor have been consulted and appropriate resource put in place to meet the necessary disbursements. On occasion this may require a new WSI or an addendum to the approved WSI.

6.1.2 Any variations to the coverage, methodology or scope of works will be made in agreement with the Client and the archaeological planning advisor.

6.1.3 Variations prior to the commencement of works will be agreed in writing by updating and resubmitting the WSI or an addendum. Variations on site will be tracked by the Project Manager as part of the course of monitoring the works.

6.1.4 Additional works that trigger contingency items or extra overs will be notified to the Client and agreed before they are implemented. Where no contingency agreement exists such works will only be implemented where they are reasonably practicable with the resources already available, or unless the Client grants further resource.

7 TIMETABLE, STAFFING AND RESOURCES

7.1.1 ARS Ltd is a Chartered Institute for Archaeologists (CIfA) Registered Organisation. Registered Organisations are regularly assessed to ensure that high standards of work, processes and training are embedded in the organisation, in line with the professional *Code of Conduct* (CIfA 2021) and the Chartered Institute's Standards and Guidance documents.

7.1.2 The fieldwork will be managed and conducted by a suitably qualified Project Manager and Team Leader, supported by a team of archaeological staff and assistants, as necessary.

7.1.3 All staff employed on the project will be suitably qualified and experienced for their respective project roles and will be briefed on the archaeological context of the area and the work required by this specification.

7.1.4 The archaeological works are scheduled to commence TBC and should be completed within TBC. Evaluation trenches will be opened in a continuous process and archaeological investigations will commence immediately in each trench once it is safe to do so.

7.1.5 It is expected that archaeological investigation can proceed at a rate that will allow for monitoring and sign off of completed trenches promptly with minimal delay to backfill.

7.1.6 All artefact and sample processing will be undertaken swiftly following the completion of fieldwork, whilst archive consolidation and post-excavation analysis of the plans and records are brought together.

7.1.7 Information will be provided to specialists by context and site location, appropriate to the relevant assemblages.



7.1.8 Specialist analysis will be undertaken by the following individuals where needed, subject to availability [INSERT ALTERNATIVES IF NEEDED], and if not, other specialists will be found as appropriate:

Worked flint and prehistoric pottery:	Dr Robin Holgate
Iron Age/Roman pottery:	Dr Phil Mills, Ian Rowlandson, or Dr Jane Timby
Medieval and post-medieval pottery:	Paul Blinkhorn or Dr Chris Cumberpatch
Ceramic Building Materials:	Dr Phil Mills
Faunal remains:	Milena Grzybowska
Plant macros, charred wood, and pollen:	Maryne Baylet

7.1.9 Sufficient time will be given for adequate specialist assessment of the materials recovered, and the production of the accompanying specialist reports.

Timetable

Task	Duration	Start date	End date
Historic Building Recording	TBC	TBC	TBC
Evaluation Trenching	TBC	Immediately after historic building recording	TBC
Targeted Strip Map and Sample	TBC	Immediately a	
Reporting	TBC	Immediately after completion of field work	TBC

8 FINDS AND SAMPLE PROCESSING

8.1.1 All finds processing, conservation work and storage of finds will be conducted in accordance with the *Standard and guidance for the collection, documentation, conservation, and research of archaeological materials* (CIfA 2020b) and the *Guidelines for the preparation of archives for long-term storage* (Walker 1990).

8.1.2 Artefact collection and discard policies will be appropriate to the contextual and stratigraphic circumstances of the material identified, its quality as a resource and the practicality of retention (*e.g.* stone gate posts would be photogrammetrically recorded and not retrieved).

8.1.3 Bulk finds worthy of retention will be washed and marked. Bone will only be marked where required by the receiving repository. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed, and recorded.



8.1.4 All small finds will be recorded and appropriately packaged according to context (*e.g.* lithics in self-sealing plastic bags, ceramic in acid-free tissue paper *etc.*). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. Ceramics will be bagged by context, whereas small finds such as chipped lithics, coins *etc.* will be recorded as individual finds by context.

8.1.5 Bulk soil samples taken for environmental purposes will be sieved and scanned during processing by ARS Ltd using the flotation technique to retrieve botanical macrofossils, charcoal and mollusc remains. All the resultant residues will then be hand sorted to retrieve any other items such as bone, flint, and other finds.

8.1.6 During and after the fieldwork, all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information. ARS Ltd undertake controlled storage, correct packaging, regular monitoring, and immediate selection for conservation of vulnerable material as part of the archive process. All storage will have appropriate security provision.

8.1.7 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of the Bury Art Museum & Sculpture Centre.

9 REPORTING

9.1.1 Following completion of the fieldwork, ARS Ltd will produce a report that will comprise:

- ◆ Non-technical summary
- ◆ Introductory statement
- ◆ Aims and objectives
- ◆ Method statement
- ◆ A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- ◆ An objective summary statement of results
- ◆ Illustrations of all archaeological features with appropriately scaled plans and sections
- ◆ Specialists' assessments of artefacts and samples, where found
- ◆ Discussion outlining conclusions
- ◆ Supporting data – tabulated or in appendices to include
 - Trial trench data and/or context information
- ◆ Index to archive and details of archive location
- ◆ Bibliography
- ◆ Confirmation of archive transfer arrangements
- ◆ A copy of the OASIS form

9.1.2 A draft report will be submitted to the archaeological planning advisor for agreement and comment before being issued as a planning document to the client.

9.1.3 One bound copy of the final report (if required) and a digital copy of the report in PDF/A format will be deposited with the Historic Environment Record (HER). A copy of the report will be uploaded as part of the OASIS record, and a hardcopy will be included in the physical archive.

9.2 Provisions for publication

9.2.1 Any publication requirements contained within the archaeological planning brief will be reviewed between the Project Manager, client, and archaeological planning advisor prior to



preparation of the site report. In general, the publication of an evaluation would appear as a short note in an appropriate journal.

9.2.2 As a minimum publication would be as a c.300-word summary of the project with, if appropriate, selected illustration for inclusion in the annual round-up of fieldwork within the region. More significant sites may warrant a light article in a relevant county or period journal with, if appropriate, selected illustrations and photographs.

10 PROJECT ARCHIVE

10.1 Archive Selection Strategy

10.1.1 Selection of the working project archive will be guided by the aims and objectives of the project, as set out in this Written Scheme of Investigation.

10.2 Documentary Archive

10.2.1 All original documentary material created and collected during the archaeological works will be selected according to the ARS Ltd Retentions and Discard Policy for inclusion in the final archive. Any duplicates (including photocopies) of original documents will not be included in the final archive.

10.3 Digital Archive

10.3.1 All digital data created over the course of this project will be collected, stored, and selected for final deposition in line with the project's Data Management Plan.

10.3.2 The key types of digital data produced will include:

Type	Data
Text	Digital copies of the WSI and final report
Images	Site photographs, scans of site drawings, report illustrations, digital drawings
Finds data	Finds reports and tables, conservation records, images

10.3.3 Only the final copies of any digital data will be selected and deposited in the final project archive.

10.3.4 Digital data to be included in the final archive will be reviewed during the post-excavation and archiving phase of works. Digital photographs will be assessed and selected in line with Historic England guidelines (Cole and Backhouse 2015). Any data to be excluded from the archive will be removed in accordance with the ARS Ltd Retention and Discard Policy.

10.4 Material Archive

10.4.1 The selection of material finds for final deposition in the archaeological archive will be decided in line with the ARS Ltd Retention and Discard Policy during the post-excavation phase. This policy draws on guidance provided by the Chartered Institute for Archaeologists (CIfA 2019). Any items for deselection and disposal will be based on specialist advice and with agreement of the archaeological planning advisor.



10.4.2 In general, all digital and paper records, drawings, photographs and surveys will be retained together with their background supporting documentation. Artefacts and samples collected in the field will be from secure contexts able to inform the archaeological development of the site. No artefact assemblages will be discarded without following specialist assessment and recommendation to do so. Sieved residues will be discarded following acceptance of the report.

10.4.3 The planned deposition of artefacts will be agreed with the legal owner prior to the works taking place. All finds except treasure trove are the property of the landowner.

10.4.4 No material will be discarded without processing and recording. Deselected material may be retained as part of a handling or teaching collection, returned to the landowner, or discarded.

10.5 Archive Deposition

10.5.1 The archaeological archive will be deposited with Bury Art Museum & Sculpture Centre. Should the archaeological works produce no archaeologically significant finds, then it is not deemed necessary to deposit an archive with the repository museum. ARS Ltd will contact the museum and the archaeological planning advisor following the quantification and assessment of the archive to confirm and finalise archiving requirements.

10.5.2 Archaeologically significant finds and project archives will be prepared for deposition by ARS Ltd. The archive will comprise the primary record and synthetic works arising from the project, including documents, plans, sections, photographs, and electronic data and an accompanying metadata statement.

10.5.3 High resolution digital photographs will typically be submitted to the Archaeology Data Service (ADS) digital archive repository with the associated photographic registers and metadata. The digital archive will be prepared in line with current best practice (ADS/Digital Antiquity 2011; Archaeology Data Service 2022).

10.5.4 The archive will be deposited in line with industry standards and best practice guidelines (SMA 1993; Brown 2011; ClfA 2020b). In addition, the recommendations of the receiving repository will be adhered to. The archive will be deposited at the next available opportunity agreed with the museum after completion of the report.

10.5.5 All projects have an Online Access to the Index of Archaeological Investigations (OASIS III) registration form within the report. All parts of the OASIS online form will be completed for submission to the Historic Environment Record (HER). This will include an uploaded PDF/A version of the entire report. Upon final completion of the project, a final copy of the report will be deposited with the county HER in an agreed format.

II PUBLICITY, ENGAGEMENT AND COPYRIGHT

11.1.1 The Client will manage any publicity. ARS Ltd will not undertake media engagement except where approved and directed by the Client.

11.1.2 Any form of public community engagement, presentations, exhibitions or otherwise lie outside the scope of this WSI. Any such opportunities will be by separate agreement with the Client.

11.1.3 ARS Ltd will retain the copyright of all documentary, photographic and video material under the Copyright, Designs and Patent Act (1988).



12 PROFESSIONAL STANDARDS

12.1.1 The project will be managed according to the Historic England guidance for research projects (Historic England 2015c).

12.1.2 As a Registered Organisation Archaeological Research Services Ltd follows the Chartered Institute for Archaeologists (CIfA) *Code of conduct* (2021). All archaeological works will follow the CIfA *Standard and guidance for archaeological evaluation* (2020a).

13 HEALTH AND SAFETY

13.1.1 All works will be undertaken in full compliance with the Health and Safety at Work Act 1974 and with the Management of Health and Safety Regulations 1992.

13.1.2 A risk assessment will be produced before commencement of the work that will be updated and adhered to throughout the course of the project.



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